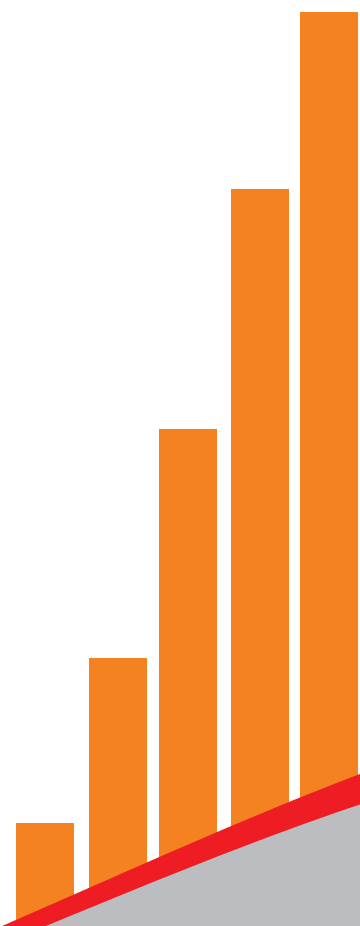
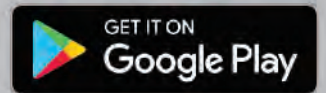




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www.bchindia.com

PRICE LIST

Effective : 6th August 2020



BCH

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ELECTRIC
LIMITED



Modern facilities at Faridabad & Rudrapur

Our Strengths

- ◆ State-of-the-art product development and R&D
- ◆ Modern manufacturing facilities
- ◆ Tool room with latest facilities
- ◆ Serving customers for five decades
- ◆ Presence in ~50 locations
- ◆ 650 channel partners
- ◆ ISO 14001:2015 and ISO 9001:2015 certified company

Core Values

- ◆ Integrity
- ◆ Nurturing People
- ◆ Commitment to Customers
- ◆ Striving for Excellence
- ◆ Long Term Thinking

Quality Policy

We as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to provide Quality products and service in compliance with applicable Statutory and Regulatory requirements, to meet or exceed the customer need and expectations through -

- ◆ Continual improvement
- ◆ Involvement of employees
- ◆ Setting Quality objectives
- ◆ Training and development of employees

Health & Safety Policy

We as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to conduct Business in compliance to applicable Health & Safety legislation and regulation.

We shall continually improve through -

- ◆ Provide Safe & Healthy working conditions for the prevention of work related injury and ill health.
- ◆ Develop & maintain the Health & Safety objectives & targets and conduct health & safety programs for achieving the objectives and target.
- ◆ The prevention of accidents through the identification, assessment and elimination of workplace hazards and the promotion of health & safety awareness among its employees and contractors.
- ◆ Encourage employee's participation and consultation in matters affecting the health, safety and well being of our people and seek suggestions from our employees of ways in which health, safety & well being can be furthered.

The Health & safety policy is publicly available on request.

Environmental Policy

We as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to conduct Business in compliance to applicable Environmental legislation and regulation.

We shall continually improve through -

- ◆ Provide a framework for setting and reviewing environmental objectives and targets.
- ◆ Regularly review the impact of our activities on environment and strive to reduce the pollution/waste.
- ◆ Involve employees in our environmental program and provide necessary training to enable them to discharge their responsibilities towards environment management.
- ◆ Sustain the program of continual improvement in environment in environmental performance incorporating suitable metrics and monitoring.

The Environment policy is publicly available on request.

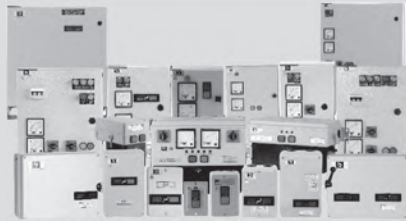


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Our Products



Switchgear & Controlgear



Motor Starters & Submersible Pump Starters



MCB & MCB Distribution Boxes



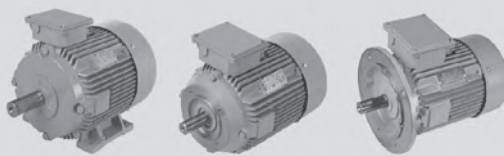
Enclosure Systems



Wires & Cables



Power Factor Control Product



Motors



Automation Product



Motor Control Centres (MCCs), Power Control Centres (PCCs) & Custom Built Products

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Tough Rugged & Reliable

Miniature Circuit Breaker

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- 45mm panel cutout, suitable for standard MCB distribution boards
- Possibility of bus bar termination at both ends



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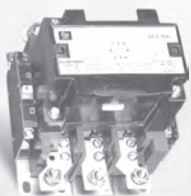
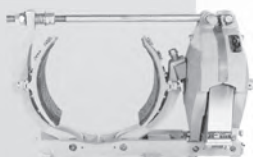
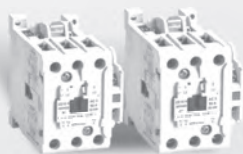
Corporate Office : 1105, New Delhi House, 27, Barakhamba Road, New Delhi - 110 001 Tel. : 91-11-23316029/3610/6539/43673100 Fax : 91 11 23715247
E-mail : marketing@bchindia.com • www.bchindia.com



Registered Office : Block 1E, 216, Acharya Jagadish Chandra Bose Road, Kolkata - 700 017

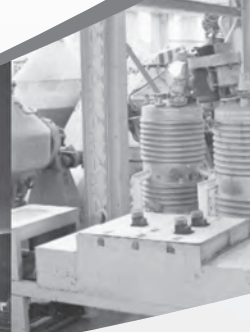
Works 1 : 20/4, Mathura Road, Faridabad - 121 006 (Haryana) Tel. : 0129-4063000/4293000 Fax : 0129-2304024

Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215

Low Voltage Switch Gear & Control Gear Products



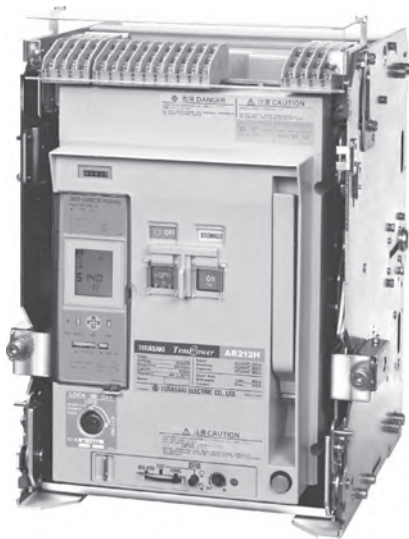
- Air Circuit Breakers
- MCCBs
 - Resilient, Tembreak 2
- MCB, Isolator, MCB Distribution Boxes, RCCB 
- FSU, SDFU
- AC Contactors
- DC Contactors
- Solid State Relays
- Overload Relays
- Vacuum Contactors 
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- Plug & Socket Boxes
- Rewireable Fuse Switches
- Pneumatic Timers
- Motor Starters
 - DOL
 - Mini Manual
 - Star Delta
 - Spares-Motor Starters & Supmersible Pump Starters
- Submersible Pump Starters
 - Three Phase (DOL and Star Delta)
 - Single Phase
- Oil Immersed Starters



Air Circuit Breakers..... BCH

TemPower - 2 Range of Air Circuit Breakers

HSN Code : 8536



@ ACBs with higher breaking capacity and higher current ratings are also available On Request
MF: Manual Fixed Breaker, EF: Electrical Fixed Breaker
MDO : Manual Draw out, EDO : Electrical Draw out

Releases

TemPower2 provides positive protection for electric power systems.

The **TemPower2 Series** is equipped with an **RMS sensing over-current release (OCR)** having a wide range of protection function and capabilities.

Frame	Current rating (A)	Poles	Breaking capacity (Icu=Ics=Icw for 1 sec)	MRP [₹]			
				Fixed Breaker		Draw out breaker	
				MF	EF	MDO	EDO
AR208S	800A	3 4	65kA	On request			
AR212S	1250A	3 4	65kA				
AR216S	1600A	3 4	65kA				
AR220S	2000A	3 4	65kA				
AR325S	2500A	3 4	85kA				
AR332S	3200A	3 4	85kA				
AR440S	4000A	3 4	100kA				
AR650S	5000A	3 4	100kA				
AR663S	6300A	3 4	100kA				

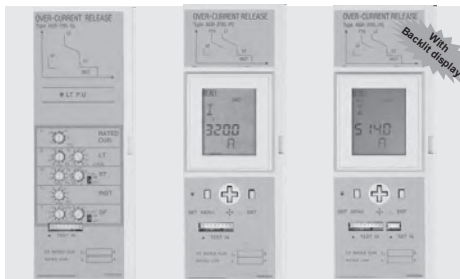
*Standard MRP, means a standard breaker with

- A) Auxiliary Switch (4 change over)
- B) Closing coil (In case of Motorised ACBs)
- C) 1 No Draw out handle (in case of draw out ACB)
- D) Terminations are standard as per : Horizontal : Upto (AR216S)
Vertical : (AR220S, AR325S, AR332S, AR440S, AR650S and AR663S)

E) Calibration : 40° C

F) Neutral CT is required to be ordered when Ground Fault option is required in the release (example AGR11BL-GL)

Note : Above price is with over current release (OCR) Type AGR-11BL-AL with standard Functions LSI Long Time (L), Short Time (S) and Instantaneous (I)



Standard OCR with adjustment dial Type AGR-11B. Standard OCR with LCD-'Ammeter' Type AGR-21B,22B. Enhanced OCR with LCD-'Analyser' Type AGR-31B.

- For General Feeder circuits (L Characteristics)
- For General Feeder circuits (R Characteristics)
- For Generator protection (S Characteristics)

Protection features

Standard

- Long time delay
- Short time delay
- Instantaneous

Optional

- Ground fault
- Reverse Power trip

- N-phase protection
- Earth leakage
- Two channel pre trip
- Advance LCD display
- Contact temperature monitoring
- Communication protocol
- Phase rotation protection

For prices contact our nearest sales office.

Please note that the price of the ACBs mentioned above is only indicative,

to get an actual quote please fill in the ACB Ordering form provided overleaf **HSN Code : 8538**

Over current releases (OCR)	Functions	MRP [₹]
AGR-11BL-GL	LSIG*	On Request
AGR-21BL-PS	LSI with LCD display	On Request
AGR-21BL-PG	LSIG with LCD & Communication	On Request
AGR-31BL-PS	LSI with LCD display with energy metering, earth leakage and PTA	On Request
AGR-31BL-PG	LSIG with LCD display with energy metering, earth leakage and PTA	On Request
AGR-21BR-PS	LSI with LCD display with current metering and PTA	On Request
AGR-21BR-PG	LSIG with LCD display with current metering and PTA	On Request

* When using a 3 Pole ACB in a 3 phase 4 wire system, additional Neutral CT is required for OCR type AGR-11BL-GL

All accessories and spares like SHUNT, CLOSING, UNDER VOLTAGE release, castle lock, safety shutter, door interlock, motor charging units, etc. are available on request

* For more details refer product catalogue

HSN Code : 8536

Frame 1

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit



Frame -1 :

$I_{cu}/I_{cs} = 10/7.5, 15/15, 25/25, 30/15, 36/18, 50/25, 50/50 \text{ kA}$

Frame 2

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit



Frame -2 :

$I_{cu}/I_{cs} = 25/25, 36/18, 36/27, 36/36, 50/25, 50/50 \text{ kA}$

Complete range RAL-7016 (Dark Grey) front Facia

Spreader Link available as standard (for MCCB without spreader, please contact our sales team)

All above MCCBs have fixed (non adjustable) Magnetic setting

MCCBs with different I_{cu}/I_{cs} combination can be made available On Request

For MCCBs with 'Magnetic only' protection, prices available On Request.

All needed accessories are mentioned on page no 4 (Extended terminals for all ratings is also available as accessory)

I_{cu} (Overload Setting)	Rated Current	Cat. No.	MRP [₹]
10kA @ (Fixed)	100, 80	XFE***G#	1870
	100, 80 (without spreader terminals)	XFE***G-WT	1770
	63, 50, 40, 32, 25, 20, 16	XFE***G	1685
15kA ~ (Fixed)	100, 80	XFN***P#	4000
	63, 50, 40, 32, 25, 20, 16	XFN***P	3900
25kA ~ (Adjustable)	100, 80	XFS***PV#	6000
	63, 50, 40, 32, 25, 20, 16	XFS***PV	5900
30kA ^ (Adjustable)	100, 80	XFH***NV#	4580
	63, 50, 40, 32, 25, 20, 16	XFH***NV	4480
36kA ^ (Adjustable)	100, 80	XFL***NV#	5900
	63, 50, 40, 32, 25, 20, 16	XFL***NV	5800
50kA ^ (Adjustable)	100, 80	XFV***NV#	9900
	63, 50, 40, 32, 25, 20, 16	XFV***NV	9800
50kA ~ (Adjustable)	100, 80	XFV***PV#	10120
	63, 50, 40, 32	XFV***PV	10000

XFE series with RAL-7035 (Light Grey) front Facia
Other series with RAL-7016 (Dark Grey) front Facia

~ means $I_{cs} = 100\% I_{cu}$
@ means $I_{cs} = 75\% I_{cu}$
^ means $I_{cs} = 50\% I_{cu}$

Code - Current Rating

Rating	16A	20A	25A	32A	40A	50A	63A	80A	100A
*Code	016	020	025	032	040	050	063	080	100

I_{cu} Overload Setting	Rated Current	Cat No.	MRP [₹]
25kA ~ Adjustable	250	XF2E250PV#	17350
	200	XF2E200PV#	14800
	160	XF2E160PV	11400
	125	XF2E125PV	8750
36kA ^ Adjustable	250	XF2N250NV#	12500
	200	XF2N200NV#	10900
	160	XF2N160NV	8250
	125	XF2N125NV	7100
36kA @ Adjustable	250	XF2N250GV#	18600
	200	XF2N200GV#	16900
	160	XF2N160GV	12900
	125	XF2N125GV	9650
36kA ~ Adjustable	250	XF2N250PV#	19080
	200	XF2N200PV#	17250
	160	XF2N160PV	13300
	125	XF2N125PV	9980
50kA ^ Adjustable	250	XF2H250NV#	19800
	200	XF2H200NV#	18300
	160	XF2H160NV	15200
	125	XF2H125NV	11200
50kA ~ Adjustable	250	XF2H250PV#	20870
	200	XF2H200PV#	19200
	160	XF2H160PV	16200
	125	XF2H125PV	14400

~ means $I_{cs} = 100\% I_{cu}$
@ means $I_{cs} = 75\% I_{cu}$
^ means $I_{cs} = 50\% I_{cu}$

* For more details refer product catalogue





Frame -3 :
 $I_{cu}/I_{cs} = 36/36, 50/50 \text{ kA}$
 (Spreader terminal available by default)

Spreader Link available as standard (for MCCB without spreader, please contact our sales team)
 MCCBs with different I_{cu} / I_{cs} combination can be made available On Request
 For MCCBs with 'Magnetic only' protection, prices available On Request.



Frame 3

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip Unit (TMTU)
 - Overload Setting: 0.8-1.0 In
 - Short Circuit Setting: 6-10 In

HSN Code : 8536

I_{cu} (Overload Setting)	Rated Current	Cat. No.	MRP [₹]
36kA ~ (Adjustable)	630	XF3N630PV	29900
	500	XF3N500PV	26900
	400	XF3N400PV	24540
	320	XF3N320PV	23380
50kA ~ (Adjustable)	630	XF3H630PV	31800
	500	XF3H500PV	29315
	400	XF3H400PV	25990
	320	XF3H320PV	24635

~ means $I_{cs} = 100\% I_{cu}$

- Electronic Trip Unit (ETU)-LSIG
 - Overload Setting: 0.4-1.0 In
 - Short Circuit Delay: 50-500 ms
 - Short Circuit Setting: 1.5-10 In
 - Earth Fault Delay: 50-500 ms
 - Earth Fault Setting: 0.2-0.55 In
 - Pre Trip Alarm Indication
 - Instantaneous Setting: 12 In

HSN Code : 8536

I_{cu} (Overload Setting)	Rated Current	Cat No.	MRP [₹]
36kA ~ (Adjustable)	630	XF3N630PE-LSIG	41100
	400	XF3N400PE-LSIG	37400
50kA ~ (Adjustable)	630	XF3H630PE-LSIG	44280
	400	XF3H400PE-LSIG	40000

~ means $I_{cs} = 100\% I_{cu}$

ACCESSORIES FOR Reiliant RANGE OF MCCBs
 HSN Code : 8538

Type	Product	Rating	Cat No.	MRP [₹]
Internal Accessories	Shunt Release	220V - 415V F1	XF3SHT220V	1195
		220V - 415V F2	XF2SHT220V	1195
		220V - 415V F3	XF3SHT220V	1990
	Under Voltage Release	240V F1	XFUV240VA	1580
		240V F2	XF2UV240VA	1605
		240V F3	XF3UV240VA	2490
		415V F1	XFUV415VA	1825
		415V F2	XF2UV415VA	1825
		415V F3	XF3UV415VA	2490
	Auxiliary Contacts	1 C/O + 1 C/O	XFALAX11	1305
2 C/O		XFAX2	1305	

HSN Code : 8538

Type	Product	Rating	Cat No.	MRP [₹]
External Accessories	Din Rail	F1	F1DIN	180
	Extended Rotary Handle	F1	F1ROHE	1610
		F2	F2ROHE	1660
		F3	F3ROHE	3480
	Extended Terminals	F1	ACMF1TP100	325
		F2	ACMF2TP250	1195
	Phase Barriers	F1	F1PB	70
		F2	F2PB	175
		F3	F3PB	205

HSN Code : 8536

Type	Product	Rating	Cat No.	MRP [₹]
External Accessories	MCCB Enclosure	F1	F1EU3P	795
		F2	F2EU3P	1565

* For more details refer product catalogue

Effective from 06.08.2020

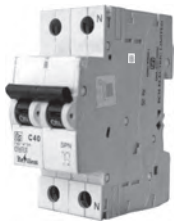
MCB

BCH

New

HSN Code : 8536

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- Possibility of bus bar termination at both ends



Pole	Standard pack of	Rating	Lower Rating Cat. No.	MRP (per unit) [₹]	Rating	B Curve Cat. No.	MRP (per unit) [₹]	C Curve Cat. No.	MRP (per unit) [₹]		
1P	12 units	5A	BCHX10SPC05	365	6A	BCHX10SPB06	217	BCHX10SPC06	220		
		4A	BCHX10SPC04	365	10A	BCHX10SPB10	217	BCHX10SPC10	220		
		3A	BCHX10SPC03	365	16A	BCHX10SPB16	217	BCHX10SPC16	220		
		2A	BCHX10SPC02	365	20A	BCHX10SPB20	217	BCHX10SPC20	220		
		1A	BCHX10SPC01	365	25A	BCHX10SPB25	217	BCHX10SPC25	220		
		0.5A	BCHX10SPCL5	365	32A	BCHX10SPB32	217	BCHX10SPC32	220		
					40A	BCHX10SPB40	510	BCHX10SPC40	510		
					50A	BCHX10SPB50	510	BCHX10SPC50	510		
					63A	BCHX10SPB63	510	BCHX10SPC63	510		
		1P+N	6 units				6A			BCHX10SNC06	665
							10A			BCHX10SNC10	665
							16A			BCHX10SNC16	665
					20A			BCHX10SNC20	665		
					25A			BCHX10SNC25	665		
					32A			BCHX10SNC32	665		
					40A			BCHX10SNC40	990		
					50A			BCHX10SNC50	990		
			63A			BCHX10SNC63	990				
2P	6 units	5A	BCHX10DPC05	1010	6A	BCHX10DPB06	715	BCHX10DPC06	715		
		4A	BCHX10DPC04	1010	10A	BCHX10DPB10	715	BCHX10DPC10	715		
		3A	BCHX10DPC03	1010	16A	BCHX10DPB16	715	BCHX10DPC16	715		
		2A	BCHX10DPC02	1010	20A	BCHX10DPB20	715	BCHX10DPC20	715		
		1A	BCHX10DPC01	1010	25A	BCHX10DPB25	715	BCHX10DPC25	715		
		0.5A	BCHX10DPCL5	1010	32A	BCHX10DPB32	715	BCHX10DPC32	715		
					40A	BCHX10DPB40	1125	BCHX10DPC40	1125		
					50A	BCHX10DPB50	1125	BCHX10DPC50	1125		
					63A	BCHX10DPB63	1125	BCHX10DPC63	1125		
		3P	4 units	5A	BCHX10TPC05	1390	6A	BCHX10TPB06	1130	BCHX10TPC06	1130
				4A	BCHX10TPC04	1390	10A	BCHX10TPB10	1130	BCHX10TPC10	1130
				3A	BCHX10TPC03	1390	16A	BCHX10TPB16	1130	BCHX10TPC16	1130
2A	BCHX10TPC02			1390	20A	BCHX10TPB20	1130	BCHX10TPC20	1130		
1A	BCHX10TPC01			1390	25A	BCHX10TPB25	1130	BCHX10TPC25	1130		
0.5A	BCHX10TPCL5			1390	32A	BCHX10TPB32	1130	BCHX10TPC32	1130		
					40A	BCHX10TPB40	1730	BCHX10TPC40	1730		
					50A	BCHX10TPB50	1730	BCHX10TPC50	1730		
					63A	BCHX10TPB63	1730	BCHX10TPC63	1730		
3P+N	3 units						6A			BCHX10TNC06	1420
							10A			BCHX10TNC10	1420
							16A			BCHX10TNC16	1420
					20A			BCHX10TNC20	1420		
					25A			BCHX10TNC25	1420		
					32A			BCHX10TNC32	1420		
					40A			BCHX10TNC40	1925		
					50A			BCHX10TNC50	1925		
			63A			BCHX10TNC63	1925				
4P	3 units	5A	BCHX10FPC05	1910	6A	BCHX10FPB06	1525	BCHX10FPC06	1525		
		4A	BCHX10FPC04	1910	10A	BCHX10FPB10	1525	BCHX10FPC10	1525		
		3A	BCHX10FPC03	1910	16A	BCHX10FPB16	1525	BCHX10FPC16	1525		
		2A	BCHX10FPC02	1910	20A	BCHX10FPB20	1525	BCHX10FPC20	1525		
		1A	BCHX10FPC01	1910	25A	BCHX10FPB25	1525	BCHX10FPC25	1525		
		0.5A	BCHX10FPCL5	1910	32A	BCHX10FPB32	1525	BCHX10FPC32	1525		
					40A	BCHX10FPB40	2180	BCHX10FPC40	2180		
					50A	BCHX10FPB50	2180	BCHX10FPC50	2180		
					63A	BCHX10FPB63	2180	BCHX10FPC63	2180		



HSN Code : 8536



Poles	Standard Pack of	Rating	Cat. No.	MRP (per unit) [₹]
2P	6 units	40A	BCHISODP40	450
	6 units	63A	BCHISODP63	550
3P	4 units	40A	BCHISOTP40	820
	4 units	63A	BCHISOTP63	915
4P	3 units	40A	BCHISOFP40	960
	3 units	63A	BCHISOFP63	1025

MCB DISTRIBUTION BOXES



HSN Code : 8537



Description	No. of Modules (Incoming + Outgoing)	Single Door		Double Door	
		Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
4 WAY, SPN DB	4	BCHSPNSD04W	764	BCHSPNDD04W	1286
6 WAY, SPN DB	6	BCHSPNSD06W	787	BCHSPNDD06W	1325
8 WAY, SPN DB	8	BCHSPNSD08W	967	BCHSPNDD08W	1557
12 WAY, SPN DB	12	BCHSPNSD12W	1267	BCHSPNDD12W	2083
16 WAY, SPN DB	16	BCHSPNSD16W	1625	BCHSPNDD16W	2666

HSN Code : 8537



Description	No. of Modules (Incoming + Outgoing)	Single Door		Double Door	
		Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
4 WAY, HTPN DB	8+12	BCHHTPNSD04W	2478	BCHHTPNDD04W	3356
6 WAY, HTPN DB	8+18	BCHHTPNSD06W	2975	BCHHTPNDD06W	4186
8 WAY, HTPN DB	8+24	BCHHTPNSD08W	3263	BCHHTPNDD08W	5195
12 WAY, HTPN DB	8+36	BCHHTPNSD12W	4348	BCHHTPNDD12W	7443

HSN Code : 8537

Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-A	8+12	6955
6 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD06W-A	8+18	8232
8 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-A	8+24	9575
12 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-A	8+36	12228

All above DB's are double door

MCB DISTRIBUTION BOXES BCH

HSN Code : 8537



Description	Cat. No.	Suitable for Resilient MCCB Frame	MRP [₹]
4 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-B	FRAME 1	10152
8 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-B	FRAME 1	12366
12 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-B	FRAME 1	15768
4 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-C	FRAME 2	12150
8 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-C	FRAME 2	15120
12 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-C	FRAME 2	17658

All above DB's are double door

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD04W	8+12+12	11221
6 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD06W	8+12+18	12647
8 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD08W	8+12+24	14121
12 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD12W	8+12+36	17947

All above DB's are double door

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD04W-40		On request
6 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD06W-40		On request
8 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD08W-40		On request
12 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD12W-40		On request
4 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD04W-63		14327
6 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD06W-63		14659
8 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD08W-63		16171
12 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD12W-63		17917

All above DB's are double door

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
2 ROW, 13 MODULE, DD, ROW DB	BCHROWDB2R13	13	5356
3 ROW, 13 MODULE, DD, ROW DB	BCHROWDB3R13	13	6313
4 ROW, 13 MODULE, DD, ROW DB	BCHROWDB4R13	13	6981

All above DB's are double door

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
SPN-10A, P&S DB	BCHPSDBSPN10		1050
SPN-20A, P&S DB	BCHPSDBSPN20		1050
TPN-20A, P&S DB	BCHPSDBTPN20		2942
TPN-30A, P&S DB	BCHPSDBTPN30		2942

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
SP, ONE WAY MCB DB	BCHOWMCBDBSP		398
DP, ONE WAY MCB DB	BCHOWMCBDBDP		398
TP, ONE WAY MCB DB	BCHOWMCBDBTP		459
FP, ONE WAY MCB DB	BCHOWMCBDBFP		459



RCCB, Double Pole

HSN Code : 8536

Description	Cat. No.	MRP [₹]
25A - 30mA	BCHRCB030DPC25	2805
40A - 30mA	BCHRCB030DPC40	2875
63A - 30mA	BCHRCB030DPC63	3860
25A - 100mA	BCHRCB100DPC25	2835
40A - 100mA	BCHRCB100DPC40	2940
63A - 100mA	BCHRCB100DPC63	3940
25A - 300mA	BCHRCB300DPC25	2835
40A - 300mA	BCHRCB300DPC40	3150
63A - 300mA	BCHRCB300DPC63	3940

All above RCCB's are 'AC' type



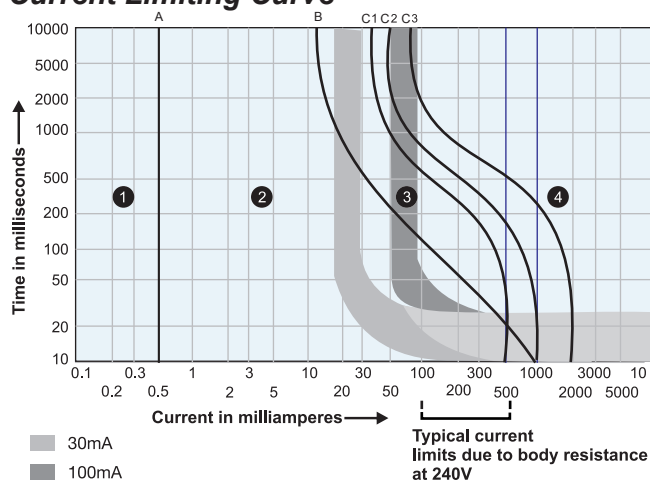
RCCB, Four Pole

HSN Code : 8536

Description	Cat. No.	MRP [₹]
25A - 30mA	BCHRCB030FPC25	3625
40A - 30mA	BCHRCB030FPC40	3730
63A - 30mA	BCHRCB030FPC63	4200
25A - 100mA	BCHRCB100FPC25	3730
40A - 100mA	BCHRCB100FPC40	3885
63A - 100mA	BCHRCB100FPC63	4200
25A - 300mA	BCHRCB300FPC25	3730
40A - 300mA	BCHRCB300FPC40	3905
63A - 300mA	BCHRCB300FPC63	4200

All above RCCB's are 'AC' type

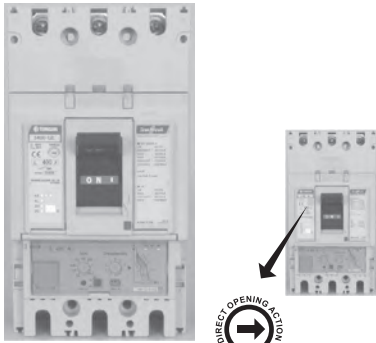
Current Limiting Curve



Effect of Current

Zone	Effects
Zone 1	Usually no reactions
Zone 2	Usually no harmful effects
Zone 3	Muscle cramps can occur. There is normally no danger of ventricular fibrillation.
Zone 4	Chances of ventricular fibrillation increased upto 5% (Curve C2) upto 50% (Curve C3) and above 50% beyond Curve C3. Effects such as cardiac arrest, breathing arrest and heavy burns may also occur.

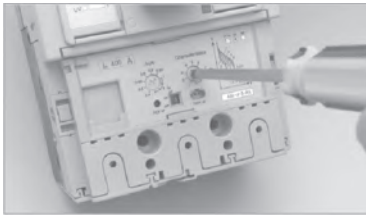
Total Protection Complete Control



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 10kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
E100SF	3	10-40	Fix-Thermal	■	XT2E100SF3F■U0	5345
	3	50-75	Fix-Thermal	■	XT2E100SF3F■U0	5345
	3	100	Fix-Thermal	A0	XT2E100SF3FA0U0	5625

* Ics = 50%

Tembreak 2 MCCB with 25kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]	
S160SCF	3	15-40	Fix-Thermal	■	XT2S160SCF3F■U0	6110	
	4		Fix-Thermal	■	XT2S160SCF4F■U0	8555	
	3	50-75	Fix-Thermal	■	XT2S160SCF3F■U0	6110	
	4		Fix-Thermal	■	XT2S160SCF4F■U0	8555	
	3	100	Fix-Thermal	A0	XT2S160SCF3FA0U0	6415	
			Fix-Thermal	A0	XT2S160SCF4FA0U0	8975	
	3	125	Fix-Thermal	AB	XT2S160SCF3FABU0	6830	
			Fix-Thermal	AB	XT2S160SCF4FABU0	9420	
	3	160	Fix-Thermal	AF	XT2S160SCF3FAFU0	8135	
			Fix-Thermal	AF	XT2S160SCF4FAFU0	9890	
	S160SCJ	3	25-40	Adj-Thermal	■	XT2S160SCJ3F■U0	8485
		4		Adj-Thermal	■	XT2S160SCJ4F■U0	11320
3		63-80	Adj-Thermal	■	XT2S160SCJ3F■U0	8485	
4			Adj-Thermal	■	XT2S160SCJ4F■U0	11320	
3		100	Adj-Thermal	A0	XT2S160SCJ3FA0U0	8915	
			Adj-Thermal	A0	XT2S160SCJ4FA0U0	11880	
3		125	Adj-Thermal	AB	XT2S160SCJ3FABU0	9355	
			Adj-Thermal	AB	XT2S160SCJ4FABU0	12475	
3		160	Adj-Thermal	AF	XT2S160SCJ3FAFU0	9815	
			Adj-Thermal	AF	XT2S160SCJ4FAFU0	13110	

*Ics = 50%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

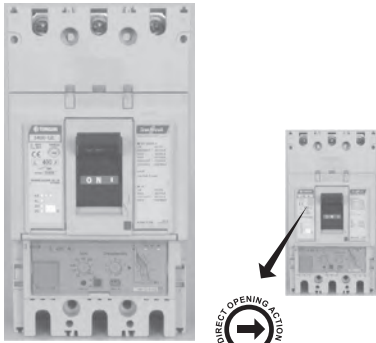
* For more details refer product catalogue

Accessories are mentioned on page no 12

Total Protection Complete Control

Tembreak 2 MCCB with 25kA* breaking capacity

HSN Code : 8536



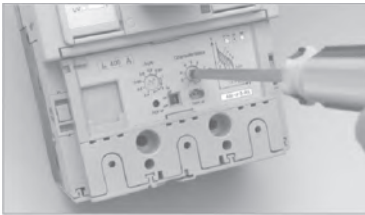
TemBreak



Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
E400NJ	3	250	Adj-Thermal	BE	XT2E400NJ3FBEU0	33235
	4		Adj-Thermal	BE	XT2E400NJ4FBEU0	44285
	3	400	Adj-Thermal	D0	XT2E400NJ3FD0U0	34880
	4		Adj-Thermal	D0	XT2E400NJ4FD0U0	46470

*Ics = 100%

User friendly adjustment



Tembreak 2 MCCB with 36kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current(A)	Type	Code	Cat. No.	MRP [₹]
S250NJ	3	160	Adj-Thermal	AF	XT2S250NJ3FAFU0	19460
	4		Adj-Thermal	AF	XT2S250NJ4FAFU0	23740
	3	200	Adj-Thermal	B0	XT2S250NJ3FB0U0	19470
	4		Adj-Thermal	B0	XT2S250NJ4FB0U0	24750
	3	250	Adj-Thermal	BE	XT2S250NJ3FBEU0	21020
	4		Adj-Thermal	BE	XT2S250NJ4FBEU0	24950
S400CJ	3	400	Adj-Thermal	D0	XT2S400CJ3FD0U0	36560
	4		Adj-Thermal	D0	XT2S400CJ4FD0U0	48750
S800CJ	3	630	Adj-Thermal	630	XT2S800CJ3F630U0	54755
	4		Adj-Thermal	630	XT2S800CJ4F630U0	73015
	3	800	Adj-Thermal	800	XT2S800CJ3F800U0	57500
	4		Adj-Thermal	800	XT2S800CJ4F800U0	76660
S250NE	3	125	Electronic	AB	XT2S250NE3FABU0	49405
	4		Electronic	AB	XT2S250NE4FABU0	65875
	3	250	Electronic	BE	XT2S250NE3FBEU0	51880
	4		Electronic	BE	XT2S250NE4FBEU0	69175
E630NE	3	630	Electronic	630	XT2E630NE3F630U0	60925
	4		Electronic	630	XT2E630NE4F630U0	81235

*Ics = 100%

Clear Trip Indication



OFF



ON



TRIP

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

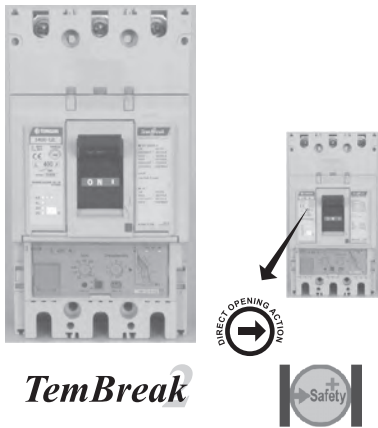
Accessories are mentioned on page no 12

* For more details refer product catalogue

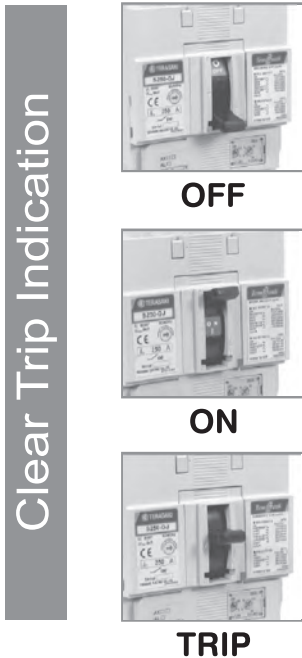
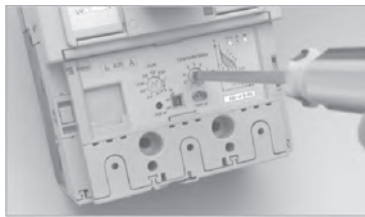
Total Protection Complete Control

Tembreak 2 MCCB with 50kA* breaking capacity

HSN Code : 8536



User friendly adjustment



Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
S400NF	3	125	Fix-Thermal	AB	XT2S400NF3FABU0	33860
	4		Fix-Thermal	AB	XT2S400NF4FABU0	45150
	3	160	Fix-Thermal	AF	XT2S400NF3FAFU0	34540
	4		Fix-Thermal	AF	XT2S400NF4FAFU0	46060
	3	200	Fix-Thermal	B0	XT2S400NF3FB0U0	35230
	4		Fix-Thermal	B0	XT2S400NF4FB0U0	46975
	3	225	Fix-Thermal	BB	XT2S400NF3FBBU0	35260
	4		Fix-Thermal	BB	XT2S400NF4FBBU0	47005
	3	250	Fix-Thermal	BE	XT2S400NF3FBEU0	35765
	4		Fix-Thermal	BE	XT2S400NF4FBEU0	47685
	3	320	Fix-Thermal	BF	XT2S400NF3FBFU0	36305
	4		Fix-Thermal	BF	XT2S400NF4FBFU0	48405
	3	400	Fix-Thermal	D0	XT2S400NF3FD0U0	36855
	4		Fix-Thermal	D0	XT2S400NF4FD0U0	49140
S800NF	3	630	Fix-Thermal	630	XT2S800NF3F630U0	59840
	4		Fix-Thermal	630	XT2S800NF4F630U0	79785
	3	800	Fix-Thermal	800	XT2S800NF3F800U0	61665
	4		Fix-Thermal	800	XT2S800NF4F800U0	82215
S400NJ	3	250	Adj-Thermal	BE	XT2S400NJ3FBEU0	35800
	4		Adj-Thermal	BE	XT2S400NJ4FBEU0	47740
	3	400	Adj-Thermal	D0	XT2S400NJ3FD0U0	38395
	4		Adj-Thermal	D0	XT2S400NJ4FD0U0	51190
S800NJ	3	630	Adj-Thermal	630	XT2S800NJ3F630U0	60280
	4		Adj-Thermal	630	XT2S800NJ4F630U0	80370
	3	800	Adj-Thermal	800	XT2S800NJ3F800U0	63260
	4		Adj-Thermal	800	XT2S800NJ4F800U0	84345
S400NE	3	250	Electronic	BE	XT2S400NE3FBEU0	55400
	4		Electronic	BE	XT2S400NE4FBEU0	73865
	3	400	Electronic	D0	XT2S400NE3FD0U0	58170
	4		Electronic	D0	XT2S400NE4FD0U0	77555
S630CE	3	630	Electronic	630	XT2S630CE3F630U0	61840
	4	630	Electronic	630	XT2S630CE4F630U0	81370
S800NE	3	800	Electronic	800	XT2S800NE3F800U0	80610
	4	800	Electronic	800	XT2S800NE4F800U0	107470
S1000SE	3	1000	Electronic	1000	XT2S1000SE3F1000U0	96740
	4	1000	Electronic	1000	XT2S1000SE4F1000U0	129105
S1250SE	3	1250	Electronic	1250	XT2S1250SE3F1250U0	145155
	4	1250	Electronic	1250	XT2S1250SE4F1250U0	193550
S1600SE	3	1600	Electronic	1600	XT2S1600SE3F1600U0	195975
	4	1600	Electronic	1600	XT2S1600SE4F1600U0	261300

*Ics = 100%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

* For more details refer product catalogue

Note : MCCB's upto 2000A rating & 200KA breaking capacity available on request. Plug in versions available on request.

