



## Vacuum Contactors

Up to 600A 3P 1.5KV



- ⇒ Long electrical & mechanical life
- ⇒ High switching frequency
- ⇒ Impervious to environment
- ⇒ Mounts in any plane
- ⇒ Low maintenance & down time



BCH ELECTRIC LIMITED

## BCH Range of Vacuum Contactors

Most of the demanding applications in industries, needs reliable power switching and motor starting solutions to ensure productivity in tough environments. BCH range of vacuum contactors meets all requirements of such industries. The compactness, rugged construction, long electrical and mechanical life of these contactors gives unmatched results and durability, eliminating the down time & maintenance cost. BCH vacuum contactors are ideal for tough industrial applications. The compact design provides flexibility equivalent to the existing range of air break contactors by BCH.

### Benefits of Vacuum Interrupter

- Transient voltage generation control
- Impervious to harsh environments
- High cyclic duty
- Self-Adjusting
- Maintenance free
- Enclosed arc
- Ensures high quality & reliability



Vacuum Interrupter

### 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**

- Designed to Standards IEC 60947-4, CSA22.2 & UL508
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Visual wear indicator
- Mounts in any plane
- 2NO+ 2NC aux. contacts as a standard
- Compact construction
- Front accessible



**1500V 400A**

- NEMA size 5, 270A, 600V AC-UL508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 400A, 660V/1000V/1500VAC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible



**1500V 600A**

- NEMA size 6, 540A, 600V AC-UL508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 600A, 660V AC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible

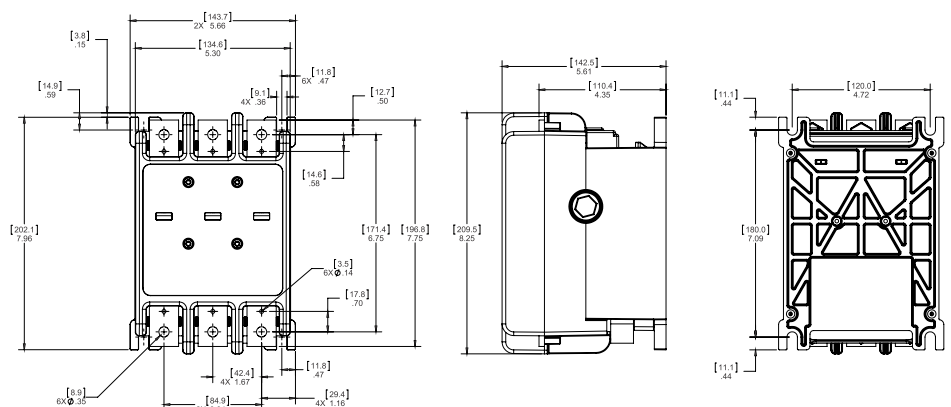
**Technical specification 300A 3 Pole 1140V <sup>⌘</sup>**

<b>Cat no #</b>	<b>CV77U033A12 - * - B30</b>		
Standard	IEC 60947-4, CSA22.2 & UL508		
<b>Power Ratings Enclosed</b>			
Insulation & Operating Volt	1140V		
Rated Operating Current Utilization	<b>AC1</b> At 40°C = 330A, At 60°C = 300A	<b>AC3</b> 300A	<b>AC4</b> 98A
Rated Power for AC loads (resistance heating)	73kW-230V, 197kW-400V 246kW-500V	428kW-1140V	140kW-1140V
Rated impulse withstand voltage	8kV		
Thermal load capacity short time current 10sec. current	2400 A		
Rated Frequency	50-60 Hz		
Making Current	3,000A		
Breaking Current	2,400A		
Dielectric Strength	6KV - 1 Min. Interrupter		
Interrupting Current	3.0kA		
Short Time Current 50 mSec. (Withstand Current)	10kA		
Short Time Current 1 Sec.	6.0kA		
Short Time Current 10 Sec.	2.4kA		
Elect. Life AC3 Duty	1.0 million		
Switching Frequency	600/Hour (1 Every 6 Sec.)		
Operating Range	-30% + 25% - at Range Voltage		
Inrush Power VA	1680VA <100ms Duration		
Holding Power VA	3.6VA		
Opening Time MS	160ms		
Closing Time MS	20-40ms		
Pick-Up Voltage	70% Cold 75% Hot or less		
Drop-Out Voltage	70% or less		
<b>Application Ratings</b>			
Mounting Installation	All Planes (Contactor only)		
Altitude	6600 ft. 2000 Meters		
Ambient Storage temperature range	-55C ... +80C		
Ambient Operating temperature range	-25C ... +60C		
Vibration/Shock	10-50Hz - 2G/30G		
Weight	17 lbs. / 7.7 Kg		
Auxiliary Contacts - Standard	2NO & 2NC		
Auxiliary Contacts - Option	4NO & 4NC		

