

Impulse Series (GPP80) -48V Power System

The Impulse Series (GPP80), -48V Global Power Rectifier System is a 3U high modular power system designed for 19"/23" rack applications, where remote performance is critical. The system supports -48V loads up to 80A (60A with n+1 redundancy) in a single shelf. -48V GPP80 hot swappable rectifier modules operate at wide AC input voltage range from as low as 85Vac and up to 264Vac at 50Hz / 60Hz. Advanced monitoring unit provides system monitoring through a standard RS232C connection and via browser using the optional LAN card.



Features:

- Flexible, modular, cost effective
- N+1 redundancy
- Four plug-in light weight 20A rectifier modules in a 19" shelf (23" mounting optional)
- Wide AC input range (85Vac to 264Vac)
- Continuous operation incorporates hot-swappable, plug and play rectifier modules for convenient system maintenance without interruption of service
- Complete system monitoring available through browser and SNMP interface
- Individual DC circuit breakers
- UL60950 CSA C22.2 60950 recognized

Applications

- Central Office
- Wireless Sites
- Customer Premise Equipment
- Controlled Environment Vaults
- Microwave Transmission Sites
- Digital Loop Carrier
- Utilities
- Industrial

Impulse –48V, 80ADC SYSTEM SPECIFICATIONS:

General	Description
Rectifiers	<ul style="list-style-type: none"> Maximum of (4) rectifiers per shelf in plant
Monitoring	<ul style="list-style-type: none"> Monitoring with RS232C connection and LAN interfaces possible
Architecture	<ul style="list-style-type: none"> Maximum output capacity of 80A per plant at 200-240Vac (60A, with N+1 redundancy), 40A per plant at 100-120Vac (40A, with N+1 redundancy)
Output DC distribution	<ul style="list-style-type: none"> 4 pcs 25A Breakers, standard. Option available.
Battery Disconnect	<ul style="list-style-type: none"> Manual battery disconnect switch

Electrical (Input / Output)	Description
Nominal Voltage, 1 phase	100Vac – 120Vac, 200Vac – 240Vac 2 wires plus ground
Voltage Range	85Vac – 132Vac / 180Vac – 264Vac
Nominal AC current per amplifier	22A at 120Vac, 40A dc output 21A at 240Vac, 80A dc output
Inrush or input surge current	100A Peak max
Operating Frequency	50Hz / 60Hz nominal (47Hz – 63Hz)
Power Factor	>0.98 (at > 50% load)
Output Voltage	54.6V Factory set (Note 1)
System output current (maximum)	80A. Qty. (4) GPR20 rectifiers 200-240Vac 40A. Qty. (4) GPR20 rectifiers 100-120Vac
Output Voltage Regulation	<±1.0%
System Efficiency	>90% (Full load at 208Vac)
Psophometric Noise	<2.0mV
Output Ripple Voltage	250mV p-p

(current rating is 4 modules per mounted case)

Environmental	Description		
Operating Ambient Temperature	-5°C to 50°C		
Operating Relative Humidity	20%-85% (non-condensing)		
Storage Ambient Temperature	-10°C to 60°C		
Storage Relative Humidity	10%-90%		
Operating Altitude	< 10,000 ft.		
Hi-Pot, Insulation	Pri.-Sec.	Pri.-FG.	Sec.-FG
Hi-Pot	3kV AC	2kV AC	0.5kV DC
Insulation Resistance	500VDC at 10M Ohm or more		

Physical	Description
Height	5.22 in. (132.5 mm, 3U)
Width	17.0 in. (431.8mm)
Depth	12.6in. (320mm)
Weight (with four rectifiers, controller, system chassis)	39.6lbs. (18kg)

Impulse –48V 80 ADC SYSTEM SPECIFICATIONS (continued):

Safety / EMC	Description
Safety	UL60950, CSA C22.2 No.60950)
EMC	EN5022, CISPR22, Class A, FCC Part 15 Class A Radiated / Conducted Emissions

GPR20 –48V, 20ADC RECTIFIER SPECIFICATIONS:

AC Input	Description
Nominal Voltage, 1 phase	100Vac–120 / 200–240Vac nominal, 2-wire plus ground (no neutral)
Voltage Range	85Vac–132Vac / 180Vac–264Vac
Nominal current per rectifier	5.3A at 120Vac, 10A _{dc} output 5.1A at 240Vac, 20A _{dc} output
Inrush or Input surge current	25A peak max.
Operating Frequency (Range)	50 Hz / 60Hz nominal (47Hz–63Hz)
Power Factor	≥ 0.98 (at >50% load)

DC Output	Description
Output Voltage	54.6V Factory set (Note 1)
Output Current	20A _{dc} max. at 200–240Vac input 10A _{dc} max. at 100–240Vac input
Output Voltage Regulation	<±1.0%
Output Ripple Voltage	<250 mV peak-to-peak
Psophometric Noise	<2.0 mV
Overcurrent Protection	>101% of rated output current
Overvoltage Protection	64V max.

