

**Universal AC input harmonic correction AC-DC hot-swappable  
CompactPCI Serial Dual output (with 5V standby) 312 Watts  
active current sharing switching power supplies HAC300S-D120E**



### Features

- 3U x 8HP CompactPCI Serial
- Wide operating temperature -40 °C to +70 °C
- IEC61000-3-2 harmonic correction
- N+1 redundancy, hot-swappable & active current sharing
- 80 plus gold efficiency
- PMBus communication
- Fully compliant with PICMG



### Specification

#### Input

<b>Input Voltage</b>	Typical 90-264VAC
<b>Input Frequency</b>	47-63Hz
<b>Input Current</b>	Typical 3A at 115VAC Typical 1.5A at 230VAC
<b>Inrush Current</b>	5.3Arms at 230VAC
<b>Power Factor</b>	Typical 0.98-0.99
<b>Input Connector</b>	FCI 51939-667LF
<b>Earth Leakage Current</b>	Less than 0.7mA at 230VAC

#### Output

<b>Output Connector</b>	FCI 51939-667LF
<b>Line Regulation</b>	Typical 1%
<b>Load Regulation</b>	V1 typical ±1%, V2 typical ±5%
<b>Total Regulation</b>	V1 typical ±2%, V2 typical ±5%
<b>Noise &amp; Ripple</b>	Typical 1% peak to peak
<b>Remote Sense</b>	Available for V1
<b>Adjustability</b>	Available for V1
<b>Hold-up Time</b>	18mS at 115 & 230VAC
<b>Current Sharing</b>	Active current sharing at V1

#### Protection

<b>Over Voltage</b>	Built-in
<b>Over Current</b>	Installed
<b>Over Load</b>	Typical 120-130% peak current at 115VAC
<b>Over Temperature</b>	Installed NTC and thermostat for thermal sensor at [DEG#] pin

#### General

<b>Efficiency</b>	Typical 90% at 230VAC
<b>Switching Frequency</b>	85-100KHz
<b>Dielectric Withstand</b>	IEC60950-1 regulation
<b>Transient Response</b>	Peak transient less than 134mV and recovers within 0.5mS after 25% load-change
<b>Remote ON/OFF</b>	Available
<b>Power Fail Signal</b>	Available at [FAL#] pin
<b>DC OK</b>	Available for V1 & +5Vsb(V2)
<b>Status LED</b>	<Green> means valid input voltage <Red> means a critical fault <Green> means DC OK
<b>N+1 Redundancy</b>	Internal OR-ing diodes
<b>Hot-Swappable</b>	Available
<b>Power Density</b>	5.7 Watts/Cubic Inch
<b>PMBus interface</b>	Available

#### Environmental

<b>Operating Temperature</b>	-40°C to +70°C derate linearly (see note 3) (Refer to derating curve)
<b>Storage Temperature</b>	-45°C to +85 °C
<b>Cooling</b>	200 LFM moving air

#### Safety/EMC

<b>Emissions</b> (conducted)	EN55032, FCC Class B
<b>Harmonic Current</b>	IEC61000-3-2
<b>Safety Standard</b>	IEC60950-1 Class I

#### Notes:

- (1)All measurement are at nominal input, full load and +25°C 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.
- (5)125°C OS-CON Long-life Solid capacitors are installed in secondary circuits.

# Output voltage & current rating chart

## Dual output

Model No.	V1★@≡⊙					STANDBY V2★⊙				
	Min.	Typ.	Volt.	Max.	Peak	Min.	Typ.	Volt.	Max	Peak
HAC300S-D120E	0A	25A	12V	25A	28A	0A	2.5A	5V	2.5A	3A

