HiTRON

UNIVERSAL AC INPUT HARMONIC CORRECTION AC-DC HOT-SWAP CompactPCI SERIAL SINGLE OUTPUT WITH STANDBY 312 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES HAC300S SERIES



FEATURES:

- **312W 3U X 8HP EUROCARD PACKAGE**
- **WIDE OPERATING TEMPERATURE RANGE OF -40°C TO +70 °C**
- **MEET IEC 61000-3-2HARMONIC CORRECTION**
- **N+1 REDUNDANCY/HOT-SWAPPABLE**
- **80 Plus GOLD EFFICIENCY**
- **ACTIVE CURRENT SHARING**
- **PMBus COMMUNICATION**
- **FULLY COMPLIANT WITH PICMG**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac.
Power Factor Correction: Meet Harmonic Correction IEC 61000-3-2.Power Factor typ. 0.98-0.99.
Input Connector: FCI 51939-667LF.
Input Frequency: 47-63Hz.
Inrush Current: 5.3Arms at 230Vac.
Input Current: 3A at 115Vac/1.5A at 230Vac.
Dielectric Withstand: Meet IEC 60950-1 regulation.
EMI: Meet EN 55022 / FCC Class B.
Hold-up Time: 18mS at 115 & 230Vac.
Leakage Current: Less than 0.7mA at 230Vac.
Power Fail Signal: Available at [FAL#] pin.
Remote ON/OFF: Available.
Status LED: <Green> means valid input voltage.
<Red> means a critical fault.
<Green> means DC OK.
Thermal Protection (OTP): Installed NTC and thermostat for thermal sensor at [DEG#] pin.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 312W continuous.
Output Connector: FCI 51939-667LF.
Line Regulation: Typ. 1%.
Load Regulation: VO1 Typ. ±1%./ Standby Typ. ±5%
Noise & Ripple: Typ. 1% peak to peak.
OVP: Built-in at all outputs.
Adjustability: Available for VO1.
Remote Sensing: Available for VO1.
DC OK: Available for VO1 & +5Vsb.
Hot-Swap: Available.
N+1 Redundancy: Installed with internal OR-ing diodes at all outputs for N+1 redundancy operation.
Current Sharing: Active current sharing at VO1.
Overload Protection (OLP): Fully protected against output overload or short circuit. OLP set at 120-130% peak current at 115Vac. Consult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 90% at 230Vac.
Switching Frequency: 85-100K Hz.
Circuit Topology: LLC circuit.
Transient Response: Peak transient less than 134mV and recovers within 0.5mS after 25% load-change.
Safety Standard: IEC 60950-1 Class I.
Construction: 3U X 8HP CompactPCI format. Front Panel with Extractor handle.

Operating Temperature: -40 °C to +70 °C (see note 3), derate linearly from 100% power at +50 °C to 60% power at +70 °C (Refer to derating curve).
Storage Temperature: -45 to +85 °C.
Cooling: At least 200 LFM moving air is required to achieve full rating power 312W in a confined area.
Power Density: 5.7 Watts/ Cubic Inch.

NOTE: (1)All measurement are at nominal input, full load and +25℃ unless otherwise specifications.
(2)Due to requests in market and advances in technology, specifications subject to change without notification.
(3)A warm-up time 10 minutes is required after cold start at temperature from -40 °C to +0°C.
(4)Tantalum capacitors connected to system is suggested for bettering Ripple & Noise against operating temperature from -40°C to +0°C.

OUTPUT VOLTAGE / CURRENT RATINGS CHART

QUAD OUTPUT

MODEL NO.	MAIN VO1★@≡⊙					STANDBY VO2★⊙				
	Min.	Typ.	**Volt.**	Max.	Peak	Min.	Typ.	**Volt.**	Max.	Peak
HAC300S-D120E	0A	25.0A	**12V**	25.0A	28.0A	0A	2.5A	**5V**	2.5A	3.0A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "≡" Active Load Sharing. ."⊙" Installed with Or-ing diode.

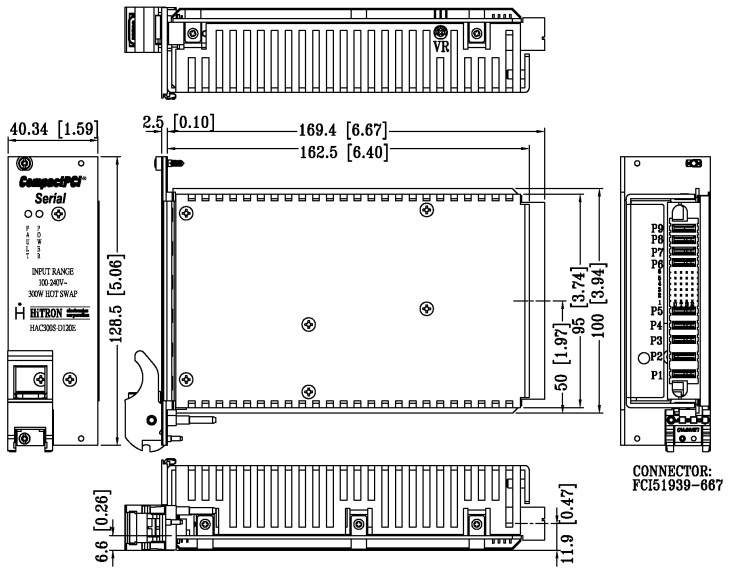
Remark: 1.Peak load less than 60sec. with duty cycle <10%.

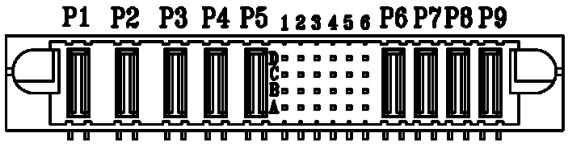
2.Max. load is the continuous operating load of each rail. But the max. load of each rail can't be drawn from all outputs at the same time.

3.Please consult the factory if you have the special min load request of VO1.

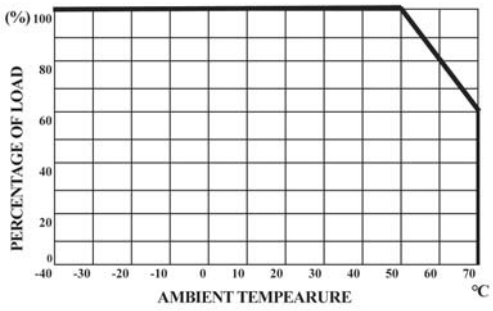
MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 710 g (25.1 Oz.)





DERATING CURVE



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

P1	P2	P3	P4	P5	D1	D2	D3	D4	D5	D6	P6	P7	P8	P9
LINE	NEUTRAL	GND	N/A	N.A	N/A	FAL	PS_P	COM	DEG	5Vsb	COM	COM	VO1 +12V	VO1 +12V
					C1	**C2**	**C3**	**C4**	**C5**	**C6**				
					N/A	N/A	COM	A0	ALERT	5Vsb				
					B1	**B2**	**B3**	**B4**	**B5**	**B6**				
					N/A	12VCS	PSON	A1	SCL	COM				
					A1	**A2**	**A3**	**A4**	**A5**	**A6**				
					N/A	-VS	+VS	A2	SDA	EN				

Remark: mating connector FCI 51940-350LF