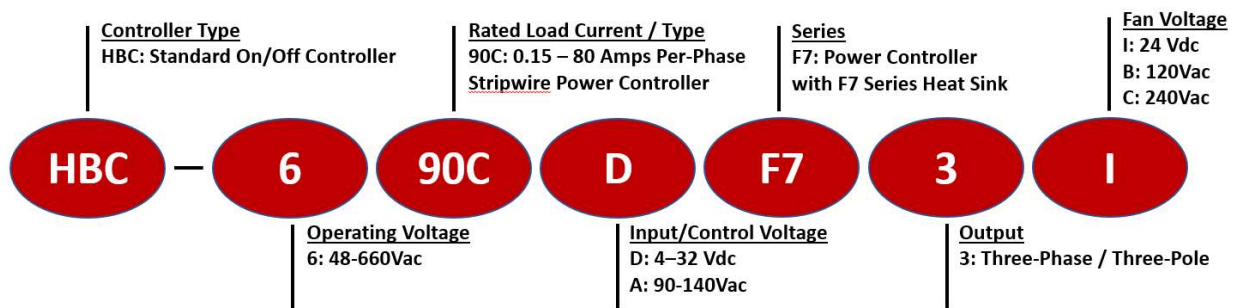


F7 Series Three-Phase 80 Amp Stripwire Power Controller



- SCR output, three-phase panel mount solid-state relay Power Controller
- Output ratings up-to 100 amps per-phase @ 40°C ambient temperature
- Forced-air cooled heat sink to maximize overall product life expectancy
- Includes 90°C thermal cutout switch
- Direct-bond copper (DBC) substrate for superior thermal performance
- Ideal replacement for mercury three-phase contactors
- MTBF > 7 million hours (>800 years)
- IP20 touch-safe housing
- EMC compliant, level 3
- Agency approvals (SSR and Fan); UL, CSA, VDE/TUV, and CE

Series Nomenclature



Output Specifications

Part Number: HBC -	690Cx73x
Operating Voltage (Vrms; 47-440Hz)	48-660
Load Current Range (Amps RMS Per--Phase)	.15 - 80
Transient Overvoltage (Vpk)	1200
Max. Surge Current (Apk; 50/60Hz)	1145/1200
Max. On-State Voltage Drop (Vrms)	1.15
Max I ² T for Fusing (A ² S; 50/60Hz)	6560/5976
Max. Off-State Leakage Current (mArms)	1
Min. Power Factor with Max. Load	0.5



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Input Specifications

Part Number:	HBC-690CDF73x	HBC-690CAF73x
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	5.7 lbs (2.63 kg) (24Vdc Fan) / 6.4 lbs (2.90 kg) (120/240Vac Fan)
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

- 10 Random/Instantaneous turn-on (inductive or phase-control applications)
- M MOV (metal oxide varistor) overvoltage protection
- P Internal TVS overvoltage protection
- Z LED input status indicator
- E 24Vac control voltage (AC input only)
- TP Through-panel mounting
- CT Current transducer
- WH Wiring harness for multiple pole configurations

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