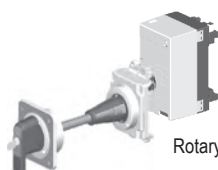
ACCESSORIES *TemBreak* MCCB..... BCH

ACCESSORIES FOR TEMBREAK-2 RANGE OF MCCB

HSN Code : 8538



Motor Operator



Rotary Handle

Type	Description	up to 125A	250A	400A & 800A	MRP [₹]
Aux Switch	1 Change over		T2AX00M3SWA		1700
Alarm Switch	1 Change over		T2AL00M3SWA		1700
Shunt Release	100-120VAC		T2SH00A10WA		4335
Shunt Release	200-240VAC		T2SH00A20WA		3940
Shunt Release	380-450VAC		T2SH00A40WA		4850
UV Release	200-240VAC		T2UV00A20NWA		5710
UV Release	380-450VAC		T2UV00A40NWA		5975
Motor Operator	110VAC	T2MC12A10NA	T2MC25A10NA		On Request
Motor Operator	220VAC	T2MC12A20NA	T2MC25A20NA		On Request
Motor Operator	240VAC	T2MC12A24NA	T2MC25A24NA		On Request
Motor Operator	100-240VAC			T2MC40A10NA	On Request
Rotary Handle	Panel Mounted (IP54)	T2HP12R5BNA			7750
Rotary Handle	Panel Mounted (IP54)		T2HP25R5BNA		10770
Rotary Handle	Panel Mounted (IP54)			T2HP40R5BNAA	12785
				T2HP80R5BNA	15660

Extended Terminals for All TEMBREAK-2 MCCBs

HSN Code : 8538

Frame	For	Cat. No.	MRP [₹]
125A FRAME	3 Pole	ACMTP1253	730
	4 Pole	ACMTP1254	1030
160A/250A FRAME	3 Pole	ACMTP2503	1135
	4 Pole	ACMTP2504	1955
400A FRAME	3 Pole	ACMTP4003	3000
	4 Pole	ACMTP4004	3465

One set = 6 Nos. Links for 3 Pole MCCBs
One set = 8 Nos. Links for 4 Pole MCCBs

* For more details refer product catalogue

Switch Disconnecter Fuse Units



Suitable for DIN / BOLTED fuses in open execution

HSN Code : 8536

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSFS323ND00	DIN	TPN	1920
32A	PSFS323ND000	DIN	TPN	1920
32A	PSFS323NB	Bolted	TPN	1920
32A	PSFS323B	Bolted	TP	1875
63A	PSFS633ND00	DIN	TPN	2655
63A	PSFS633ND000	DIN	TPN	2655
63A	PSFS633NB	Bolted	TPN	2655
63A	PSFS633B	Bolted	TP	2580
100	PSFS1003*	DIN/Bolted	TP	4970
100	PSFS1003N*	DIN/Bolted	TPN	5210
125	PSFS1253*	DIN/Bolted	TP	6575
125	PSFS1253N*	DIN/Bolted	TPN	7050
160	PSFS160*	DIN/Bolted	TP	7225
160	PSFS1603N*	DIN/Bolted	TPN	7850
200	PSFS2003B	Bolted	TP	9015
200	PSFS2003NB	Bolted	TPN	9255

* Use suffix 'D' for DIN type, 'B' for bolted type

Switch Disconnecter

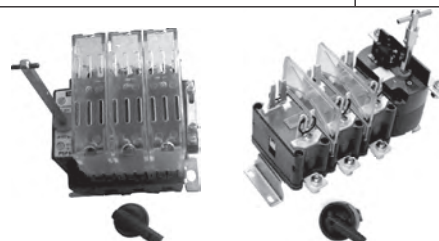
HSN Code : 8536

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSSD323N	-	TPN	1750
63A	PSSD633N	-	TPN	2410
100A	PSSD1003N	-	TPN	4745
125A	PSSD1253N	-	TPN	5895
160A	PSSD1603N	-	TPN	6640
200A	PSSD2003N	-	TPN	7500

Fuse Switch Units Type FS

HSN Code : 8538

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	FS0N	BOLTED	TP	1955
63A	FS1N	BOLTED	TP	2665
Shroud	AC21TS			170
1NO+1NC	AC21EB11	for FS0 / FS1N		500
Neutral	AC21L	for FS0 / FS1N-		220
Handle assembly-32A	SP21FS0H	for FS0		325
Handle assembly-63A	SP21FS1H	for FS1		325



Switch Disconnecter Fuse

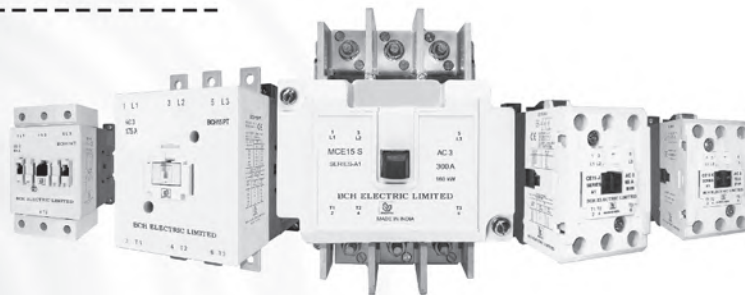
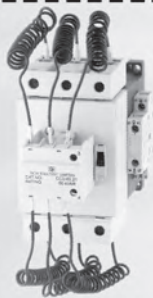
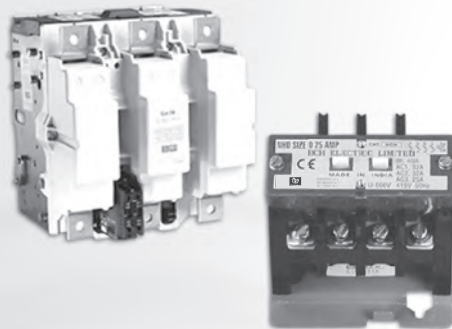
- Conforms to IS 13947-3
- TPN/TP version
- AC 23A duty
- Mechanism with 4 Breaks per pole
- Handle with door interlock and padlock



Controlgear

- DUROS FREEDOM CONTACTORS
- CITATION SERIES
- AGRI CONTACTORS
- CAPACITY DUTY CONTACTORS
- DEFINITE PURPOSE CONTACTORS
- VACUUM CONTACTORS

- **Contactors**
- **Overload Relays**
- **Electronic Over Current Relay**
- **Motor Protection Circuit Breaker**
- **Solid State Relay**
- **Push Buttons & Indicating Lights**



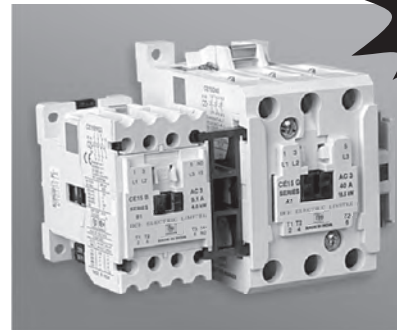
DUROS FREEDOM RANGE



- Conforms to IEC 60947-4-1 / IS 13947
- No derating upto -20°C to 60°C
- 3 Pole and 4 Pole versions
- Widest Range from 6A to 1200A in 7 frame sizes
- Snap Open design for easy inspection
- Self Lifting Screws for quick termination
- Superior grade material with high temperature withstand capacity : Ideal for stringent applications
- Most compact design
- Low VA burden coils
- Successfully tested for Type - 2 coordination



- Range : 5 to 60 KVAR
- Enhanced equipment life
- Compact design
- Conforms to IEC 60947-4-1 & IS 13947-4-1 (AC-6b) utilization category



Design Flexibility

Interlocking 2 Different frames using a common Mechanical Interlock (Upto 75A)



BCH Series : 400A to 1200A

- Conforms to IEC60947-4-1 / IS 13947
- Insulation voltage upto 1000V
- Universal Control : Same coil for AC and DC Supply
- Delayed Drop Off feature for networks with transient power problem ensuring continuity of power supply
- Special magnet design for reduced shock and vibration
- Front open design for ease of inspection



Duros Freedom Series 3 Pole AC Control

HSN Code : 8536

Size	AC1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
A	20	6	3	2.2	1NO	CE15ANS3 ■ B-N	915	1
					1NC	CE15ANC3 ■ B-N		
B	20	9.1	5.5	4	1NO	CE15BNS3 ■ B-N	965	
					1NC	CE15BNC3 ■ B-N		
C	20	12	7.5	5.5	1NO	CE15CNS3 ■ B-N	1100	
					1NC	CE15CNC3 ■ B-N		
D	32	16	10	7.5	1NO	CE15DN3.■.B10-N	1245	
					1NC	CE15DN3.■.B01-N		
	32	18	10	7.5	1NO	CE15D1N3.■.B10-N	1255	
					1NC	CE15D1N3.■.B01-N		
E	40	25	15	11	1NO	CE15EN3.■.B10-N	1720	
					1NC	CE15EN3.■.B01-N		
F	40	32	20	15	1NO	CE15FN3.■.B10-N	3420	
					1NC	CE15FN3.■.B01-N		
G	60	40	30	22	1NO+1NC	CE15GN3 ■	5085	
					-	CE15GN3 ■ NB	4815	
H	75	50	33.5	25	1NO+1NC	CE15HN3 ■	6405	
					-	CE15HN3 ■ NB	6155	
J	80	65	50	37	1NO+1NC	CE15JN3 ■	8715	
					-	CE15JN3 ■ NB	8465	
K	80	73	50	37	1NO+1NC	CE15KN3 ■	8945	
					-	CE15KN3 ■ NB	8665	
	80	75	50	37	1NO+1NC	CE15K1N3 ■	9030	
					-	CE15K1N3 ■ NB	8715	
K-1	115	80	53	40	1NO+1NC	BCH15KT.3.11.■	10545	
L	125	95	62	47	1NO+1NC	BCH15LT.3.11.■	12740	
M	135	110	80	60	1NO+1NC	BCH15MT.3.11.■	15650	
N	230	150	100	75	1NO+1NC	BCH15NT.3.11.■	20820	
P	250	175	125	95	1NO+1NC	BCH15PT.3.11.■	25950	
R	300	200	150	100	1NO+1NC	MCE15RN3 ■ 7	29295	
S0	315	265	186	140	1NO+1NC	MCE15S0N3 ■ 7	36280	
S	315	300	220	160	1NO+1NC	MCE15SN3 ■ 7	40060	

Duros Freedom Series 3 Pole AC/DC Control

HSN Code : 8536

Size	AC1 Rating(A)	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]
		A	HP	KW			
BCH54	600	400	320	240	2NO+2NC	BCH54.3.22. ■	51400
BCH55	600	450	320	240	2NO+2NC	BCH55.3.22. ■	66100
BCH57	760	550	420	315	2NO+2NC	BCH57.3.22. ■	74500
BCH62	1000	700	533	400	2NO+2NC	BCH62.3.22. ■	135985
BCH64	1000	860	666	500	2NO+2NC	BCH64.3.22. ■	221495
BCH76	1200	1000	800	600	1NO+2NC	BCH76.3.12. ■	413100
BCH78	1350	1200	933	700	1NO+2NC	BCH78.3.12. ■	437835

■ For Standard Coil Voltage Codes refer page 24

■ For Non Standard Coil Voltages, extra MRP to be added to Contactor MRP for :

Contactor size

A ~ K @ ₹40
K-1 ~ S @ ₹110
BCH 54 ~ BCH 57 @ ₹220

Duros Freedom series 4 Pole contactors (AC Control)

- 100% rated add-on 4th pole for flexibility (32A to 80A AC1)
- Low energy consumption

HSN Code : 8536

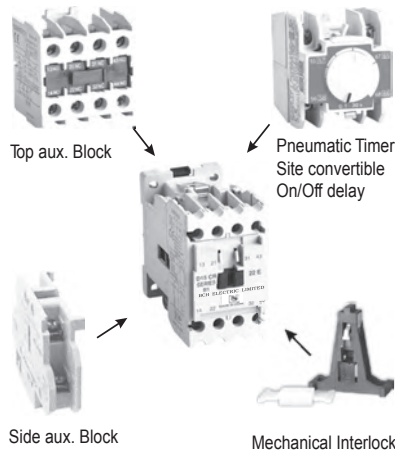


AC1 Rating (A)	Cat. No.	MRP [₹]
20	CE15CN4 ■ B-N	1350
32	CE15DN4 ■-N	1410
40	CE15EN4 ■-N	2130
60	CE15GN4 ■	5130
75	CE15HN4 ■	6820
80	CE15JN4 ■	7850
200	BCH15MN.4.11.■	19320
250	BCH15NN.4.11.■	21335
300	BCH15PN.4.11.■	38205

Contactor : 3 Pole DC Control Type CE15

HSN Code : 8536

Common Accessories 'upto 73A'



AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
6	2.2	-	CE15ANC3 ■-N CE15ANS3 ■-N	1295
9	4.4	-	CE15BNC3 ■-N CE15BNS3 ■-N	1410
12	5.5	-	CE15CNC3 ■-N CE15CNS3 ■-N	1480
16	7.5	-	CE15DN3 ■-N	1795
25	11	-	CE15EN3 ■-N	2405
32	15	-	CE15FN3 ■-N	5105
40	22	-	CE15GN3 ■	6040
50	25	-	CE15HN3 ■	7705
65	37	-	CE15JN3 ■	9170
73	37	-	CE15KN3 ■	10800
75	37	-	CE15K1N3 ■	10800

■ For Coil Voltage Codes refer Table on page 24

Pure DC Duros Freedom Series 3 Pole DC Control Type CE16



DC Control

- Standard voltages 24VDC, 110VDC, 220VDC

AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
9.1	4	1NO 1NC	CE16BNS3*B CE16BNC3*B	1470
12	5.5	1NO 1NC	CE16CNS3*B CE16CNC3*B	1545
16	7.5	1NO+1NC	CE16DN3*B	1885
25	11	1NO+1NC	CE16EN3*B	2575
32	15	1NO+1NC	CE16FN3*B	5370

HSN Code : 8536

*Coil Codes :
DC control

24V	U1
48V	W1
110V	A1
220V	B1
60V	X1
125V	E1



Pure DC

Control Relay HSN Code : 8536

Aux Contact	Cat No.	MRP [₹]
2NO+2NC	D16CR22*	1595
3NO+1NC	D16CR31*	
4NO	D16CR40*	

*Coil Codes : DC control

24V	48V	110V	220V
U1	W1	A1	B1

Control Relays Freedom Series HSN Code : 8536

Size	Contact Configuration	Cat No.	MRP [₹]		Lot Size
			AC	DC	
CR	2NO+2NC 3NO+1NC 4NO	D15CR22 ■-N D15CR31 ■-N D15CR40 ■-N	1030	1595	1

■ For Standard Coil Voltage Codes refer page 24

■ For Non Standard Coil Voltages, extra MRP to be added to Contactor / Control relay MRP for :

Contactor size { A-K @ ₹40
BCH15MN - BCH15PN @ ₹110
D15CR - D16CR @ ₹40



Freedom series Capacitor duty contactor (AC Control)

HSN Code : 8536



kVAR rating at 415V 3Ph 50Hz	Cat No.	Aux Contacts	MRP [₹]
5	CCD.05.11.▪	1NO+1NC	1990
10	CCD.10.11.▪	1NO+1NC	2170
15	CCD.15.11.▪	1NO+1NC	3165
20	CCD.20.11.▪	1NO+1NC	3715
25	CCD.25.11.▪	1NO+1NC	4405
30	CCD.30.11.▪	1NO+1NC	7260
40	CCD.40.11.▪	1NO+1NC	11075
50	CCD.50.21.▪	2NO+1NC	11430
60	CCD.60.21.▪	2NO+1NC	13060

- For Standard Coil Voltage refer table on page no. 24
- For Non Standard Coil Voltages, extra MRP to be added to Contactor MRP for :
 Contactor size
 - { CCD.05 ~ CCD.40 @ ₹40
 - { CCD.50 ~ CCD.60 @ ₹110

'NHD' Series 2 Pole Contactor

HSN Code : 8536

2 Pole Contactors



- 12, 16, 20, 25, 32 and 40 A rating
- Wide termination space

Ith (A)	AC3 (A) 240V AC	Cat. No.	MRP [₹]	Lot Size
20	12	CPG 212 ▪	1000	1
25	16	CPG 216 ▪	1065	
35	20	CPG 220 ▪	1425	
40	25	CPG 225 ▪	1540	
40	32	CPG 232 ▪	1765	
50	40	CPG 240 ▪	1895	

For Coil Voltage Codes refer Table on page 24

'NHD' Series 4 Pole Contactor

HSN Code : 8536

4 Pole Contactors



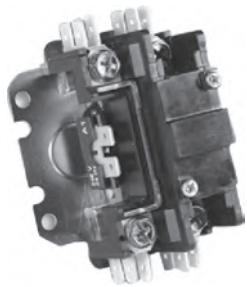
- Superior Weld Resistant Contacts
- Rugged and heavy duty
- High Grade moulding for extremely long life
- Encapsulated Coil
 - : Shock Proof & Moisture Proof
 - : Withstand large voltage fluctuations

Size	AC1 (A)	AC3 Rating at 415 V			Cat. No.	MRP [₹]	Lot Size
		(A)	HP	KW			
CP12	20	12	7.5	5.5	CP12N ▪	1835	1
00	20	16	10	7.5	C00N ▪	2060	
CP20	30	20	12.5	9.3	CP20N ▪	2665	
0	32	25	15	11	N0N ▪	3435	
01	40	32	20	15	N01N ▪	4330	
1	50	40	25	18.5	N1N ▪	5270	

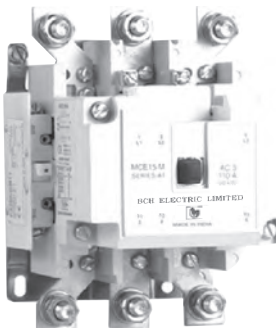
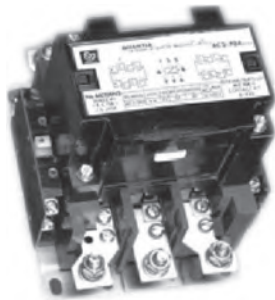
HSN Code : 8538

Description	Orientation	Cat. No.	MRP [₹]	Lot Size
Auxiliary Contact Blocks - NHD	1NO	001CB10	205	1
	1NO+1NC	001CB11	250	
	2NO	001CB20		
	2NC	001CB02		

▪ Standard coil voltages are 24, 110, 220/240 & 380/415 V AC, 50 Hz. For voltage codes refer Table on page 24



- Quick connect plugin terminals
- Specially designed low VA coil



Definite Purpose Contactors

HSN Code : 8536

1 Pole				2 Pole			
AC3 (A)	Type	Cat. No.	MRP [₹]	AC3 (A)	Type	Cat. No.	MRP [₹]
25	1 Pole	CPD251CK	715	20	2P, 140-200VAC	CPD202BL	790
25	1 Pole with Neutral	CPD251NCK	735	25	2P, 220-240VAC	CPD252H	830
40	1 Pole	CPD401CK	775	25	2P, 415VAC	CPD252M	
40	1 Pole with Neutral	CPD401NCK	840	40	2P, 220-240VAC	CPD402H	870
				40	2P, 415VAC	CPD402M	

*wide band AC coil voltages for Defintie purpose Contactor

Contactor	Cat No.	Voltage		
		170-240VAC	290-415VAC	140V-200VAC
25A 1P	CPD251*	KL	ML	BL
20A 2P	CPD202*			
40A 1P	CPD401*			

Citation Series 3 Pole AC Control

HSN Code : 8536

Size	AC3 Rating at 415 V			Cat. No. (with Aux. contact 2NO+2NC)	MRP [₹]	Cat. No. (with Aux. contact 1NO+1NC)	MRP [₹]	Cat. No. (without Aux. contact)	MRP [₹]
	Amps	HP	KW						
C4	32	20	15	C4NE22	4760	C4NE11	4450	C4NE00	3950
D	40	30	22	MC10DN22	7535	MC10DN11	6630	MC10DN00	6585
E	70	50	37	MC10EN22	13510	MC10EN11	13230	MC10EN00	12985

Standard coil voltages are 24, 110, 220, 240 & 415 VAC, 50 Hz. For voltage codes refer Table on page 24

HSN Code : 8536

Size	AC1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
L	140	80	53	40	1NO+1NC	MCE15LN3 5	11665	1
M	150	95	62	47	1NO+1NC	MCE15M0N3 5	13985	
M-5	150	110	80	60	1NO+1NC	MCE15MN3 5	17120	
N	300	140	100	75	1NO+1NC	MCE15NN3 7	22790	1
Q	300	185	120	90	1NO+1NC	MCE15QN3 7	28400	

Other Freedom Series Contactors

Duros Freedom Series 3 Pole AC Control

Size	Ac1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP[₹]	Lot Size
		A	HP	KW				
D	32	16	10	7.5	1NO+1NC	CE15DN3 B-N	1405	1
					-	CE15DN3 -N	1160	
	32	18	10	7.5	1NO+1NC	CE15D1N3 B-N	1420	
					-	CE15D1N3 -N	1170	
E	40	25	15	11	1NO+1NC	CE15EN3 B-N	1880	
					-	CE15EN3 -N	1605	
F	40	32	20	15	1NO+1NC	CE15FN3 B-N	3580	
					-	CE15FN3 -N	3255	

For Standard Coil Voltage refer table on page no. 24

For Non Standard Coil Voltages, extra MRP to be added to Contactor MRP for :

Contactor size

{ D ~ F @ ₹40
 { C4 ~ E @ ₹50
 { L ~ Q @ ₹110

Accessories - Contactors BCH

Duros-Freedom Series contactors Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S

HSN Code : 8538



Horizontal Mechanical Interlocks

Vertical Mechanical Interlocks



Accessories	Configuration	Cat No.	Contactors Type	MRP [₹]
Aux. Contact Block (side Mounting)	1NO	C320KGSR10	CE15 & CR	160
	1NO+1NC	C320KGSR11		420
	1NC	C320KGSR01		160
	2NO	C320KGSR20		420
	1NO+1NC	BCH15S11	BCH15	495
	1NO+1NC	MC320KB11	MCE15R, MCE15S0 & MCE15S	590
	1NO+1NC (Late break type)	MC320KAS11		
	2NO+2NC	EF22	BCH54 to BCH64	5650
	1NO+1NC	EB11	BCH76 to BCH78	8775
4th Neutral Switching Pole	800A	NP800/5	BCH54 to 57	25415
	1000A	NP1000/6	BCH62 to 64	30210
	1000A	NP1000/7	BCH76 to 78	34400
Aux. Contact Block (Front Mounting)	1NO	C320KGTC10	CE15, CR	160
	1NC	C320KGTC01		
	2NO	C320KGT*20		240
	2NC	C320KGT*02		
	1NO+1NC	C320KGT*11	440	
	2NO+2NC	C320KGT*22		
	3NO+1NC	C320KGT*31		
	4NO	C320KGT*40		
	1NO+3NC	C320KGT*13	BCH15	915
	4NC	C320KGT*04		
	4NO	BCH15T40		775
	3NO+1NC	BCH15T31		
	2NO+2NC	BCH15T22	275	
	1NO+1NC	BCH15T11		
	1NO	BCH15T10		
1NC	BCH15T01			
Pneumatic Timer Block "ON/OFF" Delay site selectable	1NO+1NC (0.1 to 30 sec)	C320TP1	CE15 & CR	1225
	1NO+1NC (10 to 180 sec)	C320TP2		
Mechanical Interlocks	-	C321KM60	CE15 & CR	390
	-	MC321KM3	MCE15R to MCE15S	1225
	Horizontal	BM5H	BCH54 to 57	7115
		BM6H	BCH62 to 64	12450
		BM7H	BCH76 to 78	32995
	Vertical	BM5V	BCH54 to 57	7115
		BM6V	BCH62 to 64	12450
		BM7V	BCH76 to 78	29275
	Horizontal	BM0H	BCH15KT/LT/MT	390
		BM3H	BCH15NT/PT/MN/NN/PN	420

*Add suffix C for power contactors, R for control relays. The suffix C/R denote terminal marking as per standard EN5001 on BS5583 on add on aux. contact blocks used with contactors / control relays

Accessories - Contactors BCH

Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S

HSN Code : 8538

Accessories	Configuration	Cat No.	Contactors Type	MRP [₹]
 Coil Surge Suppressors	24-48V (50/60Hz)	MC320LR11	CE15, CR	390
	110-240V (50/60Hz)	MC320LR12		
 Mechanical latch #	§ to complete the cat no. suffix code given	AM5- §	BCH54 to BCH57	18120
		Am6 §	BCH62 to BCH64	25625
Terminal adapter kit	3 links with m10 nut & bolt	SP37TA	MCE15R, MCE15S0 &	925

Mechanical latch are supplied with AC coils only

§ Coil Voltage suffix code for Mechanical latch AM5 & AM6

Coil voltage	110-120	220-240	380-415	440-480
Suffix Code	AW4	BA4	LB4	CB4

Accessories for Citation contactors size - L, M, M-5, N, Q, C4, D & E type

HSN Code : 8538

Accessories	Configuration	Cat No.	Contactors Type	MRP [₹]
Aux. block side mounting	1NO+1NC	C320KGM11	L, M & M-5	560
	1NO+1NC	MC320KB11	N & Q	590
Aux. block add-on (Late break type)	1NO+1NC	MC320KAS11	L, M, M-5, N & Q	
	1NO+1NC	AC34EA11	C4, D & E	460
Mechanical Interlock		MC321KM1	C4 & D	500
		MC321KM2	L, M, M-5 & E	545
		MC321KM3	N & Q	1225
Base block	1NO+1NC	MC320KB2	C4 & D	425
	1NO+1NC	AC35EB11	E	505

Spare Contacts set for Duro Freedom Contactors HSN Code : 8538

Size	Consisting of	Cat. No.	MRP [₹]
A	Complete top housing Consisting of fixed & moving contacts	SBANS3 SBANC3 SBAN4	760
B		SBBNS3 SBBNC3 SBBN4	810
C		SBCNS3 SBCNC3 SBCN4	880
D		SBDN3	1070
E		SBEN3	1260
F		SBFN3	2485
G	6 Fixed contacts 3 Moving Contacts	6-65-4	2175
H	3 springs	6-65-6	2700
J	6 Arc Bonnets	6-65-15	3665
K	3 Spring Retainer	6-65-17	3785
BCH15KT	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH15KT-3	3750
BCH15LT		CP-BCH15LT-3	4310
BCH15MT		CP-BCH15MT-3	4640
BCH15NT		CP-BCH15NT-3	7665
BCH15PT		CP-BCH15PT-3	7665
R	6 Fixed contacts 3 Moving contacts 12 CSK screws & washers	6-288	13355
S0	3 Springs Spring retainers Self tapping screws & washers	6-286-S0	18035
S	6 Arc Chute assly & screws	6-286	18200
BCH54	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH54-3	20830
BCH55		CP-BCH55-3	24010
BCH57		CP-BCH57-3	33840
BCH62		CP-BCH62-3	61835
BCH64		CP-BCH64-3	76020
BCH76		CP-BCH76-3	180855
BCH78		CP-BCH78-3	203225

Spare Contacts set for NHD & Citation Contactors HSN Code : 8538

Size	Consisting of	Cat.No.	MRP [₹]
C00N N0N N01N N1N	(4 - Pole contact kit) 8 Fixed main contacts 4 Moving main contacts 4 Spring & 4 retainers	SP90A1 SP90B1 SP90D1 SP90C1	940 1960 2330 2525
C00N N0N N01N N1N	(1 - Pole contact kit) 2 Fixed main contacts 1 Moving main contacts 1 Spring & 1 retainers	SP90A01 SP90B01 SP90D01 SP90C01	230 485 565 595
CPG216 CPG225 CPG240	4 Fixed contacts 2 Main contacts 2 Spring retainers	CPG162PSP CPG252PSP CPG402PSP	460 1165 1285
C4	6 Fixed main contacts 6 Pan head screws 6 Helical lock washers	SP34K	2085
MC10D	6 Fixed Main Contacts 3 Compression springs 3 Retainers	6-334	2880
MC10E	Same as above plus 6 Blow outs 6 M5/M4 self tapping screws	6-335	5445
L	6 Fixed Contacts 6 Pan Head Screws	6-385-L0	4185
M	6 Helical Lock Washers 3 Moving contacts 3 Springs, 3 Retainers	6-385-M	4430
M-5	6 Blowouts 6 self tapping screws	6-385	4680
N	6 Fixed contacts 12 CSK screws & washers	6-293	9220
Q	3 Moving contacts 3 Springs, Spring Retainers, Self tapping screws & Washers	6-288-Q	13275

Spare ARC chambers - BCH15KT to BHC15PT, BCH54 to BCH78 HSN Code : 8538

Contactors	Cat. No.	MRP [₹]
BCH15KT	PF-BCH15KT	540
BCH15LT	PF-BCH15LT	
BCH15MT	PF-BCH15MT	
BCH15NT	PF-BCH15NT	950
BCH15PT	PF-BCH15PT	
BCH54/BCH55/BCH57 (for all 3 poles)	PF-BCH5	7140
BCH62/BCH64 (for all 3 poles)	PF-BCH6	18335
BCH76/78 (for single pole)	3PF-BCH78	39500

Spare Coil - size CR, A to K, MCE15R, MCE15S0, MCE15S, BCH15KT to BCHPT, BCH54 to BCH78

HSN Code : 8538

Size	For Size	Cat. No.	MRP [₹]
Magnetic coil	CR, A,B, C	MC15CW ■	425
	CE16, D16 (Pure DC)	MC16FW ■	705
	D, E, F	MC15FW ■	485
	G, H, J, K	MC15KW ■	1255
	BCH15KT/LT	B02. ■	1275
	BCH15MT	B022. ■	1900
	BCH15NT/PT/MN/NN/PN	B031. ■	3805
	R, S0, S	9-2412- ■	3420
Magnetic coil (set of two)	BCH54/ BCH55/ BCH57	B51. ■	7100
Feeder group		FG51. ■	8625
Magnetic coil (set of two)	BCH62/ BCH64	B61. ■	21795
Feeder group		FG61. ■	28525
Magnetic coil (set of two)	BCH76/ BCH78	B8- ■	60375
Feeder group		FG78- ■	66750

■ To specify coil voltage please refer page no.24

■ For Non Standard Coil Voltages, extra MRP to be added to Coil MRP for :

Contactor size

A ~ K @ ₹40
CR, CE16, D16 @ ₹40
BCH15KT ~ PN @ ₹110, R ~ S @ ₹110
BCH54 ~ BCH57 @ ₹220

Note : Coil set for BCH54 to BCH78 contactors consists of 2 half coils. Magnetic coil & Feeder group must have the same control voltage. For eg. If coil voltage is changed from 110V to 220V then Feeder group should also be changed to 220V

Spare Coil - NHD & Citation Contactors

HSN Code : 8538

Description	Cat. No.	MRP [₹]	Lot size
Carrier for NHD	SP90CC	170	1
Carrier for CPG	CPG2PCC	105	1
Magnetic coil for NHD	SP90MC*	335	10
Magnetic coil for MCE15L, MCE15M0, MCE15M	9-2268- ■	1550	1
Magnetic coil for MCE15N & MCE15Q	9-2412- ■	3420	1
Magnetic coil for C4 & MC10D	9-2267- ■	965	1
Magnetic coil for MC10E type	9-2268- ■	1550	1

■ To specify coil voltage please refer page no. 24

■ For Non Standard coil voltages, extra MRP to be added to coil MRP for :

Contactor size :

L ~ Q @ ₹110
C4 ~ E @ ₹50

Coil Voltage Table BCH

COIL VOLTAGE: MASTER TABLE

PRODUCT	24V		48V		110V		160-220V		220V		220-240V		230-360V		240V		190-400V		260-400V		380V		380-415V		415V		440V		550V		
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	
CR RELAY	U	U3	W	W3	A	A3	-	-	B	B3	-	-	-	-	K	-	-	-	-	-	L	-	-	-	-	-	-	-	-	-	
#CE15A-F	U	U3	W	W3	A	A3	-	-	B	B3	-	-	-	-	K	-	-	-	-	-	L	-	-	-	-	-	-	-	-	-	
#CE15G-K	U	U3	W	W3	A	A3	-	-	B	B3	-	-	-	-	K	-	-	-	-	-	L	-	-	-	-	-	-	-	-	-	
BCH15KT-LT	U	-	W	-	A	-	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	-	-	-	-	-	-	
BCH15MT-PT	24	-	48	-	110	-	-	-	-	-	220	-	-	-	-	-	-	-	-	-	-	-	380	-	-	440	550	-	-	-	
BCH15MN-PN	24	-	48	-	110	-	-	-	-	-	220	-	-	-	-	-	-	-	-	-	-	-	380	-	-	440	550	-	-	-	
MCE15R-S	U	U3	-	-	A	A3	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	M	C	D	-	-	-	
BCH54-64	-	-	-	-	110	110	-	-	220	220	-	-	-	-	220	-	-	-	-	-	380	-	-	380	-	380	440	-	-	-	
BCH76&78	-	-	-	-	A7	A17	-	-	B7	-	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CPG216	U	-	-	-	A	-	BW	-	-	-	H	-	-	-	-	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	-
CPG225&240	U	-	-	-	A	-	BW	-	-	-	H	-	-	-	-	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	-
SHAKTI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	-
C00N & N0N	U	-	-	-	A	-	BW	-	-	-	H	-	-	-	-	-	-	-	-	-	-	-	N	-	-	C	D	-	-	-	-
N01N & N1N	U	-	-	-	A	-	-	-	-	-	H	LV	-	-	-	-	-	-	-	-	-	-	N	-	-	C	-	-	-	-	-
C4 & D	-	-	-	-	A	-	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	M	C	D	-	-	-	-
MC10EN	U	-	-	-	A	-	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	M	C	D	-	-	-	-
MCE15L-M5	U	-	W	-	A	-	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	M	C	D	-	-	-	-
MCE15N-Q	U	U3	-	-	A	A3	-	-	B	-	-	-	-	-	K	-	-	-	-	-	L	-	-	-	M	C	D	-	-	-	-

1. For other coil voltages & wide band coil option please contact nearest sales office

#The Interchangeability between AC & DC Coil of CE15 / D15 type contactors is not possible at site. Only Company fitted DC control is available for this range.

