



# PFE1500 Series

PFE1500-12-054xx

PFE1500-12xS412

## AC-DC Front End Power Supplies

The PFE1500 is a 1500 W AC to DC power-factor-corrected (PFC) power supply that converts standard AC or HVDC power into a main output of 12 VDC for powering intermediate bus architectures (IBA) in high performance and reliability servers, routers, and network switches.

The PFE1500 Series meets international safety standards and displays the CE-Mark for the European Low Voltage Directive (LVD).



### Key Features & Benefits

- High Efficiency, typ. 94% efficiency at half load
- Universal input voltage range: 90-264 VAC
- High voltage DC input: 180-350 VDC (Option for 400 VDC)
- AC input with power factor correction
- Always-On standby output (model dependent):
  - Programmable 3.3 V / 5 V (16.5 W)
  - 12 V @ 3 A (36 W)
- Hot-plug capable
- Parallel operation with active digital current sharing
- Digital controls for improved performance
- High density design: 35 W/in<sup>3</sup>
- Small form factor: 54.5(W) x 40.0(H) x 321.5(L) mm
- I2C communication interface for control, programming and monitoring with PMBus® protocol and PSMI Protocol
- Over temperature, output over voltage and overcurrent protection
- 256 Bytes of EEPROM for user information
- 2 Status LEDs: OK and FAIL with fault signaling

### Applications

- High Performance Servers
- Routers
- Switches

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## 1. ORDERING INFORMATION

### MODELS WITH PROGRAMMABLE 3.3 V / 5 V STANDBY OUTPUT

PFE	1500	-	12	-	054	X	X
Product Family	Power Level	Dash	V1 Output	Dash	Width	Airflow	Input <sup>3</sup>
PFE Front-Ends	1500 W		12 V		54 mm	N: Normal <sup>1</sup> R: Reverse <sup>2</sup>	A: C14 Socket AC: C16 Socket AH: HVDC Socket

- <sup>1</sup> "N" Normal Airflow from Output connector to Input AC socket  
Ordering PN: PFE1500-12-054NA for C14 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12-054NAC for C16 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12-054NAH for both AC and HVDC (RF-203-D-1.0) input connector, input range is 180 ~ 400 VDC and 90 ~ 264 VAC
- <sup>2</sup> "R" Reverse Airflow from Input AC socket to Output connector  
Ordering PN: PFE1500-12-054RA for C14 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12-054RAC for C16 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12-054RAH for both AC and HVDC (RF-203-D-1.0) input connector, input range is 180 ~ 400 VDC and 90 ~ 264 VAC
- <sup>3</sup> For difference of the AC socket and mechanical outline refer to section 13.

### MODELS WITH 12 V STANDBY OUTPUT

PFE	1500	-	12	N	X	S412
Product Family	Power Level	Dash	V1 Output	Airflow	Input <sup>5</sup>	VSB Output
PFE Front-Ends	1500 W		12 V	N: Normal <sup>4</sup>	A: C14 Socket AC: C16 Socket AH: HVDC Socket	12VSB

- <sup>4</sup> "N" Normal Airflow from Output connector to Input AC socket  
Ordering PN: PFE1500-12NAS412 for C14 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12NACS412 for C16 AC input connector, input range is 180 VDC ~ 350 VDC and 90 VAC ~ 264 VAC  
Ordering PN: PFE1500-12NAHS412 for both AC and HVDC (RF-203-D-1.0) input connector, input range is 180 VDC ~ 400 VDC and 90 VAC ~ 264 VAC
- <sup>5</sup> For difference of the AC socket and mechanical outline refer to section 13.