

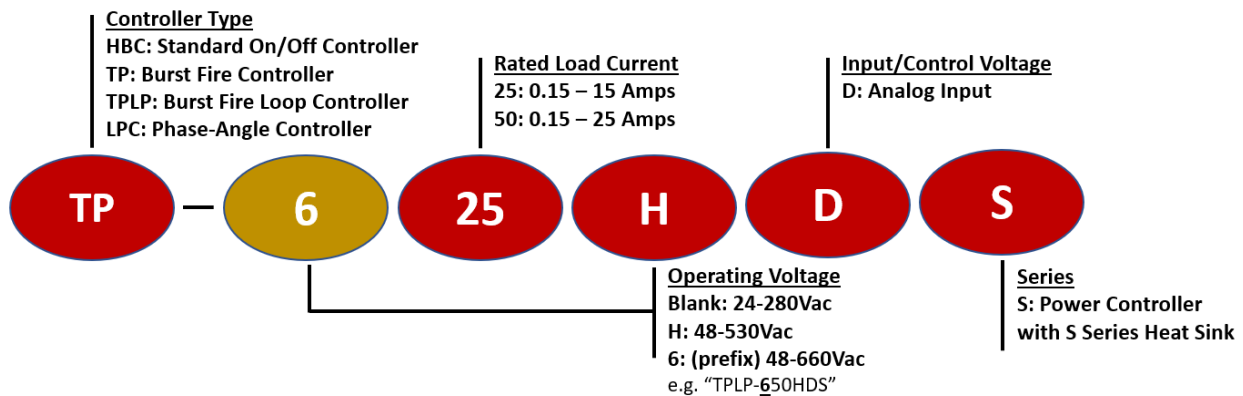
S Series TP

25 Amp Burst Fire Power Controller



- SCR output DIN mount proportional output (burst fire) Power Controller
- Output ratings up-to 25 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
- Compact, 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)
- Solid-state relay approvals include VDE/TÜV and CE

Series Nomenclature



Output Specifications

Part Number: TP -	25DS	25HDS	625HDS	50DS	50HDS	650HDS
Crydom Solid-State Relay Utilized*	D2425	HD4825	HD6025	D2450	HD4850	HD6050
Operating Voltage (Vrms; 47-440Hz)	24-280	48-530	48-660	24-280	48-530	48-660
Load Current Range (Amps RMS)	.15 - 15	.15 - 15	.15 - 15	.15 - 25	.15 - 25	.15 - 25
Transient Overvoltage (Vpk)	600	1200	1200	600	1200	1200
Max. Surge Current (A _{pk} ; 50/60Hz)	239/250	239/250	239/250	597/625	597/625	597/625
Max. On-State Voltage Drop (Vrms)	1.15	1.15	1.15	1.15	1.15	1.15
Max I ² T for Fusing (A ² S; 50/60Hz)	285/259	285/259	285/259	1770/1629	1770/1629	1770/1629
Max. Off-State Leakage Current (mArms)	1	1	1	1	1	1
Min. Power Factor with Max. Load	0.5	0.5	0.5	0.5	0.5	0.5

*UL Recognized Components - E116949



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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 to +80 °C
Weight	0.6 lbs (272 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)

- 10 Random/Instantaneous turn-on (inductive loads)
- 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
- 2 Two-pole configuration (for three-phase loads)
- 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

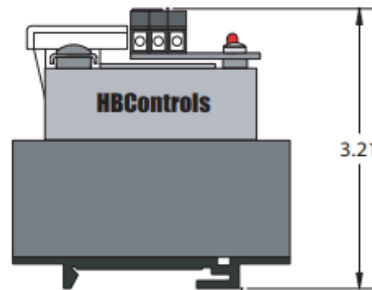
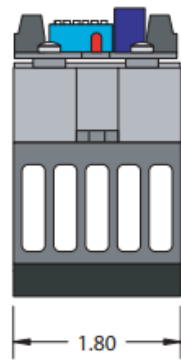
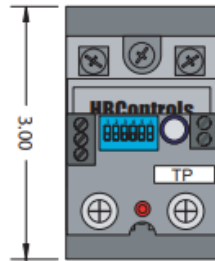
Input Options (Change TP- prefix to TPLP or LPC prefix)

TPLP Burst fire loop (time proportioning loop) controller. Analog Input; 4-20mA (24Vac supply not required)

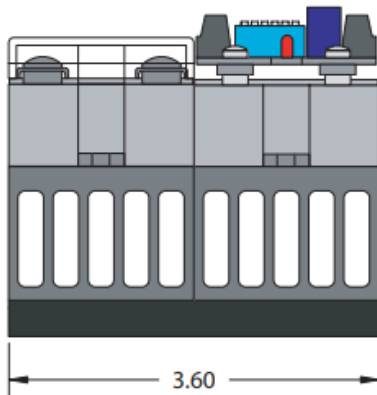
LPC Linear phase-angle controller. Analog Input; 0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20mA, potentiometer or 0-135Ω rheostat (LPC135 prefix). 24Vac power supply required (optional HBCcontrols PS series if 24Vac supply is not available).

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**3 Phase/
2 Pole
(-2 Option)**



**3 Phase/
3 Pole
(-3 Option)**