Overload Relay BCH

Citation-M Overload Relays (Direct Mounting) with built-in single phase protection

Citation Overload Relay



- Wide range : From 0.195 A to 600 A
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto/manual reset
- Snap on cover
- Special Mechanism ensuring closest protection to motor
- Contact mounting & separate mounting
- Successfully tested for Type-2 Coordination
- Suitable for almost all makes of Contactors
- Proven and tested

HSN Code : 8536

HSN Code : 8538

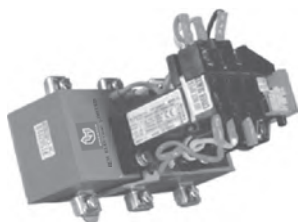
Relay Range	Cat. No.	MRP [₹]	Terminal Block for individual mounting	MRP [₹]
0.195 - 0.31	MC305ANA3A	1355	(Incoming) MC305TB1 (Outgoing) MC305TB3	125
0.30 - 0.48	MC305ANA3B			
0.47 - 0.75	MC305ANA3C			
0.72 - 1.14	MC305ANA3D			
1.07 - 1.70	MC305ANA3E			
1.58 - 2.50	MC305ANA3F			
2.40 - 3.80	MC305ANA3G			
3.80 - 6.00	MC305ANA3H			
6.00 - 9.30	MC305ANA3J			
8.90 - 13.50	MC305ANA3K			
13.20 - 20.00	MC305ANA3L	1490	(Incoming) MC305TB2 (Outgoing) MC305TB3	
17.40 - 24.00	MC305ANA3M	1580		
22.00 - 30.00	MC305ANA3N*	2135		
23.00 - 32.00	MC305ANA3P*	2150	(Incoming) MC305TB2 (Outgoing) MC305TB3	
26.00 - 40.00	MC305ANA3Q*	2250		

* Overload relay type "N, P & Q" must be used with terminal block MC305TB3

DIN rail mounting kit with incoming terminal block HSN Code : 8538

Relay Range (A)	Cat. No.	MRP [₹]
A to K	MC305DM1	210
L to N	MC305DM2	210

CT Operated Overload Relay



CT Operated Overload Relays-Individual Mounting HSN Code : 8536

Relay Range (A)	Cat. No.	MRP [₹]
24.4-39.0	CT1MC305ANA3C	2890
37.6-60.0	CT2MC305ANA3C	3730
56.4-90.0	CT3MC305ANA3C	4915
84.6-135.0	CT4MC305ANA3C	4990
131.6-210.0	CT5MC305ANA3C	7560
188.0-300.0	CT6MC305ANA3C	9030
263.2-420.0	CT7MC305ANA3C	9345
376.0-600.0	CT8MC305ANA3C	10395

WP 2 Pole Overload Relay



- Perfect protection to single phase Motors against overloads
- Ambient temperature compensated

2 Pole Overload Relays (Direct Mounting)

HSN Code : 8536

Relay Range (A)	Cat. No.	MRP [₹]
1.58-2.50	MC307ANA2F	645
2.40-3.80	MC307ANA2G	
3.80-6.00	MC307ANA2H	
6.00-9.30	MC307ANA2J	
8.90-13.50	MC307ANA2K	
13.20-20.00	MC307ANA2L	745
17.40-24.00	MC307ANA2M	780
22.00-30.00	MC307ANA2N	935
23.00-32.00	MC307ANA2P	945

WP Overload Relay



- Designed to withstand wide fluctuations in agricultural applications
- Appropriately sensitive relay for increased pump performance

WP Overload Relays for WP & Oil Starter

HSN Code : 8536

Relay Range (A)	Cat. No. (WP Starter / Oil Starter)	MRP [₹]
6.00 - 9.30	MC307ANA3J / MC307ANA3J-OS	1175
8.90 - 13.50	MC307ANA3K / MC307ANA3K-OS	1305
13.20 - 20.00	MC307ANA3L / MC307ANA3L-OS	1375
17.40 - 24.00	MC307ANA3M / MC307ANA3M-OS	1740
22.00 - 30.00	MC307ANA3N	1740
23.00 - 32.00	MC307ANA3P (Spare for Oil Starter)	1795

Overload Relay BCH

Duros Freedom Overload Relay



MC318ANA

- Range : From 0.1A to 80A
- IEC:60947-4-1
- Relay class-10A
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto manual reset
- Contactor mounting / Individual Mounting



MC318GNA

Freedom Overload Relays

HSN Code : 8536

HSN Code : 8538

Relay Range (A)	Cat. No.	MRP [₹]	Accessories
0.1-0.16	MC318ANA3A	1315	Adaptor for Individual mounting Cat. No. C318F1 MRP Rs. 320
0.16-0.25	MC318ANA3B		
0.25-0.40	MC318ANA3C		
0.40-0.63	MC318ANA3D		
0.63-1.00	MC318ANA3E		
1.0-1.40	MC318ANA3F		
1.3-1.80	MC318ANA3G		
1.7-2.4	MC318ANA3H		
2.2-3.1	MC318ANA3J		
2.8-4.0	MC318ANA3K		
3.5-5.0	MC318ANA3L		
4.5-6.5	MC318ANA3M		
6.0-8.5	MC318ANA3N		
7.5-11	MC318ANA3P		
10.0-14.0	MC318ANA3Q		
13.0-19.0	MC318ANA3R	1455	Adaptor for Individual mounting Cat No. C318F2 MRP Rs.320
18.0-25.0	MC318ANA3S		
24.0-32.0	MC318ANA3T	2020	
22.0-32.0	MC318GNA3B	2185	
29.0-42.0	MC318GNA3C	2195	
36.0-52.0	MC318GNA3D	2965	
45.0-63.0	MC318GNA3E	3305	
60.0-80.0	MC318GNA3F	4070	

Vacuum Contactors..... BCH

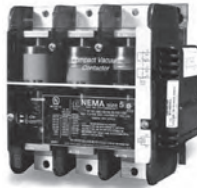
Range: 225A to 600A 3P 1500V

Features

- Suitable for worldwide applications and for use with all types of motors including high efficiency IEC motors & NEMA design E motors.
- Front accessible
- Compact & rugged design
- Light weight
- Fully phase insulated
- Long Electrical & Mechanical life
- Mounts in any plane
- Quiet in operation



1140V 300A



1500V 400A



1500V 600A

HSN Code : 8536

Contactor Rating	Cat reference	Description	MRP [₹]
225A	CV77U033A12 -22 -B22	225A Vacu cont 1140V 3P 2NO+2NC 220VAC	105305
	CV77U033A12 -11 -B22	225A Vacu cont 1140V 3P 2NO+2NC 110VAC	
265A	CV77U033A12 -22 -B26	265A Vacu cont 1140V 3P 2NO+2NC 220VAC	112110
	CV77U033A12 -11 -B26	265A Vacu cont 1140V 3P 2NO+2NC 110VAC	
300A	CV77U033A12 -22 -B30	300A Vacu cont 1140V 3P 2NO+2NC 220VAC	128795
	CV77U033A12 -11 -B30	300A Vacu cont 1140V 3P 2NO+2NC 110VAC	
400A	CV77U034A06 -26	400A Vacu cont 1000V 3P 1NO+1NC 220VAC	163285
	CV77U034A06 -76	400A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U034A06 -125	400A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U034A06 -250	400A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U034A15 -26	400A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U034A15 -76	400A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U034A15 -125	400A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U034A15 -250	400A Vacu cont 1500V 3P 1NO+1NC 250VDC	
600A	CV77U036A06 -26	600A Vacu cont 1000V 3P 1NO+1NC 220VAC	203985
	CV77U036A06 -76	600A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U036A06 -125	600A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U036A06 -250	600A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U036A15 -26	600A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U036A15 -76	600A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U036A15 -125	600A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U036A15 -250	600A Vacu cont 1500V 3P 1NO+1NC 250VDC	

Accessories for 400A & 600A Vacuum Contactor

HSN Code : 8536

Cat reference	Description	MRP [₹]
CV77-AK1	2NO+2NC, Aux. Contact for 400A & 600A VC	11770

Electronic Overcurrent Relay BCH

Bhartia Electronic Overcurrent Relay

HSN Code : 8536

BOCR SS



- Over Current
- Locked Rotor
- Phase Loss

BOCR SSD



- Over Current
- Locked Rotor
- Phase Loss

BOCR DS3/DS1



- Over Current
- Phase Loss
- Locked Rotor
- Phase Reversal

BOCR 3DE



- Over Current
- Under Current
- Phase Loss
- Phase imbalance
- Phase Reversal
- Locked Rotor

BOCR 3EZ



- Over Current
- Under Current
- Phase Loss
- Phase Imbalance
- Phase Reversal
- Locked Rotor
- Ground Fault

BOCR PMZ



- Over Current
- Under Current
- Phase Loss
- Phase Unbalance
- Phase Reversal
- Locked Rotor
- Ground Fault
- 4-20mA analog output

BOCR PFZ



- Phase Reversal
- Locked Rotor
- Ground Fault
- 4-20mA analog output

BOCR IFDM/IFDZ



- Over Current
- Under Current
- Phase Loss
- Phase Unbalance
- Phase Reversal
- Locked Rotor
- Ground Fault (in IFDZ model)
- RS-485 communication

Model	Current Range	Cat. No.	Type	MRP [₹]
BOCR SS 05	0.5-6A	MP21SS005	Analog model	4055
BOCR SS 30	3.0 -30A	MP21SS030		
BOCR SS 60	5.0-60A	MP21SS060		
BOCR SSD 05	0.5-6A	MP22SSD005	Digital model/ Inbuilt display	7345
BOCR SSD 30	3.0 -30A	MP22SSD030		
BOCR SSD 60	10-60A	MP22SSD060		
BOCR DS3 05	0.5-6A	MP34DS3005	Analog model (Definite time)	6250
BOCR DS3 30	3.0 -30A	MP34DS3030		
BOCR DS3 60	5.0-60A	MP34DS3060		
BOCR DS1 05	0.5-6A	MP32DS1005	Analog model (Inverse time)	6250
BOCR DS1 30	3.0 -30A	MP32DS1030		
BOCR 3DE	0.5-60A	MP353DE800	Inbuilt display	20715
BOCR FDE#	0.5-60A	MP35FDE800	Flush mounted display	
BOCR 3EZ	0.5-60A	MP363EZ800	Inbuilt display	22550
BOCR FEZ#	0.5-60A	MP36FEZ800	Flush mounted display	
BOCR PMZ	0.5-60A	MP37PMZ060	4-20mA analog output/ Inbuilt display	46895
BOCR PFZ#	0.5-60A	MP37PFZ060	4-20mA analog output/ Flush mounted display	47515
BOCR IFDM#	0.5-60A	MP39-IFDM400H	RS-485 comm./ Flush mounted display	28000
BOCR IFDZ#	0.5-60A	MP39-IFMZ400H	RS-485 comm./Earth fault/ Flush mounted display	35500

Note: Use suitable CT for currents above 60A

Control Voltage suffix for BOCR

Model no.	Control voltage					
	24-240 VAC/DC	380-440 VAC	100-240 VAC	24 VDC	100-240 VAC/DC	85-250 VAC/DC
BOCR-SS	S4	W1	-	-	-	-
BOCR-SSD	S4	W4	-	-	-	-
BOCR-DS3	S4	-	-	-	-	-
BOCR-DS1	S5	-	-	-	-	-
BOCR-3DE/FDE	-	-	Z4	U1	-	-
BOCR-3EZ/FEZ	-	-	Z4	C4	-	-
BOCR-PMZ/PFZ	-	-	-	-	-	Z7
BOCR-IFDM/IFDZ	-	-	-	-	U4	-

CTs

HSN Code : 8536

Cat No.	Description	MRP [₹]
2CT-D1-100-C	2CT EP 100/5	2545
2CT-D2-200-C	2CT EP 200/5	
2CT-D3-300-C	2CT EP 300/5	2760
2CT-D4-400-C	2CT EP 400/5	3030
3CT-H1-100-C	3CT version 100/5	3935
3CT-HH-150-C	3CT version 150/5	3975
3CT-H2-200-C	3CT version 200/5	4185
3CT-H3-300-C	3CT version 300/5	4450
3CT-H4-400-C	3CT version 400/5	4720
ZCT-035	ZCT version 35mm hole	4535
ZCT-080	ZCT version 80mm hole	6030
ZCT-120	ZCT version 120mm hole	11125

ZCT must be used for ground Fault protection alongwith BOCR

Cable for separate display Models

HSN Code : 8536

Cat No.	For model	Range	MRP [₹]
CABLE-RJ45-003	BOCR-IFDM/IFDZ	CABLE-RJ45 3m EOOCR-IFD model	1435
CABLE-15-003Q	BOCR-FDE/FEZ/PFZ	CABLE-15-EP 3M FEZ/FDE/PFZ	1270

Note : Cable must be ordered separately along with the EOOCR

MPCB

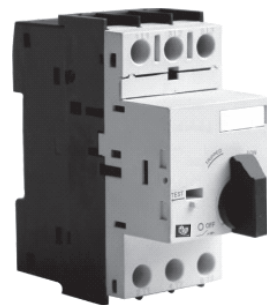
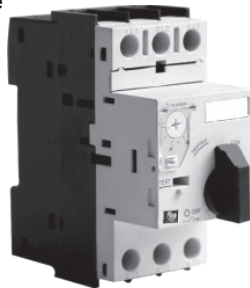
BCH

HSN Code : 8536

MPH range (0.1 to 32A)



- ON/OFF Rotary knob with manual operation
- Clear trip indication with rotary knob
- 1 NO + 1 NC - Front & side mounted
- Trip indicator for visual discrimination between short circuit & over load tripping
- Undervoltage / Shunt Release
- Mag only version also available



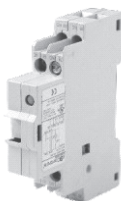
Accessories MPH range MPCB



Front mounted aux contact



Side mounted aux contact



Trip indicator - side mounted



UV/Shunt - side mounted



Extended handle - 32A MPCB



Plastic enclosure - 32A MPCB

Cat code	Description	MRP[₹]
(A) Thermal-Magnetic release		
MPH32-0.16	MPCB 3P TM 0.1- 0.16A	2895
MPH32-0.25	MPCB 3P TM 0.16-0.25A	2945
MPH32-0.4	MPCB 3P TM 0.25-0.4A	
MPH32-0.63	MPCB 3P TM 0.4-0.63A	3045
MPH32-1.0	MPCB 3P TM 0.63-1.0A	3230
MPH32-1.6	MPCB 3P TM 1.0-1.6A	3230
MPH32-2.5	MPCB 3P TM 1.6-2.5A	
MPH32-4.0	MPCB 3P TM 2.5-4.0A	3285
MPH32-6.3	MPCB 3P TM 4.0-6.3A	3360
MPH32-10	MPCB 3P TM 6.3-10.0A	3415
MPH32-16	MPCB 3P TM 10.0-16.0A	3780
MPH32-20	MPCB 3P TM 16.0-20.0A	4505
MPH32-25	MPCB 3P TM 20.0-25.0A	4840
MPH32-32	MPCB 3P TM 25.0-32.0A	7600
(B) With magnetic trip only (no Thermal release)		
MPH32M-0.16	MPCB 3P Mag only 0.16 A	2815
MPH32M-0.25	MPCB 3P Mag only 0.25 A	2860
MPH32M-0.4	MPCB 3P Mag only 0.4 A	
MPH32M-0.63	MPCB 3P Mag only 0.63 A	2965
MPH32M-1.0	MPCB 3P Mag only 1.0 A	2915
MPH32M-1.6	MPCB 3P Mag only 1.6 A	
MPH32M-2.5	MPCB 3P Mag only 2.5 A	
MPH32M-4.0	MPCB 3P Mag only 4.0 A	3090
MPH32M-6.3	MPCB 3P Mag only 6.3 A	3155
MPH32M-10	MPCB 3P Mag only 10 A	3130
MPH32M-16	MPCB 3P Mag only 16 A	3415
MPH32M-20	MPCB 3P Mag only 20 A	3655
MPH32M-25	MPCB 3P Mag only 25 A	3630
MPH32M-32	MPCB 3P Mag only 32 A	6365

HSN Code : 8538

Cat code	Description	MRP[₹]
MPHF11	Front aux contact 1NO+1 NC MPCB	540
MPHS11	Side aux contact 1NO+1 NC MPCB	710
MPHT11	MPCB Trip Indicator	835
MPH024UR	UV Rel. 24V 50HZ MPCB	1380
MPH020UR	UV Rel. 20V 50HZ MPCB	
MPH115UR	UV Rel. 110-115V 50HZ MPCB	
MPH180UR	UV Rel. 180V 50HZ MPCB	
MPH240UR	UV Rel. 230-240V 50HZ MPCB	
MPH380UR	UV Rel. 380V 50HZ MPCB	
MPH415UR	UV Rel. 400-415V 50HZ MPCB	
MPH500UR	UV Rel. 500V 50HZ MPCB	
MPH024SR	Shunt Rel. 20-24V 50/60HZ MPCB	
MPH048SR	Shunt Rel. 40-48V 50/60HZ MPCB	
MPH240SR	Shunt Rel. 200-240V 50/60HZ MPCB	
MPH440SR	Shunt Rel. 365-440V 50/60HZ MPCB	
MPH127SR	Shunt Rel. 100-127V 50/60HZ MPCB	
MPH34	Extnd rotary handle 32A	1135
B31SMA1	Plastic enclosure for MPH32 MPCB	1500

MPE Range (0.1 - 25A)



- Conforms to IEC 60947
- Perfect Coordinated system for Motor Control
- Electrical Life : 100000 Operations
- Excellent Current limiting characteristics
- Modular Snap fit Accessories

MPCB (with thermal & magnetic release) HSN Code : 8536

Cat ref	Setting Range (A)	Motor Rating in kW at 415 V	MRP [₹]
MPE-01	0.1...0.16	-	2515
MPE-02	0.16...0.25	0.06	
MPE-03	0.25...0.4	0.12	2775
MPE-04	0.4...0.63	0.18	
MPE-05	0.63...1	0.25, 0.37	2815
MPE-06	1...1.6	0.55	
MPE-07	1.6...2.5	0.75, 1.1	2870
MPE-08	2.5...4	1.5	
MPE-10	4...6.3	2.2, 3	3010
MPE-14	6.3...10	4, 5	
MPE-16	10...16	5.5, 9	3500
MPE-20	16...20	11	3740
MPE-22	20...25	12.5	4025



Accessories of MPE Range

HSN Code : 8538

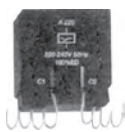
Reference	Contacts	MRP [₹]
Auxiliary	Switch	
MPA-0010	1NO	395
MPA-0001	1NC	
MPA-0011	1NO + 1NC	
MPA-0020	2NO	600
Enclosures (IP55)		
MPA-EF	Flush mounted	840
MPA-ES	Surface mounted	935
Voltage Releases		
MPA-U ■	Under Voltage Release	1295
MPA-S ■	Shunt Release	

■ A: 110 VAC, K: 240 VAC, M: 415 VAC, U: 24 VAC, R: 42 VAC

HSN Code : 8538

Reference	Tap-o *	MRP [₹]
Bus Bar		
MPA-BB245	2 Tap-o (45mm)	615
MPA-BB345	3 Tap-o (45mm)	775
MPA-BB445	4 Tap-o (45mm)	935
MPA-BB545	5 Tap-o (45mm)	1025
MPA-BB263	2 Tap-o (63mm)	615
MPA-BB463	4 Tap-o (63mm)	925
MPA-BB1	Incoming Block	560

*centre to centre distance.



MS32 range (0.1 to 32A)

- Auxiliary switch for side mounting & flush mounting
- Indication of release with trip indicating auxiliary switch

HSN Code : 8536



Cat ref	Setting range (A)	Motor rating in KW at 415V	MRP [₹]
MS32-0.16	0.1-0.16	-	2565
MS32-0.25	0.16-0.25	0.06	
MS32-0.4	0.25-0.4	0.09	
MS32-0.63	0.4-0.63	0.12 to 0.18	2740
MS32-1.0	0.63-1.0	0.18 to 0.25	
MS32-1.6	1.0-1.6	0.37 to 0.55	2795
MS32-2.5	1.6-2.5	0.75	2940
MS32-4.0	2.5-4	1.1 to 1.5	3015
MS32-6.3	4-6.3	2.2	
MS32-10	6.3-10	3 to 4	3425
MS32-14.0	9-14	5.5	
MS32-18	13-18	7.5	3565
MS32-23	17-23	9 to 11	3890
MS32-27	20-27	11	4230
MS32-32	25-32	15	6355



Accessories - MS32 range

HSN Code : 8538

Cat ref	type	Contacts	MRP [₹]
HS11	Aux contact side mounting	1NO+1NC	610
HSV10	Aux contact top mounting	1NO	530
HSV01		1NC	
HRS10	Trip indicating block top mounting	1NO	385
HRS01		1NC	
MS32-UR	Under voltage release	-	1380
MS32-AR	Shunt release	-	

Note: For further details, please contact nearest sales office

Solid State Relay BCH

Solid State Relays (SSR)

Single Phase SSR's for Heating Applications

SC9 Series 1-Phase ZERO CROSS Without LED HSN Code : 8536



- Electronic Switching of loads - silent operation
- Life Over 100 million operations
- High Switching Frequency
- Ideal for dusty & corrosive atmosphere
- Impact & Vibration resistant
- Direct compatibility with PLC
- LED Indication as option

Cat. No.	MOQ	AC51 Rating	I ² t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941110L	5	12A	72	600V AC	12-280V AC	4-30V DC	1320
SC942110L	5	25A	288	600V AC	12-280V AC	4-30V DC	1545
SC944110L	5	40A	612	600V AC	12-280V AC	4-30V DC	1990

MOQ - Minimum Order Qty.

SC9 Series 1-Phase ZERO CROSS With LED HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I ² t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941160L	5	12A	72	600V AC	12-280V AC	4-30V DC	1330
SC942160L	5	25A	288	600V AC	12-280V AC	4-30V DC	1570
SC944160L	5	40A	612	600V AC	12-280V AC	4-30V DC	2025
SC945160L	5	50A	1500	600V AC	12-280V AC	4-30V DC	4140
SC947160L	5	75A	5000	600V AC	12-280V AC	4-30V DC	4610

MOQ - Minimum Order Qty.

SC9 Series 1-Phase ZERO CROSS With LED HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC962160L	5	25A	265	1200V AC	24-600V AC	5-30V DC	5585
SC965160L	5	50A	1500	1200V AC	24-600V AC	5-30V DC	7030
SC967100	2	75A	5000	1200V AC	24-600V AC	5-30V DC	10440

MOQ - Minimum Order Qty.



Innovation - Performance-Design

- Removable IP20 flaps.
- Only 29 mm height.
- Designed for all types of loads.
- TMS² Technology with very long life expectancy.
- Control Status LED.
- Very low zero cross level.
- UL/cUL, VDE (EN60950), IEC/EN60947-4-3, CE marking

SO9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO942560*	2	25A	600	600V AC	12-280V AC	7-30V DC	3525
SO963460*	2	35A	1250	1200V AC	24-600V AC	3.5-32V DC	4220
SO945460*	2	50A	2500	600V AC	12-280V AC	3-32V DC	4465
SO965460*	2	50A	2800	1200V AC	24-600V AC	3.5-32V DC	4705
SO967460*	2	90A	7200	1200V AC	24-600V AC	3.5-32V DC	5425

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Solid State Relay BCH



SU9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SU942460*	44	25A	600V AC	12-280V AC	3-32V DC	On Request
SU963460*	44	35A	1200V AC	24-600V AC	3.5-32V DC	On Request
SU965460*	44	50A	1200V AC	24-600V AC	3.5-32V DC	2650
SU967460*	44	75A	1200V AC	24-600V AC	3.5-32V DC	2850

*Non Stock items, allow 4-6 weeks delivery time.

SU Range

- Designed for resistive load
- With pluggable connector on input
- IP20 protection with Removable
- For mounting on Heat sink or panel mount
- Over voltage protection on input
- Control Status LED
- Very low zero cross level
- Quick and easy connection



Single Phase SSR's for Capacitor Control Applications SO8 Series 1-Phase With LED

in okpac® Housing IP20 Protection

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO842074*	2	25A	600	600V AC	12-275V AC	3-32V DC	4300
SO863070*	2	35A	1250	1200V AC	24-510V AC	3.5-32V DC	4750
SO845070*	2	50A	2500	600V AC	12-275V AC	3-32V DC	5090
SO848070*	2	95A	14400	600V AC	12-275V AC	3-32V DC	7660
SO889060*	2	125A	24000	1600V AC	24-600V AC	3.5-32V DC	20355

*Non Stock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Single Phase SSR's for Motor Control Applications

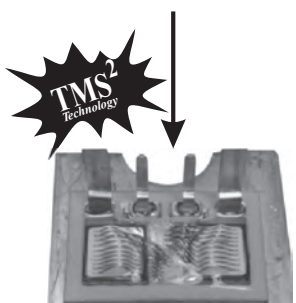
SC7 Series 1-Phase Without LED (Random Switching)

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I ² t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC741110L	5	12A	2.5A	72	600V AC	12-280V AC	4-30V DC	1300
SC761110L	5	12A	2.5A	72	1200V AC	24-520V AC	5-30V DC	1935
SC742110L	5	25A	5A	312	600V AC	12-280V AC	4-30V DC	1535
SC762110L	5	25A	5A	265	1200V AC	24-520V AC	5-30V DC	2745
SC744110L	5	40A	9A	612	600V AC	12-280V AC	4-30V DC	2965
SC764110L	5	50A	12A	1500	1200V AC	24-520V AC	5-30V DC	6205
SC767110L	5	75A	16A	5000	1200V AC	24-520V AC	5-30V DC	10625
SC768110L	5	95A	20A	11000	1200V AC	24-520V AC	5-30V DC	10960
SC769110L	5	125A	30A	20000	1200V AC	24-520V AC	5-30V DC	17670

MOQ - Minimum Order Qty.

Direct Copper Bonding Technology



- Fewer joints, fewer layers results in better thermal characteristics
- Extremely low temperature rise ensures long life

SO7 Series 1-Phase With LED in okpac® Housing IP20 Protection (Random Switching)

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO745090	2	50A	12A	2500	600V AC	12-275V AC	3-32V DC	5980
SO767090	2	75A	16A	7200	1200V AC	24-510V AC	3.5-32V DC	8780
SO768090	2	95A	20A	14400	1200V AC	24-510V AC	3.5-32V DC	10295
SO769090	2	125A	30A	24000	1200V AC	24-510V AC	3.5-32V DC	15100

*Non Stock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Solid State Relay BCH

Three Phase SSR's SVT Series 3-Phase With LED (ZERO CROSS) IP20 Protection

HSN Code : 8536



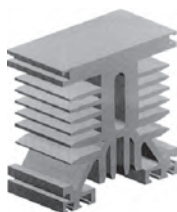
- IP20-RC and VDR Protection
- Designed for all types of load
- Thyristor technology

Cat. No.	MOQ	AC51 Rating	AC53 Rating	$I^2t(A^2S)$	Peak Voltage	Operating	Control Voltage	MRP [₹]
DC CONTROL								
SVT861394	2	12A	2.5A	72	1200V AC	24-520V AC	8.5-30V DC	18795
SVT864374	2	50A	12A	1500	1200V AC	24-520V AC	10-32V DC	22930
SVT868394E	2	95A	24A	5000	1200V AC	24-520V AC	8.5-30V DC	24050
SVT869394	2	125A	32A	20000	1200V AC	24-520V AC	8.5-30V DC	28525
AC CONTROL								
SVT864994	2	50A	12A	1500	1200V AC	24-520V AC	90-240V AC	24050
SVT967960	2	75A	-	1500	1200V AC	24-520V AC	90-240V AC	27070
SVT869994	2	125A	32A	20000	1200V AC	24-520V AC	90-240V AC	29640

MOQ - Minimum Order Qty.



Common IP20 Protective Cover for SC series SSR.



Heat Sink - 65 mm

- Wide range of Heat sinks offers perfect coordination with all SSRs

Accessories for SSR HSN Code : 8538

Cat. No.	MOQ	Description	MRP [₹]
SC1K4600	20	IP20 Cover SC*	35
SCHS6 DIN	20	Din Clip	135
SCHS2200	5	Heat Sink 2.2K/W	850
SCHS1100	5	Heat Sink 1.1 K/W	2765
SCHS0900	5	Heat Sink 0.9 K/W	3270
SCHS0300	5	Heat Sink 0.3K/W	5335

*IP20 Protective Cover for complete SC range
Refer to nearest branch office for heat sink selection

Suggested Heat Sink Rth values (K/W) for load rating at diff. Ambient Temperature

SSR Rating (A)	25°C	35°C	45°C	55°C
12A	2.2	2.2	2.2	1.1
25A	1.1	1.1	0.3	0.3
40A	0.3	0.3	0.3	0.3
50A	0.3	0.3	0.3	0.3
75A	0.3	0.3	0.3	0.3
95A	0.3	0.3	0.3	-
125A	0.3	0.3	-	-

* For Heat Sink Selection of S07 / S08 / S09 / SG4 / SG5 ranges refer to nearest sales office

Note: Apply heat sink compound between SSR base and external heat sink. In case of closely packed units the ambient temperature condition should be considered carefully. For proper protection, short-circuit protection device (SCPD) (having I^2t rating lower than that of SSR I^2t) must be used.

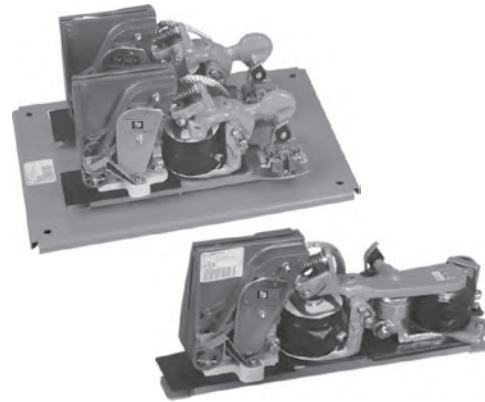
DC Contactors

BCH

DC Mill Duty Contactor

HSN Code : 8536

No. of poles	(A)	Auxilliary Contacts	Cat. No.	MRP [₹]
50 Amperes				
Single pole Normally Open	15A	2NO+2NC	912x1522	On request
	25A	2NO+2NC	912x2522	On request
	50A	2NO+2NC	912x5022	26555
Double pole Normally Open	15A	2NO+2NC	D912x1522	On request
	25A	2NO+2NC	D912x2522	On request
	50A	2NO+2NC	D912x5022	57085
Mechanically Interlocked 2 Nos. SP NO	15A	2NO+2NC	M912x1522	On request
	25A	2NO+2NC	M912x2522	On request
	50A	2NO+2NC	M912x5022	63310
150 Amperes				
Single pole Normally Open	150A	2NO+2NC	914x22	45345
Double pole Normally Open	150A	2NO+2NC	D914x22	97220
Mechanically Interlocked 2 Nos. SP NO	150A	2NO+2NC	M914x22	102600
Single pole Normally Closed	150A	1NO+1NC	924x11	46705
NEW Double Pole Normally Closed	150A	2NO+2NC	D924x22	99100
Single pole Normally Open with Holdout Coil #	150A	1NO+1NC	934x11=/#	49160
Single pole Normally Open with AC Blow out Coil	150A	2NO+2NC	974x22	57490
300 Amperes				
Single pole Normally Open	300A	2NO+2NC	915x22	65845
Double pole Normally Open	300A	2NO+2NC	D915x22	140230
Mechanically Interlocked 2 Nos. SP NO	300A	2NO+2NC	M915x22	145800
Single pole Normally Closed	300A	1NO+1NC	925x11	66180
NEW Double Pole Normally Closed	300A	2NO+2NC	D925x22	142955
Single pole Normally Open with Holdout Coil #	300A	1NO+1NC	935x11=/#	71455
Single pole Normally Open with AC Blow out Coil	300A	2NO+2NC	975x22	83260



- From 50 A to 600 A
- Conforms to NEMA Standards
- Ready to use mechanically interlocked version
- Normally closed version
- Hold on coil for time delay
- Mechanical life : 20 million operation
- Electrical life : 1 million operation

Unique Arc quenching system with blow out coils for switching heavy duty loads

DC Mill Duty Contactor

HSN Code : 8536

No. of poles	(A)	Auxilliary Contacts	Cat. No.	MRP [₹]
600 Amperes				
Single pole Normally Open	600A	2NO+2NC	916x22	146750
Double pole Normally Open	600A	2NO+2NC	D916x22	304715
Mechanically Interlocked 2 Nos. SP NO	600A	2NO+2NC	M916x22	309650
Single pole Normally Closed	600A	1NO+1NC	926x11	150845
Single pole Normally Open with Holdout Coil#	600A	1NO+1NC	936x11=/#	186440
Single pole Normally Open with AC Blow out Coil	600A	2NO+2NC	976x22	191890

- # For 934 / 935 / 936 with holdout coil use hold out suffix code from table on page no.37
- For coil voltage refer table on page no.37
- * 150, 300 & 600 Amps replace 'x' by 'y' for surface mounting rear connection, 'z' for elevated mounting rear connection
- * Add Rs. 3010/- for AC Control

Double Pole DC Mill Duty Contactor

HSN Code : 8536

A	Auxilliary Contacts	Cat. No.	Unit Price [₹]
150A	2NO+2NC	954x22	Contact Branch office for Price
300A	2NO+2NC	955x22	

DC Mill Duty Contactors - Spares

HSN Code : 8538

Description	Qty. Reqd.	50A		150A		300A		600A	
		Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
DC Arc Chute Assy. Consisting of a. LHArc Shield b. RHArc Shield c. DC Blow Out Arc Horn d. DC Blow Out Arc Piece e. DC Blow Out Spacer Assy. f. Polarity Wire g. Latch Strips (Top & Bottom) h. Hardware for Polarity Wire & Latch	1 Set	9C9J101*	13445	9C9P101	23030	9C9T101	33390	9C9V101	72685
AC Arc Chute Assy. Consisting of a. LHArc Shield b. RHArc Shield c. AC Blow Out Pole Piece d. AC Blow Out Spacer Assy. e. Polarity Wire f. Latch Strips (Top & Bottom) g. Hardware for Polarity Wire & Latch	1Set	-	-	9C9P102	On request	9C9T102	On request	9C9V102	On request
Fixed & Moving Contacts	1 Set	9C9J105	2915	9C9P105	4010	9C9T105	6515	9C9V105	17730
Contact Lever with Braid (for Single Pole)	1 No.	9C9J106	3550	9C9P106	5790	9C9T106	7665	9C9V106	13300
Contact Lever with Braid (for Double Pole) [†]	1 No.	9C9J106	3550	9C9P106	5790	9C9T106	7665	9C9V103	13300
Set of Armature Spares Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin	1 Set	9C9J107	1260	9C9P107	1750	9C9T107	2525	9C9V107	3670
Set of Armature Spares for 924, 925, 926 Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin f. Armature spring g. Spring retaining washer	1 Set	-	-	9C9P108	2135	9C9T108	3170	9C9V108	4550
Set of Armature Spares for 934/935/936 Consisting of a. Adjusting pin b. Contact lever spring c. Contact lever hinge pin d. Armature hinge pin e. Armature securing pin f. Armature spring g. Spring retaining washer h. Adjusting screw	1 Set	-	-	9C9P109	2550	9C9T109	3770	9C9V109	4830
Terminal Block	1	9C9J110	1625	9C9P110	2135	9C9T110	2990	9C9V110	3735
No Volt Coil for 912, 914, 915, 916, 934, 935 & 936 **Suffix voltage code	1	9C9J111■	6035	9C9P111■	9230	9C9T111 ■	12145	9C9V111 ■	20930
No Volt Coil for 924, 925, 926 **Suffix voltage code	1	-	-	9C9P112 ■	12145	9C9T112 ■	18870	9C9V112 ■	30485
Coil clamp for 914 & 934	1	-	-	9C9P118	230	-	-	-	-
Coil clamp for 924, 915, 935, 916 & 936	1	-	-	9C9P118	230	9C9T118	230	9C9V118	On request

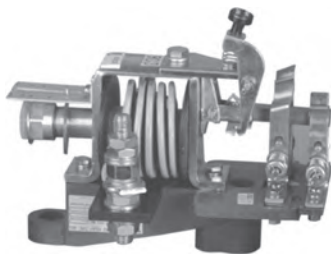
■ Suffix coil voltage code from table on page 37
■ Please add Rs. 3010 for AC control

* Only item a to e is supplied in this set
† For two Poles, need to order for 2 Nos.

DC Mill Duty Contactors - Spares & Accessories HSN Code : 8538

Description	Cat. No.	MRP [₹]
1NO+1NC Auxilliary Contact Block	AC10E11	5350
2NO Auxilliary Contact Block	AC10E20	5350
2NC Auxilliary Contact Block	AC10E02	5350
Single unit driver with mounting plate (50A)	9C9J115	On request
Double unit driver with mounting plate (50A)	9C9J116	On request
Single unit driver with mounting plate (150-600A)	9C9P116	On request
Double unit driver with mounting plate (150-600A)	9C9P117	On request
Hold out coil for 934, 935 & 936	9C9P113-#	14660
Condenser 50 + 50uF for 934, 935 & 936	9C9P114	910
Mechanical interlock for 150/300/600A	AC10M4/M8/M12	5965
Rectifier 110/240 V	SP30R	3010

Suffix hold out coil code from table



- Magnetic Operated Overload relay for heavy duty applications
- From 1.5A to 600A
- Instantaneous and Time delay tripping
- Manual and automatic resetting
- 1NO + 1NC Contacts

Hold Out Coil Suffix table - 934/935/936

Hold out coil type	Voltage	Suffix code
494-2	100/125	2
494-7	400/450	7
492-12	100/125	12
494-43	200/250 & 400/550	43

DC Magnetic Overload Relays *

HSN Code : 8536

Cat. No.	Coil No.	Continuous Rating	Range Amps	MRP [₹]
B3A23	159-10	2.8	1.5 to 3.5	15545
B3B23	159-5	3.9	3 to 7	
B3C23	159-4	5.4	5 to 13	
B3E23	159-3	10.9	8 to 24	
B3F23	159-2	16.9	10 to 30	
B3G23	159-1	21.9	20 to 40	
B3H23	159-8	34.9	25 to 65	
B3J23	159-6	50.0	35 to 75	18215
B3K23	179-39	69.0	40 to 120	
B3L23	179-38	109.0	70 to 190	
B3M23	179-37	179.0	100 to 300	19860
B3N23	179-36	250.0	200 to 600	
B3Y23	179-36.2	199.0	200 to 600	24160
B3P23		549.0	300 to 900	
B3R23		500.0	500 to 1500	

* With 1NO + 1NC Contacts

Coil Voltage table - DC Mill Duty Contactor

		24V	48V	55V	110V		220V	240V	250V
PRODUCT		DC	DC	DC	AC	DC	DC	AC	F1
DC CONTACTOR	912X	U1	-	Q1	A1R	A1	B1	K1R	F1
	914;934X	U1	W1	Q1	A1R	A1	B1	K1R	F1
	935X;924;915	U1	W1	Q1	A1R	A1	B1	K1R	F1
	925	-	-	-	-	A1	B1	K1R	F1
	916&936	U1	W1	Q1	A1R	A1	B1	K1R	F1
	D912-D916	-	W1	-	A1R	A1	B1	K1R	F1

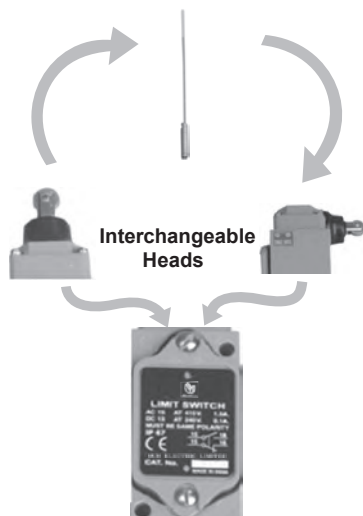
1. For other coil voltages, please contact nearest sales office
2. AC control is not available for 934, 935, 936 versions.
3. For ordering spare coils for D912, D914, D915 and D916 Contactors, please order coils with 50% voltage rating as that of control voltage.
Example to order coils for D914 X 22B1 (which is a 220V DC DP Contactor), please order spare coils with 110V DC rating.

