

# Switching Power Supply

650 WATT / SINGLE OUTPUT

## KEY FEATURES:

- 650 Watts Output Power
- -48V DC Input (-40 to -72Vdc)
- Single output (12V with 5Vs)
- Hot Swap package measuring 3.9" x 8.8" x 1.57"
- 89% Efficiency typical
- PMBus
- High Reliability in excess of 200,0000 Hours
- International Safety Approvals
- Class A Radiated and Conducted Emissions
- 18 Month Warranty



MODEL	Output Voltage (V)	Regulation	Maximum Current (A)	Ripple/Noise (mVp-p)	Standby (Vs)
ARD-6511-05	+12.0	+/- 5%	85	120	5V/0.5A

INPUT SPECIFICATIONS	
Input Voltage	-40 to -72 Vdc
Input Frequency	N/A
Input Current	Maximum 20A @ -72 Vdc
Inrush Current	40A @ 240 VAC
Input Protection	Fuse
Leakage Current	N/A
Power Factor Correction	N/A

ENVIRONMENT SPECIFICATIONS	
Operating Temperature	0 °C to +50 °C
Storage Temperature	-40 °C to +70 °C
Internal Fan Cooling	40mm fan
MTBF	500 kHrs to Belcore, 75% load, 35 °C
Shock	Storage: 30G , 11ms, 1/2 sine wave pulse, 6 axis Operation: 5G , 11ms, 1/2 sine wave pulse, 6 axis
Vibration	2G rms, 5Hz to 500kHz, 3 axis

OUTPUT SPECIFICATIONS	
Setpoint Accuracy	+/- 1%
Total Output Power	650W
Hold-up Time	1ms @ 100% load
Efficiency	89% typical
Minimum Load	No minimum load
Remote Sense	Compensates for up to 300mV drop
PSON#	Turns on the output when signal goes low (<0.4V)
PowerGood (PG)	Goes high (> 2.4V) within 100ms - 500ms of output in regulation. Goes low (<0.4V) at least 1ms before output out of regulation.
Vin Fail Signal	Signal shall be high (>2.0V) under normal conditions and go low (<1.0V) if the input falls below -38V.

PROTECTION	
Overvoltage	Latch-mode (Cycle AC input or Enable# to reset)
Overcurrent	Latch-mode (Cycle AC input or Enable# to reset)
Short Circuit	Latch-mode (Cycle AC input or Enable# to reset)

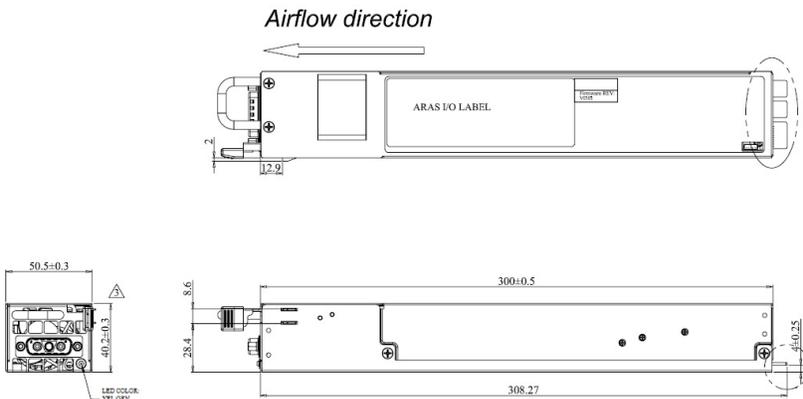


**COMPLIANCE**

EMI	FCC Class A / EN55022 Class A under all rated input and load conditions
Electrostatic Discharge	EN61000-4-2: Contact Discharge- Contact discharge in 2kV increments to 8kV for metallic surfaces including connector bodies. 10 discharges pretest point at each voltage: 5 positive polarity and 5 negative polarity. Air discharge – Air discharge in 3kV increments to 15kV for seams and non-metallic user accessible surfaces. 10 discharges pretest point at each voltage: 5 positive polarity and 5 negative polarity.
Radiated Susceptibility	EN61000-4-3: Electromagnetic Field Strength 10V/m
Surges	EN61000-4-5: The peak value of the bi-directional surge waveform shall be 500V for common mode and 500V for differential modes of transient surge injection. No unsafe operation or no user noticeable degradation is allowed under any condition.
Conducted Immunity	EN61000-4-6: Level 3
Radiated Immunity	EN61000-4-8: Level 3
Safety Certifications	UL/cUL 60950, CB Report, CE (pending)

**Typical Outline Drawing:**

(REFER TO PRODUCT MECHANICAL DRAWING FOR COMPLETE INFORMATION)



**SIGNALS CONNECTOR**

Pin	Signal	Pin	Signal
A1	SCL	B1	Present#
A2	GND	B2	Enable#
A3	SDA	B3	DC_Good
A4	GND	B4	EPOW#
A5	I2C_Int#	B5	+5Vsb
A6	I2C_Reset#	B6	Ishare
A7	A0	B7	+Vsense
A8	FFS#	B8	-Vsense

**DERATING**

