

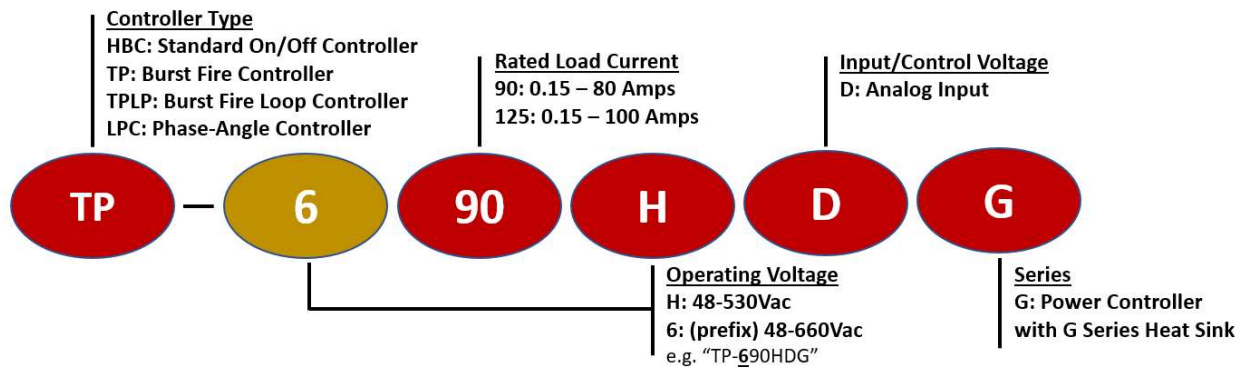
# G Series TP

## 100 Amp Burst Fire Power Controller



- SCR output panel mount proportional output (burst fire) Power Controller
- Output ratings up-to 100 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: TP -   | 90HDG     | 690HDG    | 125HDG      | 6125HDG     |
|---|-----------|-----------|-------------|-------------|
| Operating Voltage (Vrms; 47-440Hz)                          | 48-530    | 48-660    | 48-530      | 48-660      |
| Load Current Range (Amps RMS)                               | .15 - 80  | .15 - 80  | .15 - 100   | .15 - 100   |
| Transient Overvoltage (Vpk)                                 | 1200      | 1200      | 1200        | 1200        |
| Max. Surge Current (Apk; 50/60Hz)                           | 1145/1200 | 1145/1200 | 1670/1750   | 1670/1750   |
| Max. On-State Voltage Drop (Vrms)                           | 1.15      | 1.15      | 1.15        | 1.15        |
| Max I <sup>2</sup> T for Fusing (A <sup>2</sup> S; 50/60Hz) | 6560/5976 | 6560/5976 | 13950/12709 | 13950/12709 |
| Max. Off-State Leakage Current (mArms)                      | 1         | 1         | 1           | 1           |
| Min. Power Factor with Max. Load                            | 0.5       | 0.5       | 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 "TP135-") |

\* 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 - +80 °C                     |
| Weight   | 3.5 lbs (1.6 kg)                 |
| 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
- FD Front DIN mounting
- D DIN clip
- CT Current transducer

### 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 TP- prefix to TPLP or LPC prefix)

- TPLP** Burst fire loop (time proportioning loop) controller. Analog Input; 4-20mA (24Vac supply not required)
- LPC** Linear phase-angle controller. Analog Input; 0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20mA, potentiometer or 0-135Ω rheostat (LPC135 prefix). 24Vac power supply required (optional HBCcontrols PS series if 24Vac supply is not available)

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