ARTESYN TECHNOLOGIES

DPF600 SERIES

Dual output

Patent No. 5446366

[2 YEAR WARRANTY]

CE (LVD)

- **600W front end**
- **EN61000-3-2 compliant**
- **Hot pluggable**
- **N+1 redundancy**
- **Full set of status signals**
- **EN55022, EN55011 conducted emissions level B**
- **UL, TÜV, CSA and BABT approvals**

The DPF600 is a 600W universal input AC/DC front end power supply in a fully enclosed hot pluggable case with built-in fan, front panel with handle, IEC input connector, on/off switch and DIN output signal connector. Providing dual 49V and 5V outputs with a full set of status signals, the DPF600 is designed as a slot-in front end for distributed power systems. The DPF600 provides 600W of output power and is fully compliant with EN61000-3-2. Standard features include current sharing and full protection against overvoltage, overload and short circuit. Remote or local system monitoring is possible via a full set of status signals that include fan fail, DC good, remote inhibit and current monitoring. The DPF600, with full international safety approval and the CE mark, meets conducted emissions EN55022 level B. The DPF600 is designed for use as a front end in medium power communication applications adopting distributed power architecture. The DPF600 can be used in conjunction with our complete range of 3 to 200W DC/DC converters to fully configure a distributed power system.

SPECIFICATION

All specifications are typical at nominal input, full load at 25°C unless otherwise stated

OUTPUT SPECIFICATIONS		
Voltage set point		-49VDC ±245mVDC with 2A load applied
Total regulation	Main output Full load to no load	±5.0%
Rise time	At turn-on	0.5s, max.
Transient response	Main output 50% to 100% step at 1.0A/µs	5.0% max. dev., 1ms recovery to 1.0%
Ripple and noise (0Hz to 30MHz)	Main output Auxiliary output	750mV pk-pk, 100mV pk-pk
Overvoltage protection	Latching main output Latching	-55V to -60V 5.7V to 6.5V
Output power limit		750W
Short circuit protection	Non-latching	Auto-recovery
Current sharing		±10%, 3V droop from 15% to 100%

INPUT SPECIFICATIONS		
Input voltage range		85 to 264VAC
Input frequency range		47Hz to 63Hz
Input surge current	230VAC, cold start @ 25°C	35A max.
Input surge	300VAC	20ms
Safety ground leakage current	120VAC, 60Hz 230VAC, 50Hz	0.2mA 0.4mA
Input current	90VAC, 600W 220VAC	7.35A rms max. 2.84A rms max.
Input fuse	Non-replaceable	15A
Power factor		0.99 120Vin, >66% load

EMC CHARACTERISTICS		
Radiated emissions	EN55022/11, FCC part 15	Level A
Conducted emissions	EN55022/11, FCC part 15	Level B
Harmonic current emm.	EN61000-3-2	Compliant
Electrical fast transients/bursts	EN61000-4-4	Level 3
Surge susceptibility	EN61000-4-5	Level 3

GENERAL SPECIFICATIONS		
Hold-up time	120VAC, 60Hz FL	20ms @ 600W
Efficiency	100Vin, load >66% rated	82% min.
Isolation voltage	Input/output Input/chassis	3000VAC 1500VAC
Switching frequency		50kHz
Approvals and standards		EN60950, UL1950, BABT CSA C22.2 No. 950
Weight		6.9kg (15lbs)
MTBF		500,000 hours demonstrated

ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating ambient Non-operating 50°C to 70°C ambient	0°C to +50°C -40°C to +85°C Derate to 50%
Cooling		Built-in fan
Relative humidity	Non-condensing	5% to 85% RH
Altitude	Operating Non-operating	10,000 feet max. 40,000 feet max.
Vibration	5Hz to 500Hz	2.4G rms peak