Heavy Duty Limit Switch - Snap Action Type NL IP 67

HSN Code : 8536

Type	Description	Cat. No. Screw Terminal (1NO+1NC)	MRP [₹]	Cat.No. Precabled (1NO+1NC)	MRP [₹]	Cat. No. Screw Terminal (2NO+2NC)	MRP [₹]	Cat. No. Precabled (2NO+2NC)	MRP [₹]
Roller Lever	Standard-38MM Standard-76.2mm Adjustable	NLL1 NLL2 NLLA	1625	NLL1C NLL2C NLLAC	1765	NLL1-22 NLL2-22 NLLA-22	2480	NLL1-22C NLL2-22C NLLA-22C	2570
	Maintained Type Maintained Type Maintained Type	NLL1M NLL2M NLLAM	1825	NLL1MC NLL2MC NLLAMC	1910	NLL1M-22 NLL2M-22 NLLAM-22	2745	NLL1M-22C NLL2M-22C NLLAM-22C	2795
Push Roller	Top Side	NLTPR	1625	NLTPRC	1765	NLTPR-22	2480	NLTPR-22C	2570
		NLSPR	1780	NLSPRC	1910	NLSPR-22	2675	NLSPR-22C	2795
Push Button	Top Adjustable Side Adjustable	NLTPBA	1625	NLTPBAC	1765	NLTPBA-22	2415	NLTPBA-22C	2570
		NLSPBA	1780	NLSPBAC	1910	NLSPBA-22	2675	NLSPBA-22C	2795
Cat Whisker	Nylon Rod Steel Rod	NLCW	1425	NLCWC	1530	NLCW-22	2360	NLCW-22C	2480
		NLJW	1625	NLJWC	1735	NLJW-22	2480	NLJW-22C	2570
Fork Type	Roller in same line Offset Rollers	NLLF NLLFO	1825	NLLFC NLLFOC	1910	NLLF-22 NLLFO-22	2750	NLLF-22C NLLFO-22C	2795
	Roller in same line Maintained Offset Rollers Maintained	NLLFM NLLFOM	2135	NLLFMC NLLFOMC	2220	NLLFM-22 NLLFOM-22	2975	NLLFM-22C NLLFOM-22C	3030

- IP 67 degree of Protection
- Choice of 16 Operating Heads
- Interchangeable heads ensures complete modularity and flexibility
- Zinc Die cast body for Heavy duty applications
- Easily replaceable contact blocks
- Precabled version with 2m cable length





Mini Limit Switch NEW

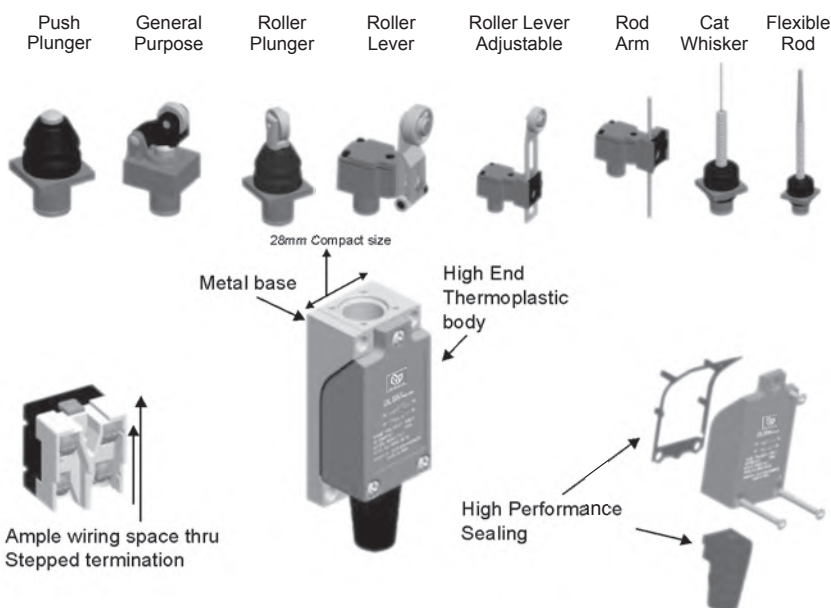
HSN Code : 8536

Type		Cat. No.	MRP [₹]
General Purpose Type		DLSMAR	1065
Top Plunger	Standard	DLSMPP	
Push Roller	Standard	DLSMRP	
	Cross	DLSMRPX	
Roller Lever	39mm	DLSMRL	1105
	Adjustable	DLSMRLA	
Rod Arm	Adjustable	DLSMJWA	1170
Cat's Whisker	Steel Spring	DLSMSW	
Flexible Rod	Nylon	DLSMSR	

Applications

- Lifts and Escalators
- Machine Tools
- Food and Beverages
- Textile Machines
- Packaging & Printing Machines

Available Operating Heads



Precision Limit Switch

HSN Code : 8536

- Conforming to IEC 60947-5-1
- Compact Design requiring less mounting space
- Zinc Die cast base & high end polyamide cover ensuring robustness & excellent aesthetics
- Unique Cross bar contacts for enhanced reliability
- Dust proof, Water proof & Oil resistance construction
- Snap action contacts
- Frequency of operation 7200 Opms / hr

1NO+1NC			2NO+2NC		Lot Size
Type of Operator	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	
Roller Lever	PSRL-L or R	645	PSRL-L-2 or R-2	775	1
Six Inch Lever	PSSIL-L or R		PSSIL-L-2 or R-2		
Top Push Roller	PSTPR*		PSTPR*-2		
Top Push Button	PSTPB		PSTPB-2		
Type	Cat. No	MRP [₹]	Cat. No	MRP [₹]	Lot Size
Spare Contact Block	SP20S1	605	SP20S2	760	

*A or B

Limit Switches

BCH

Limit Switch for 125°C Application*

HSN Code : 8536

Type	Cat. No.	MRP [₹]
with 1NO + 1NC Roller Lever Top Push Roller	LL1-150S-M LTPR-150S-M	On Request

*Refer to our nearest sales office for specification & details

Heavy Duty General Purpose Limit Switch

HSN Code : 8536

Snap Action Type L	Angular Roller Top Plunger	LLGS LPGS	1075
-----------------------	-------------------------------	--------------	------

Oil Tight Limit Switch - Snap Action Type L IP 65

HSN Code : 8536

Type	Description	Cat. No.	MRP [₹]
Roller Lever	Standard-38MM	LL1	2305
	Standard-76.2mm	LL2	
	Adjustable	LLA	
	Maintained Type LL1	LL1M	2405
	Maintained Type LL2	LL2M	
	Maintained Type LLA	LLAM	
Push Roller	Top	LTPR	2255
	Side	LSPR	2535
Push Button	Top Adjustable	LTPBA	2445
	Side Adjustable	LSPBA	
Cat Whisker	Nylon Rod	LCW	1845
	Steel Rod	LJW	2295
Fork Type	Roller in same line	LLF	2075
	Offset Rollers	LLFO	2075
	Roller in same line	LLFM	2425
	Maintained		
	Offset Rollers	LLFOM	2425
	Maintained		

Oil Tight Limit Switch - Spares

HSN Code : 8538

Description	Suitable for	Cat. No.	MRP [₹]
38 mm lever	NLL1, LL1	SP40L1	360
76.2 mm lever	NLL2, LL2	SP40L2	455
Adjustable lever	NLLA, LLA	SP40LA	455
Operating Head	LLGS, LPGS	SP40HLG	665
Operating Head	Lever	SP40HL	715
Operating Head	Top	SP 40HTP*	715
	Plunger	SP 40HSP*	800
Operating Head	Cat Whisker	SP40CW	490
	Steel Rod	SP40JW	665
Limit Switch Unit Assembly 1NO+1NC	Type 'L' & 'NL' (Except LLGS / LPGS)	SP40S1	1025
Limit Switch Unit Assembly 2NO+2NC		SP40S2	1695
Limit Switch Unit Assembly 1NO+1NC	LLGS / LPGS	SP40S1WOM	665
Fork lever in Line	LLF	SP40LF	555
Fork lever Offset	LLFO	SP40LFO	555
Operating Head Maintained	Lever	SP40HLM	830
Oil tight Conduit	Type 'NL'	SP40CE	390

* B = Button R = Roller

Foot Switch & Push Button 30.5mm..... BCH

HSN Code : 8536



Number of Contact Blocks	Total contacts available	No. of position	Description	Cat. No.	MRP [₹]	Lot Size
One	1NO+1NC	2	With Guard	FSGX1	3730	1
One	1NO+1NC	2	With Latch	FSGX1L	3930	
One	2NO+2NC	2	With Guard	FSGX2	4055	
One	2NO+2NC	2	With Latch	FSGX2L	4230	
Two	2NO+2NC	2	With Guard	FSGY1	4575	
Two	2NO+2NC	2	With Latch	FSGY1L	4870	
Two	4NO+4NC	2	With Guard	FSGY2	5340	
Two	4NO+4NC	2	With Latch	FSGY2L	5440	
Two	2NO+2NC	3	With Guard	FSGZ1M	4655	
Two	4NO+4NC	3	With Guard	FSGZ2M	5325	

Note : Latching unit (with suffix L) is provided with X & Y versions only.

Spares for Foot Switch

HSN Code : 8538

Description	Suitable For	Cat No.	MRP [₹]
Spare Contact Block 1NO+1NC	FSG	SP20S1	605
Spare Contact Block 2NO+2NC	FSG	SP20S2	760
Spare Cover with Guard	FSG	SP20CG	1495

- 2 Position and 3 Position
- 1NO+1NC/2NO+2NC/4NO+4NC contact blocks
- With Guard
- Oil tight and water tight enclosure for contact block
- Mechanical and electrical life : 10 million operation
- Suited for heavy duty applications such as : Machine Tools, Rubber and Tyre making machines, SPMs, Welding Machines
- Suffix X1 = One Block of 1NO+1NC, X2 = One Block of 2NO+2NC, Y1 = Two Blocks of 1NO+1NC, Y2 = Two Blocks of 2NO+2NC

Oil Tight Push Button & Indicating Lights - 'Type T' E 30.5 mm

HSN Code : 8536



Range

- Non illuminated and illuminated
- Flush
- Extended
- Mushroom head
- Lever and key type selector switch
- Indicators-Direct/Resistor/Transformer type
- Conforms to EN/IEC-60947-5/IS-13947-5

Features

- Protection degree - IP65
- Rugged construction
- Ideal for motor control centers and control panels
- Proven time tested design

Type	Description	Cat. No.	MRP [₹]	HSN Code	Lot Size	
Actuator	Standard flush Button Red Green Black Yellow Blue Orange White	TSFB-R TSFB-G TSFB-B TSFB-Y TSFB-BL TSFB-O TSFB-W	205	8536	20	
	Long Button Red Green Black Yellow Blue Orange White	TLB-R TLB-G TLB-B TLB-Y TLB-BL TLB-O TLB-W	205	8536	10	
	Mushroom Head -Spring return Red -Spring return Green -Turn to release Red -Turn to release Green	TMH-R TMH-G TMHL-R TMHL-G	270 270 295 295	8536	10	
	Selector Actuator -2 or 3 position	TSSA ***	540	8536	10	
	Cylindrical Lock -2 or 3 positions	TCL ***	785	8536	10	
	Station	Start/Stop Pushbutton	E20EA	925	8536	1
	Contact Block	1NO +1NC	050N1	265	8536	20
		2NO	050N2			
		2NC	050N3			
	Aluminium Diecast Enclosure	One button	TEN-1	895	8536	1
Two buttons		TEN-2	1025			
Three buttons		TEN-3	1390			
HSN Code : 8538						
Accessories	Wrench for retaining ring Plug for hole Legend plate	TWN TPL 050L^	265 115 50	8538	1	

Note: * Position-2 or 3 • Function M-maintained, S-Springreturn ■ Cam code 1/2/3 ^ Suffix Legend Code

Push Button 30.5mm..... BCH

Oil Tight Indicating Light - E 30.5mm HSN Code : 8536

Description	Application	Cat. No.	List Price [₹]	HSN Code	Lot Size
(Without lens) Direct type	AC & DC	TILD•10	385	8536	1
Transformer type	AC	TILT•10	485	8536	1
HSN Code : 8538					
Polycarbonate Lens	-	LENS*	55	8538	10
Spare Bulb	AC & DC	SP61L#	65		1

* Lens available in colours given below # Suffix voltage code lamp

Accessories for indicating light - E 30.5mm HSN Code : 8538

Description	Cat. No.	List Price [₹]	HSN Code	Lot Size
Signal lamp transformer	TR ■	265	8538	10

Voltage Code (Direct type lamps)

Volts	6	12	24	48	110	220	240	415
Code	*	*	U	*	A	B	K	M

Voltage Code (Transformer type lamps)

Volts	110/6	110/24	220/6	240/24	415/6
Code	A	*	*	K/U	*

* Available on request

Suffix Colour Code - 30.5 mm

Colour	Suffix	Colour	Suffix
Red	1P	Yellow	5P
Green	2P	Clear	7P
Blue	3P		
Amber	4P		

Legend Plate - Suffix Code for E30 & 22.5

Inscription	Start	Stop	Inch	Forward	Reverse	UP	Down	Slow	Fast	Raise	Left	Motor Run	Motor Stop	Overload Tripped	Overload Reset	Power On
Suffix code Type T (30.5mm)	1	2	3	4	5	6	7	9	10	11	-	-	-	-	-	-
Suffix code E22 (22.5mm)	34	35	14	07	41	40	04	33	06	-	18	22	23	30	31	32

Inscription	Stop Reset	Test	Trip	Lower	Off	On	Jog	Emergency Stop	Reset	High	Run	Close	Open	Blank	On-Off
Suffix code Type T (30.5mm)	-	-	-	12	13	14	15	16	17	19	20	21	22	23	28
Suffix code E22 (22.5mm)	36	37	38	-	24	26	-	05	-	12	-	03	27	01	-

Push Button 22.5mm BCH

Push Button & Indicating Lights - 22.5 mm



HSN Code : 8536



Description	Type	Cat. No.	MRP [₹]	Lot Size	
Push Button Actuators with Mounting Adaptor	Opaque	Flush	HEA11*M	95	10
		Extended	HEA12*M	100	
	Illuminated**	Flush	HEB11*M	140	
		Extended	HEB12*M	145	
	Mushroom Head 28mm Colour - Red/Black	Momentary	HEA21*M	125	10
		Twist to Release	HEA23*M	175	
		Stayput Key Release	HEA25*M	345	
		Mushroom Head 40mm Colour - Red/Black	Momentary	HEA22*M	
Twist to Release	HEA24*M		195		
Light Source Units (LSU)	Basic Unit with Mounting Adaptor	Lamp Holder & Lens	HPL22*	85	
	LSU with Bulb-Direct Type	6/12/24/48/60/110V ac/dc	HLSUD#	90	
	LSU with Bulb-Resistance Type ■	110V ac/dc & 240V ac	HLSUR#	100	
LED Indicating Light	Standard 6/12/24/48/60/110/240/415V ac*** 6-60V ac/dc; 110 & 240V dc	Color - R/Y/G/A	HFB2X*#	190	10
		Blue	HFB2XL#	385	1
		Clear	HFB2XC#	535	1
	Universal 24-240V ac/dc	Color - R/Y/G/A	HFB2X*UH4	255	
		Blue	HFB2XLUH4	480	
	Surge Protected 12-60V ac/dc; 110/240/415V ac; 110/240V dc	Color - R/Y/G/A	HFB2S*#	250	10
		Blue	HFB2SL#	410	1
		Clear	HFB2SC#	575	1
	Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2P*□	285	10
		Blue	HFB2PLH	510	1
	Surge & Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2SP*□	290	10
		Blue	HFB2SPLH	515	1
Selector Operators with Mounting Adaptor	Selector Key Operator (Color - Black)	2pos Maintained	Pls refer Ordering Sequence & Circuit Combination Table for exact Cat. Ref.	315	1
		2pos Spr Ret R>L		315	
		3pos Maintained		330	
		3pos Spr Ret L>C		330	
		3pos Spr Ret R>C		330	
		3pos Spr Ret L>C<R		330	
	Selector Knob or Lever Opaque	2pos Maintained		245	
		2pos Spr Ret R>L		245	
		3pos Maintained		260	
		3pos Spr Ret L>C		260	
		3pos Spr Ret R>C		260	
		3pos Spr Ret L>C<R		260	
	Selector Knob or Lever Illuminated •	2pos Maintained		275	
		2pos Spr Ret R>L		275	
		3pos Maintained		285	
		3pos Spr Ret L>C		300	
		3pos Spr Ret R>C		300	
		3pos Spr Ret L>C<R		300	

* Colour Code Table 1 # Voltage Code Table 2 @ For extended bulb version, use code HLSUTE#
 ■ Not suitable for illuminated push button types
 ** Light Source Unit (LSU) needs to be ordered separately.
 *** LED indicating light (standard) 550VAC, Prices are available on request.

Push Button 22.5mm

BCH

Push Button - 22.5 mm



HSN Code : 8536



Description	Type	Cat. No.	MRP [₹]	Lot Size
Contact Block		1NO	HCB10	85
		1NC	HCB01	
	Early Make	1NO	HCB10EM	On request
	Late Break	1NC	HCB01LB	
		1NO+1NC	HCB11	140
		2NO	HCB20	

Ordering Sequence for Selector Operators

H	E				M
		A - Opaque ; B - Illuminated	Table 3 - Position/Cam	Table 4 - Type	Table 1 Color

HSN Code : 8538

SELECTION CRITERIA FOR 3 POSITION SELECTOR OPERATOR CAM:

Description	Type	Cat. No.	MRP [₹]	Lot Size
Spares & Accessories	Filament Bulb	Normal Bulb	9ED2#	45
	Filament Bulb	Extended Bulb	9ED3#	45
	Mounting Adaptor		HMR	45
	Lens for Indicating Lamp		H8ED1*	45
	Knob for Illum. Selector Actuator		H9ED1K*	45
	Lever for Illum. Selector Actuator		H9ED1L*	45
	Legend Plate with Std Inscription	Flush/Extended PB	8EA9 +	45
	Rubber Boot for IP66 Protection		HRB*	55
	Padlock to Prevent Operation		8EA1	75

Selector Operators with CAM1 :

- When the Selector operator lever / knob is moved to the left side, it operated the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates the right side contact block.

Selector Operator with CAM2 :

- When the Selector operator lever / knob is moved to the left side, it operates the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates **both the right side contact block and the left side contact blocks.**

* Color Code Table 1 # Voltage Code Table 2 + See Suffix code table on page 42

Suffix Code Tables

Table 1		
Applicable for	(*) Color	Code
Opaque, Illuminated	Red	R
Opaque, Illuminated	Yellow	Y
Opaque, Illuminated	Green	G
Opaque, Illuminated	Blue	L
Opaque	Black	B
Illuminated	Amber	A
Opaque	White	W
Illuminated	Clear	C

Table 3	
Selector Operator Version	Code
Sel. Lever 2 pos	8L
Sel. Key 2 pos	8Y
Sel. Knob 2 pos	8K
Sel. Lever 3 pos Cam1	6L
Sel. Key 3 pos Cam1	6Y
Sel. Knob 3 pos Cam1	6K
Sel. Lever 3 pos Cam2	7L
Sel. Key 3 pos Cam2	7Y
Sel. Knob 3 pos Cam2	7K

Table 4		
Applicable for	Type	Code
Selector Operator	Maintained in All Position	D
Selector Operator	Spring Return Right>Centre	R
Selector Operator	Spring Return Left>Centre	T
Selector Operator	Spr. Return Left>Centre<Right	S

Suffix Code Tables

Table 2		
Applicable for	(*) Voltage	Code
LSU, LED	6V AC/DC (DIRECT)	P4
LSU, LED	12V AC/DC (DIRECT)	S4
LSU, LED	24V AC/DC (DIRECT)	U4
LSU, LED	48V AC/DC (DIRECT)	W4
LSU, LED	60V AC/DC (DIRECT)	Y4
LSU	110V AC/DC (DIRECT)	A4
LSU	110V AC/DC (RESISTOR)	A4
LED	110/120V AC	E
LED	110/120V DC	E1
LED	220/240V AC	H
LED	220/240V DC	H1
LSU	110V/6V (TRANSFORMER)	AP
LSU	110V/24V (TRANSFORMER)	AU
LSU	240V/6V (TRANSFORMER)	KP
LSU	240V/24V (TRANSFORMER)	KU
LSU	415V/6V (TRANSFORMER)	MP
LSU	415V/24V (TRANSFORMER)	MU
LED	415V AC	M
LED	220/240V AC (DIODE+RESISTOR)	H

Note : Key type Sel Operator available in Opaque version & Black color only.

AC Solenoids & Brakes BCH

GST to be charged extra

AC Solenoid - Pull Type

HSN Code : 8505



Type	Suitable for	Stroke Length mm	Max. Pull at rated voltage Kg.	Cat. No.	List Price [₹]
B	S-42	25.0	1.25	SLB■	3645
D	S-51, S-71 S-52, S-72	31.4	6.75	SLD■ SLD2■	5385
E	S-250	40	10	SPSLEM	11820

* The standard coil voltages are 110, 220 & 415 V 50 Hz. AC



AC Solenoid Brake - Type S

GST to be charged extra

HSN Code : 8505

Type of Brake	Wheel dia.		Max. Torque		Duty	Brake		Drum	
	Inch	Inch	Lb. ft.	Nm		Cat No.	List Price [₹]	Cat No.	List Price [₹]
S-4	4	101.6	10	13.6	Continuous	S-42■	9605	AC50D4	1635
S-5	5.5	139.7	25 35	34.0 48.0	Continuous Intermittent	S-51■ S-52■	13560	AC50D5	2260
S-7	7	177.8	50 75	68.0 102.0	Continuous Intermittent	S-71■ S-72■	15725	AC50D7	2600
S-250	9.84	250	109	147.0	Continuous	S-2501M	33255	AC50D25	5260

- The standard coils are 110, 220 & 415 V 50 Hz. AC

■ To complete Cat. No. suffix voltage code given below

- Brake drums are of standard specification

- For Intermittent duty (S-250 brake), please contact branch office

Range

- Solenoids:
 - Type : SLB - 25 mm stroke length
 - Type : SLD - 31.4 mm stroke length
- AC Brakes
 - 4" Dia
 - 5.5" Dia
 - 7" Dia
- Drums

Features

- Class F insulation of the coil
- Continuous & Intermittent duty
- Long life & ease of maintenance
- Ideally suited for applications such as :
 - Cranes
 - Hoists
 - Machines
 - Valves
 - Conveyers

AC Solenoid Brakes - Voltage Codes

Coil Voltage	110	220	415
AC	A	B	M

Spares For AC Solenoid Brake

GST to be charged extra

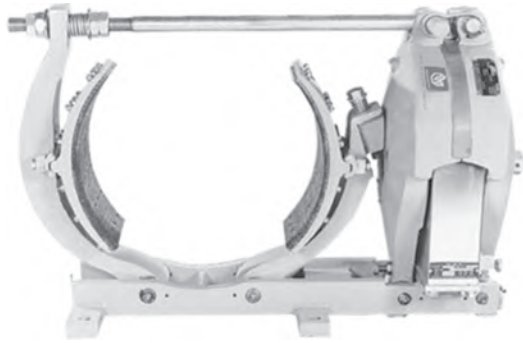
HSN Code : 8505

Description	Brake Size : 4"		Brake Size : 5.5"		Brake Size : 7.0"		Brake Size : 10"	
	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
Brake lining	SP50L1	1225	SP50L2	1820	SP50L3	2440	SP50L4	4785
Brake shoe Assembly*	SP50SA1	3420	SP50SA2	4410	SP50SA3	7280	SP50SA4	14665
Brake Coil -Continuous -Intermittent	SP50MC01	1765	SP50MC21■ SP50MC22■	3520	SP50MC21■ SP50MC22■	3520	SP50MC31■	9310

* Brake shoe assembly is with lining.

■ To Complete Cat. No. suffix voltage code is given in table, above.

***GST to be charged extra on all AC Brakes & Brake Spares**



- Shunt and Series type versions in sizes :
 - 8 Inch to 30 Inch
 - 160 mm to 800 mm
- Conforms to NEMA and AISE Standards
- Fail safe operation
- Unique design for maximum torque and minimum shoe wear
Brakes equivalent to Russian 'TK Π' design also available
- **Resistance & rectifier Panel available with option of 'Fuse' or 'MCB' protection**

Proven and time tested

New

Heavy duty encapsulated coil with class 'F' insulation

Optional Features

- Limit Switch Attachment
- Manual Release
- Residual magnetism adjustment

GST to be charged extra

HSN Code : 8505

DC Electromagnetic Brakes

Drum Size	Cat No.	Shunt Type Torque		Resistance & Rectifier Panel (with fuse protection) ⁺			
		Torque KG-M	List Price [₹]	Single Brake		2 Brakes Simult. Operation	
				Cat No.	List Price [₹]	Cat No.	List Price [₹]
150mm	SMH150	8	41580	CACS1*MAE	43670	CACS2*MAE	60665
160mm	SMH160						
8"/200mm	SMH8	13.8	48945	CACA1*MAE	48680	CACJ2*MAE	63085
	SMH200	13.8					
10"/250mm	SMH10	27.7	60090	CACB1*MAE	51655	CACK2*MAE	71015
	SMH250	27.7					
13"/300mm	SMH13	76.0	98375	CACC1*MAE	55700	CACL2*MAE	82695
	SMH300	76.0					
16"/400mm	SMH16	138.8	158345	CACD1*MAE	64135	CACM2*MAE	89865
	SMH400	138.8					
19"/500mm	SMH19	277.0	253080	CACE1*MAE	77550	CACN2*MAE	113535
	SMH500	277.0					
23"/600mm	SMH23	555.0	404025	CACF1*MAE	99995	CACP2*MAE	143645
	SMH600	555.0					
30"/700mm	SMH30	1242.0	899725	CACG1*MAE	394775	-	-
	SMH700	1242.0					
800mm	SMH800	1242.0	974810	CACG1*MAE	394775	-	-

* For control supply i.e. A=110 V, B=220 V, K =240V and M=415 V AC

1. DC Electromagnetic Brakes are suitable to operate on:
 - For AC Power - Resistance & Rectifier Panel
 - For DC Power - Series Resistance Box

+ For Panel with MCB protection use the suffix '- MCB'
eg. For 200mm single operation brake panel with MCB protection,
Cat code will be CACA1*MAE-MCB

Prices of 'Brakes with Asbestos free liners' available on request.

- All Brakes are Supplied for Continuous Duty
- Resistance & Rectifier Panel is supplied without transformer.
- Control Transformer (Optional) can be supplied at extra cost.
Please add Rs. 5435/- per unit with the LP of Resistance & Rectifier Panel. Please add 'TR' with respective panel cat. ref. to obtain final cat. Code of such panel with control transformer.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes**

DC Brakes BCH

GST to be charged extra

Resistance Boxes for DC Electromagnetic Brakes

HSN Code : 8505

Suitable for Shunt Type		Permanent Series Resistance Box for 230 V DC Supply For Single Brake		Permanent Series Resistance Box for 230 V AC Supply For Single Brake		Permanent Economy Resistance Box for 415 V AC Supply For Single Brake		Permanent Economy Resistance Box for 415 V AC Supply For Double Brake	
Cat No.	Torque KGM	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
SMH150 / SMH160	8	CDCS101D	5790	CARS10KE	5295	CARS10ME	10690	CARS20ME	On request
SMH8 / SMH200	13.8	CDCA101D CDIA101D*	6010	CARA10KE	5470	CARA10ME	10690	CARA20ME	On request
SMH10 / SMH250	27.7	CDCB101D CDIB101D*	7130	CARB10KE	6300	CARB10ME	10690	CARB20ME	On request
SMH13 / SMH300	76.0	CDCC101D CDIC101D*	8230	CARC10KE	7475	CARC10ME	12235	CARC20ME	On request
SMH16 / SMH400	138.8	CDCD101D CDID101D*	8810	CARD10KE	8030	CARD10ME	14220	CARD20ME	On request
SMH19 / SMH500	277.0	CDCE101D CDIE101D*	9430	CARE10KE	8605	CARE10ME	15785	CARE20ME	On request
SMH23 / SMH600	555.0	CDCF101D CDIF101D*	10745	CARF10KE	9670	CARF10ME	16970	CARF20ME	On request
SMH30 / SMH700	1242.0	CDCG101D CDIG101D*	26030	-	-	CARG10ME	29280	-	-
SMH800	1242.0	CDIG101D*	26030	-	-	CARG10ME	29280	-	-

1. DC Electromagnetic Brakes are suitable to operate on:
 For AC Power - Resistance & Rectifier Panel
 For DC Power - Series Resistance Box

- All Brakes are Supplied for Continuous Duty
 * These cat. references are meant for intermittent duty

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes BCH

GST to be charged extra

Series Type - DC Electromagnetic Brakes

HSN Code : 8505

Brake Size	Motor Frame No. (Max.)	Half Hour Rating			One Hour Rating			List Price [₹]
		Torque KGM	Max. FLC (A)	Cat. No.	Torque KGM	Max. FLC (A)	Cat. No.	
8"/200mm	402,802A	13.8	29	SME8H1 SME200H1	8.97	21	SME801 SME20001	100840
	403, 602, 802B		44	SME8H2 SME200H2		31	SME802 SME20002	On request
10"/250mm	404,603,802C,	27.7	57	SME10H1 SME250H1	18.0	40	SME1001 SME25001	143875
	406,604,803		77	SME10H2 SME250H2		57	SME1002 SME25002	On request
13"/300mm	408,606,804	76.0	126	SME13H1 SME300H1	49.4	95	SME1301 SME30001	194930
	410,608,806		176	SME13H2 SME300H2		132	SME1302 SME30002	On request
16"/400mm	412,610,808	138.8	245	SME16H1 SME400H1	90.2	185	SME1601 SME40001	305075
19"/500mm	414,612,810	277.0	368	SME19H1 SME500H1	180.0	272	SME1901 SME50001	468670
	416,614,812		500	SME19H2 SME500H2		360	SME1902 SME50002	On request
23"/600mm	418,616,814	555.0	740	SME23H1 SME600H1	361.0	540	SME2301 SME60001	758260
	618,816		960	SME23H2 SME600H2		730	SME2302 SME60002	On request

- During ordering, besides brake drum dia, please confirm duty rating, current rating & motor frame Nos.
- Above current ratings are for 230 V DC Series Motors.
- To convert KGM to LB.FT. multiply by 7.25

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

GST to be charged extra

Series & Accessories - DC Electromagnetic Brakes

HSN Code : 8505

Description	150/160mm		8"/200mm		10"/250mm		13"/300mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDS01	28335	9GDA01	30875	9GDB01	36725	9GDC01	59240
 Coil Series for inch for mm	-	-	9GDA02/ 9GDA03	74660	9GDB02/ 9GDB03	117025	9GDC02/ 9GDC03	151345
 Torque Adj. Screw Assembly	9GDS04	2695	9GDA04	2810	9GDB04	2810	9GDC04	4900
 Torque Spring	9GDS05	7340	9GDA05	7670	9GDB05	9055	9GDC05	14670
 Wedge Assembly with Bolt, Spring and Washers for inch/mm	9GDS20/ 9GDS22	1040	9GDA20/ 9GDA22	1195	9GDB20/ 9GDB22	1390	9GDC20/ 9GDC22	2120
 Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. b) Pin armature 2 Nos.	9GDS06	3700	9GDA06	3880	9GDB06	3880	9GDC06 9GDC06-2#	4900
 Coller Set of Lever & Armature Consisting of a) Coller Lever 4 Nos. a) Coller Armature 4 Nos.	9GDS07	3700	9GDA07	3880	9GDB07	3880	9GDC07	4650
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. a) Bush Armature 4 Nos.	9GDS08	7340	9GDA08	7700	9GDB08	7700	9GDC08	8390
 Pull Rod Assembly with nuts, spring & washer	9GDS29	3000	9GDA29	3140	9GDB29	3880	9GDC29	5970
 Grease Nipple (1 set consist 8 Nos.)	9GDS09	1040	9GDA09	1105	9GDB09	1105	9GDC09	1110
 * Shoe Assembly with Clamp & Bolts (1 set consist 2 Nos.) for inch/mm	9GDS10/ 9GDS11	7645	9GDA10/ 9GDA11	7610	9GDB10/ 9GDB11	9445	9GDC10/ 9GDC11	14670
 * Shoe Lining without Bolts for inch for mm (1 set consist 2 Nos.)	9GDS12/ 9GDS13	2585	9GDA12/ 9GDA13	2695	9GDB12/ 9GDB13	3390	9GDC12/ 9GDC13	4900
 * Shoe Lining with Bolts for inch for mm (1 set consist 2 Nos.)	9GDS23/ 9GDS26	3500	9GDA23/ 9GDA26	3880	9GDB23/ 9GDB26	4900	9GDC23/ 9GDC26	7000
 Dust Cover (made of jeans cloth & painted with fire reterdent al. paint).	-	-	9GDA30	4315	9GDB30	4315	9GDC30	5140
 mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDS14	8355	9GDA14	9200	9GDB14	14160	9GDC14	23870
 mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDS14P	11290	9GDA14P	13165	9GDB14P	20560	9GDC14P	34590
 Cast Steel Drum without Hard Chrome Plaiting* for inch	-	-	9GDA15	9535	9GDB15	14680	9GDC15	24820
 Cast Steel Drum with Hard Chrome Plaiting* for inch	-	-	9GDA15P	13690	9GDB15P	20780	9GDC15P	36000

* For brakes manufactured upto September 07. # For brakes manufactured after September 07 (pins are different).

* Prices of 'Asbestos free' Shoe Assembly / Shoe Lining without Bolt / Shoe Lining with Bolt available on request.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

GST to be charged extra

Spares & Accessories - DC Brakes

HSN Code : 8505

Description	16"/400 mm		19"/500 mm		23"/600 mm		30"/700 mm/800mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDD01	89700	9GDE01	124355	9GDF01	198720	9GDG01	443140
 Coil Series for inch for mm	9GDD02 9GDD03	222680	9GDE02 9GDE03	290465	9GDF02 9GDF03	449005	-	-
 Torque Adj. Screw Assembly	9GDD04	7320	9GDE04	10440	9GDF04	16690	9GDG04	34970
 Torque Spring	9GDD05	22545	9GDE05	31200	9GDF05	51660	9GDG05	110885
 Wedge Assembly with Bolt, for inch Spring and Washers for mm	9GDD20/ 9GDD22	2810	9GDE20/ 9GDE22	4220	9GDF20/ 9GDF22	6625	9GDG20/ 9GDG22	14690
 Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. for inch for mm b) Pin Armature 2 Nos.	9GDD06* 9GDD06-2#	5970	9GDE06* 9GDE06-2#	5970	9GDF06* 9GDF06-2#	8390	9GDG06 ⁺⁺	25405
 Collar Set of Lever & Armature Consisting of a) Collar Lever 4 Nos. b) Collar Armature 4 Nos.	9GDD07	4650	9GDE07	4565	9GDF07	5705	9GDG07 ⁺	9370
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. b) Bush Armature 4 Nos.	9GDD08	8585	9GDE08	8995	9GDF08	11510	9GDG08 ⁺⁺	20480
 Pull Rod Assembly with nuts, spring & washer	9GDD29	9055	9GDE29	12530	9GDF29	16840	9GDG29	44070
 Grease Nipple (1 set consist 8 Nos.)	9GDD09	1135	9GDE09	1965	9GDF09	1965	9GDG09	2165
 Shoe Assembly with Clamp & Bolts for inch (1 set consist 2 Nos.) for mm	9GDD10/ 9GDD11	22580	9GDE10/ 9GDE11	31240	9GDF10/ 9GDF11	49945	9GDG10/ 9GDG11 9GDG11A ⁺⁺⁺	110885 115915
 Shoe Lining without Bolts for inch (1 set consist 2 Nos.) for mm	9GDD12/ 9GDD13	7680	9GDE12/ 9GDE13	12530	9GDF12/ 9GDF13	18540	9GDG12/ 9GDG13 9GDG13A ⁺⁺⁺	35045 36745
 Shoe Lining with Bolts for inch (1 set consist 2 Nos.) for mm	9GDD23/ 9GDD26	9445	9GDE23/ 9GDE26	15630	9GDF23/ 9GDF26	24290	9GDG23/ 9GDG26 9GDG26A ⁺⁺⁺	43345 47085
 Dust Cover (made of jeans cloth & painted with fire reterdent al. paint).	9GDD30	5560	9GDE30	6880	9GDF30	7215	-	-
 mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDD14	29840	9GDE14	47925	9GDF14	67580	-	-
mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDD14P	44435	9GDE14P	70005	9GDF14P	103385	-	-
 Cast Steel Drum without Hard Chrome Plaiting* for inch	9GDD15	31120	9GDE15	50170	9GDF15	69430	-	-
Cast Steel Drum with Hard Chrome Plaiting* for inch	9GDD15P	46440	9GDE15P	73400	9GDF15P	108340	9GDG15P	183560

* For brakes manufactured upto September 07. # For brakes manufactured after September 07 (pins are different).

+ Consist of strap, Brass Shim & spring Plate ++ Only for Armature +++ Suitable for 800mm

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

Spares - DC Brakes BCH

GST to be charged extra

Spare Selenium Type Bridge Rectifiers

HSN Code : 8505

Rectifier Code / Part No.	Recommended to operate brake at 415V AC		Qty. per set	List Price [₹]
	Individual	Simultaneous		
9GDX01	1x8"/200mm	-	2	8705
9GDX02	1x10"/250mm	2x8"/200mm	2	13580
9GDX03	1x13"/300mm 1x16"/400mm	2x10"/250mm	2	18395
9GDX04	1x19"/500mm	2x13"/300mm 2x16"/400mm	2	24290
9GDX05	1x23"/600mm	2x19"/500mm	2	34645
9GDX06	-	2x23"/600mm	2	69330
9GDX07	1x30"/700 & 800mm	-	2	96130

GST to be charged extra

Spare Resistances

HSN Code : 8505

Used in resistance and rectifier panels	Cat. No.	Ohms	Watts	List Price [₹]
CACA1*, CACB1*, CACC1*, CACD1*, CACJ2*	9GDX32	32	200	1605
CACA1*, CACB1*, CACC1*, CACF1*, CACG1*, CACL2*, CACP2*, CACJ2*	9GDX42	42	200	
CACS2*	9GDX47	47	200	
CACB1*, CACE1*, CACF1*, CACG1*, CACJ2*, CACK2*, CACM2*, CACN2*	9GDX52	52	200	
CACS1*	9GDX64	64	100	
CACA1*, CACB1*, CACD1*, CACE1*, CACF1*, CACG1*, CACJ2*, CACK2*, CACM2*, CACN2*, CACP2*	9GDX80	80	200	
CACA1*, CACD1*, CACK2*, CACL2*	9GDX112	112	200	
CACS1*, CACS2*	9GDX112A	112	125	

GST to be charged extra

Optional Features - DC Brakes

HSN Code : 8505

Brakes Size		Manual Release List Price [₹]	Residual Magnetism Adjustment List Price [₹]	Limit Switch Attachment List Price [₹]	
Inch	mm			1NO+1NC (LSA)	2NO+2NC (LSA-2)
8	150/160/200	3595	3415	6940	7315
10	250	3595	4005		
13	300	4925	5960		
16	400	5285	8895		
19	500	8140	12230		
23	600	11505	13940		

Note : Suffix following codes to complete brakes code with optional features.

- MR = For Manual Release
- RM = For Residual Magnetism
- LS = For Limit Switch (1NO+1NC)
- LS-1 = For Limit Switch (2NO+2NC)
- RR = For Manual Release + Residual Magnetism
- RL = Residual Magnetism + Limit Switch
- ML = For Manual Release + Limit Switch
- RS = For Manual Release + Residual Magnetism + Limit Switch

To order Spare Limit Switch assembly, cat codes are:

- LSA = Limit Switch with fitting Arrangement (1NO + 1NC)
- LSA -2 = Limit Switch (2NO + 2NC) with fitting Arrangement

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**



Metal Clad - Plugs & Sockets Type 'MP' & 'MS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Plug	MP20	195
		Socket	Ms20	215
30A, 440V	3P + E	Plug	MP30	460
		Socket	Ms30	460



Plastic Plugs & Socket Type 'PS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	3	Plug	PS16AA7	210
		Flush Mounting Socket	PS16BA7	295
		Socket with Wall Mounting Box	PS16DA7	360
20A, 415V	4	Plug	PS16AA1	260
		Flush Mounting Socket	PS16BA1	385
		Socket with Wall Mounting Box	PS16DA1	450
32A, 415V	3	Plug	PS32AA7	480
		Socket	PS32BA7	480
	4	Plug	PS32AA1	505
		Socket	PS32BA1	505
	5	Plug	PS32AA5	535
		Socket	PS32BA5	535

- Self Locking design : Extremely safe
- Plug cannot be pulled out in fully engaged position
- Auto closing socket shutter
- Reliable Earthing
- Shrouded Terminals for safety

Heavy duty Metal-Control 'SS'



Heavy Duty Metal - Control Plugs & Sockets Type 'SS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
12A, 415V (Control)	12	Panel Mounting Socket	2499/12	1390
		Plug with inclined Handle	299/12B	1255

Heavy duty Metal-Power 'SS'



Heavy Duty Metal - Power Plugs & Sockets Type 'SS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
30A, 415V	3	Panel Mounting Socket	2415B	695
		Plug with inclined Handle	215B	695
30A, 415V	4	Panel Mounting Socket	2413B	720
		Plug with inclined Handle	213B	720
30A, 415V	5	Panel Mounting Socket	2417B	755
		Plug with inclined Handle	217B	755

Note : *Loose Conduit Box Straight (Cat. No. 9J101) MRP - Rs. 250/- each

*Spare Handle Inclined (Cat. No. 9J108) MRP -Rs. 120/- each.

HSN Code : 8538

Plugs & Sockets BCH

Heavy Duty Metal Plug & Sockets Type 'DS' - 5 Pin (with Integral Switching Device)

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
16A, 415V	5	Plug	DS1A7A1	1050
		Socket	DS1B7A1	1305
		Handle Assembly	SP91PH	175
32A, 415V	5	Plug	DS3A7A1	1830
		Socket	DS3B7A1	2285
		Handle Assembly	SP93PH	185
63A, 415V	5	Plug	DS6A7A1	2920
		Socket	DS6B7A1	3805
		Handle Assembly	SP96PH	265
125A, 415V	5	Plug	DS9A7A1	8520
		Socket	DS9B7A1	11940
		Conduit Box	SP99WB	6155
		Handle Assembly	SP99PH	760

Note : Power Receptacles with or without SFU/SDFU/MCB/MCCB having loop-in / loop-out facility is available on request.

