

# AR 600

600 WATT, 300 VOLT OUTPUT  
DISTRIBUTED POWER FRONT END

Power

Auto-  
Ranging



**T**he AR 600 is an AC-DC front end for distributed power systems. It delivers a non-isolated DC output voltage proportional to the AC input voltage. A built-in auto-ranging feature switches between voltage-doubler and full-wave-rectifier to accommodate the worldwide input voltage ranges of 85-132 and 170-264 Vac. The AR 600 includes control interface signals for front panel on/off switching, AC fail warning, a low-voltage auxiliary supply, and enabling the distributed DC-DC converters. Its small size and low cost make the AR 600 the right choice for OEM applications.

## FEATURES

- Worldwide operation
- IEC input connector
- EMI filter
- Inrush limiting
- AC fail warning
- Isolated auxiliary supply
- Simplifies system design
- Small size, low cost
- 2 year warranty

### SAFETY

UL 1950, CSA C22.2 No. 950, EN60950

### EMC

FCC, CISPR 22, EN55022, class A

### QUALITY

ISO 9001

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## ELECTRICAL

Output Voltage:	Proportional to input voltage: 230 Vdc at 85 Vac, 370 Vdc at 264 Vac
Output Power:	600 W max. at 105-264 Vac 500 W max. at 85-264 Vac
Input Voltage/Current:	85-132 Vac, 47-63 Hz, 10 A max. 170-264 Vac, 47-63 Hz, 5 A max. Automatically switches between low and high input voltage ranges
Auxiliary Output:	+12 Vdc at 50 mA max., can tolerate short circuit for up to 5 sec.
Power Factor:	0.60 typical
Inrush Current:	40 A max.
Efficiency:	97% typical
Holdup Time:	20 msec min. from input power failure until AC OK signal goes low, full load and 115 Vac
AC Fail Warning:	5 msec continued operation after AC OK signal drops
Output Ripple:	25 V pk-pk max.
Turn-on Time:	500 msec max. until Load Enable signal goes high
Input Fuse:	Internal one-pole 10A NTD fuse
Output Short Protection:	External fuses required at dc-dc converters
Leakage Current:	1.0 mA max. at 240 Vac
Hipot:	2200 Vdc

## CONTROL SIGNALS (ALL SIGNALS REFERENCED TO RETURN)

On/Standby Switch:	Connect to return with front panel switch to begin operation
Return:	Signal return (can be connected to system ground)
AC OK:	TTL high indicates input and output voltages OK
+12 Vdc Aux:	+12 Vdc at 50 mA max.
Load Enable:	+12 Vdc active high for controlling dc-dc converters (470Ω output impedance. Load enable signal must be used to activate load for proper AC inrush limit operation)

## MECHANICAL

Operating Temperature:	-20°C to 70°C
Storage Temperature:	-40°C to 85°C
Size/Weight:	1.5"H x 4.0"W x 6.0"L, 1.0 lb.
Shock and Vibration:	Mil-Hdbk 810E
Humidity:	95% non-condensing
Mating Connector:	5 pin control connector AMP part no. 102241-3

## DIMENSIONS