International Safety Standard Approvals

TÜV VDE0805/EN60950/IEC950

UL1950 File No. E136005

CSA C22.2 No. 950 File No. LR41062C

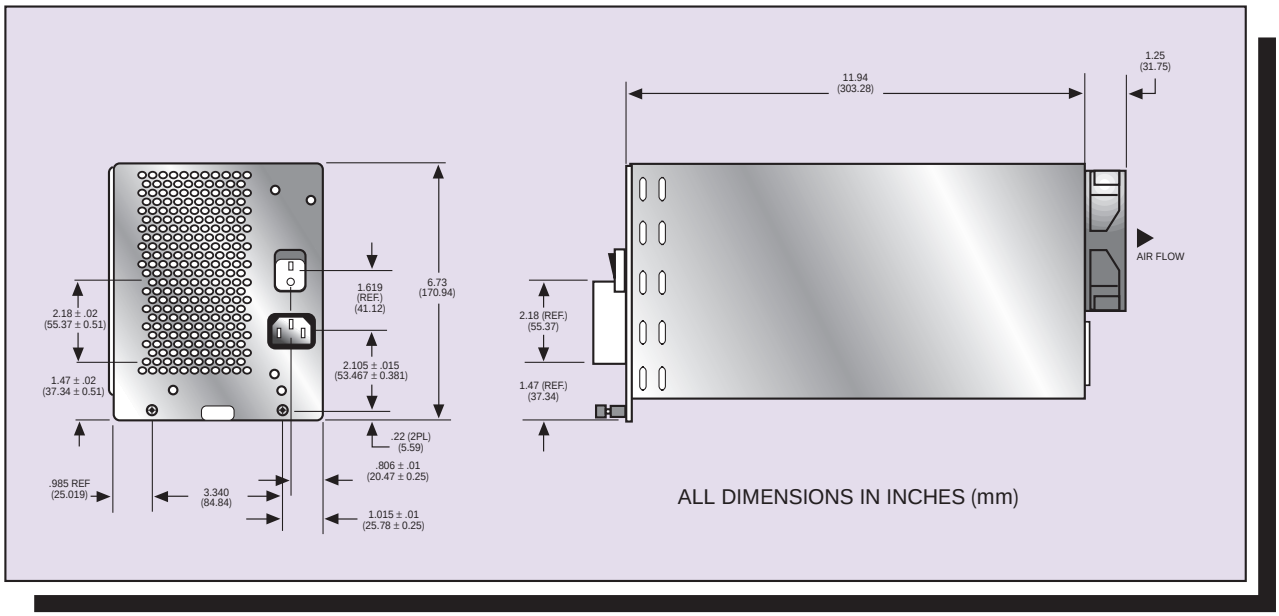
Certificate No. 606090

600 Watt
AC/DC PFC front-end for distributed power architectures

OUTPUT VOLTAGE	OUTPUT CURRENT		RIPPLE	TOTAL REGULATION	MODEL NUMBER
	MIN	MAX			
-49V (3)	0A (4)	12A	750mV	±5.0%	DPF600-9617
+5V	0.2A	10A	50mV	±5.0%	

Notes
1 Fan fail and power good are open collector signals.
2 All signals are referenced to earth ground, as is the 5V output.
3 The main output is floating.
4 49.5V at minimum current.

STATUS AND CONTROL SIGNALS (1,2)	
Fan fail H	Asserted in event of a failure
Power good L	Asserted when the output voltage is within specification
Inhibit L	Inhibits the main output when this pin is open or low
Current monitor	Provides an analog voltage reflection of the main output current



OUTPUT PIN CONNECTIONS			
PIN NUMBER	FUNCTION	PIN NUMBER	FUNCTION
Pin C6	Power Good H	Pins A10-12	5V Output
Pin C8	Inhibit L	Pins B9-12	5V Output
Pin C4	Current Monitor	Pins C9-12	5V Output
Pin B6	Fan Fail H	Pins A-C, 13-16	Ground
Pins B1, C1	-48V Fan	Pin A9	+5V Sense
Pins A1-2	-48V Fan Return	Pin B8	Ground Sense

Mating connectors

Signal
48-pin female DIN connector

Main output
ICON connectors (ELCON P/N: 259-28-00100)

Input
IEC