

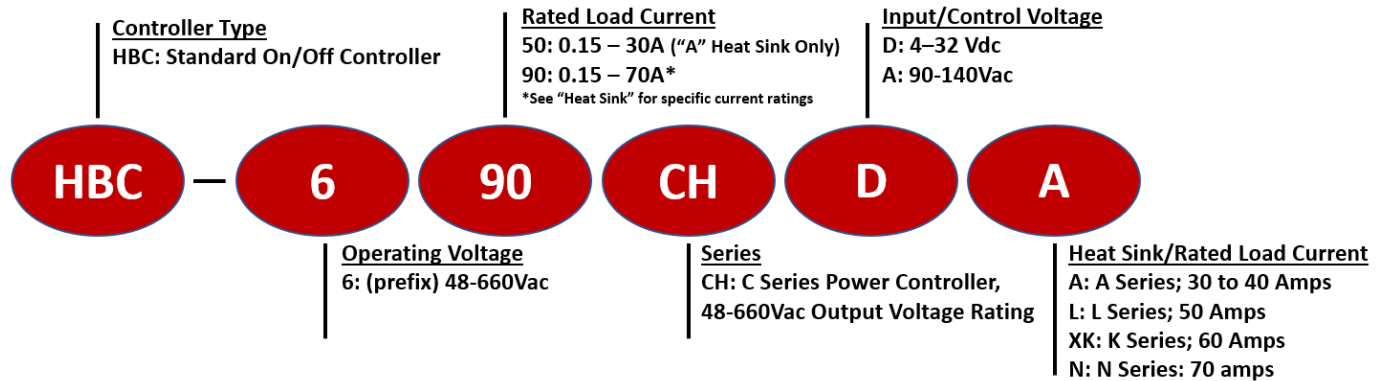
C Series

70 Amp Solid State Power Controller



- SCR output DIN or panel mount solid-state relay Power Controller
- Output ratings up-to 70 amps @ 40°C ambient temperature
- Thermally efficient heat sink to maximize overall product life expectancy
- Direct-bond copper (DBC) substrate for superior thermal performance
- Box clamp terminals for bare wire termination up-to 8 AWG
- Direct-power lead-frame design reduces solder joints and enhances reliability
- MTBF > 7 million hours (>800 years)
- IP20 touch-safe housing
- EMC compliant, level 3
- Solid-state relay approvals include VDE/TÜV and CE

Series Nomenclature



Output Specifications

Part Number: HBC -	650CHxA	690CHxA	690CHxL	690CHxXK	690CHxN
Crydom Solid-State Relay Utilized*	HBC-x6050	HBC-x6050	HBC-x6090	HBC-x6090	HBC-x6090
Operating Voltage (Vrms; 47-440Hz)	48-660	48-660	48-660	48-660	48-660
Load Current Range (Amps RMS)	.15 - 30	.15 - 40	.15 - 50	.15 - 60	.15 - 70
Transient Overvoltage (Vpk)	1200	1200	1200	1200	1200
Max. Surge Current (A _{pk} ; 50/60Hz)	597/625	1145/1200	1145/1200	1145/1200	1145/1200
Max. On-State Voltage Drop (Vrms)	1.15	1.15	1.15	1.15	1.15
Max I ² T for Fusing (A ² S; 50/60Hz)	1770/1629	6560/5976	6560/5976	6560/5976	6560/5976
Max. Off-State Leakage Current (mArms)	1	1	1	1	1
Min. Power Factor with Max. Load	0.5	0.5	0.5	0.5	0.5

*UL Recognized Components - E116949 ("x" refers to either "A" (AC input) or "D" (DC input) SSR)



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Input Specifications

Part Number:	HBC-6xxxxDx	HBC-6xxxxAx
Control Voltage Range	4-32Vdc	90-140Vac
Minimum Turn-On Voltage	4Vdc	90Vac
Must Turn-Off Voltage	1Vdc	10Vrms
Input Current Range (mA)	17 - 30	10 - 20
Nominal Input Impedance	Current Regulated	
Maximum Turn-On / Turn-Off Time (msec)	½ AC Cycle	10 / 40