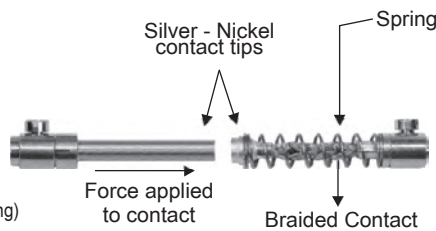


- Spring loaded Butt type contacts
- Self aligning and self wiping

Quick Disconnect



- Range from 16A to 125 A
- 5 Pin configuration (3P+N+E)
- Plug cannot come out in ON condition (Integral Interlocking)



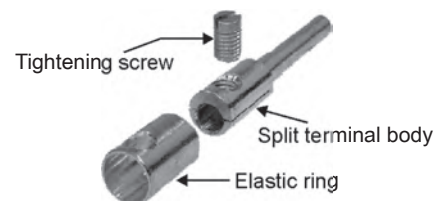
- Self aligning self wiping
- Spring loaded for consistent pressure
- Silver nickle material for extremely low temperature rise

Safety Disk



No access to live parts

Vibration proof termination



Plug & Socket Box BCH

Metal Clad - Plug & Socket Box Type 'MPSEU'

HSN Code : 8536

Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Universal	Plug & Socket Box - SP-MCB Cutout	MPSEU201	960
20A, 250V	2P + E	Universal	Plug & Socket Box - DP-MCB Cutout	MPSEU202	960
30A, 440V	3P + E	Universal	Plug & Socket Box - TPN-MCB Cutout	MPSEU301	2370



20A



30A

Plastic - Plug & Socket Box Type 'PSEU / PSEF'

HSN Code : 8536



Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	3	Universal	Plug & Socket Box with SP MCB Cutout	PSEU201	1120
			Plug & Socket Box with DP-MCB Cutout	PSEU202	1150
		Flush	Plug & Socket Box with SP MCB Cutout	PSEF201	1120
			Plug & Socket Box with DP-MCB Cutout	PSEF202	1150
32A, 415V	4	Universal	Plug & Socket Box with 4P MCB Cutout	PSEU324	2495
			5	PSEU325	2545
	4	Flush	Plug & Socket Box with 4P MCB Cutout	PSEF324	2495
			5	PSEF325	2545

Heavy Duty Metal - Plug & Socket Box Type 'SSEU'

HSN Code : 8536

Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU303-MCB1P	2820
			Plug & Socket Box with DP MCB Cutout	SSEU303	2820
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304	2890
			5	SSEU305	2955

Stainless Steel Cover Plug & Socket Box Type 'PSEU-SSC'/SSEU-SSC'

HSN Code : 8536

Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V 32A, 415V	3	Universal	P&S Box with 'PS' P&S and SP MCB Cutout	PSEU201-SSC	1435
			P&S Box with 'PS' P&S and 4P MCB Cutout	PSEU325-SSC	2915
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU303-SSC-MCB1P	3240
			Plug & Socket Box with DP MCB Cutout	SSEU303-SSC	3240
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304-SSC	3315
			5	SSEU305-SSC	3380

Pneumatic Timer



Timer for Railway Application



- 30 sec / 60 sec/180 sec
- AC and DC Supply
- 1 NO+1NC / 2 NO+2NC Contact Blocks
- Completely enclosed timing head ensures excellent timings in adverse environmental conditions
- Encapsulated coil for better resistance against moisture and corrosion
- Completely maintainable i.e Coil , Contact blocks and Timing head can be replaced
- Special timer for Railway application



Pneumatic Timers Time Delay Relay-Electro Pneumatic

HSN Code : 9107

Type	Time Range (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Time Block	Instantaneous Block		AC	DC
PN	0.05 - 30 Sec	1NO + 1NC	-	KRTPN10-0	3610	5410
	0.05 - 60 Sec	1NO + 1NC	-	KRTPN10-1	3735	5715
	0.05 - 180 Sec	1NO + 1NC	-	KRTPN10-3	4220	6235
	0.05 - 30 Sec	2NO + 2NC	-	KRTPN20-0	4055	5795
	0.05 - 60 Sec	2NO + 2NC	-	KRTPN20-1	4145	5865
	0.05 - 180 Sec	2NO + 2NC	-	KRTPN20-3	4455	6300
PNI	0.05 - 30 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-0	4400	6305
	0.05 - 60 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-1	5000	6880
	0.05 - 180 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-3	5465	6970
	0.05 - 30 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-0	5520	7195
	0.05 - 60 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-1	5580	7570
	0.05 - 180 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-3	5980	8005
Type	Time Range (Secs.)	On-Delay Block	Of-Delay Block	Cat No.	AC	DC
PCN	0.05 - 30 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-0	5965	7990
	0.05 - 60 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-1	6265	8055
	0.05 - 180 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-3	7115	8900
	0.05 - 30 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-0	6710	8765
	0.05 - 60 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-1	7025	8875
	0.05 - 180 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-3	7925	9675

PN, PNI Time Delay Relay will be supplied only as on-delay

- To complete Cat. No. Suffix Voltage code from Table

Timer for Railway Application

HSN Code : 9107

Type	Time (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Time Block	Instantaneous Block		AC	DC
PN	120	2NO + 2NC	-	KRTPN20A-2R	4345	-
	150	2NO + 2NC	-	KRTPN20A-3R	On request	-

Accessories for Time Delay Relay HSN Code : 9107

Description	Cat. No.	MRP [₹]	Lot Size
Contact Block			
1NO+1NC Timed	SP20S3+	820	1
2NO+2NC Timed	SP20S4+	1075	
1NO+1NC Inst.	SP20S5+	820	
2NO+2NC Inst.	SP20S6+	1075	
Magnet Coil			
AC-PN Relays	SP20MC-■	1015	1
AC-PNI & PCN Relays	SP20MC1-■	1015	
DC Relays	SP20MC2-■	3310	
Return Spring*			
(PNI & PCN)	SP20RS	190	1
Coil Clip*	SP20CC	305	
Magnet frame assembly without coil	SP20 MA/MA1	1685	1
Knob assembly	SP20KA	50	10

* These are supplied with plastic cover

* For DC Timers only

- To complete suffix voltage code refer to the table

- High Repeat Accuracy
- Operating Temperature - 40° to +65°
- Mechanical and Electrical Life - 10 million operations

Voltage Suffix Code

Coil Voltage	24	110	220	240	415
AC Suffix Code*	*	A	B	K	M
DC Suffix Code	U1	*	B1	K1	-

* KRTPN timers with 24V AC, 110V DC & 550V AC coil voltage, Prices available on request

Motor Starters BCH

Direct On Line Starters



- DOL upto 40 HP
- Heavy duty 4 Pole Contactor
- Wide Band Coil Voltages (190-400V, 230-420V, 220-240V, 380-415V)
- Encapsulated & Hermetically sealed coil
- Easy inspection & maintenance

Auto Start Direct on line Starters

- Automatically starts the Motor when the power comes back
- Upto 24 A relay rating
- Time delay before restart to settle power supply fluctuations
- Monitors power supply condition before restarting
- Protection against single phasing, phase imbalance & phase reversal



Star Delta Starters



- Semi Automatic upto 40 HP
- Fully Automatic upto 375 HP
- Wide Band Coil Voltages (230-360V, 260-400V, 380-415V)
- Single Phase & Overload Protection

Mini Manual Starters

- Range : 3 - Ph : upto to 10 HP
: 1 - Ph : upto 4 HP
- Proven time tested product
- Flush and base mounting



Mini Manual with UVT coil



- Automatic Version of Mini Manual Starter
- Prevents motor from restarting when power comes back
- Trips the starter automatically in low voltage conditions

Manual Star Delta Starters

- Contactor based superior design with 25 A heavy duty switch
- Momentary Star position ensures perfect transition
- Ideal for Oil Mills, Flour Mills and agro industries



Motor Starters - Shakti BCH

Shakti WP DOL Starter (190-400V AC Coil)

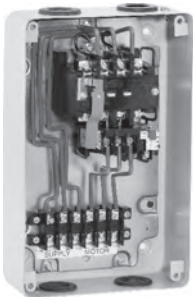
HSN CODE : 8536



Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]	
SAWPGZA	2.4 - 3.8	Shakti	12 A	2340	-	-	
SAWPHZA	3.8 - 6.0						
SAWPJZA	6.0 - 9.3						
SAWPGZ	2.4 - 3.8		20 A	2375	2330	SAWPGZI	2330
SAWPHZ	3.8 - 6.0					SAWPHZI	
SAWPJZ	6.0 - 9.3					SAWPJZI	
SAWPKZ	8.9 - 13.5					SAWPKZI	
SAWPLZ	13.2 - 20.0		2525	SAWPLZI	2440		
SAWPMZ	17.4 - 24.0		2655	SAWPMZI	2555		

Shakti WP DOL Starter (Big Enclosure + TB)

HSN CODE : 8536



Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SAWPKZ-BT	8.9 - 13.5	Shakti	20 A	3055
SAWPLZ-BT	13.2 - 20.0			3210
SAWPMZ-BT	17.4 - 24.0			3375

Shakti DOL Starter (190-400V AC Coil)

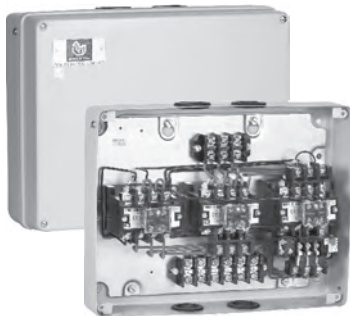
HSN CODE : 8536



Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]
SAGZ	2.4 - 3.8	Shakti	20 A	2530	SAGZI	2470
SAHZ	3.8 - 6.0				SAHZI	
SAJZ	6.0 - 9.3				SAJZI	
SAKZ	8.9 - 13.5			SAKZI	2705	
SALZ	13.2 - 20.0			SALZI		
SAMZ	17.4 - 24.0			SAMZI		2815

Shakti Semi Automatic Star Delta Starter with 260-400V AC Coil

HSN CODE : 8536



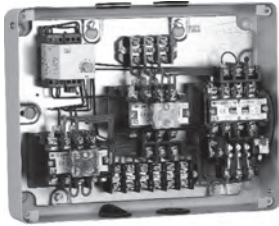
Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SASSGLEG	2.4 - 3.8	Shakti	16 A	7950
SASSHLEG	3.8 - 6.0			
SASSJLEG	6.0 - 9.3			
SASSKLEG	8.9 - 13.5			
SASSKLEG/LOR	13.2 - 20.0			8110
SASSKLEG-M	17.4 - 24.0			8380

For 380 - 415 V Coil Voltage replace Suffix 'G' by 'N'

Motor Starters - Shakti..... BCH

Shakti Fully Automatic Star Delta Starter with 260-400V AC Coil & Electronic Timer

HSN CODE : 8536



Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SASAGLEG	2.4 - 3.8	Shakti	16 A	8880
SASAHLEG	3.8 - 6.0			
SASAJLEG	6.0 - 9.3			
SASAKLEG	8.9 - 13.5			
SASAKLEG/LOR	13.2 - 20.0			9035
SASAKLEG/MOR	17.4 - 24.0			9290

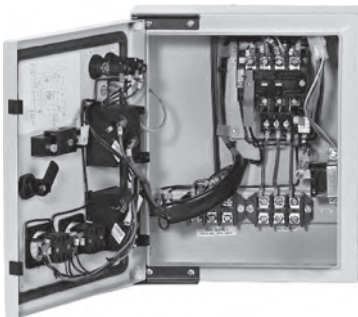
For 380 - 415 V Coil Voltage replace Suffix 'G' by 'N'

Shakti Auto-Start DOL Starter (With 5-Sec delay Auto Switch)

HSN CODE : 8536



3 Position Selection (Maunal - Manual SPP - Auto)	Description			MRP [₹]
Cat Code	Overload Relay Range (A)	Contactor Type	Contactor rating	
ASXGZ	2.4 - 3.8	Shakti	20 A	3980
ASXHZ	3.8 - 6.0			
ASXJZ	6.0 - 9.3			
ASXKZ	8.9 - 13.5			
ASXLZ	13.2 - 20.0			4175
ASXMZ	17.4 - 24.0			4415



Shakti DOL Submersible Pump Starter (with Auto Switch)

HSN CODE : 8536



3 Position Selection (Maunal - Manual SPP - Auto)	Description			MRP [₹]
Cat Code	Overload Relay Range (A)	Contactor Type	Contactor Rating	
CPEYSAGZ	2.4 - 3.8	Shakti	20 A	7100
CPEYSAHZ	3.8 - 6.0			
CPEYSAJZ	6.0 - 9.3			
CPEYSAKZ	8.9 - 13.5			
CPEYSALZ	13.2 - 20.0			7715
CPEYSAMZ	17.4 - 24.0			8120

For 380 - 415 V coil voltage replace suffix "Z" with "N" in the Cat. Code

For Auto switch with 5 min time delay option, kindly contact nearest sales office

Motor Starters - Citation B.C.H.

Citation DOL Motor Starter

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]
NADLEN	0.5 / 0.37	0.72 - 1.14	C00N	16 A	3375	NADLENI	3305
NAELEN	0.75 / 0.55	1.07 - 1.70				NAELENI	
NAFLEN	1 / 0.75	1.58 - 2.50				NAFLENI	
NAGLEN	2 / 1.5	2.4 - 3.8				NAGLENI	
NAHLEN	3 / 2.2	3.8 - 6.0				NAHLENI	
NAJLEN	5 / 3.7	6.0 - 9.3				NAJLENI	
NAKLEN	7.5 / 5.5	8.9 - 13.5				NAKLENI	
NALLEN	10 / 7.5	13.2 - 20.0			NALLENI	3460	
NALLEN/MOR	12.5 / 10	17.4 - 24.0	CP20	20 A	4290	NALLENI/MOR	4215

Citation DOL Motor Starter

(A) with NHD Contactor

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NAMLEN	15 / 11	17.4 - 24.0	N0N	25A	5360
NAMLEN/NOR	15 / 11	22.0 - 30.0	N0N	25A	5835
NAPLEN/MOR	15 / 11	17.4 - 24.0	N01N	32A	7250
NAPLEN	20 / 15	23.0 - 32.0	N01N	32A	7830
NANLEN	20 / 15	22.0 - 30.0	N1N	40A	8660
NAQLEN	25 / 18.5	26.0 - 40.0	N1N	40A	8800
NACT1LEN	25 / 18.5	24.4 - 39.0	N1N	40A	13290

(B) With Citation Contactor

Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NACT2LEDM	30 / 22	37.6 - 60.0	Citation D	40A	16430
NACT2LEEM	40 / 30	37.6 - 60.0	Citation E	70A	20590

Citation Semi Automatic Star Delta Starter with NHD Contactor

HSN CODE : 8536

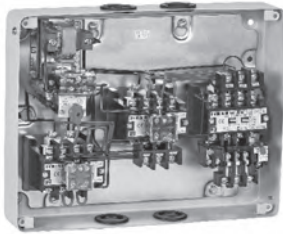


Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASSHLEN	5 / 3.7	3.8 - 6.0	C00N	16A	8285
NASSJLEN	10 / 7.5	6.0 - 9.3			
NASSKLEN	15 / 11	8.9 - 13.5			
NASSKLEN/LOR	15 / 11	13.2 - 20.0			8505
NASSLLEN	20 / 15	13.2 - 20.0	N0N	25A	12360
NASSMLEN	25 / 18.5	17.4 - 24.0			12435
NASSPLEN	25 / 18.5	23.0 - 32.0			13385
NASS01PLEN	35 / 26	23.0 - 32.0	N01N	32A	15465
NASS01QLEN	35 / 26	26.0 - 40.0	N01N	32A	15605
NASSNLEN	35 / 26	22.0 - 30.0	N1N	40A	22220
NASS01CT1LEN	40/30	24.4 - 39.0	N01N	32A	23225
NASSFRGCLEC4M	40/30	29.0 - 42.0 (FR)	C4	32A	25500

Note : For other Coil Voltages refer table on page 24

Citation Fully Automatic Star Delta Starter with NHD Contactor & Pneumatic Timers

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASAGLEN	3 / 2.2	2.4 - 3.8	C00N	16A	12300
NASAHLEN	5 / 3.7	3.8 - 6.0			
NASAJLEN	10 / 7.5	6.0 - 9.3			
NASAKLEN	15 / 11	8.9 - 13.5			
NASAKLEN/LOR	15 / 11	13.2 - 20.0	N0N	25A	12470
NASALLEN	20 / 15	13.2 - 20.0			
NASAMLEN	25 / 18.5	17.4 - 24.0			
NASAPLEN	30 / 22	23.0 - 32.0			
NASA01PLEN	35 / 26	23.0 - 32.0	N01N	32A	14890
NASANLEN	35 / 26	22.0 - 30.0	N1N	40A	17820
NASAQLEN	40 / 30	26.0 - 40.0			
NASACT1LEN	40 / 30	24.4 - 39.0			

Note : For other Coil Voltages refer table on page 24

Citation Fully Automatic Star Delta Starter with Citation M Contactor & Pneumatic Timers

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASACT1LEDM	40 / 30	24.4 - 39.0	D	40A	35950
NASACT2LEDM	50 / 37	37.6 - 60.0			
NASACT2LEEM	75 / 55	37.6 - 60.0	E	70A	36520
NASACT3LEEM	85 / 65	56.4 - 90.0			
NASACT3LEEC5M	100 / 75	56.4 - 90.0	M-5	110A	62440
NASACT4LEEC5M	135 / 100	84.6 - 135.0			
NASACT4LENM	150 / 110	84.6 - 135.0	N	140A	66410
NASACT5LEEC6M	250 / 185	131.6 - 210.0	S	300A	85625
NASACT6LEEC6M	375 / 280	188.0 - 300.0			

Note : For other Coil Voltages refer table on page 24

DOL Reversing Starter

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NARFLEN	1/0.75	1.58 - 2.50	C00N	16 A	8765
NARGLEN	2/1.5	2.4 - 3.8			
NARHLEN	3/2.2	3.8 - 6.0			
NARJLEN	5/3.7	6.0 - 9.3			
NARKLEN	7.5/5.5	8.9 - 13.5	N0N	25 A	10705
NARLLEN	10/7.5	13.2 - 20.0			
NARMLLEN	15/11	17.4 - 24.0	N1N	40 A	12000
NARNLEN	20/15	22.0 - 30.0			

Motor Starters - Citation..... BCH

Fully Automatic Automatic Star Delta Starter with Citation M Contactor, Pneumatic Timer & Electronic Over Current Relay with Ammeter & Voltmeter

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	EOCR Range (A)	Contactor Type (Citation)	Contactor Rating (A)	MRP [₹]
NASASS60LEDM-P	50 / 37	5-60 Amp	D	40A	40035
NASASS60LEEM-P	75 / 55	5-60 Amp	E	70A	66015
NASA2CTD1CLEM5M-P	100/ 75	0.5-6 Amp	M-5	110A	93500

Motor Starters - Freedom.....

Industrial DOL Starters with Freedom Contactor & Overload Relay

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
CEBFM	0.5/0.37	1.0-1.4	Freedom	9 A	2475
CEBGM	0.75/0.55	1.3-1.8	Freedom	9 A	
CEBHM	1.0/0.75	1.7-2.4	Freedom	9 A	
CEBJM	1.5/1.1	2.2-3.1	Freedom	9 A	
CEBKM	2.5/1.5	2.8-4.0	Freedom	9 A	
CEBMM	3.0/2.2	4.5-6.5	Freedom	9 A	
CEBPM	5.0/3.7	7.5-11	Freedom	9 A	
CECPM	5.0/3.7	7.5-11	Freedom	12 A	2535
CECQM	7.5/5.5	10-14	Freedom	12 A	
CEDQM	7.5/5.5	10-14	Freedom	18 A	3210
CEDRM	10/7.5	13-19	Freedom	18 A	

For other coil voltages, kindly refer coil master table on page 24

Wireless Modem.....



Wireless Modem (Compatible With The Complete BCH Starter Family)

HSN Code : 8517 62 30

Cat Code	Description	MRP [₹]
BCH-GSM	Wireless Modem	On request

1- Phase Mini Manual Motor Starter upto 4HP (Surface Mounting)

HSN CODE : 8536



Cat Code	Recommended HP 1Ø, 240V	Overload Relay Range (A)	MRP [₹]	Cat Code (with UV Coil)	MRP [₹]
AMLE-10-SP	-	0.23 - 0.47	1070	AMLEH-10-SP	1440
AMLE-20-SP	-	0.46 - 0.80		AMLEH-20-SP	
AMLE-30-SP	1 / 8	0.85 - 1.55		AMLEH-30-SP	
AMLE-40-SP	1 / 6	1.60 - 3.20		AMLEH-40-SP	
AMLE-50-SP	0.5 / 0.75	3.50 - 6.50		AMLEH-50-SP	
AMLE-60-SP	1 to 2	6.80 - 11.7		AMLEH-60-SP	
AMLE-70-SP	2 to 3	11.0 - 20.0		AMLEH-70-SP	

For flush mounting replace 'E' by 'C' and reduce price by ₹ 50

3- Phase Mini Manual Motor Starter upto 10 HP (Surface Mounting)

HSN CODE : 8536



Cat Code	Recommended HP at 3Ø, 415V	Overload Relay Range (A)	MRP [₹]	Cat Code (with UV Coil)	MRP [₹]
AMLE-10	-	0.23 - 0.47	1440	AMLEN-10	1655
AMLE-20	-	0.46 - 0.80		AMLEN-20	
AMLE-30	0.50 / 0.75	0.85 - 1.55		AMLEN-30	
AMLE-40	1.00 / 1.50	1.60 - 3.20		AMLEN-40	
AMLE-50	3	3.50 - 6.50		AMLEN-50	
AMLE-60	5	6.80 - 11.7		AMLEN-60	
AMLE-70	10	11.0 - 20.0		AMLEN-70	

For flush mounting replace 'E' by 'C' and reduce price by ₹ 50

1-Phase DOL with 2P CPG Contactor & 2P Overload Relay

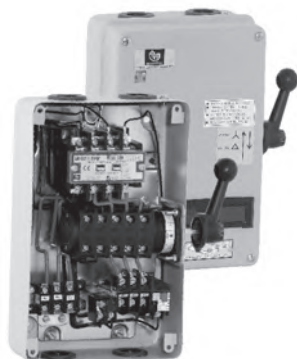
HSN CODE : 8536



Cat Code	HP / KW at 1Ø, 220V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NAAEBW-SP	-	1.07 - 1.70	2P CPG	12A	2045
NAAHBW-SP	0.75 / 0.55	3.8 - 6.0		16A	2070
NAHBW-SP	0.75 / 0.55	3.8 - 6.0		12A	2045
NAAJBW-SP	1 / 0.75	6.0 - 9.3		16A	2070
NAJBW-SP	1 / 0.75	6.0 - 9.3		20A	2170
NAKBW-SP	1.5 / 1.10	8.9 - 13.5		25A	2375
NAALBW-SP	2 / 1.5	13.2 - 20.0		2410	
NALBW-SP	2 / 1.5	13.2 - 20.0			
NAMBW-SP	3 / 2.2	17.4 - 24.0			

Manual Star Delta Starter (with 260-400V AC Coil)

HSN CODE : 8536



Cat Code	HP at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
HASSGLEG	3 HP	2.4 - 3.8	C00N	16 A	4740
HASSHLEG	5 HP	3.8 - 6.0			
HASSJLEG	10 HP	6.0 - 9.3	N0N	25 A	5390
HASSKLEG	15 HP	8.9 - 13.5			

HSN CODE : 8538

HASSW15	SPARE SWITCH FOR 15 HP MSD STARTER	2230
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Motor Starters (SPS) - Citation.....BCH

Submersible Pump Starters



Three Phase

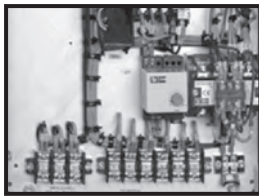
- Direct on line : upto 32 A relay rating
- Star Delta : upto 135 A relay rating
- Protections :
 - Phase failure
 - Phase imbalance
 - Phase reversal
- Short Circuit Protection Thru MCB : In case of Premium models
- Ammeter and Voltmeter
- On/Off and Trip indications
- Powder coated enclosure with PU gasket ensuring excellent finish and reliability
- Provision for connecting Dry run preventor



On/Trip Indicators



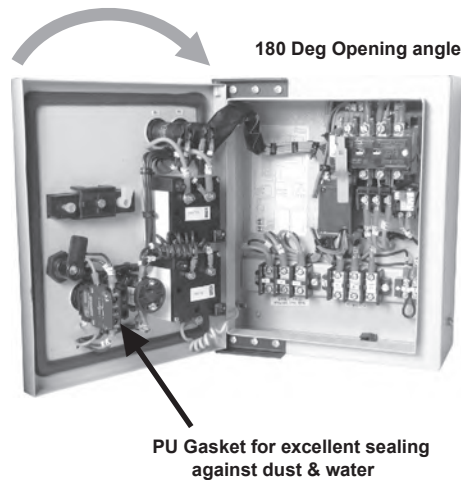
Isolated Terminal blocks for better termination



Properly laid down wires, bunched with cable ties Ferrules for ease of identification



Phase indicators (For std & Premium models)



180 Deg Opening angle

PU Gasket for excellent sealing against dust & water



Single Phase

With Mini DOL (up to 11.0 - 20.0 A Relay)

- Economy Model (Without Ammeter)
- Standard Model (With Ammeter)
- Premium Model (With Ammeter & Voltmeter)

With 2 Pole Contactor + 2 Pole Relay (up to 23.0 - 32.0 A Relay)

- Economy Model (With Ammeter)
- Standard Model (With Ammeter & Voltmeter)
- Provision for connecting dry run preventor

Motor Starters - Citation..... BCH

Citation Submersible Pump Starter with 3-Position Selection (with Auto Switch)



DOL

HSN CODE : 8536

Overload Relay Range (A)	Contactor Type	Contactor Rating	DOL			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
1.58 - 2.50	C00N	16 A	CPEYNAFN*	7700	--	
2.4 - 3.8	C00N	16 A	CPEYNAGN*			
3.8 - 6.0	C00N	16 A	CPEYNAHN*			
6.0 - 9.3	C00N	16 A	CPEYNAJN*		CPPYNAJN*	10745
8.9 - 13.5	C00N	16 A	CPEYNAKN*		CPPYNAKN*	
13.2 - 20.0	C00N	16 A	CPEYNALN*	8105	CPPYNALN*	11285
17.4 - 24.0	N0N	25 A	CPEYNAMN*	8805	CPPYNAMN*	12480
23.0 - 32.0	N01N	32 A	CPEYNA01PN	10015	--	

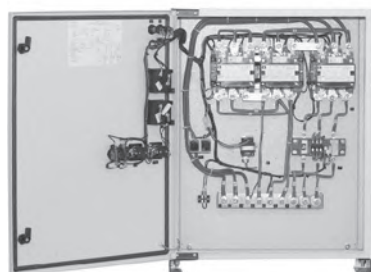


Citation Submersible Pump Starter with 3-Position Selection (with Auto Switch)

STAR DELTA

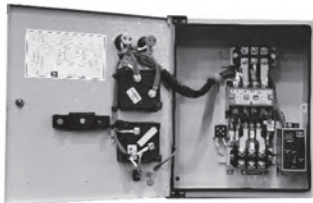
HSN CODE : 8536

Overload Relay Range (A)	Contactor Type	Contactor Rating	Star Delta			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
3.8 - 6.0	C00N	16 A	CPSDEYHN*	14320	--	
6.0 - 9.3	C00N	16 A	CPSDEYJN*		CPSPYJN*	17245
8.9 - 13.5	C00N	16 A	CPSDEYKN*		CPSPYKN*	
13.2 - 20.0	C00N	16 A	CPSDEYLN-C00	14575	--	
13.2 - 20.0	N0N	25 A	CPSDEYLN	16770	CPSPYLN	20030
17.4 - 24.0	CP20	20 A	CPSDEYMN-CP20	16170	--	
17.4 - 24.0	N0N	25 A	CPSDEYMN	17050	CPSPYMN	20895
23.0 - 32.0	N01N	32 A	CPSDEY01PN	22360	--	
22.0 - 30.0	N1N	40 A	CPSDEYNN	27855	CPSPYNN	30765
26.0 - 40.0	N1N	40 A	CPSDEYQN	28540	CPSPYQN	31500
24.4 - 39.0	N1N	40 A	CPSDEYCT1N	30255	CPSPYCT1N	35975
37.6 - 60.0	Citation E	70 A	CPSDEYCT2M	48035	CPSPYCT2M	54070
56.4 - 90.0	Citation E	70 A	CPSDEYECT3M	52265	--	
56.4 - 90.0	Citation M-5	110 A	CPSDEYCT3M	67585	CPSPYCT3M	71270
84.6 - 135.0	Citation M-5	110 A	CPSDEYCT4M	71010	CPSPYCT4M	77215



Citation Submersible Pump Starter DOL

HSN CODE : 8536

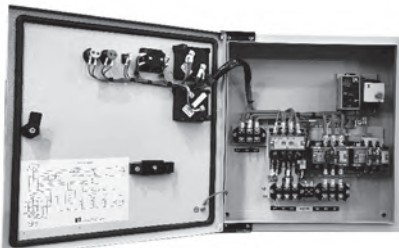


Type	Overload Relay Range (A)	Contactors Rating	Cat Code	Coil	MRP [₹]
CITATION P10	1.58 - 2.5	16 A	CPEYNBF*	N & G	On request
CITATION P10	2.4 - 3.8	16 A	CPEYNBG*	N & G	On request
CITATION P10	3.8 - 6	16 A	CPEYNBH*	N & G	On request
CITATION P10	6 - 9.3	16 A	CPEYNBJ*	N & G	On request
CITATION P10	8.9 - 13.5	16 A	CPEYNBK*	N & G	On request
CITATION P10	13.2 - 20	16 A	CPEYNBL*	N & G	On request
CITATION P10B	13.2 - 20	20 A	CPEYNBL2*	N & G	On request
CITATION P10H	17.4 - 24	25 A	CPEYNBM*	N & G	On request
CITATION P11	23 - 32	32A	CPEYNBP01*	N & WB	On request
CITATION P11	26 - 40	32A	CPEYNBQ01*	N & WB	On request
CITATION P12	26 - 40	40A	CPEYNBQ*	N & WB	On request

Citation Submersible Pump Starter

STAR DELTA

HSN CODE : 8536



Type	Overload Relay Range (A)	Contactors Rating	Cat Code	Coil	MRP [₹]
CITATION P20	6 - 9.3	16 A	CPSDEYNBJ*	N & G	On request
CITATION P20	8.9 - 13.5	16 A	CPSDEYNBK*	N & G	On request
CITATION P20	13 - 20	16 A	CPSDEYNBL*	N & G	On request
CITATION P20A	13 - 20	20 A	CPSDEYNBL2*	N, LV & G	On request
CITATION P20A	17.4 - 24	20 A	CPSDEYNBM2*	N, LV & G	On request
CITATION P20B	17.4 - 24	25 A	CPSDEYNBM*	N, LV & G	On request
CITATION P20B	23 - 32A	25 A	CPSDEYNBP*	N, LV & G	On request
CITATION P20H	22 - 30A	32 A	CPSDEYNB01N*	N & WB	On request
CITATION P20H	23 - 32A	32 A	CPSDEYNB01P*	N & WB	On request
CITATION P20H	26 - 40A	32 A	CPSDEYNB01Q*	N & WB	On request
CITATION P21	26 - 40A	40 A	CPSDEYNBQ*	N & WB	On request

Shakti DOL Submersible Pump Starter

HSN CODE : 8536



Type	Overload Relay Range (A)	Contactors Rating	Cat Code	Coil	MRP [₹]
SHAKTI P6	1.58 - 2.5	12 A	CPEYSBF*	Z & N	On request
SHAKTI P6	2.4 - 3.8	12 A	CPEYSBG*	Z & N	On request
SHAKTI P6	3.8 - 6	12 A	CPEYSBH*	Z & N	On request
SHAKTI P6	6 - 9.3	12 A	CPEYSBJ*	Z & N	On request
SHAKTI P10	8.9 - 13.5	20 A	CPEYSBK*	Z & N	On request
SHAKTI P10	13 - 20	20 A	CPEYSBL*	Z & N	On request
SHAKTI P10	17.4 - 24	20 A	CPEYSBM*	Z & N	On request

Motor Starters - Citation

BCH

1-Phase SPS With 2P Contactor + Overload Relay (Ammeter + Voltmeter) with 160-220V AC Coil

HSN CODE : 8536



HP at 1Ø, 220V, 50Hz	Overload Relay Range (A)	Contactor Rating	Cat Code	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]
0.5 / 0.75 HP	3.8 - 6.0	12 Amp	CPNSHBW-SPE	25	80/100	4065
			CPNSHBW-SP	25	80/100	4145
0.5 / 0.75 HP	3.8 - 6.0	16 Amp	CPNSHBW-SP(RC36)	36	80/100	4180
			CPNSHBW-RC25-SC120	25	100/120	4280
			CPNSHBW-RC30-SC200	30	150/200	4840
1 HP	6.0 - 9.3	12 Amp	CPNSJBW-SPE	36	100/120	4155
			CPNSJBW-SP	36	100/120	4285
1 HP	6.0 - 9.3	16 Amp	CPNSJBW-RC20SC100	20	80/100	4255
			CPNSJBW-RC25SC100	25	80/100	4315
			CPNSJBW-RC50SC100	50	80/100	4445
			CPNSJBW-RC60SC150	60	120/150	4645
			CPNSJBW-RC72SC150	72	120/150	4750
			CPNSJBW-SP(RC30)	30	100/120	4315
			CPNSJBW-SP(RC50)	50	100/120	4315
			CPNSJBW-SP(SC100)	36	80/100	4610
			CPNSJBW-RC36-SC200	36	150/200	4930
			CPNSKBW-SPE	50	120/150	4550
1.5 HP	8.9 - 13.5	12 Amp				
1.5 HP	8.9 - 13.5	16 Amp	CPNSKBW-SP	50	120/150	4645
			CPNSKBW-RC30SC120	30	100/120	4575
			CPNSKBW-RC36SC120	36	100/120	4595
			CPNSKBW-SP(RC36)	36	120/150	4715
			CPNSKBW-SP(RC72)	36+36	120/150	4775
			CPNSKBW-RC50-SC200	50	150/200	5085
2 HP	13.2 - 20.0	16 Amp	CPNSLBW-SP	72	150/200	4975
			CPNSLBW-SP (2RC36)	36+36	150/200	5050
			CPNSLBW-RC100SC150	100	120/150	5010
			CPNSLBW-RC90SC150	45+45	120/150	5010
			CPNSLBW-SP(SC150)	72	120/150	5110
			CPNSLBW-RC72-SC250	72	200/250	5390
3 HP	17.4 - 24.0	20 Amp	CPNSMBW-SPE	100	200/250	5310
3 HP	17.4 - 24.0	25 Amp	CPNSMBW-SP	100	200/250	5585
			CPNSMBW-SP(2RC50)	50+50	200/250	5745
	22.0 - 30.0		CPNSNBW-SP	100	200/250	5735
			CPNSNBW-SP(2RC50)	50+50	200/250	5900
5 HP	23.0 - 32.0	32 A & 12 A	CPNSPBW-SPE	100+50	200/250	7670
5 HP	23.0 - 32.0	40 A & 16 A	CPNSPBW-SP	100+50	200/250	7940
			CPNSPBW-SP(3RC50)	50+50+50	200/250	8135

*Suffix "D" in Cat Code for Dry Run Protection panel (only Extra Terminal is provided to connect Dry Run unit)

**For 170-240V coil, replace "BW" in above cat codes with "BBW"

1-Phase SPS With 2 Pole Contactor + Overload Relay (With Ammeter)

HSN CODE : 8536

Cat Code	HP at 1Ø, 220V, 50Hz	Relay Range (Amp.)	Contactor Rating	Run Capacitor (mfd)	Start Capacitor(mfd)	MRP [₹]
CPNEHBW-SP	0.5 / 0.75 HP	3.8 - 6.0	16 Amp	25	80/100	3865
CPNEJBW-SP	1 HP	6.0 - 9.3	16 Amp	36	100/120	4075
CPNEKBW-SP	1.5 HP	8.9 - 13.5	16 Amp	50	120/150	4435
CPNELBW-SP	2 HP	13.2 - 20.0	16 Amp	36+36	150/200	4735
CPNEMBW-SP	3 HP	17.4 - 24.0	25 Amp	50+50	200/250	5530
CPNEPBW-SP	5 HP	23.0 - 32.0	40 Amp	50+50+50	200/250	7790

Suffix "D" in Cat Code for Dry Run Protection panel (only Extra Terminal is provided to connect Dry Run unit)

1-Phase SPS With Mini Manual DOL Starter (With Ammeter + Voltmeter)

HSN CODE : 8536

Cat Code	HP at 1Ø, 220V, 50Hz	Relay Range (A)	Run Capacitor (mfd)	MRP [₹]
CPPM50-25-SP	0.5 / 0.75 HP	3.5 - 6.5	25	2915
CPPM50H-25-SP	0.5 / 0.75 HP	3.5 - 6.5	25	3315
CPPM60-25-SP	1 HP	6.8 - 11.7	25	2930
CPPM60H-36-SP	1 HP	6.8 - 11.7	36	3335
CPPM60-50-SP	1.5 HP	6.8 - 11.7	50	3085
CPPM60H-50-SP	1.5 HP	6.8 - 11.7	50	3510
CPPM70-50-SP	2 HP	11.0 - 20.0	50	3135
CPPM70H-50-SP	2 HP	11.0 - 20.0	50	3565

Motor Starters - Oil Immersed BCH

DOL Starter - 3 Phase

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISWPGT	2.4 - 3.8	16A	2970
OISWPHT	3.8 - 6.0	20A	
OISWPJT	6.0 - 9.3	25A	
OISWPKT	8.9 - 13.5	36A	
OISWPLT	13.2 - 20.0	50A	3025
OISWPMT	17.4 - 24.0	63A	3275

Note : The last alphabet in the Cat No. indicates coil voltage : N-380-415VAC ; T-220-400VAC ; Y-240-400VAC

Star Delta Starter - Fully Automatic

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDAWPJ*	6.0 - 9.3	20A	8300
OISDAWPK*	8.9 - 13.5	32A	
OISDAWPL*	13.2 - 20.0	35A	
OISDAWPM*	17.4 - 24.0	50A	8875
OISDAWPP*	23.0 - 32.0	63A	9295



Star Delta Starter - Semi Automatic

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDSWPJ*	6.0 - 9.3	20A	7450
OISDSWPK*	8.9 - 13.5	32A	
OISDSWPL*	13.2 - 20.0	35A	
OISDSWPM*	17.4 - 24.0	50A	8005
OISDSWPP*	23.0 - 32.0	63A	8405

Star Delta Starter - Fully Automatic with Auto Unit SPP & 3 Position Auto Manual Switch

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDYWPJ*	6.0 - 9.3	20A	9715
OISDYWPK*	8.9 - 13.5	32A	
OISDYWPL*	13.2 - 20.0	35A	
OISDYWPM*	17.4 - 24.0	50A	10330
OISDYWPP*	23.0 - 32.0	63A	10810

Star Delta Starter - Fully Automatic with Ammeter & Voltmeter

HSN CODE : 8536

Cat. No.	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDPYWPL*	13.2 - 20.0	35 A	11940
OISDPYWPM*	17.4 - 24.0	50 A	12565
OISDPYWPP*	23.0 - 32.0	63 A	13140

'N' for 380-415VAC coil & 'Y' for 240-400VAC coil

Spares for Oil Starter

HSN CODE : 8538

Description	Cat No.	MRP [₹]
Contact kit without coil for DOL - Power & Auxiliary contacts (set of fix contact, moving contact, hex screws, spring washer, spring clip, spring cap, contact spring)	OCK	375
Power kit without coil for all 3 contactor of star delta starter (fix contact, moving contact, hex screw, spring washer, spring clip, spring cap, contact spring)	Upto L Relay - OCKSD20	930
	M, P Relay OCKSD30	1075
Auxiliary Contact Kit set for Star Delta Starter	Upto L Relay - OCKSDAUX20	245
	M, P Relay OCKSDAUX30	
Coil -Main & Delta Contactor	220-400V	OCT
	240-400V	OCY
	380-415V	OCN
Coil -Star Contactor	220-400V	OCT-STAR
	240-400V	OCY-STAR
	380-415V	OCN-STAR
ON-Push Button	OPB-ON	115
OFF-Push Button	OPB-OFF	
Incoming Mounting KIT for 20A	OCTKSD20	125
Incoming Mounting KIT for 30A	OCTKSD30	175

