

Total Output Power: 450 - 550 Watts
 +12 Vdc Main Output
 +3.3 Vdc Stand-by Output
Wide Range Input Voltage: 90 - 264 Vac

SPECIAL FEATURES

- Active power factor correction
- EN61000-3-2 harmonic compliance
- Inrush control
- 1U X 2U form factor
- 10.3 W/in³ (DS550) 8.4 W/in³ (DS450)
- +12 Vdc output
- +3.3 Vdc stand-by
- No minimum load required
- Hot plug operation
- N + 1 redundant
- Internal OR'ing fets
- Active current sharing
- Built-in cooling fans (40 mm x 28 mm)
- I²C communication Interface bus
- EEPROM for FRU data
- Amber LED status, fan_fail
- Green LED status, power good/AC_OK status
- Internal fan speed control
- Fan fail tach output signal
- One year warranty

SAFETY

- UL/cUL 60950 (UL recognized)
- NEMKO+ CB report EN60950
- EN60950
- CE mark
- China CCC

Distributed Power Bulk Front-End



Electrical Specifications

Input	
Input range:	90 - 264 Vac (wide range)
Frequency:	47 - 63 Hz, single phase AC
Inrush current:	15 A maximum
Efficiency:	> 84% typical at full load, high line
Conducted EMI:	FCC Subpart J EN55022 Class A
Radiated EMI:	FCC Subpart J EN55022 Class A
Power factor:	0.99 typical
Leakage current:	1.30 mA @ 240 Vac
Hold up time:	20 ms minimum
Output	
Main DC voltage:	+12 V
Stand-By:	+3.3 Vsb
Adjustment range:	Factory Set, no pot adjustments
Regulation:	+12 Vdc; +5%/-3% +3.3 Vsb; +5%/-4%
Overcurrent:	See Table 1 next page
Overvoltage:	+12 Vdc; 13.5 - 15 Vdc +3.3 Vsb; 3.76 - 4.30 Vdc
Under voltage:	+12 Vdc; 11.0 - 11.5 Vdc +3.3 Vsb; 2.77 - 3.00 Vdc
Turn-on delay:	1 Second max
+12 V Output Rise Time:	2 - 20 mS, Monotonic

Logic Control	
PS Inhibit:	When supply is inserted into the system the pin is pulled LOW and power supply is ON after all other pins are seated
PS_Status:	I ² C port P6. When the power supply is on and running normal P6 is low. When the power supply is off, either due to -PS_ON, PS_KILL, or a fault, then P6 is high.
AC_Pfail:	I ² C port P7. P7 is high except when the power supply turns the main outputs, not +3.3 Vsb, off due to an AC failure (AC missing or too low for power supply operation). If the supply is turned off due to -PS_ON, PS_KILL, or a fault, then P7 remains high.
Fan_Fault:	The PSU will provides an open collector Tach 1 output.
Tach_1:	This signal is generated from the fan. The signal should generate 2 pulses per revolution. The logic in the system will be operating at 3.3 V.