General Specifications

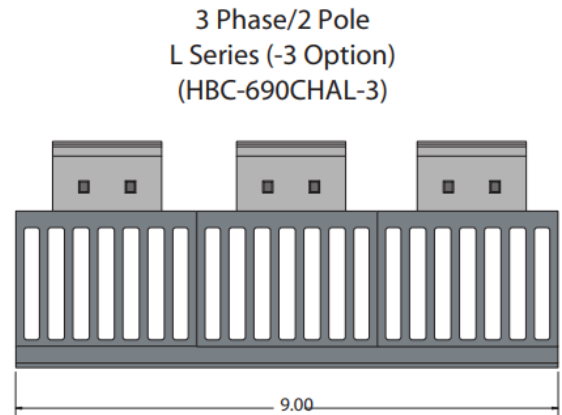
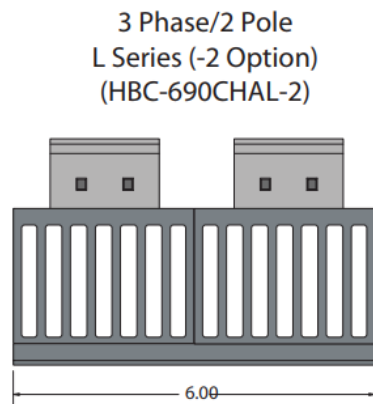
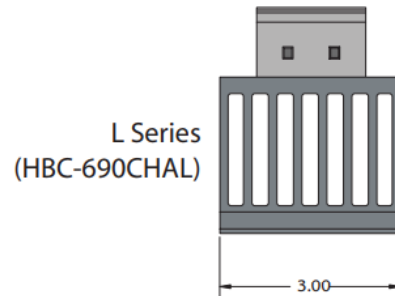
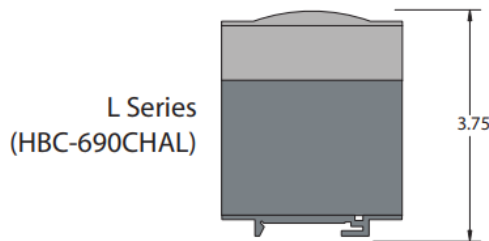
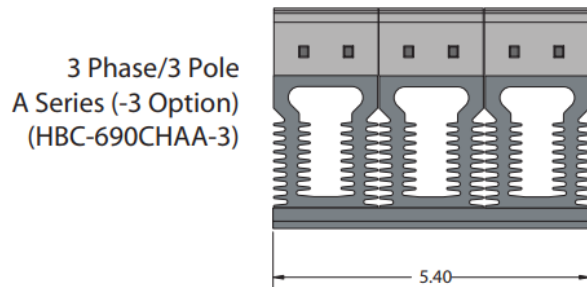
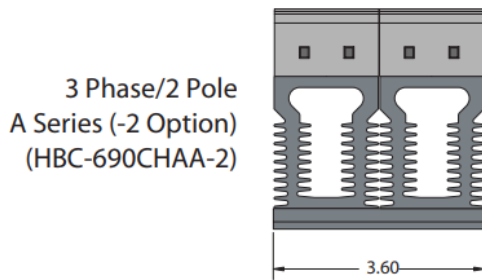
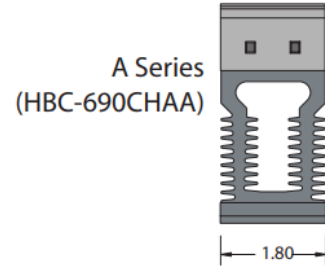
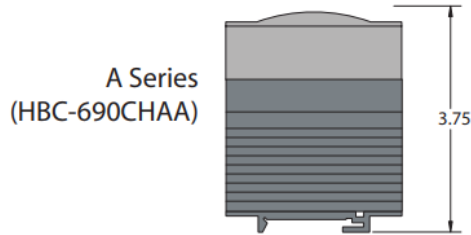
Description	Specification	
Dielectric Strength (Input/Output/Heat Sink)	4,000 Vrms	
Ambient Operating Temperature Range	-40 to +80 °C	
Weight	A Series Heat Sink	0.85 lbs (386 g)
	L Series Heat Sink	1.2 lbs (544 g)
	K Series Heat Sink	1.6 lbs (726 g)
	N Series Heat Sink	1.6 lbs (726 g)
Solid State Relay Housing Material	UL94 V-0 Polymers	
Heat Sink Material	Aluminum	
Input Terminal Screw Torque Range (in-lb/Nm)	5-6 / 0.6 - 0.7	
Load Terminal Screw Torque Range (in-lb/Nm)	10-15 / 1.1 - 1.7	
Maximum Wire Size	Output: AWG 8 (4.8mm) / Input: AWG 12 (2.5mm)	
MTBF (Mean Time Between Failures) @ 40°C ambient	~11 Million Hours (>1,300 years)	
MTBF (Mean Time Between Failures) @ 60°C ambient	~7 Million Hours (>800 years)	

