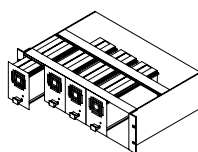


ADC7181 / ADC7180 SERIES

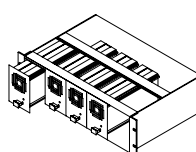
800W Plug-in Rectifiers for Telecom and Industrial Applications



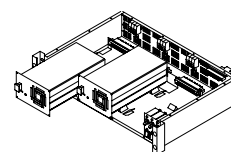
Compact size, 800W in 3U, 14TE or 17TE
 All voltages available 0...144VDC
 Voltage and current adjustable from 0 to max value
 Analog controllable models by external 0-5VDC voltage
 Modules plug-in types and hot-swappable
 Module fail relay alarm for remote monitoring
 Both vertical 3U and horizontal 2U installation
 Shut Down by external 4...30V voltage
Optional Temperature compensated battery charging



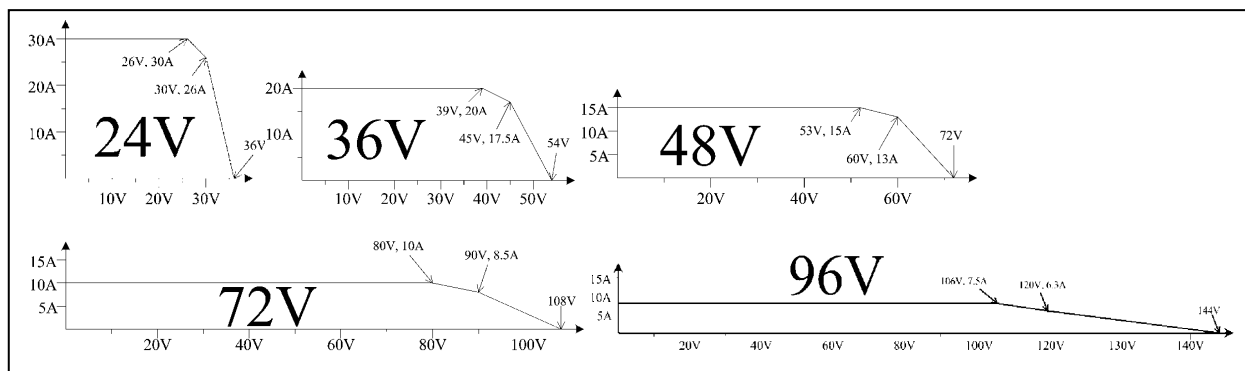
MSR7650
 19" 3U subrack
 4800W / 6 modules



MSR7170
 19" 3U subrack
 3200W / 4 modules



MSR7110
 19" 2U subrack
 2400W / 3 modules



RECTIFIER MODULES, trimmer adjustable and analog controllable units

Type Trimmer adj (Refer curves above)	Type Analog control	Input voltage (*)	Nominal output voltage	Voltage setting range	Max output current	Current limit setting	Max power	Mechanics (w x h x d)
ADC7181/24	ADC7181/24AI	55...264 VAC	24 VDC	0-36VDC	30 A	0-30A	800W	14TE / 3U / 230mm
ADC7181/36	ADC7181/36AI	55...264 VAC	36 VDC	0-54VDC	20 A	0-20A	800W	14TE / 3U / 230mm
ADC7181/48	ADC7181/48AI	55...264 VAC	48 VDC	0-72VDC	15 A	0-15A	800W	14TE / 3U / 230mm
ADC7181/72	ADC7181/72AI	55...264 VAC	72 VDC	0-108VDC	10 A	0-10A	800W	14TE / 3U / 230mm
ADC7181/96	ADC7181/96AI	55...264 VAC	96 VDC	0-144VDC	7.5 A	0-7.5A	800W	14TE / 3U / 230mm
ADC7180/24	ADC7180/24AI	55...264 VAC	24 VDC	0-36VDC	30 A	0-30A	800W	17TE / 3U / 230mm
ADC7180/36	ADC7180/36AI	55...264 VAC	36 VDC	0-54VDC	20 A	0-20A	800W	17TE / 3U / 230mm
ADC7180/48	ADC7180/48AI	55...264 VAC	48 VDC	0-72VDC	15 A	0-15A	800W	17TE / 3U / 230mm
ADC7180/72	ADC7180/72AI	55...264 VAC	72 VDC	0-108VDC	10 A	0-10A	800W	17TE / 3U / 230mm
ADC7180/96	ADC7180/96AI	55...264 VAC	96 VDC	0-144VDC	7.5 A	0-7.5A	800W	17TE / 3U / 230mm