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

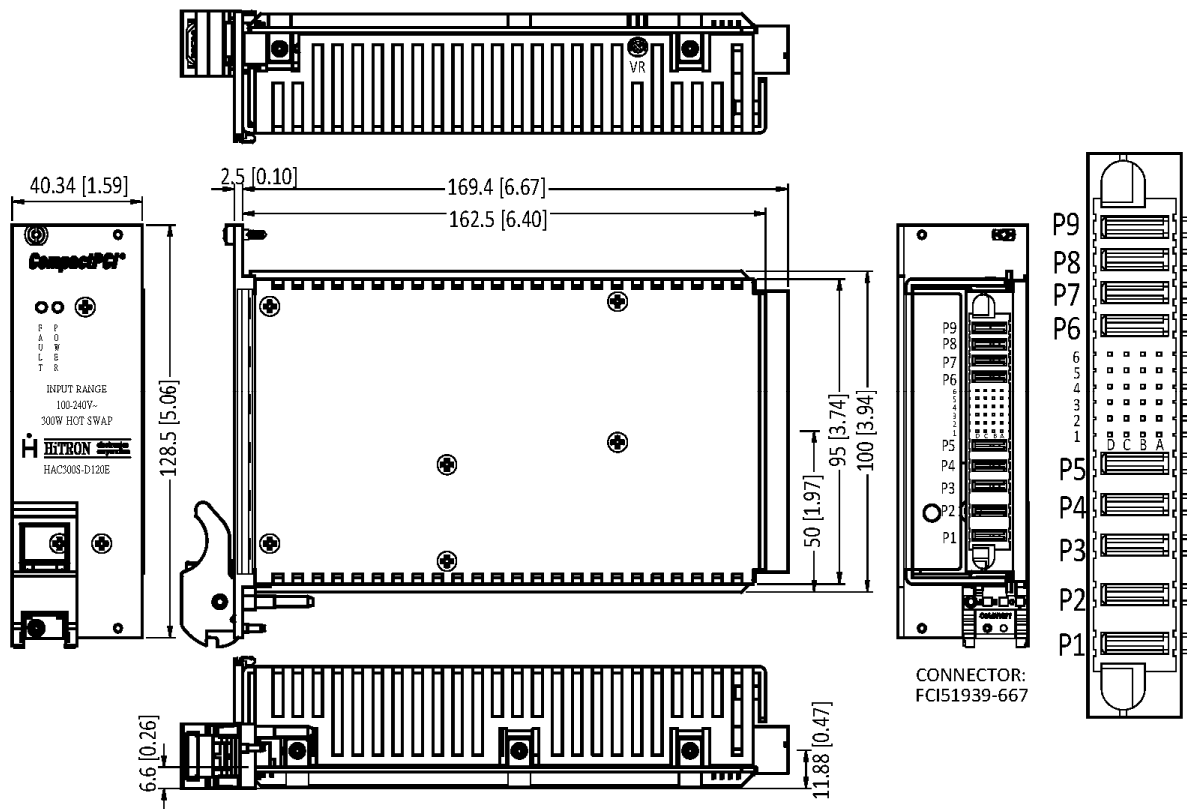
Notes: (1) Peak load less than 60sec. with duty cycle <10%.

(2) Maximum load is the continuous operating load of each rail, but the maximum load of each rail can't be drawn from all outputs at the same time.

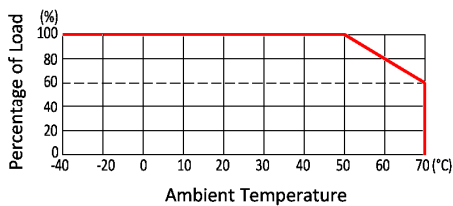
(3) Please consult the factory if you have the special min load request of V1.

## Mechanical Dimensions (All dimensions are in mm[inch])

Weight: 710.0 g (25.1 Oz.)



## Derating Chart



## Pin Assignment

P1	P2	P3	P4	P5	D1	D2	D3	D4	D5	D6	P6	P7	P8	P9
L	N	G	N/A	N/A	N/A	FAL	PS_P	COM	DEG	5Vsb	COM	COM	V1	V1
					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	2	SDA	EN									

Notes: The mating connector is FCI 51940-350LF.