Available Options (Suffix at end of part number)

- 10 Random/Instantaneous turn-on (inductive or phase-control applications)
- M MOV (metal oxide varistor) overvoltage protection
- P Internal TVS overvoltage protection
- E 24Vac control voltage (AC input only)
- TP Through-panel mounting
- PM Panel mounting
- ND Without DIN rail clip
- CT Current transducer
- 2 Two-pole configuration (for three-phase loads)
- 3 Three-pole configuration (for three-phase loads)
- WH Wiring harness for multiple pole configurations

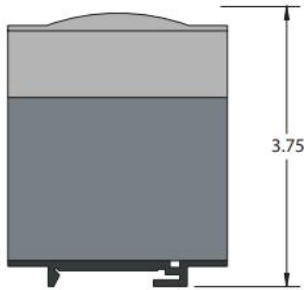
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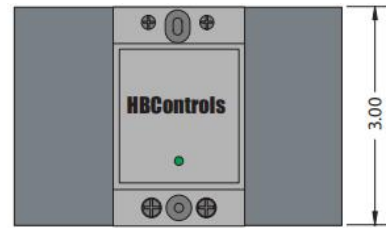


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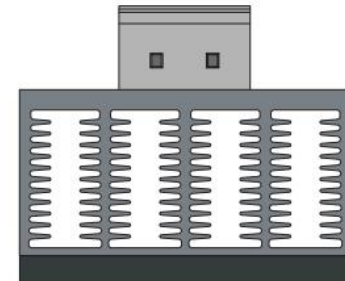
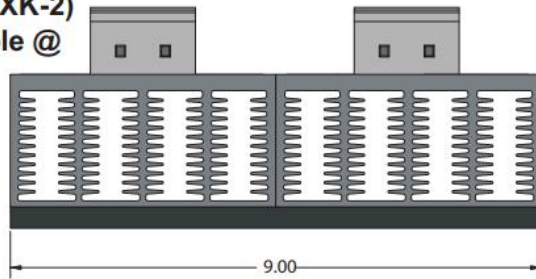
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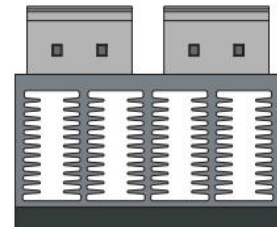
**K Series
HBC-690CHDXK)
60A/Pole**



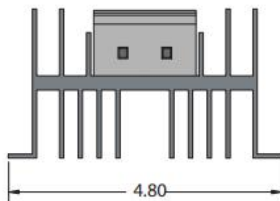
**K Series
(HBC-690CHDXK-2)
3 Phase / 2 Pole @
60A/Pole**



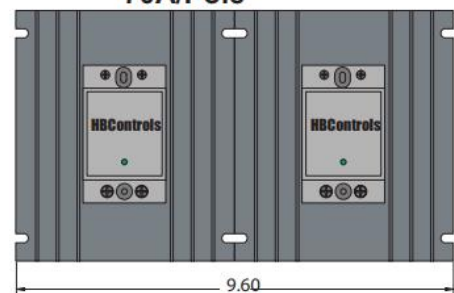
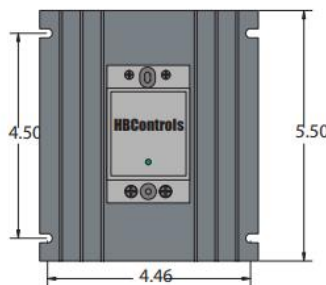
**K-2 Series
3 Phase / 2 Pole
HBC-690CHDK-2)
40A/Pole**



**N Series
HBC-690CHDN)
70A/Pole**



**N Series
HBC-690CHDN-2)
3 Phase / 2 Pole @
70A/Pole**



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