

## Chapter 7 Product Description FMP 16.48

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### 7.1 General

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The Fan-Cooled Modular Power 16.48 (FMP16.48) rectifier module is a modular power supply designed for parallel operation and plug-in installation in the PPS 16 systems. The rectifier provides extremely reliable DC power in the highest possible density. The module incorporates the latest in power monitoring solutions through an internal microprocessor, giving up to the second updates to the system controller and adjacent rectifiers, guaranteeing tightly controlled load sharing among rectifiers, and providing status and identification information to the controller.

There is no cabling at the front of the unit. The AC input, DC output and signal cables are connected using a backplane integral to the cabinet frame. A rectifier module can be plugged into, or unplugged from, the support frame with no impact upon the other modules.

The rectifiers operate on the principle of active load sharing and can operate in parallel. They incorporate soft-start at the input and at the output, which avoids high incoming and outgoing currents. The output voltage of the rectifier is automatically adjusted to the required voltage at installation by the controller.

The rectifiers in the system are controlled by the controller, see chapter Operation / Product description Controller.

## 7.2 Technical Specification

### 7.2.1 Mains input

Input voltage: 100-240 V AC +/-15% single phase  
Input current: <10 A  
Frequency: 44-66 Hz  
Power factor: > 0.98 typical

### 7.2.2 DC Output

#### 7.2.2.1 At Mains Input 185-250 VAC

Voltage: 45 V DC - 56 V DC nominal  
Current limit: 32 A  
Power: 1600 W  
Efficiency: >93%, typical 93.5% (at 40-90% load)

#### 7.2.2.2 At Mains Input 95-185 VAC

Voltage: 45 V DC - 56 V DC nominal  
Current limit: 27 A  
Power: 675 W  
Efficiency: >88.5%, typical 90% (at 40-90% load)

#### 7.2.2.3 Module Dimensions

Height: 177 mm  
Width: 51 mm  
Depth: 280 mm

#### 7.2.2.4 Weight

Approximately 2.2 kg