Note 1: Factory-adjustable, 46.5V to 54.6V. Please contact Shindengen representative.

Environmental	Description
Operating Temperature	–5°C to 50°C
Operating Relative Humidity	20%–85% (non-condensing)
Storage & Transportation Temperature	–10°C to +60°C
Storage & Transportation Relative Humidity	10%-90%
Operating Altitude	<10,000 ft.

General	Description
Efficiency	> 90% (Full load at 208Vac)
Cooling	Front to rear dual fan cooling

Physical	Description
Height	5.08 in. (129 mm, 3U)
Width	2.98 in. (75.6 mm)
Depth	10.63 in. (270 mm)
Weight	5.5 lbs (2.5 kg)

Impulse –48V, 20ADC RECTIFIER SPECIFICATIONS (continued):

Safety / EMC	Description
Safety	UL 60950, CSA C22.2 No. 60950
EMC	Emission: 55022, CISPR22 Class A, FCC Part 15 Class A Radiated / Conducted Emissions

Visual Indicators	Description
LEDs	ON (Green), ALM (Red)

Impulse Numbering System

GPP80	L	4	A01	X	X	X
Family	Model	Number of 20A rectifiers	Distribution Code	LAN Card=1 No LAN Card=0	Rack Size: 19"=0 Rack Size: 23"=1	Future Use

Model Code Table

Code	Description
L	With Monitor

Distribution Code Table

Code	Description
A01	4–25A Circuit breaker

If you require further information or assistance, please contact Shindengen at the following address:

Distributed by SD Electronics

Tel: 514-735-9673

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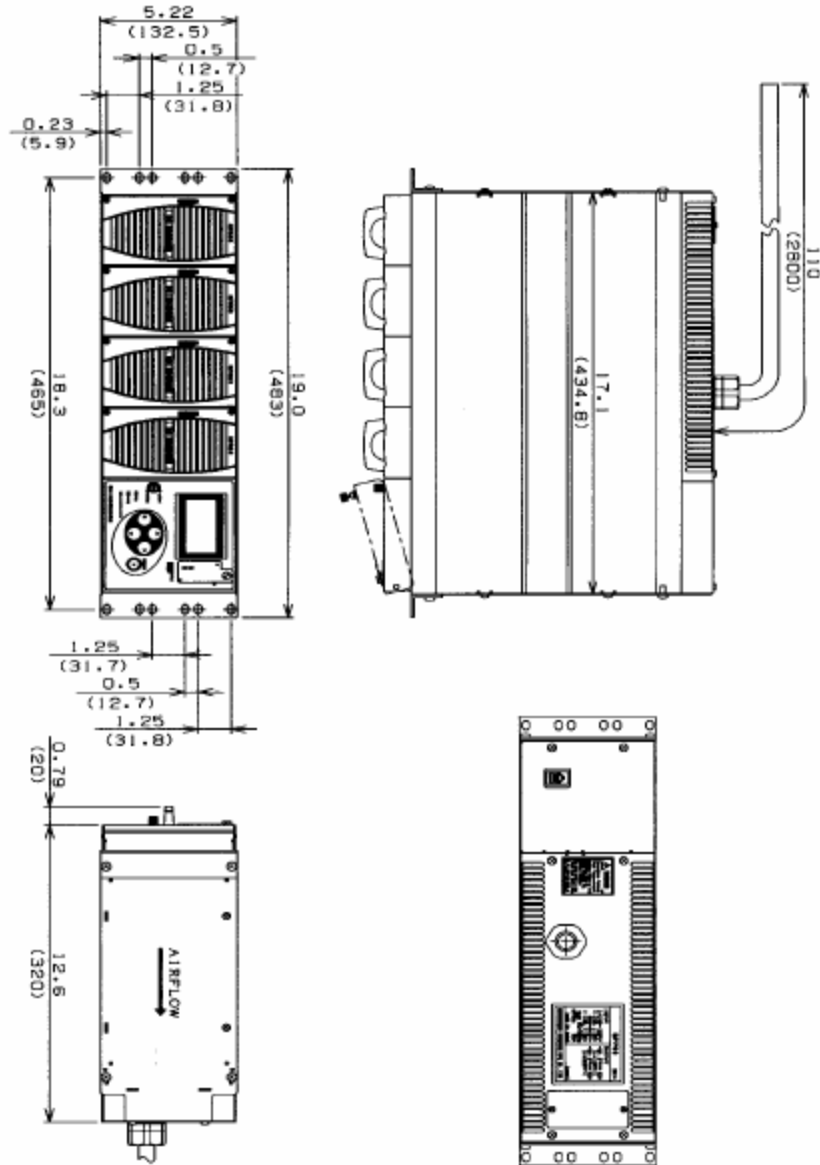


Figure 1. Impulse System Mechanical Module (4 modules mounted)

(Note. This drawing shows a 19" rack mounting frame. Optional tooling for a 23" standard rack is available. For further information, please contact Shindengen Sales Department.)

