

# AC/DC Einbaunetzgeräte Hot-Plug

## Series TRPI, TRRI, TRSI, TWRI

### AC/DC-Power Supply Hot-Plug-System with PFC up to 7500 Watt



85% Efficiency  
Power Factor Correction to EN61000-3-2  
Up to 10.9W/In<sup>3</sup> Power Density  
Hot-Swap N+1 Redundant Operation  
2U 19-inch Rack Mounting  
±10% Output Adjustment Range  
Low Cost  
24V, 28V or 48V Output  
1250, 2000 or 2500W Module Output Power  
Up to 7500W Total Power, Non-Redundant  
Up to 5000W Total Power, 2+1 Redundant  
Integral Isolation Diodes  
Output Current Limiting  
Inrush Current Limiting  
Remote Output Adjustment  
UL, CSA, EN

#### Output Specifications:

Total Output Power, Max.	1250, 2000, 2250 or 2500 Watts
Voltage Adjustment Range	see table
Total Regulation <sup>1</sup>	1.0%
Ripple & Noise, Pk-Pk <sup>2</sup>	125mV, 12V Models 250mV, 24V & 28V Models 500mV, 48V Models
Holdup Time <sup>3</sup>	20ms
Dynamic Response <sup>4</sup>	1ms
Temperature Coefficient	0.05%/°C
Minimum Load	0A
Overload Protection	Constant Current Limiting
Overvoltage Protection	Latched Shutdown
Active Current Share <sup>5</sup>	10% Differential From Rated Current
Remote Sense	Up to 0.5V Per Wire

#### Input Specifications:

Input Voltage Range	See Model Table
Power Factor	0.98
Input Frequency	47-63Hz
Inrush Limiting	25A Peak
Input Current, Full Load, TRSI	13.1A@230VAC
TRRI	10.4A@230VAC
TRPI	12.5A@120VAC
TWRI	11.8A@230VAC
Input EMI Filter, Conducted	EN55022 Curve B FCC20780 pt. 15J Curve B EN61000-3-2
Harmonic Distortion	
Input Immunity, Conducted	
Fast Transients, Line-Line	±2kV(EN61000-4-4 Level 3)
Surges, Line-Line	±1kV(EN61000-4-5 Level 2)
Surges, Line-Ground	±2kV (EN61000-4-5 Level 3)
Input Protection	Internal Fuse 20A

#### General Specifications:

Efficiency	85% at Full Load
Switching Frequency	70kHz Nominal
Overtemperature Protection	Power Shutdown
Isolation, Class I6, min	3000VAC Input - Output 1500VAC Input - Ground 50VDC Output - Ground EN60950, UL60950, CSA22.2 No.60950
Safety Standards	

#### Environmental Specifications:

Operating Temperature	0° C to 70°C Ambient
Derating	2.5% / °C, 50° C to 70° C
Storage Temperature	-40° C to + 85° C
Cooling	Integral Ball Bearing Fan

#### Physical Specifications:

Case Material, Module, Rack Mount	Aluminum Steel
Finish, Rack Mount	Powder Coat Gray
Dimensions, Inches (mm) Hot-Swap Module	3.3H x 4.9W x 13.1D (84 x 124 x 333)
Rack Mount	3.50H x 17.20W x 19.88D (89 x 437 x 505)

#### NOTES:

1. At remote sense point over full line range and 0-100% load change.
2. 20MHz bandwidth. Measured with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output.
3. Full output power at nominal AC line.
4. <5% deviation recovering to within 1% for 50% load change.
5. Using single wire current share with remote sense connected.
6. Input - output isolation figure is for isolation components only. 100% production Hipot tested.

Typical at Nominal 230VAC Line, Full Load and 25°C Unless Otherwise Noted.

Max. Watts	Output Voltage/Current	Adjustment Range	Input Voltage	Minimum Load	Line/Load Regulation	Model Number
1250*	12V 104.2A	±10%	85VAC - 264VAC	0A	1%	TRPI3000
1250*	24V 52.1A	±10%	85VAC - 264VAC	0A	1%	TRPI5000
1250*	28V 44.6A	±10%	85VAC - 264VAC	0A	1%	TRPI6000
1250*	48V 26.0A	±10%	85VAC - 264VAC	0A	1%	TRPI7000
2000	24V 83.3A	±10%	170VAC - 264VAC	0A	1%	TRRI5000
2000	28V 71.4A	±10%	170VAC - 264VAC	0A	1%	TRRI6000
2000	48V 41.7A	±10%	170VAC - 264VAC	0A	1%	TRRI7000
2250	28V 80.4A	26.5-33.5VDC	170VAC - 264VAC	0A	1%	TWRI6000
2250	29V 77.6A	26.5-33.5VDC	170VAC - 264VAC	0A	1%	TWRI6001
2250	30V 75.0A	26.5-33.5VDC	170VAC - 264VAC	0A	1%	TWRI6002
2250	31V 72.6A	26.5-33.5VDC	170VAC - 264VAC	0A	1%	TWRI6003
2250	32V 70.3A	26.5-33.5VDC	170VAC - 264VAC	0A	1%	TWRI6004
2500	24V 104.2A	±10%	170VAC - 264VAC	0A	1%	TRSI5000
2500	28V 89.3A	±10%	170VAC - 264VAC	0A	1%	TRSI6000
2500	48V 52.1A	±10%	170VAC - 264VAC	0A	1%	TRSI7000