Overload Relay for Oil Starter - Pls refer along with all other Overload Relay Page 25

Spares for Shakti Starters

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
SHA	Contact Kit	925
SHZ	Coil 190- 400 V	335
SHCC	Contact carrier	155
SHPB	Extended Button Assembly	220
SHCO	Contact for DOL	2030
SHACO	Contact for Star Delta	2030
NCPNYAU*-5S or 5M	SPP	1120
CPNYAU*-5S or 5M	SPP (for ASX & OISDY)-6W	1120
CPTB630	Terminal Block 30A 6 way (Auto DOL)	195
CPAMS-3P/ASX	Auto Manual Switch 3 position (Auto DOL)	375

Spares for 3-Phase Submersible Pump Starter

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
NCPYAU*-5S or 5M	SPP (2 Position SPS)	1040
CPYAU*-5S or 5M	SPP (3 Position SPS)-5W	1040
BCHSPP1*-5S or 5M	SPP 6-Wire	980
CPAM25	Ammeter 25A	445
CPAM50	Ammeter 50A	445
CPAM100	Ammeter 100A	475
CPVM500	Voltmeter 500V	445
SPSATG	Electronic Timer (Star Delta)	960
CPTB215	Terminal Block 15A 2 way	50
CPTB360	Terminal Block 60A 3 way	150
CPTB660	Terminal Block 60A 6 way	275
CPTB3100	Terminal Block 100A 3 way	575
CPMB	Mounting Bracket Set	110
CPAMS-2P	Auto Manual Switch 2 position	285
CPAMS-3P	Auto Manual Switch 3 position	305
CPVSS	Voltmeter Selector Switch	310
HEA11GM-PB	Start PB (Green)	155
HEA11RM-PB	Stop PB (Red)	155
HCB10	Aux Block (1 NO)	85
HCB01	Aux Block (1 NC)	85
HFB2PAH	LED-Amber (R-Y-B)	285
HFB2XAM	LED-Amber (Motor Trip)	190
HFB2XRM	LED-RED (415 VAC)	190

Spares for Freedom DOL

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
C320SCB	Start Contact Block	150
CEPBI	Push Button - Green	75
CEPBO	Push Button - Red	75

Spares for Citation M Starters

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
SP100PB3	Start & Stop reset button unit assembly for DOL & SD (upto 150HP)	260
SP100CB	Start actuator Block for DOL	225
SP100CBS	Start actuator Block for SD	225
SP100TB	Terminal Block for Star/ Delta Starters	210
CPTB975	Terminal Block for Star/ Delta Starters (40-50 HP)	670
SPSATG	Electronic Timer (Star Delta)	960
For 250-375 HP SD Starter		
TSFB-R	Push Button (RED)	205
TSFB-G	Push Button (Green)	205
050N1	Aux Contact Block(1NO+1NC)	265

Spares for 1-Phase Submersible Pump Starter

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
ILR-B	"ON" Indication Lamp	65
SPAM-10	Ammeter 10A	445
SPAM-15	Ammeter 15A	
SPAM-25	Ammeter 25A	
SPAM-50	Ammeter 50A	
SPVM-300	Voltmeter 300V	
CPTB530	Terminal Block 30A 5 way (Mini Version)	105
CPTB530H	Terminal Block 30A 5 way (Contr. Version)	180
CPTB330	Terminal Block 30A 3 way	75
CPTB240	Terminal Block 40A 2 way	110
SPGC	"ON" Push Button GREEN upto 24A relay range	215
SPGB	"ON" Push Button GREEN For 32A relay range	215
SPRC	"OFF" Push Button RED	175
MC305TB4	Add-on Terminal Block for 23-32A relay (outgoing side)	125



Spares for Starter..... BCH

Dual Meter (Combination of Ammeter & Voltmeter)

HSN CODE : 9030



Cat. No.	Product Description	MRP [₹]
CPAM10VM300	COMBINED AM 0-10-60A & VM 0-300V,S-72	620
CPAM15VM300	COMBINED AM 0-15-90A & VM 0-300V,S-72	
CPAM25VM300	COMBINED AM 0-25-150A & VM 0-300V,S-72	
CPAM30VM300	COMBINED AM 0-30-180A & VM 0-300V,S-72	
CPAM50VM300	COMBINED AM 0-50-300A & VM 0-300V,S-72	
CPAM10VM500	COMBINED AM 0-10-60A & VM 0-500V,S-72 EN	665
CPAM15VM500	COMBINED AM 0-15-90A & VM 0-500V,S-72 EN	
CPAM30VM500	COMBINED AM 0-30-180A & VM 0-500V,S-72 EN	
CPAM60VM500	COMBINED AM 0-60-360A & VM 0-500V,S-72 EN	
CPAM30-60VM500S72	COMBINED AM 0-30-60A & VM 0-500V,S-72	645
CPAM60-120VM500S72	COMBINED AM 0-60-120A & VM 0-500V,S-72	695
CPAM30-60VM500S96	COMBINED AM 0-30-60A & VM 0-500V,S-96	820
CPAM60-120VM500S96	COMBINED AM 0-60-120A & VM 0-500V,S-96	925

COIL VOLTAGE : MASTER TABLE

PRODUCT	160-220V	170-240V	220-240V	230-360V	260-400V	310-400V	190-400V	230-420V	275-420V	380-415V	415V	440V	550V
	WORKING VOLTAGE BAND	136-242V	145-264V	187-264V	195.5-396V	221-440V	264-440V	161.5-440V	195.5-462V	234-462V	323-456V	353-456V	374-484V
NHD 2P	CPG216	BW	BBW	H	-	-	-	-	-	N	-	-	-
	CPG225	BW	BBW	H	-	-	-	-	-	N	-	-	-
	CPG240	BW	BBW	H	-	-	-	-	-	N	-	-	-
SHAKTI	SHAKTI DOL	-	-	-	-	G	-	Z	ZB	N	-	-	-
	SHAKTI STAR DELTA	-	-	-	-	G	-	Z	-	MB	N	-	-
NHD 4P	CP12, C00N, CP20	-	-	H	-	G	-	-	-	MB	N	-	C D
	N0N	-	-	H	LV	G	-	-	-	MB	N	-	C D
	N01N	-	-	H	LV	-	WB	-	-	N	-	-	-
	N1N	-	-	H	-	-	WB	-	-	N	-	C	D
CITATION	C4 & MC10D	-	-	-	-	-	-	-	-	-	M	C	D
	MC10EN	-	-	-	-	-	-	-	-	-	M	C	D
FREEDOM SERIES	MCE15L TO M5	-	-	-	-	-	-	-	-	-	M	C	D
	MCE15N, Q & S	-	-	-	-	-	-	-	-	-	M	C	D

* For N1N DL Coil (340-460V) option is available

* For Citation E & M-5 (70A & 110A) LA Coil (320-400V) option is available

Enclosure Systems



- **Bhartia Boxes IP: 55, IP: 66**
- **'BCH-SS' (Stainless Steel) Boxes**
- **Terminal Boxes IP:55 & IP:66**
- **Techno - Modular Enclosures**
- **Smartline - Modular Enclosures**
- **Semi-Modular Enclosure**
- **TEOS Plus Enclosure**
- **Compartmentalized Enclosure (Fixed & Draw-out)**
- **IT Racks - 19" and ETSI Racks**



Enclosure Systems

BCH

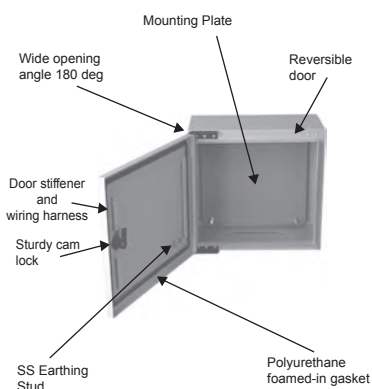
Bhartia Boxes

HSN Code : 8538



- 51 Different Versions
- Single/Double door versions
- Min. Size : 200 X 200 X 150
- Max Size : 1200 X 1400 X 400
- IP 55/IP66

Double door version



Technical Particulars (BHARTIA BOXES)

- Fabricated from 1.2mm / 1.6mm CRCA sheet steel (Sizes upto BIL-50180 made from 1.2mm CRCA, beyond this using 1.6mm CRCA)
- Foamed-in PU gasket
- Hinged door, interchangeable LHS / RHS, opening angle 180 deg for standard hinge & 120 deg for concealed hinge in bigger sizes.
- IP-55 & 66 Degree of protection
- Cable gland plate 2mm thick provided at bottom
- Cam locking arrangement
- Powder coated to RAL : 7035 structure finish
- Mounting Plate made up of 2.0mm Galvanised steel

Note : Cutout charges will be extra

: Wall mounting bracket set is an additional accessory (for Bhartia Box & Terminal box it is not a part of standard packing)

HSN Code : 8538

Type	Cat. No.	MOQ	List Price [₹]
Set of Wall Mounting bracket (small)	BIL-WM-S	1	120
Set of Wall Mounting bracket (big)	BIL-WM-B	1	140
Set of Wall Mounting bracket Kit 20mm	BIL-WM-H20	1	210

Note :

* Set of wall mounting bracket (small) is suitable for all range of terminal boxes and Bhartia boxes upto size : 400x500x200mm.

* Set of wall mounting bracket (big) is suitable for Bhartia boxes beyond size : 400x500x200mm.

Type	Size (WxHxD) mm	IP-55 Range			IP-66 Range	
		MOQ Nos.	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
SINGLE DOOR BOX	200x200x150	1	BIL-50000	2030	BIL-60000	2130
SINGLE DOOR BOX	200x300x150	1	BIL-50010	2320	BIL-60010	2370
SINGLE DOOR BOX	250x300x150	1	BIL-50020	2415	BIL-60020	2485
SINGLE DOOR BOX	300x300x150	1	BIL-50030	2600	BIL-60030	2705
SINGLE DOOR BOX	300x300x200	1	BIL-50050	2775	BIL-60050	2935
SINGLE DOOR BOX	300x400x150	1	BIL-50060	2890	BIL-60060	3045
SINGLE DOOR BOX	300x400x200	1	BIL-50080	3245	BIL-60080	3265
SINGLE DOOR BOX	400x300x150	1	BIL-50090	2830	BIL-60090	3005
SINGLE DOOR BOX	400x300x200	1	BIL-50110	3180	BIL-60110	3225
SINGLE DOOR BOX	400x400x150	1	BIL-50120	3245	BIL-60120	3305
SINGLE DOOR BOX	400x400x200	1	BIL-50140	3440	BIL-60140	3545
SINGLE DOOR BOX	400x500x150	1	BIL-50150	3660	BIL-60150	3850
SINGLE DOOR BOX	400x500x200	1	BIL-50170	3880	BIL-60170	3985
SINGLE DOOR BOX	500x500x200	1	BIL-50180	4575		
SINGLE DOOR BOX	400x600x200	1	BIL-50190	4575	BIL-60190	4640
SINGLE DOOR BOX	500x600x200	1	BIL-50210	5250	BIL-60210	5410
SINGLE DOOR BOX	500x700x200	1	BIL-50220	5970		
SINGLE DOOR BOX	500x700x300	1	BIL-50230	6865		
SINGLE DOOR BOX	600x400x200	1	BIL-50240	4660	BIL-60240	4835
SINGLE DOOR BOX	600x400x300	1	BIL-50250	5990		
SINGLE DOOR BOX	600x500x200	1	BIL-50260	5410	BIL-60260	5845
SINGLE DOOR BOX	600x600x200	1	BIL-50270	5625		
SINGLE DOOR BOX	600x600x300	1	BIL-50280	6760		
SINGLE DOOR BOX	600x700x200	1	BIL-50290	6780		
SINGLE DOOR BOX	600x800x200	1	BIL-50300	6800		
SINGLE DOOR BOX	600x800x300	1	BIL-50320	7780		
SINGLE DOOR BOX	600x1000x200	1	BIL-50330	8570		
SINGLE DOOR BOX	600x1000x300	1	BIL-50340	9725		
SINGLE DOOR BOX	800x800x300	1	BIL-50310	9070		
SINGLE DOOR BOX	800x1000x200	1	BIL-50350	10100		
SINGLE DOOR BOX	800x1000x250	1	BIL-50360	10315		
SINGLE DOOR BOX	800x1000x300	1	BIL-50390	10430		
SINGLE DOOR BOX	800x1200x300	1	BIL-50395	13000		
DOUBLE DOOR BOX	1000x800x200	1	BIL-50500	10900		
DOUBLE DOOR BOX	1000x800x300	1	BIL-50520	12500		
DOUBLE DOOR BOX	1000x1000x300	1	BIL-50540	14540		
DOUBLE DOOR BOX	1000x1200x300	1	BIL-50550	16715		
DOUBLE DOOR BOX	1000x1400x300	1	BIL-50560	19990		
DOUBLE DOOR BOX	1200x1400x300	1	BIL-50570	22225		
DOUBLE DOOR BOX	1000x1400x400	1	BIL-50580	21080		
DOUBLE DOOR BOX	1200x1400x400	1	BIL-50590	23200		

MOQ. Minimum order quantity in nos.

Canopy for Bhartia Boxes

HSN Code : 8538

Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]	Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]
200WX150D	BIL-12-CAN-2015	1	530	600WX200D	BIL-16-CAN-6020	1	1020
250WX150D	BIL-12-CAN-2515	1	605	600WX300D	BIL-16-CAN-6030	1	1250
300WX150D	BIL-12-CAN-3015	1	645	800WX300D	BIL-16-CAN-8030	1	1530
300WX200D	BIL-12-CAN-3020	1	705	800WX200D	BIL-16-CAN-8020	1	1240
400WX150D	BIL-12-CAN-4015	1	730	800WX250D	BIL-16-CAN-8025	1	1340
400WX200D	BIL-12-CAN-4020	1	810	1000WX200D	BIL-16-CAN-1020	1	1455
500WX200D	BIL-12-CAN-5020	1	915	1000WX300D	BIL-16-CAN-1030	1	1790
500WX300D	BIL-12-CAN-5030	1	1125				

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

*GST to be charged extra

Enclosure Systems BCH



- Fabricated from 1.2/1.5 mm stainless steel sheet
- Mounting Plate made up of 2.0mm Galvanised steel
- SS grade 304
- Foamed - in PU gasket
- Box upto BIL - 90405020 is made up of 1.2 mm SS & above of 1.5 MM SS.
- 120 deg door open-able concealed hinge door with cam locking arrangement.

'BCH - SS' (Stainless Steel)

HSN Code : 8538

Type	Size (WxHxD) mm	MOQ Nos.	Cat No.	List Price [₹]
SINGLE DOOR BOX	200X300X150	3	BIL-90203015	5345
SINGLE DOOR BOX	300X300X200	3	BIL-90303020	7405
SINGLE DOOR BOX	400X400X200	3	BIL-90404020	9795
SINGLE DOOR BOX	400X500X200	3	BIL-90405020	10910
SINGLE DOOR BOX	400X600X200	3	BIL-90406020	12510
SINGLE DOOR BOX	500X600X200	3	BIL-90506020	16025
SINGLE DOOR BOX	600X600X200	3	BIL-90606020	17140
SINGLE DOOR BOX	600X800X200	3	BIL-90608020	20365
SINGLE DOOR BOX	500X700X300	3	BIL-90507030	20695
SINGLE DOOR BOX	800X800X300	3	BIL-90808030	28485

MOQ - Minimum order quantity in nos.
Note - SS grade 304

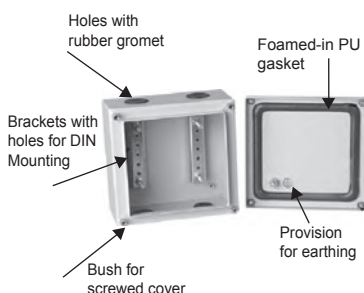


- 43 Different Versions
- Min. Size : 150 X 150 X 80
- Max Size : 800 X 400 X 120
- IP 55/IP66

Terminal Boxes

HSN Code : 8538

Box Size (W x H x D)	IP-55 Range			IP-66 Range	
	MOQ	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
150x150x80	5	BIL-70000	1010	BIL-80000	1040
200x150x80	-			BIL-80100	1145
300x150x80	5	BIL-70010	1185	BIL-80010	1320
200x200x80	5	BIL-70020	1135	BIL-80020	1205
300x200x80	5	BIL-70030	1240	BIL-80030	1290
400x200x80	-			BIL-80110	1375
600x200x80	-			BIL-80130	1880
150x150x120	5	BIL-70040	1115	BIL-80040	1185
200x150x120	-			BIL-80150	1225
300x150x120	5	BIL-70050	1320	BIL-80050	1350
200x200x120	5	BIL-70060	1290	BIL-80060	1320
300x200x120	5	BIL-70070	1435	BIL-80070	1465
400x200x120	5	BIL-70080	1610	BIL-80080	1665
300x300x120	5	BIL-70090	1715	BIL-80090	1780
400x150x120	-			BIL-80170	1590
400x300x120	5	BIL-70180	1895	BIL-80180	2130
400x400x120	5	BIL-70190	2235	BIL-80190	2415
500x200x120	5	BIL-70200	1955	BIL-80200	2090
500x300x120	5	BIL-70210	2175	BIL-80210	2300
600x200x120	5	BIL-70220	2185	BIL-80220	2310
600x300x120	5	BIL-70230	2675	BIL-80230	2785
600x400x120	5	BIL-70240	2935	BIL-80240	3035
800x200x120	5	BIL-70250	3090	BIL-80250	3195
800x400x120	5	BIL-70260	3765	BIL-80260	3840



Technical Particulars (TERMINAL BOXES)

- Fabricated from 1.2mm CRCA sheet steel
- Powder coated to shade RAL 7035 Structure finish
- Foamed-in PU gasket
- Provided with screwed cover on top
- IP-55 & 66 Degree of protection
- Brackets provided inside to facilitate DIN rail mounting
- Holes with Gromet provided to facilitate cable entry in IP 55 terminal boxes

Note: Cutout charges will be extra

MOQ-Minimum order quantity in nos.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

Enclosure Systems BCH

Techno Modular Enclosures

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 400	TME 061804	20030	22310	15910	18365	TPL 061804	1945	TSC 061804	3880
800 x 1800 x 400	TME 081804	23930	26260	18190	21030	TPL 081804	2215	TSC 081804	3880
1000 x 1800 x 400	TME 101804	32935	35495	25540	27935	TPL 101804	2485	TSC 101804	3880
1200 x 1800 x 400	TME 121804	37005	41340	28715	31825	TPL 121804	2725	TSC 121804	3880
600 x 1800 x 500	TME 061805	20925	23035	16975	19085	TPL 061805	2080	TSC 061805	4505
800 x 1800 x 500	TME 081805	24365	27435	19480	21810	TPL 081805	2340	TSC 081805	4505
1000 x 1800 x 500	TME 101805	33830	36390	26655	29380	TPL 101805	2610	TSC 101805	4505
1200 x 1800 x 500	TME 121805	37720	42850	30210	33945	TPL 121805	2840	TSC 121805	4505
800 x 1800 x 600	TME 081806	25980	27270	21145	23150	TPL 081806	2445	TSC 081806	5015
600 x 2000 x 400	TME 062004	21590	24265	16580	19700	TPL 062004	1945	TSC 062004	4170
800 x 2000 x 400	TME 082004	25125	27600	19200	21800	TPL 082004	2215	TSC 082004	4170
1000 x 2000 x 400	TME 102004	35995	38000	27985	29930	TPL 102004	2485	TSC 102004	4170
1200 x 2000 x 400	TME 122004	38665	42735	30940	35060	TPL 122004	2725	TSC 122004	4170
600 x 2000 x 500	TME 062005	22920	24815	18805	21260	TPL 062005	2080	TSC 062005	4900
800 x 2000 x 500	TME 082005	25710	28380	19810	22590	TPL 082005	2340	TSC 082005	4900
1000 x 2000 x 500	TME 102005	35610	39840	28380	31490	TPL 102005	2610	TSC 102005	4900
1200 x 2000 x 500	TME 122005	38940	42850	30605	33945	TPL 122005	2840	TSC 122005	4900
600 x 2000 x 600	TME 062006	23255	25540	19915	22205	TPL 062006	2195	TSC 062006	5450
800 x 2000 x 600	TME 082006	26595	28985	21360	23755	TPL 082006	2445	TSC 082006	5450
1000 x 2000 x 600	TME 102006	36170	41505	28820	33600	TPL 102006	2705	TSC 102006	5450
1200 x 2000 x 600	TME 122006	39705	44015	32155	36275	TPL 122006	2955	TSC 122006	5450
600 x 2000 x 800	TME 062008	23930	25710	19980	22475	TPL 062008	2445	TSC 062008	7010
800 x 2000 x 800	TME 082008	27705	29765	22640	24795	TPL 082008	2705	TSC 082008	7010
1000 x 2000 x 800	TME 102008	39705	42340	30605	33945	TPL 102008	2920	TSC 102008	7010
1200 x 2000 x 800	TME 122008	41735	46290	34280	37720	TPL 122008	3215	TSC 122008	7010
600 x 2200 x 600	TME 062206	26210	28715	20810	24700	TPL 062206	2195	TSC 062206	6315
800 x 2200 x 600	TME 082206	29660	31605	23870	26320	TPL 082206	2445	TSC 082206	6315
1000 x 2200 x 600	TME 102206	41060	44230	33740	36910	TPL 102206	2705	TSC 102206	6315
1200 x 2200 x 600	TME 122206	42670	47630	33165	37055	TPL 122206	2955	TSC 122206	6315
600 x 2200 x 800	TME 062208	28580	31000	21925	25315	TPL 062208	2445	TSC 062208	8205
800 x 2200 x 800	TME 082208	34495	36505	26490	28820	TPL 082208	2705	TSC 082208	8205
1000 x 2200 x 800	TME 102208	43730	47120	35495	38170	TPL 102208	2920	TSC 102208	8205
1200 x 2200 x 800	TME 122208	47300	49960	38730	41340	TPL 122208	3215	TSC 122208	8205

*Baying kit (BIL-14280) Rs. 1310/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

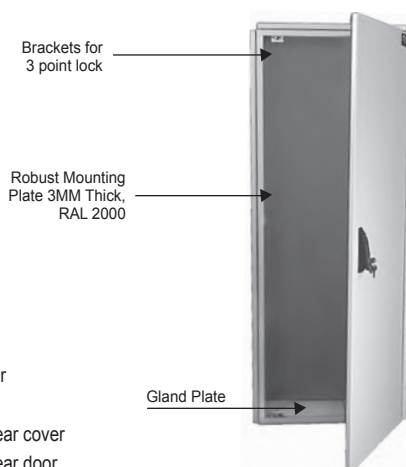
MOQ-Minimum order quantity in nos.

Note : Cutout charges will be extra

Freight charges will be extra at actuals

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**



Modular Enclosures

- Enclosures
- Minimum size in mm :
600 x 1800 x 400 (W x H x D)
- Maximum size in mm :
1200 x 2200 x 800 (W x H x D)
- IP 54 / IP 55 degree of protection
- Wide range of accessories

Features

- Completely modular in all the three axis
- Powder coated surface (RAL 7035) for excellent finish and durability
- PU Gasket ensuring higher degree of ingress protection
- 3mm mounting plate as a standard
- Manufactured on CNC Turret punch press for higher precision, finish and repeated accuracy
- Ideal for :
 - Special purpose machines
 - Control panels
 - Drives
 - Starter enclosures
 - Accessories for mounting 19" equipment

Enclosure Versions

- 001 - with mounting plate and rear cover
- 002 - with mounting plate and rear door
- 003 - without mounting plate and with rear cover
- 004 - without mounting plate and with rear door

To Order And Calculate List Price

- (a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004
- (b) Add Cat. No. and LP of Plinth
- (c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP54/55 degree of protection
- Fabricated from 2/1.6 mm CRCA/GPSP (frame made up of 2.0mm GPSP, doors & covers made up of 1.6 mm CRCA).
- Fully bolted construction
- Mounting Plate with sliding arrangement - standard & Powder coated to RAL-2000
- Modular Plinth (optional) 100mm high fabricated from CRCA
- Cable entry provision is given from Bottom & made in 3-part construction with Galvanized steel [Unpainted]
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair : consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers,
- 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : upto 800 mm width single door
1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

Smartline Modular Enclosure BCH

SmartLine TME

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 500	SLE 061805	19480	22040	15800	18190	TPL 061805	2080	SLSC 061805	4065
800 x 1800 x 600	SLE 081806	24265	26040	19915	22140	TPL 081806	2445	SLSC 081806	4505
600 x 2000 x 600	SLE 062006	21705	24265	18585	20810	TPL 062006	2195	SLSC 062006	4920
800 x 2000 x 600	SLE 082006	24865	27540	19980	22580	TPL 082006	2445	SLSC 082006	4920
1200 x 2000 x 600	SLE 122006	37785	41820	30605	34465	TPL122006	2955	SLSC 122006	4920
600 x 2000 x 800	SLE 062008	22205	24430	18700	21090	TPL 062008	2445	SLSC 062008	6325
800 x 2000 x 800	SLE 082008	26320	28265	21090	23535	TPL 082008	2705	SLSC 082008	6325
1200 x 2000 x 800	SLE 122008	38835	44065	32605	35870	TPL 122008	3215	SLSC 122008	6325

Note : Cutout / customization charges will be extra.

*Baying kit (BIL-14280) Rs. 1310/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

Enclosure Versions

- 001 - With mounting plate and rear cover.
- 002 - With mounting plate and rear door
- 003 - Without mounting plate and with rear cover
- 004 - Without mounting plate and with rear door

To Order and Calculate List Price

(a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004

(b) Add Cat. No. and LP of Plinth

(c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP-54 degree of protection
- Fabricated from CRCA/GPSP (frame made up of GPSP, doors & covers made up of CRCA sheet).
- Modular construction
- Mounting plate and cable entry plate made up of Galvanized steel [Unpainted]
- Plinth (optional) 100mm high fabricated from CRCA sheet.
- Cable entry provision is given from Bottom as standard
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair: consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers, 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

Semi-Modular Floor Standing Enclosure BCH

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]	Plinth		Side Covers (Pair)	
			Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600X1800X400	FCS 061804	On Request	FCS-PL 061804	On Request	FCS-SC 061804	On Request
600X1800X500	FCS 061805		FCS-PL 061805		FCS-SC 061805	
800X1800X600	FCS 081806		FCS-PL 081806		FCS-SC 081806	
600X2000X600	FCS 062006		FCS-PL 062006		FCS-SC 062006	
800X2000X500	FCS 082005		FCS-PL 082005		FCS-SC 082005	
800X2000X600	FCS 082006		FCS-PL 082006		FCS-SC 082006	
800X2000X800	FCS 082008		FCS-PL 082008		FCS-SC 082008	
1000X2000X600	FCS 102006		FCS-PL 102006		FCS-SC 102006	
1000X2000X800	FCS 102008		FCS-PL 102008		FCS-SC 102008	
1200X2000X500	FCS 122005		FCS-PL 122005		FCS-SC 122005	
1200X2000X600	FCS122006		FCS-PL122006		FCS-SC122006	
1200X2000X800	FCS 122008		FCS-PL 122008		FCS-SC 122008	

Note : Sizes are available in all FOUR version like TME.

Enclosure Versions

Ver-001 - With mounting plate and rear cover.

Ver-002 - With mounting plate and rear door

Ver-003 - Without mounting plate and with rear cover

Ver-004 - Without mounting plate and with rear door

To Order and Calculate List Price

(a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004

(b) Add Cat. No. and LP of Plinth

(c) Add Cat. No. and LP of Side Covers pair

Note:

- Cutout / customization charges will be extra.
- Baying Kit (BIL-FCS-14280) LP Rs. 1000/- is also available for Enclosure Versions.
- For extra accessories, Please contact nearest branch office.



Technical Particulars (Semi-Modular Enclosure)

- Unique symmetric front and rear welded frame with modular depth member which resultant fastest assembly and uniformity.
- IP-55 Degree of Protection
- Front and Rear Frame welded & depth members are modular
- Fabricated from 2.0mm/1.6mm CRCA
- Mounting plate made of 2mm thick Galvanized sheet
- Cable entry from bottom of panel as standard
- Powder coated to RAL-7035 Structure finish
- Limiting dimension of the enclosure are same as per sizes given
- Adjustable mounting plate depth wise
- Foamed-in PU gasket
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Flush Type Side cover Pair consisting of 1no LHS and 1no RHS cover

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

TEOS Plus Enclosure BCH-TEKPAN

TEOS Plus Enclosure

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]
600 x 1800 x 500	TEOS061805	On Request
800 x 1800 x 600	TEOS081806	
600 x 2000 x 600	TEOS062006	
800 x 2000 x 600	TEOS082006	
800 x 2000 x 800	TEOS082008	
1200 x 2000 x 600	TEOS122006	
1000 x 2000 x 800	TEOS102008	
1200 x 2000 x 800	TEOS122008	

Front Door, Rear Door, Rear Cover & Mounting plate shall be supplied as per requirement.

Plinth Corner

HSN Code : 8538

Description	Cat. No.	List Price [₹]
PLINTH CORNER PART H100mm	708.100	On Request

Supply included:- 4 pcs 100mm height corner & mounting accessories.

Plinth Front Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]
PLINTH FRONT PROFILE :600	709.160	On Request
PLINTH FRONT PROFILE :800	709.180	
PLINTH FRONT PROFILE :1000	709.100	
PLINTH FRONT PROFILE :1200	709.120	

Supply included:- 2 pcs 100mm height front cover & mounting accessories.

Plinth Side Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]
PLINTH SIDE PROFILE :500	710.150	On Request
PLINTH SIDE PROFILE :600	710.160	
PLINTH SIDE PROFILE :800	710.180	

Supply included:- 2 pcs 100mm height side cover & mounting accessories.

Side Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]
Pair of side cover 500*1800	706.185	On Request
Pair of side cover 600*1800	706.186	
Pair of side cover 600*2000	706.206	
Pair of side cover 800*1800	706.188	
Pair of side cover 800*2000	706.208	

Supply included:- 2 pcs side cover & mounting accessories

Technical Particulars (TEOS Plus Enclosure)

- Multifold (12-Fold) structure with 100% Modularity.
- IP-65 Degree of Protection.
- SEISMIC Tested for Zone-4 and UL Certified.
- Easy Assembly & Logistic advantages.
- 4-Point lock with Swing Handle..
- Powder coated to RAL: 7035 Structure Finish.
- Limiting dimension of the enclosure are same as per given dimension.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

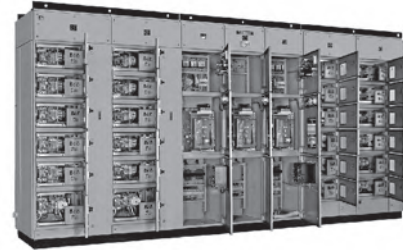
***GST to be charged extra**



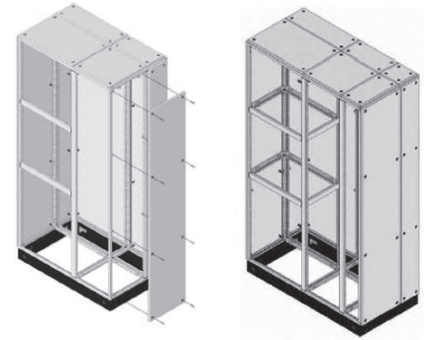
Note :

- Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door
- Cutout / customization charges will be extra
- For extra accessories, please contact nearest branch office.

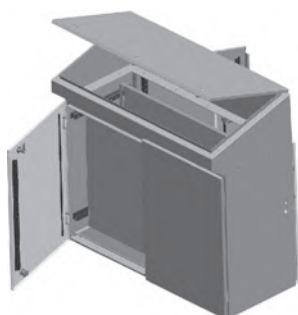
Highlights of **BCH** Compartmentalized **MCC / PCC / PMCC** Solution (Fixed & Drawed Type)

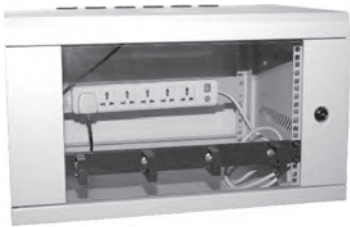


- 100% Modular Structure; can be dispatched in flat pack.
- Flexible compartmentalized -up to From 4.
- IP 54 degree of protection with polyurethane foam gasket.
- Compartment size available from 200mm height & multiplies of 100mm.
- Additional accessories like Cable support, Busbar support, Limit Switch and Lamp brackets are available.
- Adjustable mounting plates (Depth wise at the pitch of 25mm).
- Panel can be expended in all 3 dimensions and bayed together by using Baying Kit.
- All Structure members (Corner & Cross bar) having M6 extrude hole at 25mm intervals, No need of any Captive hardware.
- Standard Module dimension for Drawout Enclosures.
 - ▷ Single Front :- 900(W) x 2400(H) x 600(D)
 - ▷ Double Front :- 900(W) x 2400(H) x 1200(D)
- Draw-out feeder available from 200mm height (2SU) to 800mm height (8SU).
- Colours :- RAL-7035 (Structure finish) for structure, doors, covers & internal parts RAL-2000 (smooth finish) for Mounting plates, Ral-9000 (Smooth Finish) for Plinth.
- Sheet thickness 2.0mm GPSP for structure, 2.0mm CRCA for Mounting Plate & Mounting rail, 1.6mm CRCA for Doors & Covers, 1.2mm CRCA for Separation plates.



BCH Control Desk





Key Attributes:

- Aesthetic & robust construction
- Mounting Fan /s in top doesn't take usable "U" space.
- Special type of Wallmounting hardware.
- Provision for earthing available in the cabinets.
- Highly corrosion resistant in nature.
- Power coated to shade RAL : 7035 structure finish.

19" Wall Mount Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
6UX550X400	1	BIL-W-6-5504	3995
9UX550X400	1	BIL-W-9-5504	4815
6UX550X500	1	BIL-W-6-5505	4410
9UX550X500	1	BIL-W-9-5505	5140
12UX550X500	1	BIL-W-12-5505	5710
15UX550X500	1	BIL-W-15-5505	6720

MOQ-Minimum order quantity in nos.

Standard Configuration: Wallmount cabinet, 2-Pairs of 19" rail.

Notes : Accessories viz. Shelves, Fans, power strips, cable managers captive H/W & wall mounting hardware etc. will be extra as per the accessories list furnished in the price list.
Wall mount racks price do not include freight & will be extra at actuals



Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.

19" Networking Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 600	1	BIL-N-062406	22350
24U X 600 X 800	1	BIL-N-062408	24710
24U X 800 X 600	1	BIL-N-082406	28005
24U X 800 X 800	1	BIL-N-082408	30605
30U X 600 X 600	1	BIL-N-063006	24710
30U X 600 X 800	1	BIL-N-063008	27070
30U X 800 X 600	1	BIL-N-083006	30605
30U X 800 X 800	1	BIL-N-083008	33550
36U X 600 X 600	1	BIL-N-063606	27070
36U X 600 X 800	1	BIL-N-063608	30015
36U X 800 X 600	1	BIL-N-083606	33560
36U X 800 X 800	1	BIL-N-083608	36440
42U X 600 X 600	1	BIL-N-064206	31200
42U X 600 X 800	1	BIL-N-064208	33435
42U X 800 X 600	1	BIL-N-084206	36720
42U X 800 X 800	1	BIL-N-084208	40600
45U X 600 X 600	1	BIL-N-064506	35900
45U X 600 X 800	1	BIL-N-064508	37680
45U X 800 X 600	1	BIL-N-084506	39425
45U X 800 X 800	1	BIL-N-084508	42960

MOQ-Minimum order quantity in nos.

Notes : 1) Networking racks price do not include freight & this will be extra at actuals.

For more details visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

19" Server Racks

HSN Code : 8538

Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking
- locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 900	1	BIL-S-062409	25250
24U X 600 X 1000	1	BIL-S-062410	26830
30U X 600 X 900	1	BIL-S-063009	28550
30U X 600 X 1000	1	BIL-S-063010	29660
36U X 600 X 900	1	BIL-S-063609	31305
36U X 600 X 1000	1	BIL-S-063610	32970
42U X 600 X 900	1	BIL-S-064209	35195
42U X 600 X 1000	1	BIL-S-064210	37430
42U X 800 X 1000	1	BIL-S-084210	43075
45U X 600 X 900	1	BIL-S-064509	40675
45U X 600 X 1000	1	BIL-S-064510	43035

MOQ - Minimum order quantity in nos.

Notes: Server racks price do not include freight & this will be extra at actuals.

STANDARD CONFIGURATION: Basic frame, Top & bottom, Front Glass door with perforation, Rear vented door, Lockable & detachable side panels, 2-Pairs of 19" rails with depth members.



Key Attributes:

- Includes 1-Pair of 21" rails.
- Integrated side panels.
- Grouting arrangements along with grouting bolts as std. BOM
- Provision for power & detachable Cable entry/exit in top & bottom.
- Power coated to shade RAL : 7035 structure finish.

ETSI Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
2200 X 600 x 300	1	ITE-062203	9070
2200 X 600 x 600	1	ITE-062206	14600

MOQ - Minimum order quantity in nos.

Notes: Above ETSI configuration do not include front & rear door and covers.

All other accessories will be extra & will be furnished on request.
The prices mentioned above do not include freight.



Key Attributes:

- 1-Pair of vertical cable manager is default design.
- Surface pretreated and advance powder coated
- Grouting bolts as std. BOM.
- Power coated to shade RAL : 7035 structure finish.

19" Open Racks

HSN Code : 8538

Dimensions (H x W) mm	MOQ Nos.	Cat. No.	List Price [₹]
36U X 600	1	ITE-OF-0636	5895
45U X 600	1	ITE-OF-0645	6945

MOQ - Minimum order quantity in nos.

Notes: 1) Above Open Rack configuration does not include Shelves, Doors and Covers. All other accessories prices will be extra and will be furnished on request.

2) The Prices above do not include Freight and this will be extra at actuals.

For more details, visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**

Accessories for 19" Racks

Fixed Shelf/Stationary Shelf

- Compatible to keep monitor, servers, non 19" Networking & allied equipments.

Key-Board Tray

- Sliding & rotatory type.

Canteliver Shelf

- It can accommodate light weighted networking & allied equipments like modem, routers etc.

Equipment Support Angle

- "L" type angles. Useful to keep non 19" heavy duty equipment in rack mounting position.

Sliding Shelf

- Useful to keep servers, networking & allied equipment which are required to slide out for operational & other purpose.

Fans/Fan Tray

- 220V 90 CFM Capacity. Can be mounted at the top either directly or through Fan housing unit (Fan Tray)

6-Point 5A Hor. Power Strip

- All universal type socket along with on/off switch with fuse & indicator. Internal strips are made up of Beryllium copper that has high rate of heat & mechanical tolerance.
- Other 5A or 5/15A Power strips have Indian style (Anchor) Sockets with on/off switch/MCB.