<sup>⌘</sup> Other contactor ratings 225A & 265A 3P 1140V on request

**\* Coil options**

Description	Hz	Cat suffix
220/240V AC	50/60Hz	22
110/120V AC	50/60Hz	11



Technical Specifications - 400A 3P

Description	NEMA Size 5 600V	400 Amp 1000V	400 Amp 1500V
Cat #	CV 77U030506-*	CV 77U034A06-*	CV 77U034A15-*
Standard	NEMA 1CS-2 UL508 CSA22.2	IEC 947-4-1 1000V UL508 CSA22.2	IEC 947-4-1 1000V NEMA 1CS-2 UL508 CSA22.2 1500V
<b>Power Ratings Enclosed</b>			
Insul. & Operating Volt	600 Volts	1000 Volts	1500 Volts
Rated Oper. AC1	270 Amps	400 Amps	400 Amps
Rated Oper. AC3	200 HP 460/575V	500 HP 370KW-660V	850 HP 650KW-1500V
Rated Oper. AC4	120 HP 460/575V	300 HP-260KW-660V	650 HP-570KW-1500V
Rated Frequency	50 - 400 Hz		
Making Current	4000 Amps		
Breaking Current	3200 Amps		
Dielectric Strength	6Kv - 1 Min. Interruptor		
Interrupting Current	4.6 KA		
Short Time Current 1 Sec.	7000 A		
Short Time Current 10 Sec	3200 A		
Mechanical Life	1.2 X 10 <sup>6</sup>		
Elect. Life AC3 Duty	1 X 10 <sup>6</sup>		
Switching Frequency	600/Hour (1 every 6 Sec)		
Withstand Current	18KA 50 MSec		
Chop Current Max	0.9 A		
Operating Range	-15% + 10% - over Range Voltage		
Inrush Power VA	1100VA 120 ms Duration		
Holding Power VA	10-12 VA		
Opening Time MS	160ms		
Closing Time MS	20-40ms		
Pick-Up Voltage	80% Cold 85% Hot or less		
Drop-Out Voltage	70% or less		
Recommended CPT	500VA Machine Tool Transformer 5% Regulation at 20%pf		
<b>Applications Ratings</b>			
Mounting Installation	All Planes (Contactor only)		
Altitude	6600 ft. 2000 Meters		
Ambient Storage	-65°F (-54°C) +160°F (71°C)		
Operating	-40°F (-40°C) +122°F (50°C)		
Vibration / Shock	40Hz - 2G. / 30G.		
Weight	26 lbs. 11.8 Kg.		
Aux. contact standard	1NO & 1NC		

Power Rating

Voltage	Motor HP/KW AC3	
	270A	400A
208	40/56	100/75
220/240	100/75	150/112
380/415	----	250/187
460	200/150	300/220
575/600	200/150	400/300
660/690	----	450/336
1000	----	700/520
1500	----	850/650

Three Phase Transformer Load KVA		
Voltage	270A	400A
208	108	144
220/240	114	110
380/400	198	270
415/440	216	304
460/500	238	346
575/600	260	414
660	342	450
1000	520	692
1500	780	1038

Three Phase Capacitor Load KVAR		
Voltage	270A	400A
208	80	108
220/240	86	124
380/400	148	208
415/440	162	228
460	180	254
575/600	230	312
1000	390	520
1500	584	780

