KEY POWER SUPPLIES LIMITED
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EX14 1SE

HiTRON

UNIVERSAL AC INPUT HARMONIC CORRECTION AC-DC 6U PENTAD OUTPUT 670-850 WATTS VPX SWITCHING POWER SUPPLIES HAV850 SERIES

FEATURES:

- **VITA 62 COMPLIANT 6U VPX POWER SUPPLY**
- **WIDE OPERATING TEMPERATURE RANGE OF -40°C TO +85 °C**
- **INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY**
- **ACTIVE CURRENT SHARING**
- **EMI MEET EN 55022 / CLASS A**
- **PMBus INTERFACE FOR STATUS & CONTROL**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac.
Power Factor: Meet Harmonic Correction IEC 61000-3-2.
Power Factor typ. 0.98-0.99.
Input Connector: Tyco 6450843-6.
Input Frequency: 47-63Hz.
Inrush Current: 10A(rms) at 230Vac;
37.2A (peak) at 230Vac.
Input Current: 7.1A at 115Vac / 4.3A at 230Vac.
Dielectric Withstand: Meet IEC 60950-1 regulation.
EMI: Meet EN 55022 FCC Class A.
Hold-up Time: Typ. 5.3mS at 115Vac/2.2mS at 230Vac.
Remote ON/OFF: Available.
Power Fail Signal: Available.
Over Temperature Protection (OTP): Installed NTC and thermostat.
Leakage Current: Typ. 0.92mA at 230Vac.
No-Load Power: Typ. 11.8Watt at 115Vac & 230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Power: 670W at 90-180Vac/850W at 180-264Vac.
Output Connector: Tyco 6450849-6.
Line Regulation: Typ. 1%.
Load Regulation: VO1/2/3 typ. ±2% ; VO4/5 typ. ±5%.
Total Regulation: VO1/2/3 typ. ±3%; VO4/5 typ. ±5%.
Noise & Ripple: Typ. 1% pk-pk.
OVP: Built-in at all outputs.
Adjustability: Available at VO1/2/3.
N+1 Redundancy: Installed with internal OR-ing diodes at all outputs and third-wire current sharing method for N+1 redundancy operation.
Current Sharing: Active current sharing at VO1,2 & 3.
DC OK Signal: Available for all outputs.
Power OK Signal: Available for all outputs.
Over Current Protection (OCP): Installed at each rail.
Overload Protection (OLP): Fully protected against output overload or short circuit. Typ. 110-150% max. load. Consult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 86% at 230Vac.
Switching Frequency: 67-100K Hz.
Circuit Topology: ZVS Half-Bridge circuit.
Transient Response: Peak transient less than 300mV and recovers within 3ms for 50% load-change.
Safety Standard: IEC 60950-1 Class I.
PMBus: Built-in.
Operating Temperature: -40°C to +85 °C (see note 3/derating chart) , derate linearly from 100% power at +50 °C to 55% power at +85 °C.
Storage Temperature: -45 to +90 °C.
Cooling: At least 800LFM moving air is required to achieve full rating power in a confined area.
Power Density: 5.5-7.0 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 3 minutes is required to maintain outputs within specific spec. 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 degree C OS-CON Long-life Solid capacitors are installed in secondary circuits.