*) Also DC input 78...360VDC, max power 600W, reduced power 55...200VAC or 78...200VDC

ADC7181 modules with 14TE front panel can be installed to standard 19" sub-rack or to MSR7650 sub-rack

ADC7180 modules with 17TE front panel to be used with sub-racks MSR7110 or MSR7170



POWERNET



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Production and Service: Teollisuuskatu 3, FIN-44150 ÄÄNEKOSKI, Tel. +358 14 3396 400, Fax +358 14 3396 410

E-mail: marketing@powernet.fi, service@powernet.fi, Internet: www.powernet.fi

INSTALLATION

- ↑ This module can be used either in 3U rack (vertical) or 2U rack (horizontal).
- ← The location must be dry, dust-free indoor use. The acceptable temperature range at full power is -25°C up to +50°C typically. A higher ambient temperature will limit the power, see diagram. The power supply is not waterproof. Keep it dry and away from areas of high humidity to avoid the risk of electrical shock and damage to the power supply.

OUTPUT VOLTAGE AND CURRENT LIMIT ADJUSTMENT

The output voltage and output current limit of the module can be adjusted with the multi-turn potentiometer located on the front panel. Both voltage and current can be adjusted from zero to maximum value.

In analog control versions output voltage can be adjusted by external 0-5 VDC voltage or by using external trimmers and internal 5 VDC power source. Current limit can be adjusted with the multi-turn potentiometer located on the front panel.

LED

During the normal power supply operation / charging process the STATUS light will show a constant green light. Red led indicates fault or High voltage +10% / Low voltage - 5% in the module.

OUTPUT OVERCURRENT PROTECTION

Output of the unit is protected against over current and short circuits by automatic, self-resetting electronic current limit.

SERIES / PARALLEL CONNECTION

Parallel operation: No restrictions, passive load sharing. Series operation: Up to 500V total voltage.

ALARM RELAY

Alarm relay, the potential free alarm indicates if the charger's output is healthy. The alarm signal is activated at AC fail and charger fail cases. Both normally open and normally closed signals are presented.

WARNING!

Dangerous voltages, capable of causing death, are present in this equipment. Do not remove the cover. No operator serviceable parts inside. Refer servicing to qualified service personnel.

ANALOG CONTROL MODELS, type number example ADC7180/24AI

Analog control option allows full control for output voltage and it gives measured voltage and current values. Current limit can be adjusted by trimmer on front panel. There is also available +5V internal power source for logic use. The analog input have 500V electrical insulation to power supply's input and output.



Front panel

Current limit adjustment by trimmer



Rear panel

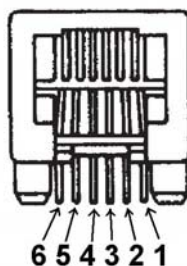
Voltage control by external 0-5VDC voltage

PIN CONFIGURATION, MODULAR CONNECTOR

Interface to analog control card is made through AMP Modular 6 connector. It's part number is 215-876-1. The product specification number is 108-19064 and application number is 114-19019. Part number for cable connector that fits to modular 6 is 737 336-1.

Pin configuration:

1. Ground
2. NC
3. Target value for voltage
4. Measured value for current
5. Measured value for voltage
6. +5V, (max 20mA) output



Analog control wire set 3m is included with the unit

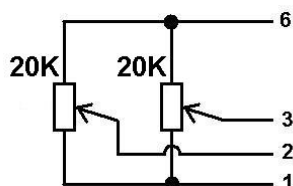
Controlling analog card:

All control voltages must be between 0 and 5 volts. Over 5V steering is not allowed. Logic for steering is positive so 5V in target value means maximum value from power supply and 0V means minimum output. If controlling connector is unplugged from modular connector, the power supply takes it's minimum values for output.

Measured values can be read from measured signals. Measured voltages are scaled equal as target values. If power supply lies on it's voltage reference, then measured voltage should be equal as target. Same thing on current steering and it's measured value. Measured signals (both together) can be loaded only 20mA or proper operation is not guaranteed.

Modular connector is isolated from power supply's input, enclosure and output terminals. That allows serial and parallel connection to separate power supply's so that equal steering voltages are used. Number or connected devices are not limited. Only be sure that 500V insulation voltage is not exceeded

Connection example, using internal +5VDC power source and external potentiometers:



+5V output can be used to feed logic voltages for external circuits. Connection in an example works as a potentiometer controlled power supply. It is important to notice that +5V output is not allowed to load more then 20mA or proper operation is not guaranteed.