**\*NOTE:**  
 Below 90VAC input, derate output power by 10%. Full rated power at 90-264VAC.  
 The maximum rated power and maximum rated output current may not be exceeded for any voltage within the specified output voltage range.  
 For modified versions, contact factory.

**Ordering Guide:**

The hot-swap modules and the mating rack-mount are separate items and must be ordered separately.

**HOT-SWAP MODULES:**

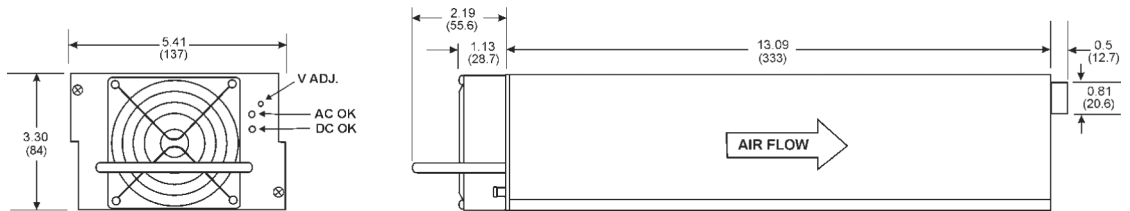
Order quantity using model number from table.

**SYSTEM RACK:**

Order RRS2U-19.

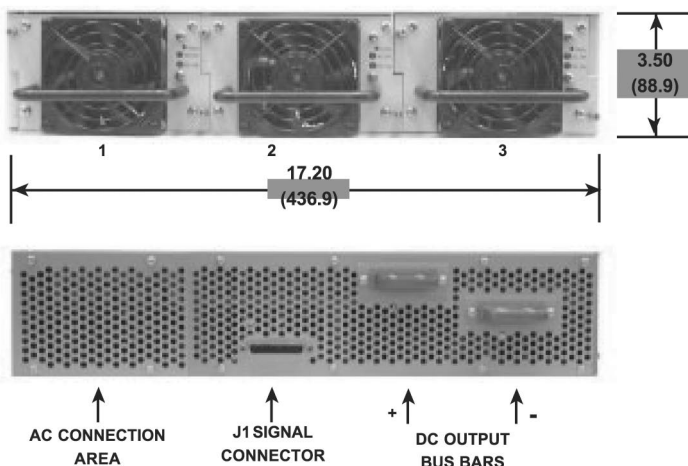
MATING CONNECTOR KITS	
Order Kit No.	
Rack: 775-1441-0000	
Module: 775-1427-0000	

**HOT-SWAP MODULE**



NOTE: 1250W (TRP) models are 13.1 inches (333mm) deep with internal fan only.  
 NOTE: 2000W (TRR) and 2500 (TRS) models are 14.2 inches (361mm) deep with compound (external & internal) fan.

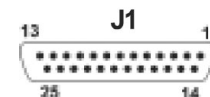
**19" RACK-MOUNT**



J1 SIGNAL CONNECTOR			
PIN	FUNCTION	PIN	FUNCTION
1	Inhibit	14	ACGood-1
2	ThermalAlarm-1	15	DCGood-1
3	Current Monitor - 1	16	ACGood-2
4	Thermal Alarm - 2	17	DCGood-2
5	Current Monitor - 2	18	ACGood-3
6	Thermal Alarm - 3	19	DCGood-3
7	Current Monitor - 3	20	N.C.
8	N.C.	21	N.C.
9	N.C.	22	N.C.
10	CurrentShare	23	-Sense
11	+ Sense	24	Remote Adjust-1
12	Remote Adjust-2	25	Remote Adjust-3
13	N.C.		

ALL DIMENSIONS IN INCHES (mm).  
 All specifications subject to change without notice.

NOTE: AC Connections are made to a terminal block behind the rear grille. There is a separate connection to each module.



AMP747846-4Connector  
 AMP747912-2Mate