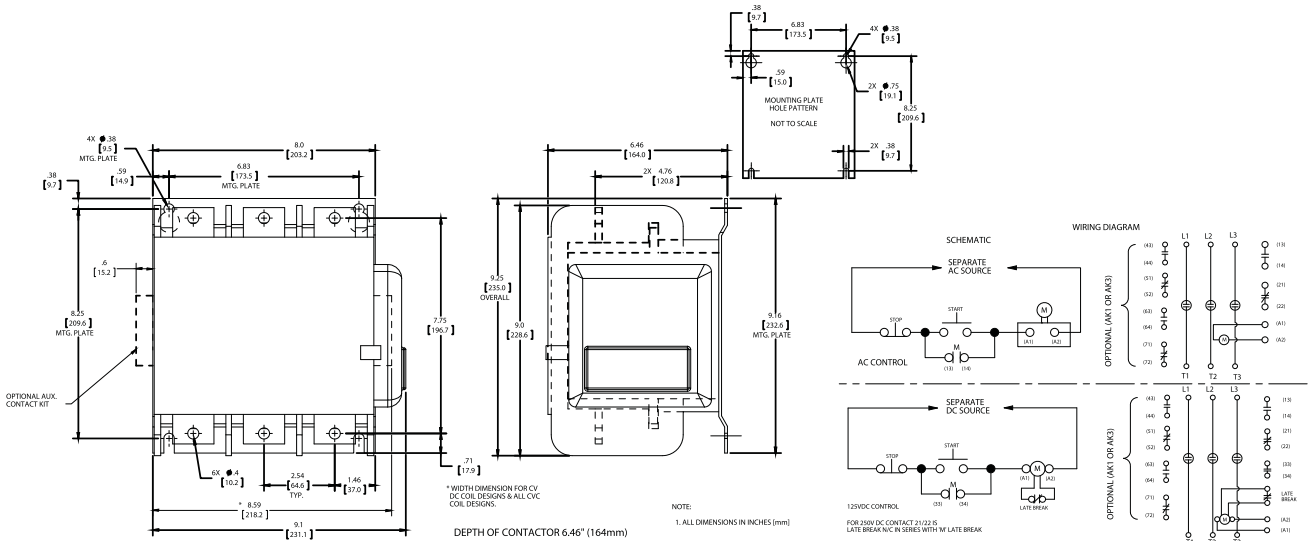
Options

• Lug Kit 2#6 300mcm (3 per kit) Auxiliary Contact Kits	Cat.# KVC5-2
• 2NO. 2 NC 600V. 10A ac.	Cat.# AK1
• 2NO. 2 NC 5V.10mA dc.	Cat.# AK3

Only 1 Kit can be added for total of 3 N/O 3 N/C contacts

\*Coils

Description	Hz.	Cat.Suffix
110/120V	50/60Hz.	-76
220/240V	50/60Hz.	-26
380/415V	50/60Hz.	-38
440/480V	50/60Hz.	-46
125V DC		-125
250V DC		-250



Technical Specifications - 600A 3P

<b>Description</b>	NEMA Size 6 600V	600 Amp 1000V	600 Amp 1500V
<b>Cat #</b>	CV 77U030606-*	CV 77U036A06-*	CV 77U036A15-*
<b>Standard</b>	NEMA 1CS-2 UL508 CSA22.2	IEC 947-4-1 NEMA 1CS-2-9 UL508 CSA22.2	IEC 947-4-1 1000V NEMA 1CS-2 UL508 CSA22.2 1500V
<b>Power Ratings Enclosed</b>			
<b>Insul. &amp; Operating Volt</b>	600 Volts	1000 Volts	1500 Volts
<b>Rated Oper. AC1</b>	540 Amps	600 Amps	600 Amps
<b>Rated Oper. AC3</b>	400 HP 460/575V	750 HP 550KW-660V	1200 HP 900KW-1500V
<b>Rated Oper. AC4</b>	250 HP 460/575V	525 HP-390KW-660V	950 HP-700KW-1500V
<b>Rated Frequency</b>	50 - 400 Hz		
<b>Making Current</b>	6000 Amps		
<b>Breaking Current</b>	4800 Amps		
<b>Dielectric Strength</b>	6Kv - 1 Min. Interruptor		
<b>Interrupting Current</b>	6 KA		
<b>Short Time Current 1 Sec.</b>	9000 A		
<b>Short Time Current 10 Sec</b>	4800 A		
<b>Mechanical Life</b>	0.75 X10 <sup>6</sup>		
<b>Elect. Life AC3 Duty</b>	0.5X10 <sup>6</sup>		
<b>Switching Frequency</b>	300/Hour (1 every 12 Sec)		
<b>Withstand Current</b>	30KA 50 MSec		
<b>Chop Current Max</b>	0.9 A		
<b>Operating Range</b>	-15% + 10% - over Range Voltage		
<b>Inrush Power VA</b>	1600VA 120 ms Duration		
<b>Holding Power VA</b>	10-12.5 VA		
<b>Opening Time MS</b>	160ms		
<b>Closing Time MS</b>	20-40ms		
<b>Pick-Up Voltage</b>	80% Cold 85% Hot or less		
<b>Drop-Out Voltage</b>	70% or less		
<b>Recommended CPT</b>	500VA Machine Tool Transformer 5% Regulation at 20%pf		
<b>Applications Ratings</b>			
<b>Mounting Installation</b>	All Planes (Contactor only)		
<b>Altitude</b>	6600 ft. 2000 Meters		
<b>Ambient Storage</b>	-65°F (-54°C) +160°F (71°C)		
<b>Operating</b>	-40°F (-40°C) +122°F (50°C)		
<b>Vibration / Shock</b>	40Hz - 2G. / 30G.		
<b>Weight</b>	28 lbs. 12.7 Kg.		
<b>Aux. contact standard</b>	1NO & 1NC		

