

PFS1200-12-054xA

AC-DC Front End Power Supplies

The PFS1200-12-054xA is a 1200 Watt 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.

Displays the CE-Mark for the European Low Voltage Directive (LVD).



Key Features & Benefits

- High Efficiency, Meet 80Plus Platinum efficiency requirement
- Universal input voltage range: 90-264 VAC
- High voltage DC input: 180-400 VDC
- Always-On 24W standby output (12V/2A)
- Hot-plug capable
- Parallel operation with active digital current sharing
- Digital controls for improved performance
- High density design: 39 W/in³
- Small form factor (WxHxL): 54.5 x 40 x 228.6 mm (2.15 x 1.57 x 8.98 in)
- I2C communication interface for control, programming and monitoring with Power Management Bus 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
- Digital inrush current control

Applications

- High Performance Servers
- Routers
- Switches



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1. ORDERING INFORMATION

PFS	1200	-	12	-	054	x	A	x
Product Family	Power Level	Dash	V1 Output	Dash	Width	Airflow ¹	Input	Options
PFS Front-Ends	1200 W		12 V		54 mm	N: Normal R: Reverse	A: AC Input	blank: C14 Socket ² C: C16 Socket ² H: HVDC Socket ³

- ¹ N = Normal Airflow from Output connector to Input AC socket;
R = Reverse Airflow from Input AC socket to Output connector
- ² C14 / C16 AC input connector, input range 90 ~ 264 VAC and 180 ~ 350 VDC
- ³ Ordering PN: PFS1200-12-054NAH for both AC and HVDC (Anderson 2006G1-BK) input connector, input range is 180 ~ 400 VDC and 90 ~ 264 VAC

2. OVERVIEW

The PFS1200-12-054xA AC/DC power supply is with DSP control, high efficient front-end power supply. It incorporates resonance-soft-switching technology and interleaved power trains to reduce component stresses, providing increased system reliability and very high efficiency. With a wide input operational voltage range and minimal derating of output power with input voltage and temperature, the PFS1200-12-054xA power supply maximizes power availability in demanding server, network, and other high availability applications. The supply is fan cooled and ideally suited for integration with a matching airflow paths. Both the PFC stage and DC/DC stage is with DSP control. The DC/DC stage uses soft switching resonant techniques in conjunction with synchronous rectification. An active OR-ing device on the output ensures no reverse load current and renders the supply ideally suited for operation in redundant power systems. The always-on standby output, provides power to external power distribution and management controllers. It is protected with an active OR-ing device for maximum reliability. Status information is provided with front-panel LEDs. In addition, the power supply can be controlled and the fan speed set via the I2C bus. The I2C bus allows full monitoring of the supply, including input and output voltage, current, power, and inside temperatures. The fan speed is adjusted automatically depending on the actual power demand and supply temperature and can be overridden through the I2C bus.

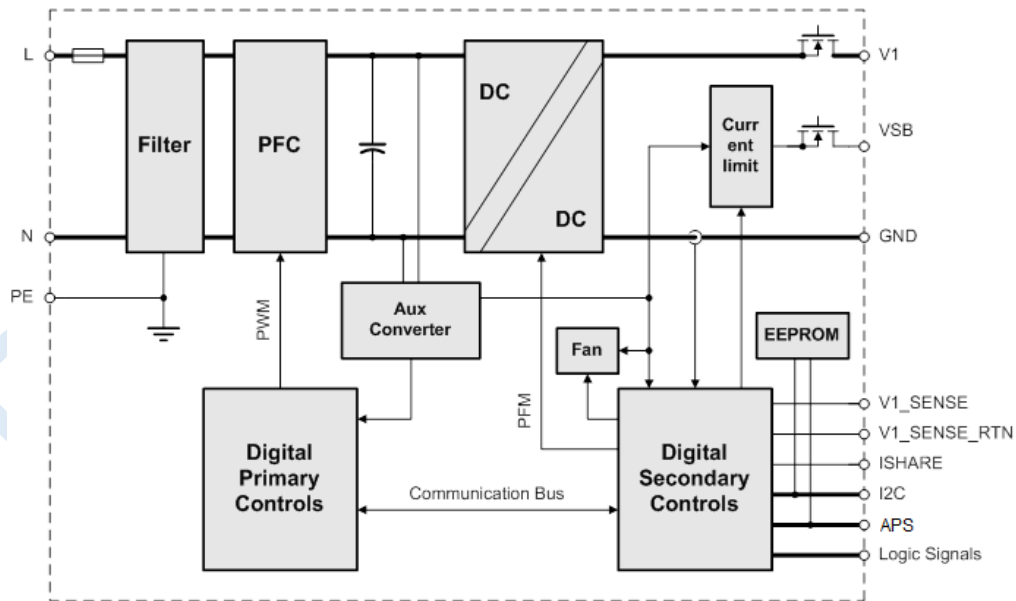


Figure 1. PFS1200-12-054NAH Series Block Diagram