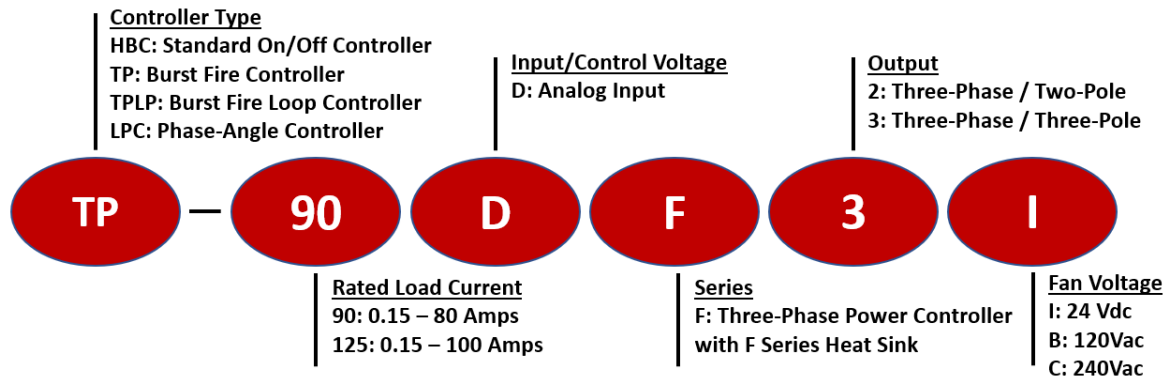


# F Series TP Three-Phase 100 Amp Burst Fire Power Controller



- SCR output panel mount, three-phase proportional output (burst fire) 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
- 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)
- Solid-state relay approvals include VDE/TÜV and CE

## Series Nomenclature



## Output Specifications

Part Number: TP -	90DF2x	90DF3x	125DF2x	125DF3x
Crydom Solid-State Relay Utilized*	HD4890	HD4890	HD48125	HD48125
Operating Voltage (Vrms; 47-440Hz)	48-530	48-530	48-530	48-530
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

\*UL Recognized Components - E116949 or E116950



# F Series TP Three-Phase 100 Amp Burst Fire Power Controller

## 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	4.3 lbs (1.95 kg) (24Vdc Fan) / 5.1 lbs (2.31 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)	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

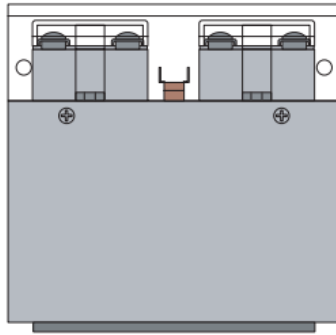
## Accessories (add "-3" suffix for three-phase power supply)

- 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

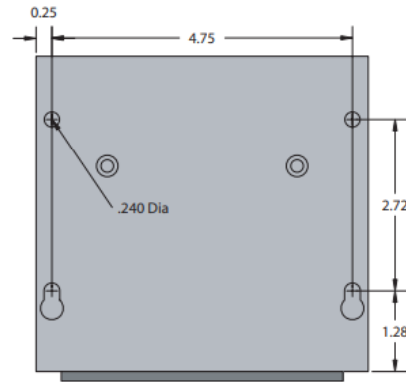
## Input Options (Change TP- prefix to TPLP or LPC prefix)

- 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)

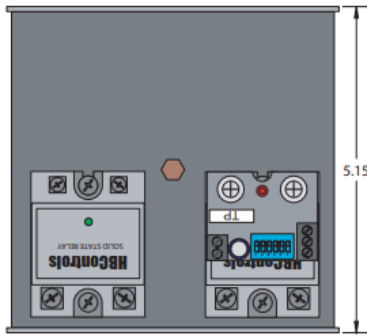
# F Series TP Three-Phase 100 Amp Burst Fire Power Controller



FRONT

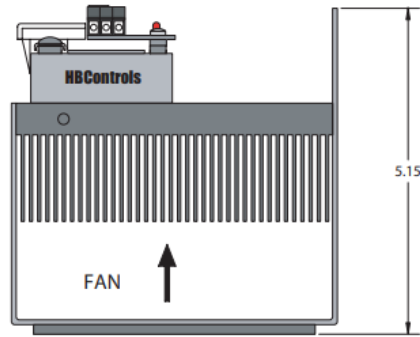


REAR

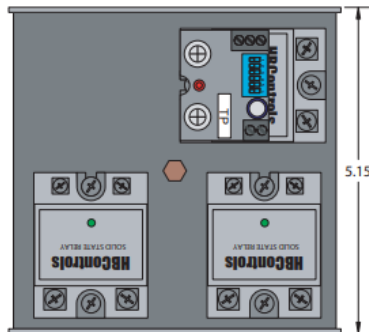


TOP

3 Phase /  
2 Pole  
Ex: TP-90DF2B

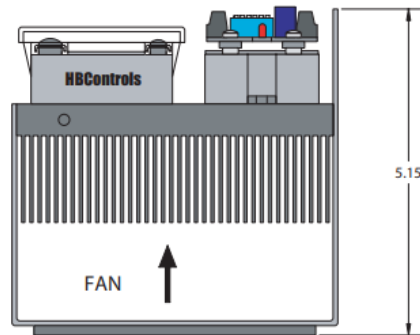


SIDE



TOP

3 Phase /  
3 Pole  
Ex: TP-90DF3B



SIDE