Power Rating

Voltage	Motor HP/KW AC3	
	540A	600A
208	150/112	200/150
220/240	200/150	2000/1500
380/415	----	250/187
460	400/300	500/350
575/600	400/300	600/450
660/690	----	650/485
1000	----	1000/750
1500	----	1200/900

Voltage	Three Phase Transformer Load KVA	
	540A	600A
208	194	216
220/240	224	249
380/400	396	415
415/440	432	450
460/500	476	519
575/600	520	620
660	617	685
1000	1040	1384
1500	1560	2076

Voltage	Three Phase Capacitor Load KVAR	
	540A	600A
208	160	173
220/240	172	200
380/400	296	332
415/440	324	366
460	360	382
575/600	460	500
1000	780	830
1500	1168	1250

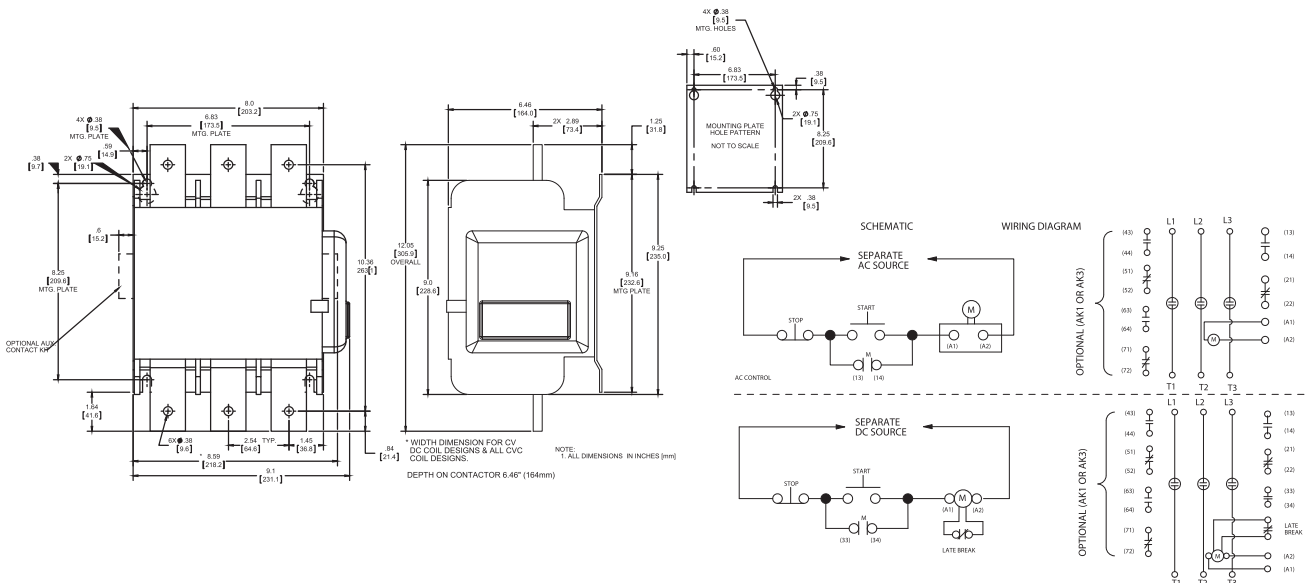
Options

- Lug Kit 2#6 600mcm 3 lugs per kit Cat.# KVC6-2
- Auxiliary Contact Kits
  - 2NO. 2 NC 600V. 10A ac. Cat.# AK1
  - 2NO. 2 NC 5V.10mA dc. Cat.# AK3

Only 1 Kit can be added for total of 3 N/O 3 N/C contacts (1 N/O 1 N/C Standard)

\*Coils

Description	Hz.	Cat.Suffix
110/120V	50/60Hz.	-76
220/240V	50/60Hz.	-26
380/415V	50/60Hz.	-38
440/480V	50/60Hz.	-46
125V DC		-125
250V DC		-250



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Cochin	Jodhpur	Patna	Vapi
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