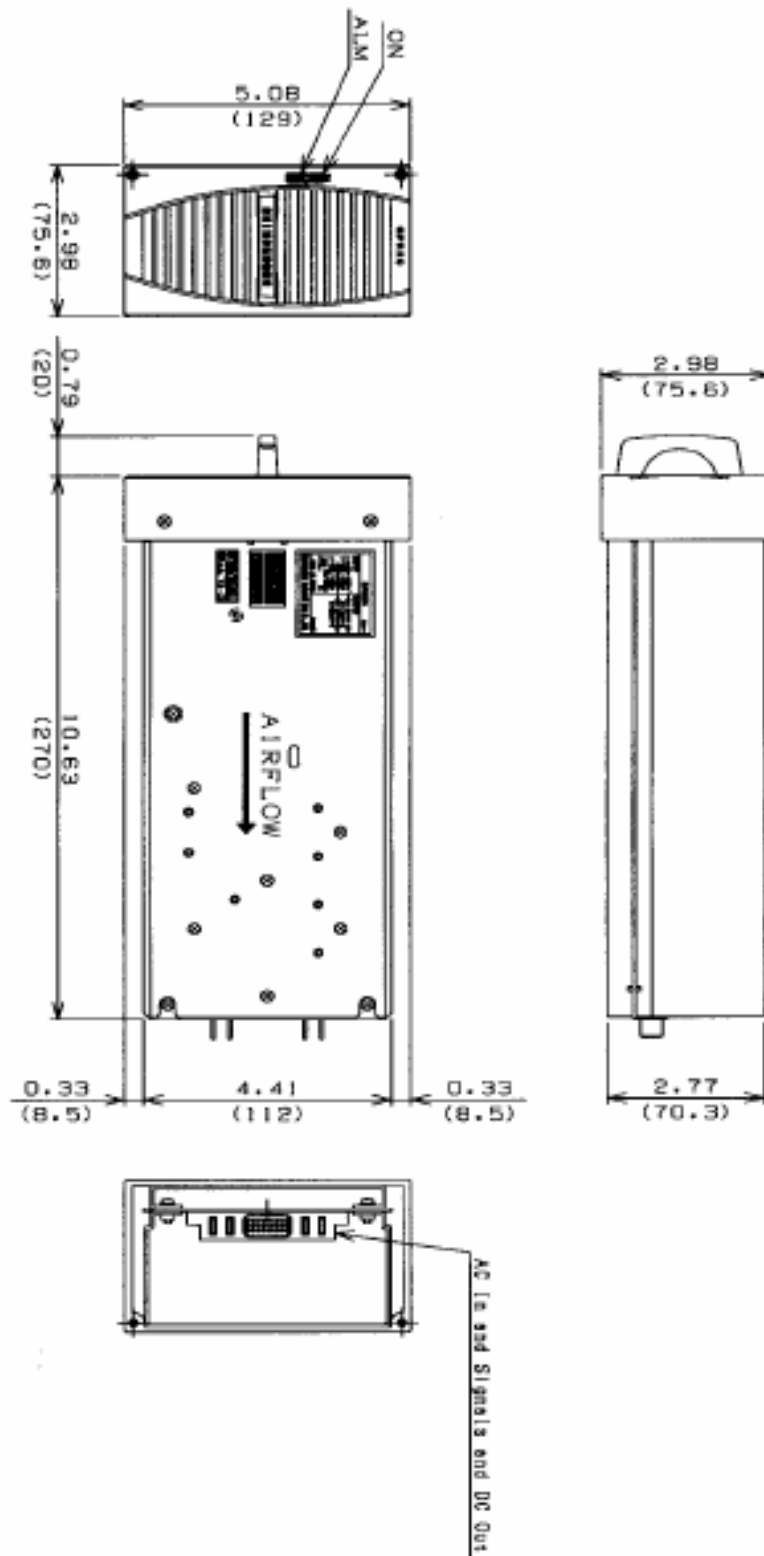


Figure 2. GRP20, GRP20A Rectifier Module Mechanical Module