OUTPUT VOLTAGE / CURRENT RATINGS CHART

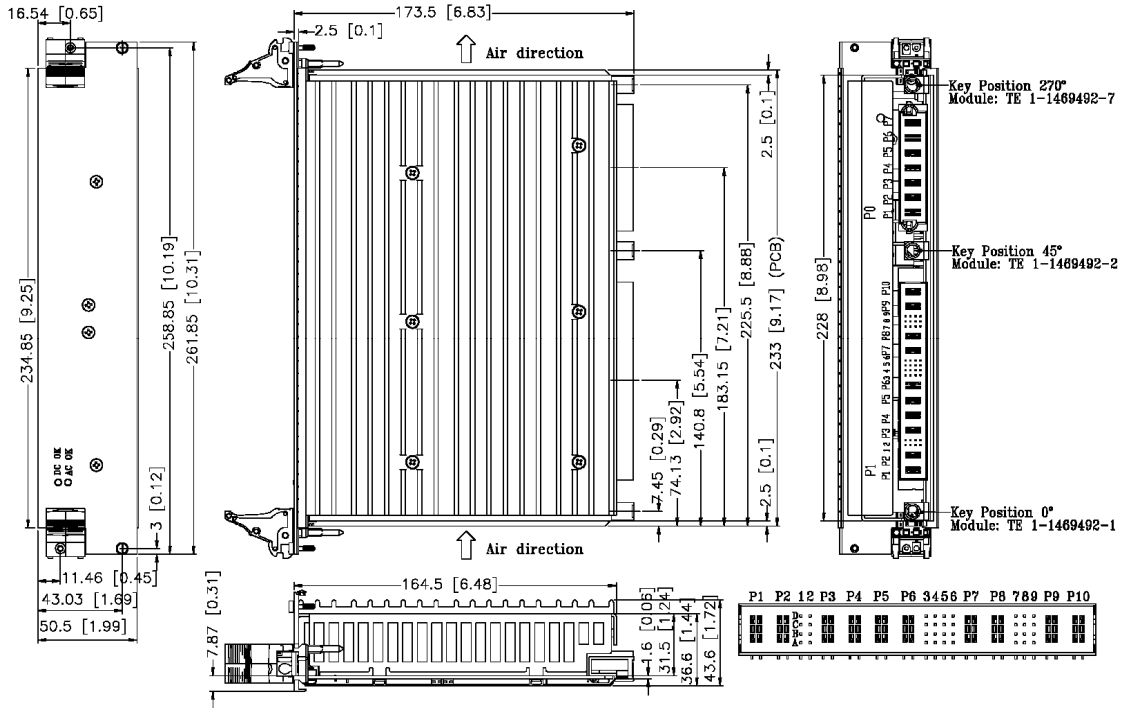
QUAD OUTPUT

MODEL NO.	O/P Volt.	Volt.	Min.	Typ.	Max.	Peak.
HAV850-P120EDII	VO1	12V	0A(1.0A)	50A	55A	60A
	VO2	5V	0A(1.0A)	15A	25A	25A
	VO3	3.3V	0A(1.0A)	10A	20A	20A
	VO4	12V	0A(0.1A)	1A	2A	2A
	VO5	-12V	0A(0.1A)	1A	2A	2A

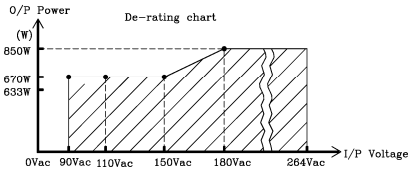
Remark: 1.Max. Output power<=670W at 90-180Vac, 850Watt at 180-264Vac.

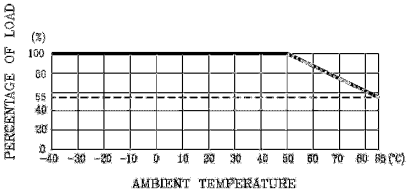
2. For parallel application, a certain minimum current of outputs is required.

MECHANICAL DIMENSIONS: MM [INCHES]

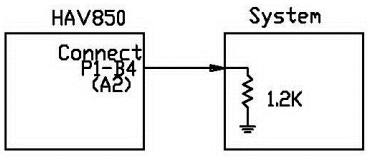


DERATING CHART





CONTROL KEY



connection between system and power unit.

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

P0			P1																		
P0-P7	P0-P4	P0-P1	P1	P2	D1	D2	P3	P4	P5	P6	D3	D4	D5	D6	P7	P8	D7	D8	D9	P9	P10
L	N	G	COM	VO3 3.3V Aux.	PS_RNT	EN	COM	COM	VO2 P03 +5V	VO2 P03 +5V	N/A	A0	SDA	SYS RST	COM	COM	COM	DEG.	I/P_ok	VO1 P02 +12V	VO1 P01 +12V
					C1	C2					C3	C4	C5	C6			C7	C8	C9		
					V3 +S	INH					N/A	A1	SCL	VO5 -12V			V2 CS	V2 -S	V2 +S		
					B1	B2					B3	B4	B5	B6			B7	B8	B9		
					V3 -S	FAL					VO4 +12V	A2	N/A	N/A			N/A	N/A	N/A		
					A1	A2					A3	A4	A5	A6			A7	A8	A9		
					V3 CS	N/A					N/A	Alert	N/A	N/A			V1 CS	V1 -S	V1 +S		

Rev.D
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