Castors

- 1-Set includes 4Nos. of castors, 2Nos. with foot operated brake & remaining 2 are free.

Levelling Feet

- 1-Set includes 4Nos. of Levelling Feet.

Stability Plate

- It Prevents the racks from toppling while taking out heavy duty servers.

Shelves

HSN Code : 8538

Description	Cat No.	List Price [₹]
Fixed Shelf (600mmD)	BIL-A-FS-L-06	1020
Fixed Shelf (800mmD)	BIL-A-FS-L-08	1570
Fixed Shelf (900mmD)	BIL-A-FS-L-09	1745
Fixed Shelf (1000mmD)	BIL-A-FS-L-10	1880
Modem Tray	BIL-A-MD	965
Key board tray (Sliding & Rotatory)	BIL-A-KB-06	3005
Canteliver Shelf (1U)	BIL-A-CS-1	605
Canteliver Shelf (2U)	BIL-A-CS-2	905
Equipment Support Angle (600mmD)	BIL-A-ESA-06	375
Equipment Support Angle (800mmD)	BIL-A-ESA-08	425
Equipment Support Angle (900mmD)	BIL-A-ESA-09	530
Equipment Support Angle (1000mmD)	BIL-A-ESA-10	615
Sliding Shelf (900mmD)	BIL-A-SS-09	3005
Sliding Shelf (1000mmD)	BIL-A-SS-10	3120

Thermal Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
1-Fan (Direct mounted)	BIL-A-SF	1020
Fan-tray with 2-Fans (FHU)	BIL-A-FHU-2FANS	2175
Fan-tray with 4-Fans (FHU)	BIL-A-FHU-4FANS	3785

Cable Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
Horizontal Cable Manager (1U)	BIL-A-HCM-1U	240
Horizontal Cable Manager (2U)	BIL-A-HCM-2U	300
Vertical Cable Manager (24U)	BIL-A-VCM-24U	375
Vertical Cable Manager (30U)	BIL-A-VCM-30U	480
Vertical Cable Manager (36U)	BIL-A-VCM-36U	550
Vertical Cable Manager (42U)	BIL-A-VCM-42U	605
Vertical Cable Manager (45U)	BIL-A-VCM-45U	665

Power Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
6-Point 5Amp Horizontal Power Strip (19")	BIL-A-HPS-5AMP	990
5-Point 5/15Amp Horizontal Power Strip (19")	BIL-A-HPS-15AMP	1320
12-Point 5Amp Vertical Power Strip	BIL-A-12VPS-5AMP	1935
10-Point 5/15Amp Vertical Power Strip	BIL-A-10VPS-15AMP	2225
Earth continuity Kit (Earthing Kit)	BIL-A-ECT	750

Stability Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
Castors (1-Set) Heavy Duty	BIL-A-CAS-HD	3630
Castors (1-Set) Light Duty	BIL-A-CAS	2890
Levelling Feet (1-Set)	BIL-A-LF	490
Stability Plate	BIL-A-SP	1820

Miscellaneous

HSN Code : 8538

Description	Cat No.	List Price [₹]
BAYING KIT	BIL-A-BK	355
BLANKING PANEL (1U)	BIL-A-BP-1U	165
BLANKING PANEL (2U)	BIL-A-BP-2U	220
BLANKING PANEL (3U)	BIL-A-BP-3U	280
BLANKING PANEL (4U)	BIL-A-BP-4U	345
BLANKING PANEL (5U)	BIL-A-BP-5U	385
Captive H/w (set of 10)	BIL-A-Captive-M6	165
Wallmounting H/w (set of 4)	BIL-A-wallmounting W	175

Notes : Packing & forwarding will be extra if accessories are ordered separately.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.110.

***GST to be charged extra**



Wires & Cables

- **3-Core Flat Cables for Submersible Pump Applications**
- **Single & Multi Core PVC Flexible Cables**
- **FR & FRLS Cables**
- **Shielded Cables**



Wires & Cables BCH

BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 2010, conforming & marked with I.S. 694 / 2010 upto 35 sqmm.

3 Core Flat Cable PVC Insulated Type CS- 500 Mtrs MOQ

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]	Remark
CS0010BM	1.0 Sqmm x 3 core Flat cable	23540	Also Available in 100 mtrs & 1000 mtrs
CS0015BM	1.5 Sqmm x 3 core Flat cable	27151	
CS0025BM	2.5 Sqmm x 3 core Flat cable	43335	
CS0040BM	4.0 Sqmm x 3 core Flat cable	65805	
CS0060BM	6.0 Sqmm x 3 core Flat cable	96750	
CS0080BM	8.0 Sqmm x 3 core Flat cable	127925	
CS0100BM	10 Sqmm x 3 core Flat cable	165240	
CS0160BM	16 Sqmm x 3 core Flat cable	257870	
CS0250BM	25 Sqmm x 3 core Flat cable	398738	
CS0350BM	35 Sqmm x 3 core Flat cable	546770	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & thick sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 2010, conforming & marked with I.S. 694 / 2010 upto 16.0 sqmm.

3 Core Flat Cable PVC Insulated Thick Type CFT- 500 Mtrs MOQ

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]	Remark
CFT-03-0010BM	1.0 Sqmm x 3 core Flat cable Thick	25263	Also Available in 100 mtrs & 1000 mtrs
CFT-03-0015BM	1.5 Sqmm x 3 core Flat cable Thick	28554	
CFT-03-0025BM	2.5 Sqmm x 3 core Flat cable Thick	44940	
CFT-03-0040BM	4.0 Sqmm x 3 core Flat cable Thick	67725	
CFT-03-0060BM	6.0 Sqmm x 3 core Flat cable Thick	99011	
CFT-03-0100BM	10 Sqmm x 3 core Flat cable Thick	166860	
CFT-03-0160BM	16 Sqmm x 3 core Flat cable Thick	259800	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor XLPE insulated & PVC sheathed for submersible pump motors of voltage grade 1100 V. suitable for heavy duty usage and areas having frequent supply undervoltage / overvoltage conditions upto 16.0 sqmm.

3 Core Flat Cable XLPE Insulated Type CFTX- 500 Mtrs MOQ

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]	Remark
CFTX-03-0015BM	1.5 Sqmm x 3 core Flat cable XLPE insulated Thick	29425	Also Available in 100 mtrs & 1000 mtrs
CFTX-03-0025BM	2.5 Sqmm x 3 core Flat cable XLPE insulated Thick	45903	
CFTX-03-0040BM	4.0 Sqmm x 3 core Flat cable XLPE insulated Thick	68532	
CFTX-03-0060BM	6.0 Sqmm x 3 core Flat cable XLPE insulated Thick	99344	
CFTX-03-0080BM	8.0 Sqmm x 3 core Flat cable XLPE insulated Thick	137500	
CFTX-03-0100BM	10 Sqmm x 3 core Flat cable XLPE insulated Thick	167700	
CFTX-03-0160BM	16 Sqmm x 3 core Flat cable XLPE insulated Thick	261360	

3 Core Flat Cable XLPE Insulated Thick with higher copper conductor Type CFTHX- 500 Mtrs MOQ

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]	Remark
CFTHX-03-0040BM	4.0 Sqmm x 3 core Flat cable XLPE insulated Thick with higher copper conductor	79380	Also Available in 100 mtrs & 1000 mtrs
CFTHX-03-0060BM	6.0 Sqmm x 3 core Flat cable XLPE insulated Thick with higher copper conductor	114135	

Note : For price, please contact our nearest sales office.

Single & Multi Core PVC Flexible Cables As Per IS 694: 2010 - With ISI Marking

HSN Code : 8544

- Individual conductors drawn from 99.98% bright electrolytic grade copper with more than 100% conductivity
- Special formulation of PVC compounds as per IS 5831:2013 ensures longer and trouble free service life.
- Use only RoHS insulation and sheathing compounds. Ensures cleaner environment and better health.
- Online measurement and monitoring of O.D., core dia and dielectric strength.
- Suitable for -15 to +70°C.

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		LP Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CR01-0005A-AAA	0.5	4	4.5	566
CR01-0008A-AAA	0.75	7	8	801
CR01-0010A-AAA	1	11	12	1025
CR01-0015A-AAA	1.5	13	16	1477
CR01-0025A-AAA	2.5	18	22	2391
CR01-0040A-AAA	4	24	29	3870
CR01-0060A-AAA	6	31	37	5621
CR01-0100A-AAA	10	42	51	9792
CR01-0160A-AAA	16	57	68	15588
CR01-0250A-AAA	25	71	86	24188
CR01-0350A-AAA	35	91	100	34185
CR01-0500A-AAA	50	120	145	48825
HSN Code : 8544				
CR01-0700A-AAA	70	-	214	69875
CR01-0950A-AAA	95	-	260	92868
CR01-1200A-AAA	120	-	305	119325
CR01-1500A-AAA	150	-	355	148350
CR01-1850A-AAA	185	-	415	183825
CR01-2400A-AAA	240	-	500	On request
CR01-3000A-AAA	300	-	560	On request

Individual conductors drawn from 99.98% bright electrolytic grade copper with more than 100% conductivity
 Note : Standard packing of 100m, 500m & 1000m available. For price of 500m & 1000m , please contact nearest sales office.

Single Core FR PVC Flexible Cables As Per IS 694: 2010 - With ISI Marking

HSN Code : 8544

Standard packing of 16 sqmm & above shall be in lengths of 100m each size / colour.

* Prices are for 100 mtr coils.

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		LP Per 90 / 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRFR01-0005D-AAA	0.5	4	4.5	589
CRFR01-0008D-AAA	0.75	7	8	754
CRFR01-0010D-AAA	1	11	12	974
CRFR01-0015D-AAA	1.5	13	16	1380
CRFR01-0025D-AAA	2.5	18	22	2272
CRFR01-0040D-AAA	4	24	29	3594
CRFR01-0060D-AAA	6	31	37	5353
CRFR01-0100D-AAA	10	42	51	9237
CRFR01-0160A-AAA*	16	57	68	16170*
CRFR01-0250A-AAA*	25	71	86	26536*
CRFR01-0350A-AAA*	35	91	100	36273*
CRFR01-0500A-AAA*	50	120	145	On request

Note: Standard packing of 90m, 100m, 180m & 270m available. For prices of 90m, 100m, 180m & 270m, please contact nearest sales office.
 All sizes 16 Sq.mm & above will be in 100 mtrs packing

Single Core FRLS Flexible Cables As Per IS 694: 2010-With ISI Marking

HSN Code : 8544

Standard packing of 16 sqmm & above shall be in lengths of 100m each size / colour.

* Prices are for 100 mtr coils.

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires		LP Per 90 / 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRLS01-0005D-AAA	0.5	4	4.5	662
CRLS01-0008D-AAA	0.75	7	8	797
CRLS01-0010D-AAA	1	11	12	1034
CRLS01-0015D-AAA	1.5	13	16	1520
CRLS01-0025D-AAA	2.5	18	22	2480
CRLS01-0040D-AAA	4	24	29	3760
CRLS01-0060D-AAA	6	31	37	5630
CRLS01-0100D-AAA	10	42	51	9812
CRLS01-0160A-AAA*	16	57	68	17056*
CRLS01-0250A-AAA*	25	71	86	27560*
CRLS01-0350A-AAA*	35	91	100	38700*
CRLS01-0500A-AAA*	50	120	145	On request

Note: Standard packing of 90m, 100m, 180m & 270m available. For prices of 90m, 100m, 180m & 270m, please contact nearest sales office.
 All sizes 16 Sq.mm & above will be in 100 mtrs packing

Multi Core PVC Flexible Cables

HSN Code : 8544

Conductor area (Normal)	Cat. No. 2 Core	LP per 100 Mtrs	Cat. No. 3 Core	LP per 100 Mtrs	Cat. No. 4 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR02-0005A-AAA-M	1870	CR03-0005A-AAA-M	2460	CR04-0005A-AAA-M	3030	4
0.75 sqmm	CR02-0008A-AAA-M	2500	CR03-0008A-AAA-M	3270	CR04-0008A-AAA-M	4170	7
1.0 sqmm	CR02-0010A-AAA-M	3000	CR03-0010A-AAA-M	4210	CR04-0010A-AAA-M	5250	12
1.5 sqmm	CR02-0015A-AAA-M	4030	CR03-0015A-AAA-M	5570	CR04-0015A-AAA-M	7320	15
2.5 sqmm	CR02-0025A-AAA-M	6450	CR03-0025A-AAA-M	8940	CR04-0025A-AAA-M	11550	20
4.0 sqmm	CR02-0040A-AAA-M	9700	CR03-0040A-AAA-M	13800	CR04-0040A-AAA-M	17870	27
6.0 sqmm	CR02-0060A-AAA-M	14420	CR03-0060A-AAA-M	19984	CR04-0060A-AAA-M	26420	35
10 sqmm	CR02-0100A-AAA-M	23920	CR03-0100A-AAA-M	34000	CR04-0100A-AAA-M	44700	46
16 sqmm	CR02-0160A-AAA-M	38000	CR03-0160A-AAA-M	54300	CR04-0160A-AAA-M	70000	62
25 sqmm	CR02-0250A-AAA-M	60000	CR03-0250A-AAA-M	91200	CR04-0250A-AAA-M	115000	80
35 sqmm	CR02-0350A-AAA-M	On request	CR03-0350A-AAA-M	120000	CR04-0350A-AAA-M	169000	102
50 sqmm	CR02-0500A-AAA-M	On request	CR03-0500A-AAA-M	On request	CR04-0500A-AAA-M	On request	138

Conductor area (Normal)	Cat. No. 5 Core	LP per 100 Mtrs	Cat. No. 6 Core	LP per 100 Mtrs	Cat. No. 7 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR05-0005A-AAA-M	3900	CR06-0005A-AAA-M	4620	CR07-0005A-NAA-M	5700	4
0.75 sqmm	CR05-0008A-AAA-M	5700	CR06-0008A-AAA-M	6300	CR07-0008A-NAA-M	7560	7
1.0 sqmm	CR05-0010A-AAA-M	6600	CR06-0010A-AAA-M	8100	CR07-0010A-NAA-M	9900	12
1.5 sqmm	CR05-0015A-AAA-M	9300	CR06-0015A-AAA-M	10960	CR07-0015A-NAA-M	13803	15
2.5 sqmm	CR05-0025A-AAA-M	15000	CR06-0025A-AAA-M	18800	CR07-0025A-NAA-M	22500	20
4.0 sqmm	CR05-0040A-AAA-M	On request	CR06-0040A-AAA-M	On request	CR07-0040A-NAA-M	On request	27
6.0 sqmm	CR05-0060A-AAA-M	On request					35

Conductor area (Normal)	Cat. No. 8 Core	LP per 100 Mtrs	Cat. No. 10 Core	LP per 100 Mtrs	Cat. No. 12 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR08-0005A-NAA-M	6100	CR10-0005A-NAA-M	8200	CR12-0005A-NAA-M	9540	4
0.75 sqmm	CR08-0008A-NAA-M	8400	CR10-0008A-NAA-M	11400	CR12-0008A-NAA-M	12000	7
1.0 sqmm	CR08-0010A-NAA-M	11100	CR10-0010A-NAA-M	12900	CR12-0010A-NAA-M	15100	12
1.5 sqmm	CR08-0015A-NAA-M	15500	CR10-0015A-NAA-M	19100	CR12-0015A-NAA-M	22087	15
2.5 sqmm	CR08-0025A-NAA-M	25200	CR10-0025A-NAA-M	31400	CR12-0025A-NAA-M	37800	20
4.0 sqmm	CR08-0040A-NAA-M	On request	CR10-0040A-NAA-M	On request	CR12-0040A-NAA-M	On request	27

Conductor area (Normal)	Cat. No. 14 Core	LP per 100 Mtrs	Cat. No. 16 Core	LP per 100 Mtrs	Cat. No. 19 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR14-0005A-NAA-M	10600	CR16-0005A-NAA-M	12300	CR19-0005A-NAA-M	13300	4
0.75 sqmm	CR14-0008A-NAA-M	14100	CR16-0008A-NAA-M	16800	CR19-0008A-NAA-M	19700	7
1.0 sqmm	CR14-0010A-NAA-M	18800	CR16-0010A-NAA-M	21000	CR19-0010A-NAA-M	25500	12
1.5 sqmm	CR14-0015A-NAA-M	25500	CR16-0015A-NAA-M	29100	CR19-0015A-NAA-M	35100	15
2.5 sqmm	CR14-0025A-NAA-M	41000	CR16-0025A-NAA-M	48000	CR19-0025A-NAA-M	58200	20
4.0 sqmm	CR14-0040A-NAA-M	On request	CR16-0040A-NAA-M	On request	CR19-0040A-NAA-M	On request	27

Conductor area (Normal)	Cat. No. 24 Core	LP per 100 Mtrs	Cat. No. 25 Core	LP per 100 Mtrs	Cat. No. 30 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR24-0005A-NAA-M	18000	CR25-0005A-NAA-M	On request	CR30-0005A-NAA-M	On request	4
0.75 sqmm	CR24-0008A-NAA-M	24500	CR25-0008A-NAA-M	On request	CR30-0008A-NAA-M	On request	7
1.0 sqmm	CR24-0010A-NAA-M	31500	CR25-0010A-NAA-M	On request	CR30-0010A-NAA-M	On request	12
1.5 sqmm	CR24-0015A-NAA-M	43000	CR25-0015A-NAA-M	On request	CR30-0015A-NAA-M	On request	15
2.5 sqmm	CR24-0025A-NAA-M	72000	CR25-0025A-NAA-M	On request	CR30-0025A-NAA-M	On request	20
4.0 sqmm	CR24-0040A-NAA-M	On request	CR25-0040A-NAA-M	On request	CR30-0040A-NAA-M	On request	27

Conductor area (Normal)	Cat. No. 36 Core	LP per 100 Mtrs	Current Rating (Amps)
0.5 sqmm	CR36-0005A-NAA-M	On request	4
0.75 sqmm	CR36-0008A-NAA-M	On request	7
1.0 sqmm	CR36-0010A-NAA-M	On request	12
1.5 sqmm	CR36-0015A-NAA-M	On request	15
2.5 sqmm	CR36-0025A-NAA-M	On request	20
4.0 sqmm	CR36-0040A-NAA-M	On request	27

The conductor construction given above is indicative only and will be such that all requirements of strand diameter and conductor resistance as per IS 694:2010 and IS 8130:2013 are met.

Sizes 0.5 to 35 Sq. mm from 2 to 4 cores with ISI mark, rest all generally conforming to the IS. Standard packing available in 100 meter coils, longer lengths on drums (500m to 1000m)

Power Factor Control Products

- **LT Power Capacitors - Cylindrical Type**
- **LT Power Capacitors - Box Type**
- **Freedom Series Capacitor Duty Contactor**
- **Super Heavy Duty Box Type Capacitor**
- **Detuned Reactors**
- **Thyristor Switched Module**
- **Automatic Power Factor Controllers (APFC)
& Intelligent Power Factor Controllers (IPFC)**
- **Network Analysers**
- **APFC Panels**



LT Power Capacitors.....

BCH

MPP Can type capacitors



MPP Can Type Capacitors(with ISI Mark) (440V)

HSN Code : 8532

KVAR	Normal Duty		Heavy Duty	
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
1	BCHMCN001B	270	BCHMCH001B	375
2	BCHMCN002B	540	BCHMCH002B	750
3	BCHMCN003B	810	BCHMCH003B	1125
4	BCHMCN004B	1080	BCHMCH004B	1500
5	BCHMCN005B	1310	BCHMCH005B	1705
7.5	BCHMCN007B	1965	BCHMCH007B	2555
10	BCHMCN010B	2355	BCHMCH010B	3155
12.5	BCHMCN012B	2950	BCHMCH012B	3945
15	BCHMCN015B	3535	BCHMCH015B	4735
20	BCHMCN020B	4715	BCHMCH020B	6320
25	BCHMCN025B	5895	BCHMCH025B	7895

Heavy edge Zn-Al Alloy MPP film

0.02 - 0.03 micron metallised layer

MPP Capacitors (IS13340)

MPP capacitors are manufactured using Zn-Al metallized polypropylene film. These modules are provided with pressure interrupter arrangement for safety against bursting due to internal pressure arised due to prolonged high voltage / current. The modules are assembled in aluminium case or CRCA container

MPP Box Type Capacitors(with ISI Mark) (440V)

HSN Code : 8532

KVAR	Normal Duty		Heavy Duty	
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
1	BCHMBN001B	293	BCHMBH001B	376
2	BCHMBN002B	585	BCHMBH002B	752
3	BCHMBN003B	878	BCHMBH003B	1130
4	BCHMBN004B	1170	BCHMBH004B	1505
5	BCHMBN005B	1380	BCHMBH005B	1775
7.5	BCHMBN007B	2070	BCHMBH007B	2660
10	BCHMBN010B	2755	BCHMBH010B	3545
12.5	BCHMBN012B	3450	BCHMBH012B	4435
15	BCHMBN015B	4140	BCHMBH015B	5320
20	BCHMBN020B	5515	BCHMBH020B	7095
25	BCHMBN025B	6895	BCHMBH025B	8870



Price of 480V & 525V Capacitors available on request.

LT Power Capacitors..... BCH



APP Box Type Single Layer Capacitors & Super Heavy Duty Box Type Capacitors (with ISI Mark) (440V)

HSN Code : 8532

KVAR	APP Capacitor		SHD Capacitor	
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
1	BCHAPS001B	755	BCHSHD001B	1590
2	BCHAPS002B	1505	BCHSHD002B	3180
3	BCHAPS003B	2255	BCHSHD003B	4770
4	BCHAPS004B	3005	-	-
5	BCHAPS005B	3655	BCHSHD005B	6810
7.5	BCHAPS007B	5485	BCHSHD007B	10225
10	BCHAPS010B	6790	BCHSHD010B	13630
12.5	BCHAPS012B	8490	BCHSHD012B	17035
15	BCHAPS015B	10185	BCHSHD015B	20440
20	BCHAPS020B	13580	BCHSHD020B	27260
25	BCHAPS025B	16985	BCHSHD025B	34070

Price of 480V & 525V Capacitors available on request.

7% Aluminium wound & Copper wound 440V Detuned Reactors

HSN Code : 8504

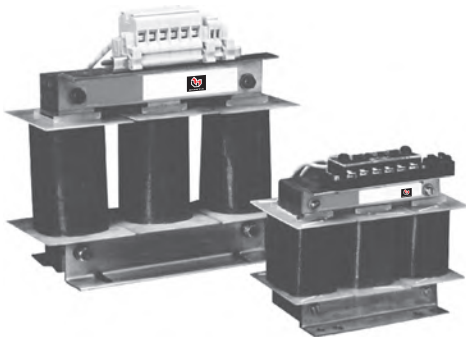
KVAR	Aluminium wound		Copper wound	
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
5	BCHRAL005B	8140	BCHRCU005B	12615
10	BCHRAL010B	9805	BCHRCU010B	14525
15	BCHRAL015B	12135	BCHRCU015B	16875
20	BCHRAL020B	15320	BCHRCU020B	19765
25	BCHRAL025B	16885	BCHRCU025B	22605
50	BCHRAL050B	23610	BCHRCU050B	35365
75	BCHRAL075B	33525	BCHRCU075B	50640
100	BCHRAL100B	38485	BCHRCU100B	63730

APP Capacitors

Double thick double hazy pp film

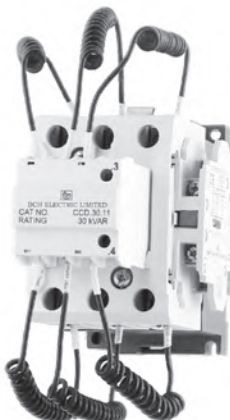
Aluminium foil

Non self healing APP capacitors manufactured using double hazy and double thick polypropylene films between two electrodes of thick aluminium foil have extended foil construction to ensure low watt losses



Freedom series Capacitor duty contactor (AC Control)

HSN Code : 8536



kVAR rating at 415V 3Ph 50Hz	Cat No.	Aux Contacts	MRP [₹]
5	CCD.05.11.■	1NO+1NC	1990
10	CCD.10.11.■	1NO+1NC	2170
15	CCD.15.11.■	1NO+1NC	3165
20	CCD.20.11.■	1NO+1NC	3715
25	CCD.25.11.■	1NO+1NC	4405
30	CCD.30.11.■	1NO+1NC	7260
40	CCD.40.11.■	1NO+1NC	11075
50	CCD.50.21.■	2NO+1NC	11430
60	CCD.60.21.■	2NO+1NC	13060

■ Standard coil voltages are 24, 110, 220/240 & 380/415 V AC, 50 Hz. For voltage codes refer Table on page 24
Effective from 06.04.2020

LT Power Capacitors..... BCH



Thyristor Switched Module with Visual Circuit Indicator HSN Code : 8538

KVAR	Type	Rated Voltage (V)	Cat. No.	MRP [₹]
5	TSM	440	BCHTSM005	32680
10	TSM	440	BCHTSM010	32680
15	TSM	440	BCHTSM015	32680
20	TSM	440	BCHTSM020	37285
25	TSM	440	BCHTSM025	37285
50	TSM	440	BCHTSM050	46500
75	TSM	440	BCHTSM075	77200
100	TSM	440	BCHTSM100	77200

APFC

Intelligent Power Factor Controllers (IPFC)

Steps	Cat. No.	Voltage	Brief description	MRP [₹]
12 STEP - 3φ	RG3-12C	230V	12 Step intelligent PFC	33720
12 STEP - 3φ	RG3-12CS	230V	12 Step intelligent PFC with RS 485 communication	37155
15 STEP - 3φ	RG3-15C	230V	15 Step , Intelligent PFC relay	35345
15 STEP - 3φ	RG3-15CL	230V	15 Step , Intelligent PFC relay with 3 steps for reactor	On request
15 STEP - 3φ	RG3-15CS	230V	15 Step , Intelligent PFC relay with RS485 communication	42765
15 STEP - 3φ	RG3-15CLS	230V	15 Step , Intelligent PFC relay with 3 steps for reactor and RS485 communication	On request

Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only



- 3-Phase / 3CTs
- Connecting Single-Phase & 3-Phase Capacitors
- Compensation of Each Phase
- Measures : A, Cos-Ø, Total W, Total VAR, Total VA, Total KWH, Total KVAh
- Harmonic Measurement (up to 19th)
- THD 1% THD V%
- Programmable THD Protection
- Programmable Discharge Time
- Programmable THD Alarm
- Password Protection for setup
- Overheat Protection (Optional)
- RS-485 Communication (Optional)
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection with communication

Automatic Power Factor Controllers (APFC)

Steps	Cat. No.	Voltage	Brief description	MRP [₹]
6 STEP - 1 φ	RG-6T-230-96	230V	PFC (96X96) WITH 6 STEPS , 230 V	12945
6 STEP - 1 φ	RG-6T-415-96	415V	PFC (96X96) WITH 6 STEPS , 415 V	12945
6 STEP - 1 φ	RG-6T-230	230V	PFC (144X144) WITH 6 STEPS, 230 V	13645
6 STEP - 1 φ	RG-6T-415	415V	PFC (144X144) WITH 6 STEPS, 415 V	13645
8 STEP - 1 φ	RG-8T-230	230V	PFC (144X144) WITH 8 STEPS, 230 V	15515
8 STEP - 1 φ	RG-8T-415	415V	PFC (144X144) WITH 8 STEPS, 415 V	15515
8 STEP - 3 φ	RG3-8T-230	230V	PFC 144X144, 8 STEPS, 230V UNBALANCELOAD	20865
12 STEP - 1 φ	RG-12T-230	230V	PFC (144X144) WITH 12 STEPS, 230 V	19425
12 STEP - 1 φ	RG-12T-415	415V	PFC (144X144) WITH 12 STEPS, 415 V	19425
12 STEP - 3 φ	RG3-12T-230	230V	PFC 144X144, 12 STEPS, 230V UNBALANCELOAD	25250

Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only

Motors

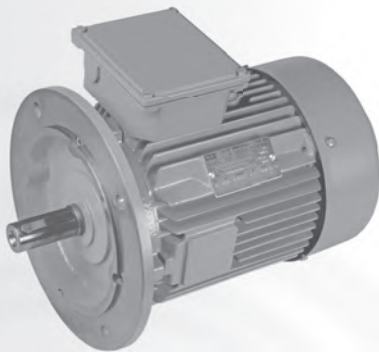
ENDURA

Low Voltage AC TEFC Squirrel
Cage Induction Motors

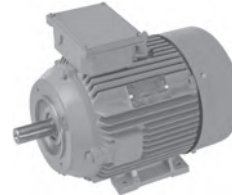
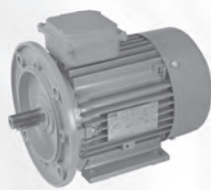
**EFF1
EFF2**

50°C
ambient temperature

Class F

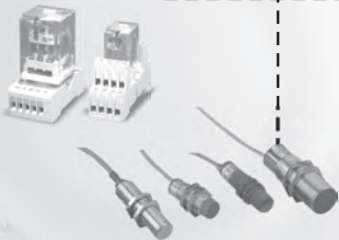


- **0.12 HP to 425 HP**
- **2 to 8 Poles**
- **Vector Plus with forced cooling**
- **Upto 40 intermediate standard ratings**
- **High efficiency, consistent - life long**
- **Low loss for entire life**
- **Inverter duty motor**
- **No deration upto 50° C**
- **Dual coat winding wire as standard feature**
- **6 terminals across the range**
- **Top, LHS, RHS termination flexibility**
- **CE marking**



Automation Products

- **AC Drives**
- **Digital DC Drives**
- **Programmable Logic Relays**
- **Soft Starters**
- **e-prox Sensors**
- **Plug-in Relays**
- **Electronic Timers**



SINUS N Drive



- 0.37~3Kw, Input-1Phase 200-230V AC
- Output - 3 Phase 200-230V AC
- Sensorless vector and V/F control
- Build in PID function

HSN Code - 8504

Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37	SINUS N	SINUS N 2S0001XBK2	Input - 1 phase 200 - 230V AC, Output - 3 phase, 230V AC	With EMC	2.5	16700
0.37	SINUS N	SINUS N 2S0001XIK2		W/o EMC	2.5	15750
0.75 - 1.1	SINUS N	SINUS N 2S0002XBK2		With EMC	5	19050
0.75 - 1.1	SINUS N	SINUS N 2S0002XIK2		W/o EMC	5	17900
1.5 - 1.8	SINUS N	SINUS N 2S0003XBK2		With EMC	8	23350
1.5 - 1.8	SINUS N	SINUS N 2S0003XIK2		W/o EMC	8	21400
2.2 - 3	SINUS N	SINUS N 2S0005XBK2		With EMC	12	28400
2.2 - 3	SINUS N	SINUS N 2S0005XIK2		W/o EMC	12	26250

SINUS M Drive



- 0.4~22Kw 380-480V AC, 3 phase
- Sensorless vector and V/F control
- Integrated braking module
- Build in PID function

HSN Code - 8504

Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37 - 0.55	SINUS M	SINUS M 4T0001BA2K2	Input - 3 phase 415V AC, Output - 3 phase, 415V AC	With EMC	1.25	25700
0.75 - 0.9	SINUS M	SINUS M 4T0002BA2K2		With EMC	2.50	27850
1.5	SINUS M	SINUS M 4T0003BA2K2		With EMC	4.00	31250
2.2	SINUS M	SINUS M 4T0005BA2K2		With EMC	6.00	33750
3.4	SINUS M	SINUS M 4T0007BA2K2		With EMC	9.00	41450
5.5	SINUS M	SINUS M 4T0011BA2K2		With EMC	12.00	53500
7.5	SINUS M	SINUS M 4T0014BA2K2		With EMC	16.00	63050
11	SINUS M	SINUS M 4T0017BA2K2		With EMC	24.00	110250
15	SINUS M	SINUS M 4T0020BA2K2		With EMC	30.00	127150
18.5	SINUS M	SINUS M 4T0025BA2K2		With EMC	39.00	161050
22	SINUS M	SINUS M 4T0030BA2K2		With EMC	45.00	189400

*SINUS M available in 1 phase to 3 phase version also



AC Drive



Sinus Penta Drive

- 4.5 - 3000 KW, 3 Phase 380 - 415 VAC
- One Drive - Five functions
 - Vector modulation IFD functionality for general-purpose applications
 - Sensorless vector VTC functionality for high torque-demanding applications
 - Vector FOC functionality with an encoder for accurate torque requirements and a wide speed range
 - Vector SYN functionality for applications with brushless, synchronous motors
 - RGN functionality for the inverter application as an AC/DC converter for the DC supply of multiple drives
- In built Braking chopper upto 132KW rating (S30)
- Serial communication port RS485 – MODBUS RTU Protocol
- Starting Torque upto 240% max
- PID function / second PID function
- Control keypad panel with 12 keys and large back-lit LCD
- Intelligent cooling system
- Encoder feedback
- Full compatibility with teleservice software, "REMOTE DRIVE" on internet
- Compatible with Easy Harmonics, tool for the calculation of Harmonic currents

Digital DC Drives



- From 10A to 4500A (2.4 KW to 2205 KW)
3 Phase 220-690VAC
- 2 & 4 Quadrant digital drive
- Local control from keypad
- 12/7 programmable I/Os
- Predictive control and field boost
- Feedback from dynamo/encoder/armature
- Auto switching in armature F/B against
encoder/tacho feed back failure

Digital DC Drives

HSN Code - 8504

Cat. No.	Armature Current (A)	Field Current (A)
DCREG*.10 POT440V	10	5
DCREG*.20 POT440V	20	5
DCREG*.40 POT440V	40	5
DCREG*.70 POT440V	70	5
DCREG*.100 POT440V	100	5
DCREG*.150 POT440V	150	15
DCREG*.180 POT440V	180	15
DCREG*.250 POT440V	250	15
DCREG*.350 POT440V	350	15
DCREG*.410 POT440V	410	35
DCREG*.500 POT440V	500	35
DCREG*.600 POT440V	600	35
DCREG*.900 POT440V	900	35
DCREG*.1200 POT440V	1200	35

* to complete cat code suffix : 2- for II Quadrant drive 4 - for IV Quadrant drive

* For the prices of above mentioned products please contact our nearest sales office.



ASAC Series Soft- Starter

HSN Code - 8504

- Power supply voltage Range: 200-440VAC
- RS-485 Communication Port
- Compact size & Range 7.5KW - 110KW
- Internal By-pass contactor
- 400% Max allowed overload of nominal current.
- Full Compatibility with teleservice software "Remote Drive" on internet

Protection Functions

- Motor Overload
- Phase loss
- Excess start Time
- Phase Sequence
- Motor thermistor I/P
- Power circuit fault
- Supply Frequency
- Communication Failure

BIL Product Reference	Motor Rating Kw	MRP [₹]	Remark
200 - 440 VAC, IP:20			Without Motor Protection & with Inbuilt Bypass contactor.
ASAC-0/007/4/1	7.5	40150	
ASAC-0/015/4/1	15	40700	
ASAC-0/018/4/1	18.5	41200	
ASAC-0/022/4/1	22	43350	
ASAC-0/030/4/1	30	47650	
ASAC-0/037/4/1	37	57250	
ASAC-0/045/4/1	45	70100	
ASAC-0/055/4/1	55	71950	
ASAC-0/075/4/1	75	108950	
ASAC-0/090/4/1	90	119550	
ASAC-0/110/4/1	110	128950	
200 - 440 VAC, IP:20			With Motor Protections & Inbuilt Bypass contactor.
ASAC-1/007/4/1	7.5	56000	
ASAC-1/015/4/1	15	62400	
ASAC-1/018/4/1	18.5	64200	
ASAC-1/022/4/1	22	67950	
ASAC-1/030/4/1	30	75450	
ASAC-1/037/4/1	37	84250	
ASAC-1/045/4/1	45	103050	
ASAC-1/055/4/1	55	108650	
ASAC-1/075/4/1	75	128950	
ASAC-1/090/4/1	90	169600	
ASAC-1/110/4/1	110	184300	



ASAB Series Soft Starter

- 23A - 1600 A, 200V - 525V AC, 380V-690V AC
- 3 wire and 6 wire connection
- Allowed overload from 300%- 450% of nominal
- Various motor protections built in
- 5/5 programmable I/Os
- Integrated Multimeter

Protection Functions

- Thermal motor protection
- Motor thermistor input (PTC)
- Phase imbalance
- Phase sequence
- Electronic shearpin
- Undercurrent
- Shorted SCR
- ...and many more

Starting Functions

- Constant current start mode
- Current ramp start mode
- Torque control
- Kick start
- Inbuilt bypass contractor upto 220AMP



Medium Voltage Soft- Starter

- Power supply 2300VAC to 15000VAC, Rated current 200A to 600A

* For the prices of above mentioned products please contact our nearest sales office.



Standard Version of Inductive Proximity Switches

HSN Code - 8536



- Sizes from 8mm to 30mm Dia
- Switching Distance from 1.5mm to 15mm
- IP 67, CE Marked
- Sensors with Linear output (4 - 20 mA/0-10VDC)

General Specifications

- High switching capacity
- 200mA upto 12mm Dia
- 400mA for 18mm and 30mm Dia
- Wide range of outputs
- Voltages AC/DC
- Status LED Indication
- Built in Short circuit protection

Special Versions

- Non Standard sizes from 4mm to 80mm dia
- High temperature sensors upto 125 Deg C
- Square / Slot / Rectangular sensors
- Sensor with shielded cable

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8SP10	8	1.5	PNP-NO	100	1045	10
DINE8SN10	8	1.5	NPN-NO	100	1045	
DINE12SP10	12	2	PNP-NO	200	825	
DINE12SN10	12	2	NPN-NO	200	825	
DINE18SP10	18	5	PNP-NO	200	880	
DINE18SN10	18	5	NPN-NO	200	880	
DINE30SP10	30	10	PNP-NO	400	1145	
DINE30SN10	30	10	NPN-NO	400	1145	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8NP10	8	2	PNP-NO	100	1045	10
DINE8NN10	8	2	NPN-NO	100	1045	
DINE12NP10	12	4	PNP-NO	200	825	
DINE12NN10	12	4	NPN-NO	200	825	
DINE18NP10	18	8	PNP-NO	200	880	
DINE18NN10	18	8	NPN-NO	200	880	
DINE30NP10	30	15	PNP-NO	400	1145	
DINE30NN10	30	15	NPN-NO	400	1145	
Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12SA10	12	2	NO	200	1030	10
DINE12SA01	12	2	NC	200	1030	
DINE18SA10	18	5	NO	400	1030	
DINE18SA01	18	5	NC	400	1030	
DINE30SA10	30	10	NO	400	1320	
DINE30SA01	30	10	NC	400	1320	
Non Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12NA10	12	4	NO	200	1030	10
DINE12NA01	12	4	NC	200	1030	
DINE18NA10	18	8	NO	400	1030	
DINE18NA01	18	8	NC	400	1030	
DINE30NA10	30	15	NO	400	1320	
DINE30NA01	30	15	NC	400	1320	

*110V AC input voltage is also available

@PROX Range

Capacitive Proximity Switches

HSN Code - 8536



- Sizes: 18mm and 30mm dia
- Switching Distance: upto 15mm
- IP 67, CE Compliance

General Specifications

- Max. load current : 400mA
- Wide range of outputs
- Built in Short circuit & polarity reversal protection
- Sensitivity adjustment thru trimmer

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18SN10	18	1 to 5	NPN-NO	400	2145	10
DCAE18SP10	18	1 to 5	PNP-NO	400	2145	
DCAE30SN10	30	1 to 10	NPN-NO	400	2460	
DCAE30SP10	30	1 to 10	PNP-NO	400	2460	
Non Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18NN10	18	2 to 10	NPN-NO	400	2145	10
DCAE18NP10	18	2 to 10	PNP-NO	400	2145	
DCAE30NN10	30	3 to 15	NPN-NO	400	2460	
DCAE30NP10	30	3 to 15	PNP-NO	400	2460	

Photoelectric Sensors

HSN Code - 8536



- Size : M18 cylindrical
- Mode : diffuse, retro and thru beam
- LED indication
- Sensing distance 20cm to 5mtr.

