

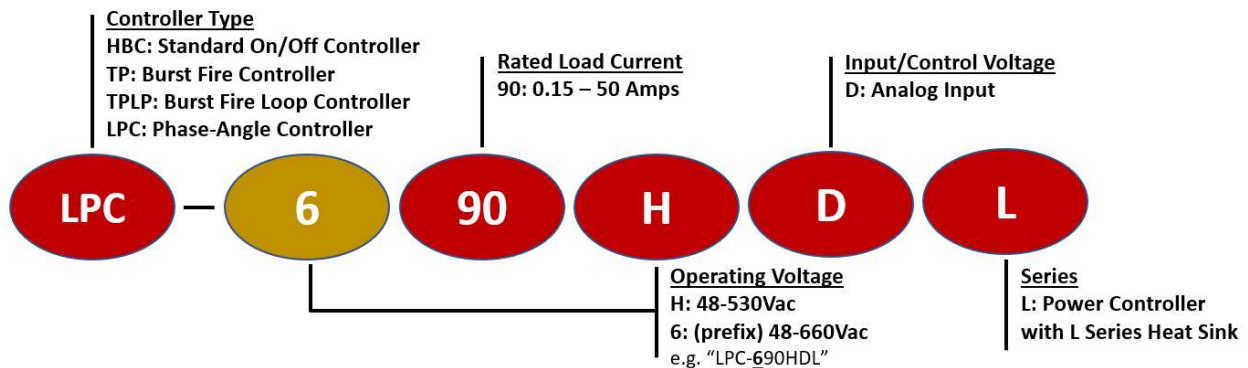
# L Series LPC

## 50 Amp Phase-Angle Power Controller



- SCR output DIN mount proportional output (phase-angle) Power Controller
- Output ratings up-to 50 amps @ 40°C ambient temperature
- True linear output controller with selectable soft-start, suitable for resistive or inductive loads
- Selectable analog input; 0-10Vdc, 1-5Vdc, 2-10Vdc, 1-5Vdc, 4-20mA or potentiometer
- Line-voltage compensation with automatic 50/60Hz operation
- Thermally efficient heat sink to maximize overall product life expectancy
- Direct-bond copper (DBC) substrate for superior thermal performance
- MTBF > 7 million hours (>800 years)
- Agency approvals; UL, CSA, VDE/TUV, and CE

### Series Nomenclature



### Output Specifications

Part Number: HBC -	90HDL	690HDL
Operating Voltage (Vrms; 47-440Hz)	48-530	48-660
Load Current Range (Amps RMS)	.15 - 50	.15 - 50
Transient Overvoltage (Vpk)	1200	1200
Max. Surge Current (Apk; 50/60Hz)	1145/1200	1145/1200
Max. On-State Voltage Drop (Vrms)	1.15	1.15
Max I <sup>2</sup> T for Fusing (A <sup>2</sup> S; 50/60Hz)	6560/5976	6560/5976
Max. Off-State Leakage Current (mAmps)	1	1
Min. Power Factor with Max. Load	0.5	0.5



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### Input Specifications (Selectable on controller) \*

0-10Vdc	4-20mA
0-5Vdc	0-20mA
2-10Vdc	Potentiometer
1-5Vdc	0-135Ω (change prefix to "LPC135-")

\* 24Vac power supply required. (optional HBCcontrols PS series if 24Vac supply is not available). Must be connected to same phase as the Power Controller.

### General Specifications

Description	Specification
Dielectric Strength (Input/Output/Heat Sink)	4,000 Vrms
Ambient Operating Temperature Range	-40 t +80 °C
Weight	1.1 lbs (499 g)
Solid State Relay Housing Material	UL94 V-0 Polymers
Heat Sink Material	Aluminum
Input Terminal Screw Torque Range (in-lb/Nm)	13-15 / 1.5-1.7
Load Terminal Screw Torque Range (in-lb/Nm)	18-20 / 2.0-2.2
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)

- M MOV (metal oxide varistor) overvoltage protection
- P Internal TVS overvoltage protection
- TP Through-panel mounting
- PM Panel mounting
- ND Without DIN rail clip
- CT Current transducer
- 3 Three-pole configuration (for three-phase loads)

### Accessories (add "-3" suffix for three-phase power supply)

- PS-120 120Vac to 24Vac / 1.5VA power supply
- PS-240 240Vac to 24Vac / 1.5VA power supply
- PS-480 480Vac to 24Vac / 1.5VA power supply

### Input Options (Change LPC- prefix to TP or TPLP prefix)

- TP** Burst fire (time proportioning) controller. Analog Input; 0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20mA, potentiometer or 0-135Ω rheostat (TP135 prefix). 24Vac power supply required (optional HBCcontrols PS series if 24Vac supply is not available).
- TPLP** Burst fire loop (time proportioning loop) controller. Analog Input; 4-20mA (24Vac supply not required)

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