200W Universal Input AC-DC Plug-in Power Supply with Power Factor Correction (PFC)
Rugged Industrial Quality
PFC 53-EH Series

- Electronic power factor correction (PFC)
- Convection cooling (no fans)
- 3U x 14HP x 220mm plug-in module
- Full electronic protection
- Rugged, field-proven design
- Also available in chassis-mount package
- Hot swappable, N+1 redundant

This rugged, industrial quality plug-in power supply with power factor corrected input utilizes field-proven PFC53 technology to generate the required output power. It is a mature design with a track record in numerous applications. A built-in redundancy diode allows parallel connection to achieve higher output power or N+1 redundant operation, including hot-insertion. Cooling is by natural air convection. Heat generating components are installed on an aluminum heatsink block which is connected to the heatsink plate on the side of the module. This also provides exceptional mechanical ruggedness. The input and output are filtered for low noise. The front panel of the module has a power 'ON' LED indicator and test points. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage
Universal 95 … 264Vac
47 – 63Hz
Power factor is a min. 0.97 at full load for the entire input range.
Meets EN 61000-3-2

Input Protection
Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation
2250VDC input to chassis
4300VDC input to output;
8mm spacing
500VDC output to chassis min.

Standards
Designed to meet EN 62368-1 and corresponding standards.

EMI
EN 55032 Class A with margins

Hold Up Time
Min. 10ms at any input for 5% drop of the output voltage

Switching Frequency
80kHz input section
55kHz output section

Output Voltage/Current
12V/16A, 24V/8A, 48V/4A,
110/1.8A or 125V/1.6A
200W continuous
Output is floating; either terminal can be grounded.
Consult factory for other voltages

Redundancy Diode
Installed internally

Line/Load Regulation
±1% combined from zero load to full load, including redundancy diode

Dynamic Response
Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple / Noise
Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHz BW)

Output Overload Protection
Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient airflow (self resetting)

Output Overvoltage Protection
Second regulator loop

Efficiency
Output voltage dependent
Typically 80% at full load

Operating Temperature Range
0°C to +50°C for full specification without derating
Extended temperature range available

Temperature Drift
0.03% per °C over operating temperature range

Cooling
Natural air convection (vertical airflow)

Environmental Protection
Basic ruggedizing
Conformal coating

Shock/Vibration
IEC61371 Cat 1 A&B

Humidity
5 - 95% non-condensing

MTBF
140,000 hours @ 45 °C
Demonstrated MTBF is significantly higher

Indicators
On the front-panel of the module:
Green "Output ON" LED
Test Points

Control Input
None

Alarm Output
Module Fail alarm by optocoupler
C-E fail open

Mechanical (H x W x D)
3U x 14HP x 220mm
Eurocard plug-in module

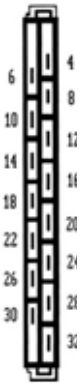
Weight
Approx. 1.2 kg (2.5 lb.)

Connections:
H15 DIN connector

RoHS Compliance
Compliant

Warranty
Two years subject to application within good engineering practice

Pin-out drawing, H15 connector



PinNo.	H15 DIN CONNECTOR	
4	+	DC OUTPUT
6	+	
8	+	
10	–	
12	–	
14	–	
16	C	ALARM
18	E	
20	NOT USED	AC INPUT
22	NOT USED	
24	N ~	
26	N ~	
28	PH ~	
30	PH ~	
32	GND ⏚	

ABSOPULSE power supplies are designed and built to customer requirements.
The specifications on this data sheet are generic guidelines only and are subject to change

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.

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Made in Canada