

### 600/780 Watts

- 85 V - 305 VAC Input
- MIL-STD-810F Shock & Vibration
- -40 °C to +70 °C Operation
- SEMI F47 Compliant
- 6 kV Surge Rating - IEEEStdC62.41
- UL508, ANSI/ISA 12.12.01 Class I, Div II
- Conformal Coating
- 3 Year Warranty



The HHP650 AC-DC power supply provides upto 780 W (1000 W peak) of output power in a robust mechanical fan-cooled package for industrial applications. The unit comprises of a main output with voltages from 12-48 VDC and a 5 VDC standby supply which can be utilised with the signals and control features of the unit to provide detection of loss of output and remote on/off control.

#### Dimensions:

**HHP650:**  
9.99 x 4.20 x 2.50" (253.8 x 106.8 x 63.5 mm)

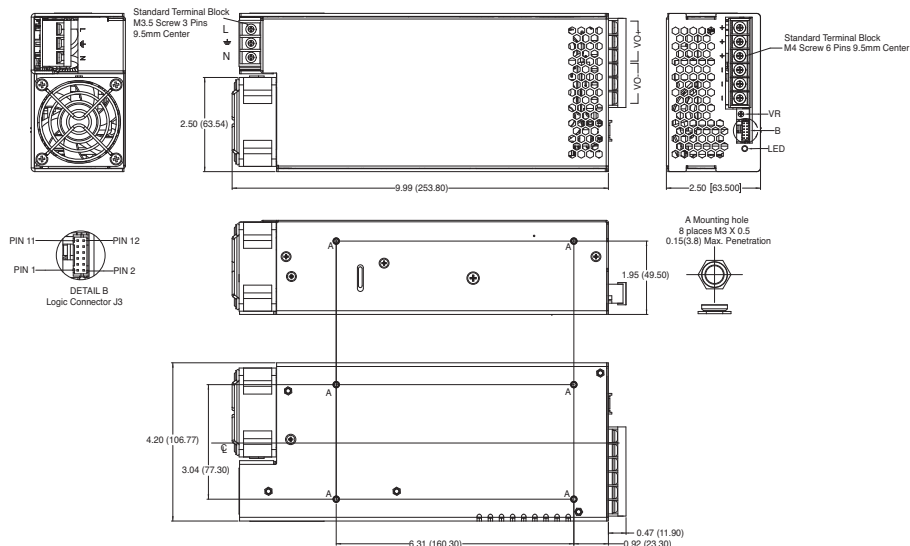
### Models & Ratings

Output Voltage V1	Output Current V1				Standby Supply	Output Power V1				Model Number
	Nom		Peak <sup>(1)</sup>			Nom		Peak <sup>(1)</sup>		
	<180 V	>180 V	<180 V	>180 V		<180 V	>180 V	<180 V	>180 V	
12 V	50.0 A		-	-	5 V / 0.2 A	607 W		-	-	HHP650PS12
15 V	40.0 A		-	-	5 V / 0.2 A	607 W		-	-	HHP650PS15
24 V	27.0 A	32.5 A	33.3 A	41.7 A	5 V / 0.2 A	657 W	780 W	800 W	1000 W	HHP650PS24
28 V	23.0 A	27.9 A	28.6 A	35.7 A	5 V / 0.2 A	651 W	780 W	800 W	1000 W	HHP650PS28
36 V	18.0 A	21.7 A	22.2 A	27.8 A	5 V / 0.2 A	657 W	780 W	800 W	1000 W	HHP650PS36
48 V	13.5 A	16.3 A	16.7 A	20.8 A	5 V / 0.2 A	657 W	780 W	800 W	1000 W	HHP650PS48

### Notes

1. Peak Power available for 10 seconds maximum with a 35% duty cycle. The average power in a period should be equal or less than the nominal power.

### Mechanical Details



### Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85		305	VAC	Derate output power 10% < 90 VAC.
Input Frequency	47	50/60	63	Hz	Agency approval, 47-63 Hz
Power Factor		>0.9			EN61000-3-2 class A compliant EN61000-3-2 class C for loads ≥10%
Input Current - Full Load		6.5/3.2		A	115/230 VAC
Inrush Current			60	A	305 VAC cold start, 25 °C
Earth Leakage Current			1.5	mA	305 VAC/60 Hz
Input Protection	T16 A / 250 V internal in-line fuse				

### Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1 <sup>(V1)</sup> , ±5 <sup>(V Standby)</sup>	%	50% load, 115/230 VAC
Output Voltage Adjustment			±10	%	V1 only. See mechanical details.
Minimum Load	0			A	
Start Up Delay			500	ms	
Hold Up Time	20			ms	90 VAC
Drift			±0.2	%	After 20 min warm up
Line Regulation			±0.5	%	
Load Regulation			±1 <sup>(V1)</sup> , ±5 <sup>(V Standby)</sup>	%	0-100% load.
Transient Response - V1			4	%	Recovery within 1% in less than 500 μs for a 50-75%-50% load change
Ripple & Noise			1	% pk-pk	V1: 20 MHz bandwidth
Overvoltage Protection	115		145	%	Vnom DC. Output 1 only, recycle input to reset
Overload Protection	110		175	%	Output 1 only, auto reset. See fig 1.
Short Circuit Protection					Trip & restart (hiccup mode)
Overtemperature Protection		100		°C	Auto reset. Input & output stage protection
Temperature Coefficient			0.05	%/°C	
Overtemperature Protection				°C	Protects unit from overtemperature. Auto reset.

### Output Overload Characteristics

Figure 1