Special Versions

- Sensors in Rectangular housing

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Nominal Voltage : 12-30V DC Diffuse Scan DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18D2N11	18	200	NPN-NO+NC	200	3255	10
DPHE18D2P11	18	200	PNP-NO+NC	200	3255	
Nominal Voltage : 12-30V DC Retro Reflective DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18RRN11	18	1000	NPN-NO+NC	200	3270	10
DPHE18RRP11	18	1000	PNP-NO+NC	200	3270	
Nominal Voltage : 12-30V DC Through Beam DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18TBRP11	18	5000	PNP-NO+NC	200	3915	10
DPHE18TBRN11	18	5000	NPN-NO+NC	200	3915	

Note :

- Prices for Thru Beam, Photo Sensors are inclusive of emitters & receivers.
- Prices for Retro Reflective Sensors are inclusive of reflectors.



Standard Version of Inductive Proximity Switches

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Connector Size	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication, 200 mA Load upto 12mm & 400 mA for 18 mm						
DINE8SP10K	8	1.5	PNP-NO	M8 Connector	1075	10
DINE8SN10K	8	1.5	NPN-NO	M8 Connector	1075	
DINE12SP10K	12	2	PNP-NO	M12 Connector	1075	
DINE12SN10K	12	2	NPN-NO	M12 Connector	1075	
DINE18SP10K	18	5	PNP-NO	M12 Connector	1075	
DINE18SN10K	18	5	NPN-NO	M12 Connector	1075	
DINE30SP10K	30	10	PNP-NO	M12 Connector	1215	
DINE30SN10K	30	10	NPN-NO	M12 Connector	1215	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication						
DINE8NP10K	8	2	PNP-NO	M8 Connector	1075	10
DINE8NN10K	8	2	NPN-NO	M8 Connector	1075	
DINE12NP10K	12	4	PNP-NO	M12 Connector	1100	
DINE12NN10K	12	4	NPN-NO	M12 Connector	1100	
DINE18NP10K	18	8	PNP-NO	M12 Connector	1075	
DINE18NN10K	18	8	NPN-NO	M12 Connector	1075	
DINE30NP10K	30	15	PNP-NO	M12 Connector	1215	
DINE30NN10K	30	15	NPN-NO	M12 Connector	1215	
Cat. No.	Description Female Connectors				MRP [₹]	
DM8K3	M8 3-Wire straight connector w/o LED & 2 m cable				825	10
DM8K390LE	M8 3-Wire "L" type connector with LED & 2 m cable				825	
DM12K4	M12 4-Wire straight connector w/o LED & 2 m cable				560	
DM12K490	M12 4-Wire "L" type connector w/o LED & 2 m cable				815	
DM12K490LE	M12 4-Wire "L" type connector with LED & 2 m cable				870	
Linear Output Inductive Proximity Sensor - Nominal Voltage 24V DC, 2m Integrated Cable						
DINE18LIN	18	5	0 - 10V	2 m long PVC Cable	1840	10
DINE18LINMA	18	5	4 - 20 mA		1840	

Standard Version DC 2 Wire Proximity Switches

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 24V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8SD10	8	1.5	NO	200	1280	10
DINE12SD10	12	2	NO	200	880	
DINE18SD10	18	5	NO	400	910	
DINE30SD10	30	10	NO	400	1180	
Non Flush Version, Nominal Voltage 12-30V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8ND10	8	2	NO	200	1280	10
DINE12ND10	12	4	NO	200	880	
DINE18ND10	18	8	NO	400	910	
DINE30ND10	30	15	NO	400	1180	

Note : for NC output, replace suffix 10 by 01



Short Housing Inductive Proximity Switch-45mm length

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8SP10S	8	1.5	PNP-NO	200	1320	10
DINE8SN10S	8	1.5	NPN-NO	200	1320	
DINE12SP10S	12	2	PNP-NO	200	890	
DINE12SN10S	12	2	NPN-NO	200	890	
DINE18SP10S	18	5	PNP-NO	400	925	
DINE18SN10S	18	5	NPN-NO	400	925	
Non Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8NP10S	8	2	PNP-NO	200	1320	10
DINE8NN10S	8	2	NPN-NO	200	1320	
DINE12NP10S	12	4	PNP-NO	200	890	
DINE12NN10S	12	4	NPN-NO	200	890	
DINE18NP10S	18	8	PNP-NO	400	925	
DINE18NN10S	18	8	NPN-NO	400	925	

Square / Rectangular Proximity Switch

HSN Code - 8536

Cat. No.*	Size (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable, Plastic Housing						
DINE1717SP10P	17x17x30	5	PNP-NO	200	920	10
DINE5025SP10P	50x25x10	5	PNP-NO	200	965	
DINE1717SN10P	17x17x30	5	NPN-NO	200	920	
DINE5025SN10P	50x25x10	5	NPN-NO	200	965	

* For NC Output, Replace Suffix 10 by 01

** For 110V AC input, Replace A by 2A

*** High Ambient Temp upto 125°C Proximity switch are available on request

Plug in Relays-ASP Series BCH

Plug In Relays - Universal (ASPU)

HSN Code - 8536



- Type ASPU
- 10 Amp (Res) Contact rating
- 2 Change over / 3 Change over

Coil Voltage	Without latch / Manual Testing		With latch / Manual Testing		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
8 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
12V DC	ASPU212DLE	340	ASPU212DLET	490	2 C/O	10
24V DC	ASPU224DLE	335	ASPU224DLET	490		
110V DC	ASPU2110DLE	370	ASPU2110DLET	510		
12V AC	ASPU212ALE	370	ASPU212ALET	540		
24V AC	ASPU224ALE	395	ASPU224ALET	530		
110V AC	ASPU2110ALE	390	ASPU2110ALET	525		
240V AC	ASPU2240ALE	430	ASPU2240ALET	585		
11 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
12V DC	ASPU312DLE	410	ASPU312DLET	510	3 C/O	10
24V DC	ASPU324DLE	400	ASPU324DLET	525		
110V DC	ASPU3110DLE	435	ASPU3110DLET	575		
24V AC	ASPU324ALE	455	ASPU324ALET	585		
110V AC	ASPU3110ALE	450	ASPU3110ALET	595		
240V AC	ASPU3240ALE	480	ASPU3240ALET	625		

Plug In Relays - Universal (ASPS)

HSN Code - 8536



- Type ASPS
- 5 Amp (Res) Contact rating
- 2 Change over / 3 Change over

Coil Voltage	Cat. No.	Contacts	MRP [₹]	Lot Size
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
12V DC	ASPS212DLE	2 C/O	300	10
24V DC	ASPS224DLE		300	
48V DC	ASPS248DLE		330	
110V DC	ASPS2110DLE		345	
12V AC	ASPS212ALE		325	
24V AC	ASPS224ALE		330	
110V AC	ASPS2110ALE		325	
240V AC	ASPS2240ALE		370	
11 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
12V DC	ASPS312DLE	3 C/O	370	10
24V DC	ASPS324DLE		370	
48V DC	ASPS348DLE		440	
110V DC	ASPS3110DLE		420	
24V AC	ASPS324ALE		360	
110V AC	ASPS3110ALE		370	
240V AC	ASPS3240ALE		415	

Sockets for ASPU / ASPS Plug in Relay

HSN Code - 8538

Cat. No.	Type	MRP [₹]	Lot Size
10A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting			
ASSU11	SOCKET 11 PIN FOR ASPS/ASPU Relay	175	10
ASSU8	SOCKET 8 PIN FOR ASPS/ASPU Relay	130	

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ASP Series BCH



- Type ASPM
- 5 Amp (Res) Contact rating
- 2 Change over / 4 Change over

Plug In Relays - Miniature (ASPM)

HSN Code - 8536

Coil Voltage	Cat. No.	Contacts	MRP [₹]	Lot Size
14 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
12V DC	ASPM412DLE	4 C/O	265	20
24V DC	ASPM424DLE		265	
48V DC	ASPM448DLE		270	
110V DC	ASPM4110DLE		270	
24V AC	ASPM424ALE		290	
110V AC	ASPM4110ALE		300	
240V AC	ASPM4240ALE		300	
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
12V DC	ASPM212DLE	2 C/O	230	20
24V DC	ASPM224DLE		230	
48V DC	ASPM248DLE		265	
110V DC	ASPM2110DLE		265	
24V AC	ASPM224ALE		265	
110V AC	ASPM2110ALE		265	
240V AC	ASPM2240ALE		265	

Sockets - for ASPM Plug in Relay

HSN Code - 8538

Cat. No.	Type	MRP [₹]	Lot Size
5A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting			
ASSM14	SOCKET 14 PIN FOR ASPM Relay	205	20
ASSM8	SOCKET 8 PIN FOR ASPM Relay	140	

* For price of other coil voltage, please contact our nearest sales office.

Universal Relays



- Type ARPU
- 10 Amp (Res) Contact rating
- 2 Change over / 3 Change over
- Silver Nickel Contacts
- Built in Mechanical Indicator/ Latching facility
- Wide Coil Voltages
- With and without LED
- 8 Pin / 11 Pin Socket



Socket & Clamp (ARPU)

35 mm DIN rail mounting Rating : 10 A, 250V



Plug In Relays - Universal (ARPU)

HSN Code - 8536

Coil Voltage	Without LED Indication		With LED Indication		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
8 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPU212D	700	ARPU212DLE	975	2 C/O	10
24V DC	ARPU224D	780	ARPU224DLE	950		
48V DC	ARPU248D	755	ARPU248DLE	755		
110V DC	ARPU2110D	730	ARPU2110DLE	730		
24V AC	ARPU224A	680	ARPU224ALE	680		
48V AC	ARPU248A	625	ARPU248ALE	730		
110V AC	ARPU2110A	730	ARPU2110ALE	730		
230V AC	ARPU2230A	790	ARPU2230ALE	965		
11 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPU312D	755	ARPU312DLE	755	3 C/O	10
24V DC	ARPU324D	905	ARPU324DLE	905		
48V DC	ARPU348D	770	ARPU348DLE	805		
110V DC	ARPU3110D	790	ARPU3110DLE	790		
24V AC	ARPU324A	770	ARPU324ALE	775		
48V AC	ARPU348A	770	ARPU348ALE	770		
110V AC	ARPU3110A	705	ARPU3110ALE	985		
230V AC	ARPU3230A	870	ARPU3230ALE	1015		

Sockets for ARPU Plug in Relay

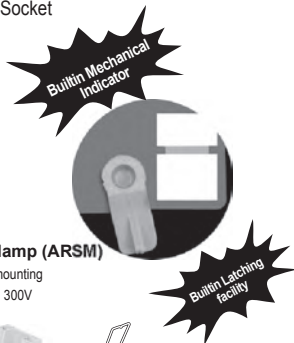
Cat. No.	Type	MRP [₹]	Lot Size
10A, 250V AC, Screw Terminals, 35mm DIN Rail Mounting			
ARSU11	11 Pin Socket	360	10
ARSU8	8 Pin Socket	335	
ARPUCL	Holding Clamp	40	

Plug in Relays-ARP Series/Timer..... BCH

Miniature Plug in Relays



- Type ARPM 2/4
- 12/6 Amp. (Res.) Contact rating
- 2 Change over / 4Change over
- Silver Nickle Contacts
- Built in Mechanical Indicator/Latching facility
- Wide Coil Voltages
- 8 Pin / 14 Pin Socket



Socket & Clamp (ARSM)
35 mm DIN rail mounting
Rating : 6A, 12A, 300V



On Delay



- Fixed Voltage, Fixed Time
- Wide range of input supply - 220VAC; 110VAC; 24V AC/DC
- Large calibrated dial for easy and accurate time setting
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose On Delay timer

Multi Function



- 4 Functions - On delay, Interval , Off delay, Single Shot
- Multi Time Range - Sec / Min / Hr
- Universal Voltage - 24 V- 230V AC/DC
- Large calibrated dial for easy and accurate time setting
- Compact Design
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose Timer

Plug in Relays - Miniature (ARPM)

HSN Code - 8536

Coil Voltage	Without LED Indication		With LED Indication		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
14 Pin, Contact rating = 6A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPM412D	325	ARPM412DLE	445	4 C/O	10
24V DC	ARPM424D	315	ARPM424DLE	360		
110V DC	ARPM4110D	485	ARPM4110DLE	485		
24V AC	ARPM424A	345	ARPM424ALE	400		
110V AC	ARPM4110A	340	ARPM4110ALE	375		
230V AC	ARPM4230A	355	ARPM4230ALE	400		
8 Pin, Contact rating = 12A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPM212D	450	ARPM212DLE	470	2 C/O	10
24V DC	ARPM224D	335	ARPM224DLE	410		
110V DC	ARPM2110D	490	ARPM2110DLE	490		
24V AC	ARPM224A	475	ARPM224ALE	475		
110V AC	ARPM2110A	380	ARPM2110ALE	400		
230V AC	ARPM2230A	360	ARPM2230ALE	425		

Sockets for ARPM Plug in Relay

Cat. No.	Type	MRP [₹]	Lot Size
Screw Terminals, 35mm DIN Rail Mounting			
ARSM14	14 Pin Socket	290	10
ARSM8	8 Pin Socket	220	
ARPMCL	Holding Clamp	40	

IBT Electronic Timer

Fixed Voltage; Fixed Time Range - IBTA

HSN Code - 9107

Cat No.	Time Range	Function	MRP [₹]
IBT00-0-	0.6-6/3-30/6-60/18-180 Sec	On Delay	920

- Voltage Code
- Timing Range for IBTA On Delay Timer

Voltage Codes

Voltage	Voltage Code
240V AC	1
110V AC	2
24V AC/DC	3
12V DC	4

Timing Code for IBTA On Delay Timer

Time Range	Code
0.6 - 6 Sec.	1
3 - 30 Sec.	2
6 - 60 Sec.	3
18 - 180 Sec.	4

Universal Voltage, Multi Time, Multi Function - IBTMU

HSN Code - 9107

Cat No.	Time Range	Function	Voltage	MRP [₹]
IBT04500	0.1S - 10 Hr.	On Delay, Off Delay, Interval, Single Shot	24-240V AC/DC	1775



- On Delay
- Off Delay
- Cyclic
- Multifunction
- Star Delta
- Special version for Compressor application
- AC / DC Supply
- Widest timing range from 0.1 sec to 10 Hours in Single Unit
- Calibrated time scale for easy time setting
- DIN rail mounting
- Excellent repeat accuracy

Electronic Timers

HSN Code - 9107

Description	Cat.No.	MRP [₹]
Timer Encapsulated on delay Timer Type SAS-P (Solid State output) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 1 sec. or 0.1-10 Sec. or 1-100 Sec., or 3-300 Sec.	SST00-0-	945
Encapsulated on delay timer type SAS-CB (Solid State output) (Compressor/Heat pump) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 180 Sec. fixed	SST02-00	945
Chronos Delay on make type BAR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT00-00	1705
Delay on break type BCR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT01-00	1860
Recycling type BDR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT02-00	2400
Multifunction type BLR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT03-00	1880
Star-Delta Timer Type DQR-0.2-20 Sec./1-100 Sec.; 415/240, 110V: AC	SDT00-0-	1740

- Voltage Code
- Timing Range for Star-Delta Timers & SAS Timer

Voltage Codes

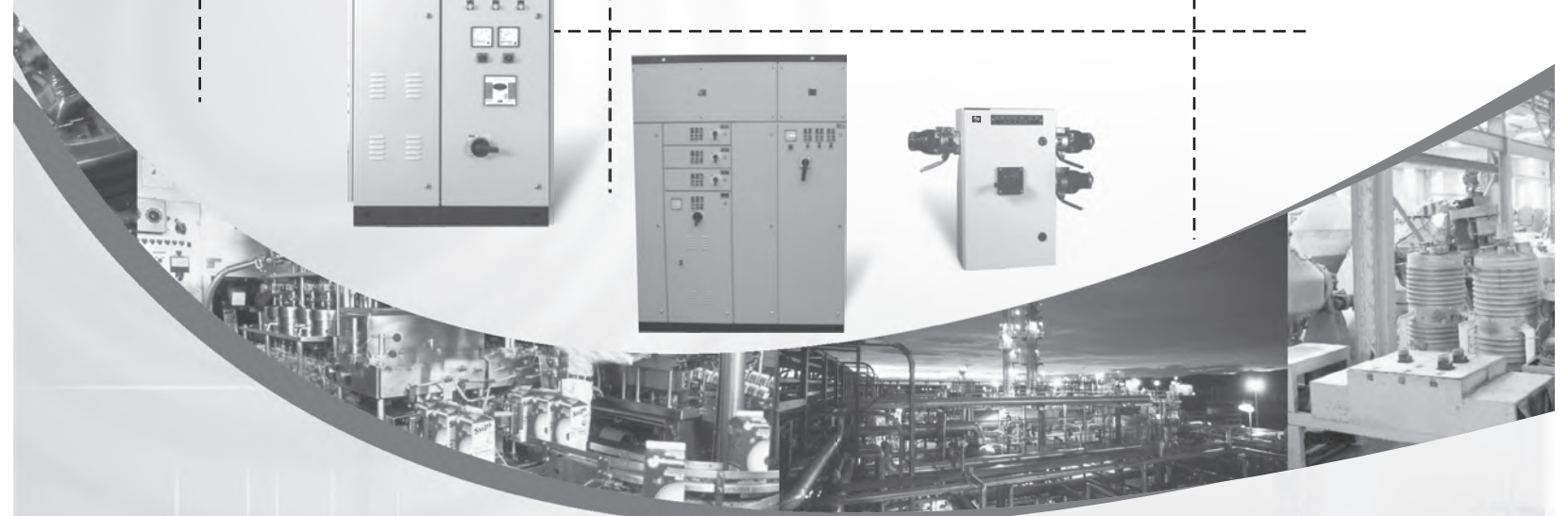
Type	Voltage	Voltage Code
B	240V AC; 24 V AC/DC	1
	110 V AC; 24 V AC/DC	2
	12 V DC	5
D	240 V AC	1
	415 V/240 V AC	0
	110 V AC	2
SAS	240V AC	1
	110V AC	2
	48V AC/DC	3
	24V AC/DC	4

Timing Code

Type	Timing	Code
DQR (Star Delta Timer)	20 Sec.	0
	40 Sec.	1
	100 Sec.	2
SAS	1 Sec.	0
	10 Sec.	1
	100 Sec.	2
	300 Sec.	3

Custom Built Products

- **MCC & PCC**
- **APFC Panels**
- **Crane Control Panels**
- **Punch Grid Resistors & Panels, NGR & DBR**
- **Special Purpose Starters**
- **Power Receptacles**
- **Auto Transformer Starters**



Motor Control Centres (MCC) & Power Control Centres (PCC)



SWITCHBOARD DATA SHEET

BCH Switchboards are manufactured at Faridabad works complying to latest design standard & manufacturing processes, with inhouse powder coating paint shop, gasketing shop, fabrication shop equipped with AMADA punching & bending machines.

Switchboards are modular in design, metal clad, free standing, air insulated, floor mounted & compartmentalized type suitable for most critical and rugged indoor/outdoor application & tough industrial environment.

TECHNICAL DATA

Standard & Specification

Power Switchgear & Controlgear assembly as per IEC 61439 - 1 & 2

- Short circuit Test - Bus-bar system designed for 50 KA rms / 1sec, and peak fault withstanding Strength 105 KA & 65KA rms/1sec & 143KA peak fault withstand as per IS: 8623 and IEC: 61439
- Temperature rise - Panel tested for 800 A to 4000 A from CPRI Bhopal as per IS: 8623 and IEC: 61439
- Impulse withstand test - Rated impulse withstand test for 8Kv from CPRI, Bangalore as per Sub clause 10.9 of IEC 61439-1 & 2
- Seismic Zone & Resonance search test - As per IEE693:2018, PERFORMANCE LEVEL ZPA0.5g

Product range

- PCC upto 6300A- Single Tire/Two Tire/Three Tire version
- PMCC/IMCC/CMCC- Fixed/drawout version
- Power Distribution Panel / Lighting panel

Electrical Data

- Rated insulation voltage (Ui) 1000V
- Rated operating voltage (Ue) Upto 690V
- Rated impulse withstand voltage (Uimp) 8KV
- Rated frequency (fn) 50 / 60 Hz

Main Horizontal Bus Bar -

Aluminum grade E 91E as per IS:5082 & Electrolytic grade Copper Bus-bars

- Rated current (Ie) Up to 6300 A
- Rated peak withstand current (Ipk) Up to 220 KA
- Rated short-time withstand current(Icw) Up to 80 KA-1sec

Vertical Distribution Bus Bar

- Rated current (Ie) up to 2000 A
- Rated peak withstand current (Ipk) up to 220 KA
- Rated short-time withstand current (Icw) up to 80 KA-1sec

Insulation characteristics

- Clearence >20 mm
- Creepage distance >20 mm
- Pollution degree 3

Degree of protection

- According to IEC 60529 :
 - IP 54/IP 55 for switchboards & IP-65 for non compartmentalized distribution Boards. CPRI & ERDA TESTED

Gasketing

- Joint-less, seamless self adhesive, PU foam Gasketing to ensure defined IP.

Enclosure

- Modular design, uses CR Grade CRCA and Electro galvanized steel for structures are SKIN Pass, Zero spangle with high GSM zinc coating. Ensuring high corrosion resistance against extreme climatic condition after powder coating.

Mechanical Impact

- According to IEC 62262 : 2002 IK-10 followed by IP 55; ERDA tested

Forms of seperation

- According to IEC 61439-2 Up to Form 4 Type 6

Structure components

- Sheet steel of frame & load bearing member 2.0mm/GI
- Door partition & Cover with stiffner Upto 2mm
- Gland plate Upto 3mm
- Base frame channel ISMC 75/100 or 3mm CRCA

Surface treatment / Painting

- Frame including internal subdivisions & external Standard paint shade - RAL-7035, RAL-7032 and 631 as per IS:5. Ten tank spray type pre-treatment prior to powder coating with fully automated powder coating shop.

Plastic components

- Flame retardant, halogen free flame retardant, halogen free

Resistance to corrosion

- Salt spray test - Tri Cataionic Zinc Phosphate based powder coated enclosure can withstand 1000 Hrs in SST as per IS

Bus bar systems

- Bus bar insulation
 - Main Bus bars & vertical bus bars are fully sleeved with insulated heat shrunk PVC Sleeves except at the joints for electrical insulation.
- Bus bar support
 - All bus bars are supported with rigid SMS/DMC supports & are shrouded with FRP from rear side.

3Phase Automatic Power Factor Correction (APFC) Panels

Key Features

- Advanced Micro Controller based Power Factor Controller with Self-diagnostic Sensing and Control of Capacitor Bank Stages.
- High performance 'BCH' Cylindrical & Box type Capacitors.
- Capacitor duty Contactors for reliable & trouble free operation.
- Choice of BCH Make Thyristor switch for capacitor switching & CU/AL wound Detuned reactor as an option.
- Choice of selection of Capacitors as per application & site conditions.
- Thoughtfully designed Panels with provision for louvres & cooling fan for proper ventilation to manage heat load.
- Enclosure with Epoxy based paint shade RAL 7035
- PU Foam Gasketing for sustained Ingress Protection of the Panel.



Five Standard Versions of APFC Panels are available depending upon Switching Sequence, Mode of Control (Automatic & Manual options) & Type of Capacitors (Cylindrical / Box type) used.

VERSION 1 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITHOUT** Manual option.

VERSION 2 - With BCH MPP Heavy Duty Box Capacitors & **WITHOUT** Manual option.

VERSION 3 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITH** Manual option.

VERSION 4 - With BCH MPP Heavy Duty Box Capacitors & **WITH** Manual option.

VERSION 5 - With BCH APP Box Type Capacitors & **WITH** Manual option.

(Other tailor made versions on request)

Common Features

CAPACITOR RATING - 40 to 200KVar in Standard Ratings of 40, 50, 60, 75, 100, 125, 150, 175 & 200 KVar with suitable banking arrangement.

MOUNTING - Wall Mounting up-to 75KVar & Floor Mounting above 75 KVAR ratings.

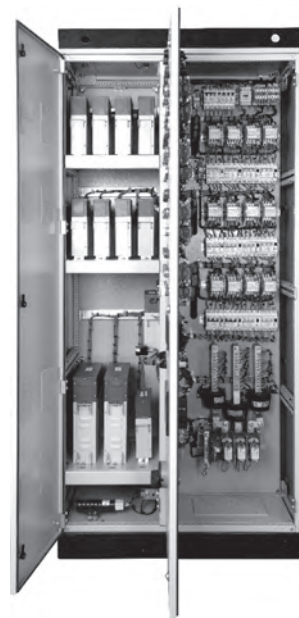
INCOMING - BCH-Resilient 3-P MCCB with Rotary handle.

OUTGOING - TP MCB or HRC fuses with fuse base as standard (BCH-Resilient 3-P MCCB or SDFU and Compartmentalized outgoing feeders can also be provided depending upon size of panel on request).

CONTACTORS - BCH Capacitor Duty Contactors as standard (BCH Thyristor switches on request).

R-Y-B INDICATIONS - RYB for Incomer & ON-OFF for Outgoing

AMMETER/VOLTMERS - Provided for VERSIONS 3, 4 & 5 only.



For prices contact our nearest sales office.



AC Crane Control Bridge and Trolley Motion

This controller provides reversing and plugging operation of slip ring induction motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.



Design Features

- Simplified reliable circuitary
- Inverse Time delay Magnetic Overload protection
- Time Limit acceleration
- Speed Control by series resistors
- No Volt protection
- Special Unique plugging circuit with a voltage relay
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life
- Panels for indoor and outdoor protection

AC Crane Control Hoisting Motion

- Plain rotor resistance
- AC Single phase dynamic braking
- Counter torque lowering
- Opotor Control
- Creep Speed



DC Crane Control Hoisting Motion

This control is for use with series wound motors drive for crane hoists and is arranged for reversing and dynamic lowering service. control



DC Crane Control (Bridge and Trolley motion)

This controller provides reversing and plugging operation of series wound motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.

Design Features

- Simplified reliable circuitary
- Inductive time limit acceleration on hoisting & lowering
- Better speed control on light or heavy loads when hoisting or lowering
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life

Design Features

- Simplified, reliable circuitary
- Rectifier controlled plugging
- Instantaneous and Inverse time delay magnetic overload protection
- No volt protection
- Heavy duty DC Contactors equipped with magnetic blowouts
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life

Resistors & Starters..... BCH

Punched Grid Resistors



Applications:

- Speed Control Resistors
- Starting Resistors for AC and DC Motors
- Dynamic Braking Resistors
- Neutral Grounding Resistors (upto 11KV)

Features

- Special Chromium Steel Alloy (AISI406) for :
 - a) Higher resistivity (approx 70% higher than others)
This results in overall light and compact unit
 - b) Low temperature coefficient (approx 72% lower than others)
This means negligible change in resistance values despite grid temperature variations (very important parameter in applications like crane controls)
 - c) Unbreakable and corrosion free Grids . Suitable for extreme vibration conditions
 - d) Drawout type of banks for ease of removal while replacements
 - e) Three rod construction for higher range resistance grid for improved mechanical strength
 - f) Individual grids are T.I.G. welded for consistent current path
 - g) Unique design using staggered grid pattern ensuring maximum air circulation
 - h) Terminal designed for 2 types of conductors ensuring flexibility

We also manufacture NGRs & DBRs

Special Purpose Starters

- Direct ON Line Starters upto 500 HP
- Star Delta Starters upto 650 HP
- Closed Transition Star Delta Starters upto 650 HP
- Automatic Stator Rotor Starting Panels upto 1000 HP
- DC starter upto 600A

GST to be charged extra on PGR Prices

PGRs are 10 minutes rated.

Temp. rise : 375 deg over ambient

Dimensions in mm (WxHxD) : 673x152x250 HSN Code - 8533

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	₹
WL10	0.1	225	14995
W12	0.125	200	13265
WL16	0.16	180	15320
WL20	0.2	150	15645
WL25	0.25	134	13810
WL32	0.32	118	12225
WL40	0.4	113	14145
WL50	0.5	100	11945
WL62	0.62	84	15420
WL80	0.8	75	13970
WL100	1	67	12995
WL125	1.25	64	14460
WL160	1.6	57	12480
WL200	2	54	13890
WL250	2.5	48	12260
WL320	3.2	43	10735
WL400	4	40	14960
WL500	5	35	10855
WL625	6.25	33	12400
WL800	8	29	11565
WL1200	12	21	12400
WL1600	16	19	12025

Dimensions in mm (WxHxD) : 800x152x250 HSN Code - 8533

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	₹
WLL20(M)-1	0.325	150	24325
WLL25(M)-1	0.54	134	23260
WLL32(M)-1	0.68	118	19725
WLL50(M)-1	0.864	100	16705



Power Receptacles..... BCH

Power Receptacles

Range

- Single / Multiple outlet boxes
- 16/32/63/125A rating
- With or without protection
- Option of back up protection with :
MCBs
SDFUs
MCCBs
- Modular and compact construction
- Loop in Loop out facility
- Higher degree of Ingress Protection
- 7 Tank processed powder coated enclosure
- PU Gasketing for excellent sealing against dust and water



Plugs and Socket outlets with / without protection, mounted in CRCA enclosure of suitable size

Single Outlet	Incomer (1 No.)			Standard Version Cat reference	Loop in loop out version Cat reference
	Switch Type	MCCB Type	MCB		
1 No DS1A7A1 and 1 No. DS1B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR16SDF-1	PR16SDF-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	16A,TPN	PR16MCB-1	PR16MCB-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	-	PR16WP-1	PR16WP-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR32SDF-1	PR32SDF-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	32A,TPN	PR32MCB-1	PR32MCB-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	-	PR32WP-1	PR32WP-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	PSFS633ND000/ PSFS633ND00	-	-	PR63SDF-1	PR63SDF-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	XFE063N+ separate Neutral Link + Rotary Handle	-	PR63MCCB-1	PR63MCCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	63A,TPN	PR63MCB-1	PR63MCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	-	PR63WP-1	PR63WP-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	PSFS1253ND	-	-	PR125SDF-1	PR125SDF-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR125MCCB-1	PR125MCCB-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	-	-	PR125WP-1	PR125WP-1-LILO

Double Outlet

2 No DS6A7A1 and 2 No. DS6B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR63MCCB-2	PR63MCCB-2-LILO
2 No DS6A7A1 and 2 No. DS6B7A1	PSFS1253ND	-	-	PR63SDF-2	PR63SDF-2-LILO

* Prices : Available on request

Auto Transformer BCH

Auto Transformer Starter Panels upto 800 HP

Advantages

- Good Starting Torque and current performance
- Possibility of adjusting starting parameters
- No break in supply to the motor during starting
- Best suited when maximum reduction of Inrush current is desired or motor requires longer acceleration time with Good starting torque
- Blowers Compressors Crushers
- Pumps Extruders

Range & Specifications

- Available upto 800HP
- Standard Tappings : 50% , 65% and 80%
- Air Cooled design & Oil cooled
- 7 Tank pre treated bolted construction enclosure
- Superior gasket

Protections

- Short Circuit
- Overload and Single Phasing (Thru Overload relay)
- Under voltage
- Other protections available on request

Metering and indication

- Voltmeter with selector switch
- Ammeter with selector switch
- R, Y, B phase indication
- Motor ON, OFF and Trip indication



HSN Code - 8537

BIL Auto Transformer Starter - STANDARD RATINGS	MODEL 1 - BASICATS : PU door-gasket Enclosure, 3nos. Power Contactor, Citation OLR, Start/Stop PB, Motor ON LED		MODEL 2 - PREMIUM Version : PU door- gasket Enclosure, MCCB Incomer, 3nos. Power Contactor, Citation OLR, Electronic SPP, Ammeter/voltmeter with selector switches, Start/Stop PB, Phase & Motor ON/Trip LEDs.	
	HP	Cat. code for Air cooled	Cat. code for Oil cooled	Cat. code for Air cooled
20	ATEA20	ATEO20	ATPA20	ATPO20
25	ATEA25	ATEO25	ATPA25	ATPO25
30	ATEA30	ATEO30	ATPA30	ATPO30
35	ATEA40	ATEO40	ATPA40	ATPO40
40	ATEA40	ATEO40	ATPA40	ATPO40
50	ATEA50	ATEO50	ATPA50	ATPO50
60	ATEA60	ATEO60	ATPA60	ATPO60
75	ATEA75	ATEO75	ATPA75	ATPO75
100	ATEA100	ATEO100	ATPA100	ATPO100
125	ATEA125	ATEO125	ATPA125	ATPO125
150	ATEA150	ATEO150	ATPA150	ATPO150
175	ATEA175	ATEO175	ATPA175	ATPO175
200	ATEA200	ATEO200	ATPA200	ATPO200
225	ATEA225	ATEO225	ATPA225	ATPO225
250	ATEA250	ATEO250	ATPA250	ATPO250
300	ATEA300	ATEO300	ATPA300	ATPO300
350	ATEA350	ATEO350	ATPA350	ATPO350
400	ATEA400	ATEO400	ATPA400	ATPO400

* Contact nearest sales office for Prices



Price List

General Terms & Conditions

Prices are subject to change without any prior notice and will be applicable as prevailing at the time of dispatch.

- The prices are ex-works basis..
- The prices given in this list are effective as on date and are subject to change without notice.
- Maximum Retail Price (MRP) mentioned are inclusive of GST.
- The List Prices (LP) mentioned are exclusive of GST.
- The duties, taxes and other statutory levies are based on rates prevailing at the time of billing. Any subsequent revision of those rates having retrospective effective shall be to customer's account.
- In case where any GST exemption has been claimed, the purchaser is responsible for providing the necessary GST exemption form within the specified period, failing which the purchaser would be liable for the payment of full GST plus applicable interest and penalties
- All Prices are in Indian Rupees (₹).
- Alteration made after receipt of confirmation of order are subject to price & delivery revisions and any other expenses or levies
- The dispute, if any, will be resolved mutually by discussion. However, if no settlement is forthcoming then, the Courts at New Delhi shall only have territorial jurisdiction to hear and decide the dispute.

Warranty

All products, unless specifically mentioned otherwise, shall have warranty, against manufacturing defects for a period of 18* months from the date of invoicing & 24 months from date of manufacturing whichever is later subject to the provision of proper usage and does not cover defects arising out of fire, accident, inefficient maintenance, faulty operation and willful or accidental damage. The manufacturer shall not be liable for any consequential loss, injury or damages attributable to defect or failure of its products.

* Proof of purchase to be retained to avail warranty.

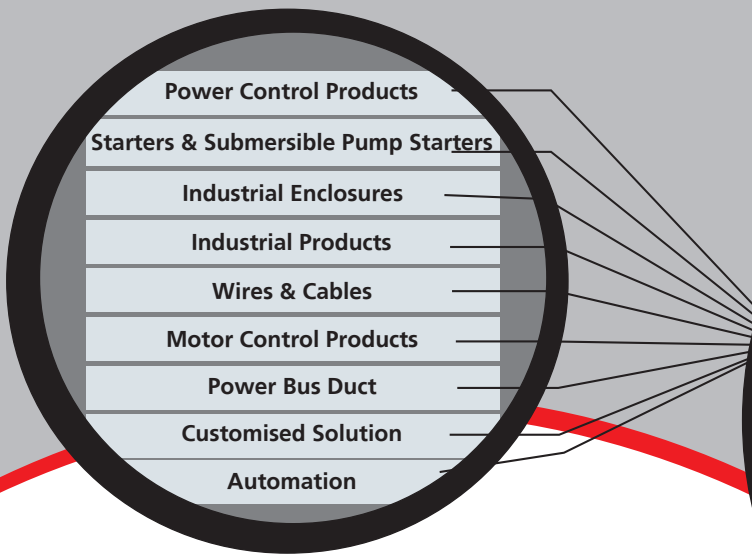
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Works 1 : 20/4, Mathura Road, Faridabad -121 006 (Haryana) Tel. : 0129-4063000/4293000 Fax : 0129-2304016
Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215

Sales Offices :

Ahmedabad
103, Aaron,
Nr. SBI Laghuudyug branch,
Behind Sakar-1
Gandhigram Railway station,
Ellis bridge, Ahmedabad - 380006
Tel. :079-26589719
E-mail.: ahmedabad@bchindia.com

Bangalore
2nd Floor, 130/5,
K.H. Road (Double road),
Bangalore - 560 027
Tel. :080-22273478 / 22236759
E-mail : bangalore@bchindia.com

Bhubaneswar
Mallick Commercial
Complex Plot No.: A/69, unit - 3
Bhubaneswar - 751 001
Tel.: 0674-2380988
E-mail.: bhubaneswar@bchindia.com

Chandigarh (Panchkula)
SCO -129, Iind Floor,
MDC, Sector-5 Panchkula,
Haryana-134 109
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E-mail.: chandigarh@bchindia.com

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Alwarpet, Chennai 600 018
Tel.: 044-24337046, 24337047
E-mail : chennai@bchindia.com

Coimbatore
87, Dr. Nanjappa Road,
Coimbatore - 641 018
Tel. : 0422-2305311 / 2302599
E-mail : coimbatore@bchindia.com

Delhi 1
801, Akash Deep Building,
26A, Barakhamba Road,
New Delhi - 110 001
Tel. : 011-23313878 / 23739230
E-mail : delhi@bchindia.com

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Patel Nagar, Dehradun-248001
E-mail : dehradun@bchindia.com

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Faridabad - 121 006 (Haryana)
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Fax : 040-66207273
E-mail : hyderabad@bchindia.com

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Indore - 452 001
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Jaipur
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Jaipur - 302 001
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E-mail : jaipur@bchindia.com

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3rd Floor, Aastha Trade Centre,
'Q' Road, Bistupur,
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Lucknow
Madan Plaza, 3rd Floor,
14, Station Road,
Lucknow - 226 001
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E-mail : lucknow@bchindia.com

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S.C.O.- 18, 2nd Floor,
Feroze Gandhi Market,
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Mumbai - 400 021
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16-B/1, Dr. Ambedkar Road,
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Near Cow Circle, Akota, Vadodara - 390 020
Tel. : 0265-2345068 / 2345069
Telefax : 0265-2345068.
E-mail : vadodara@bchindia.com

Other Branch Locations

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Resident Engineer Locations

Agra	Jodhpur	Nashik	Siliguri
Anantapur	Kanpur	Patna	Surat
Bhopal	Katni	Puducherry	Tirunelveli
Calicut	Karimnagar	Rajkot	Udaipur
Gurgaon	Kota	Rourkela	Vapi
Jalandhar	Midnapur	Rudrapur	Vijayawada
Jalgaon	Muzaffarnagar	Salem	

Since product improvement is a continuous process, the data furnished in this brochure may undergo revision without prior notice.