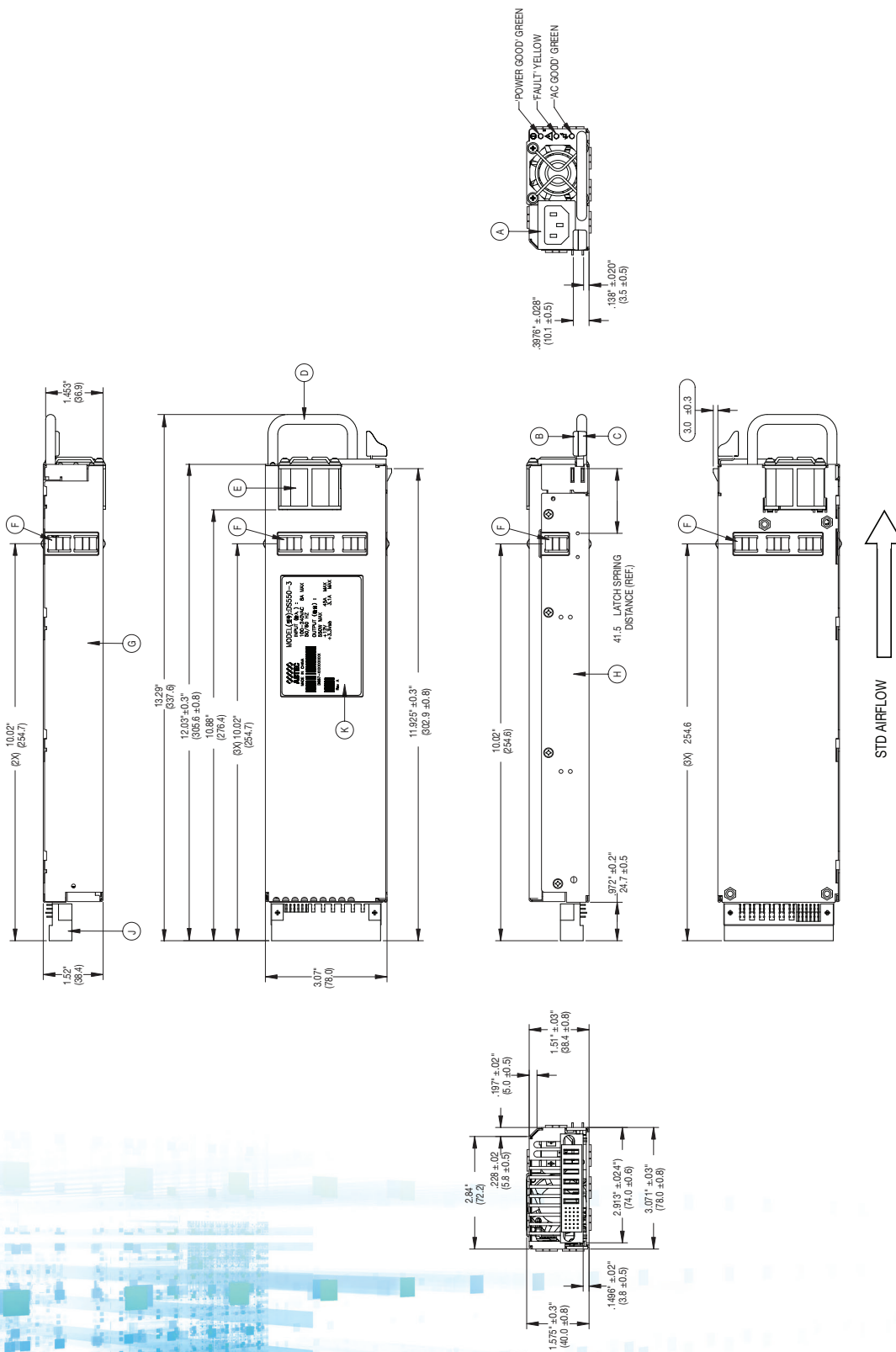
Environmental Specifications	
Operating temperature:	-10 °C to 50 °C
Storage temperature:	-40 °C to +70 °C
Altitude, operating:	10,000 ft.
Electromagnetic susceptibility/Input transients:	-EN61000-3-2, -3-3 -EN61000-4-2, 4.3, 4-4, -4-5, 4-11 -EN55024:1998
RoHS & lead-free compliant (no tantalum caps)	
Humidity:	20 to 90% RH, non-condensing
Shock and vibration specifications complies with Artesyn Embedded Technologies Std. Specification.	
MTBF (Demonstrated):	400K Hrs at full load, 40 °C

Ordering Information							
Output	Nominal Output Voltage Set Point	Set Point Tolerance	Total Regulation	Minimum Current	Maximum Current	Output Ripple P/P	Over Current
DS450-3	12.0 Vdc	± 0.2%	+5/-3%	0 A	37.0 A	120 mV	39.5 A - 44.4 A
	3.3 Vsb	± 1%	+5/-4%	0 A	3.0 A	60 mV	4.9 A Avg, 7 A max
DS550-3	12.0 Vdc	± 0.2%	+5/-3%	0 A	45.0 A	120 mV	48.0 A - 54.0 A
	3.3 Vsb	± 1%	+5/-4%	0 A	3.0 A	60 mV	4.9 A Avg, 7 A max

*Overcurrent latches off if overcurrent lasts over 1 second, otherwise it is auto recovery.

*For 5 Vsb, please contact marketing department.

Mechanical Drawings



Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

Click below for more details, to buy on-line or request volume pricing:
<http://power.sager.com/artesyn-DS450-3-power-supply.html>

(866) 588-1750
power@sager.com
<http://power.sager.com>

DC Output Connector Pinout Assignment

Male connector as viewed from the rear of the supply:

D1	D2	D3	D4	D5	D6	PB1	PB2	PB3	PB4	PB5	PB6
C1	C2	C3	C4	C5	C6						
B1	B2	B3	B4	B5	B6						
A1	A2	A3	A4	A5	A6						

P1 - Power Supply Side

1	FCI Power Blade 51721 series 51721-10002406AA
2	Molex Power Connector SD-87667 series 87667-7002

Mating Connector (System Side)

1	FCI Power Blade 51741-10002406CC Strait Pins
2	FCI Power Blade 51761-10002406AA Right Angle

Pin Assignments

Pin	Signal Name
PB 1	+12 V Return
PB 2	+12 V Return
PB 3	+12 V Return
PB 4	+12 V
PB 5	+12 V
PB 6	+12 V
A1	PS_KILL
A2	+12 V_Current Share
A3	Logic Return
A4	+3.3 V Stand-By
A5	A0 (I ² C Address BIT 0 Signal)
A6	+3.3V Stand-By
B1	Logic Return
B2	Spare
B3	Logic Return
B4	+3.3 V Stand-By
B5	SDA (I ² C Data Signal)
B6	PSON (Power Enable Signal)

Pin Assignments

Pin	Signal Name
C1	Logic Return
C2	Tach_1 (Fan Fail Signal)
C3	Logic Return
C4	+3.3 V Stand-By
C5	SCL (I ² C Clock Signal)*
C6	VIN_GOOD (AC Input present)
D1	-PS_Present (Power Supply Seated)
D2	Spare
D3	Logic Return
D4	+3.3 V Stand-By
D5	S_INT (Alert)
D6	POK (Output Power Ok)

 *Supports I²C standard mode (100 kHz) only