

HK800A-C1

800 Watts 12 V

Distributed Power System

Distributed Power Bulk Front-End
 Total Output Power: 800 Watts
 +12 Vdc main Output
 +12 Vdc Stand-by Output
 Wide Range Input voltage: 90 - 264 Vac

Special Features

- Active power factor correction
- EN61000-3-2 harmonic compliance
- Active AC inrush control
- 1U X 3U form factor
- 24.1 W / in³
- +12 Vdc output
- 12 Vdc Stand-By (5 V standby - consult factory)
- No minimum load required
- Hot plug operation
- N + 1 redundant
- Internal OR'ing fets
- Active current sharing (10 - 100% load)
- Built-in cooling fans (40 mm x 28 mm)
- PM Bus compliant
- EERPOM for FRU data
- Red/Green bi-color LED status
- Internal fan speed control
- INTEL, SSI Std. logic timing
- INTEL, SSI Std. FRU data format
- Three years warranty

Safety

UL/cUL 60950 (UL Recognized)
 GS Geprüfte Sicherheit
 EN60950
 CE Mark
 China CCC
 CB Certificate & Report, IEC60950
 IEC60950-1 (International)



Electrical Specifications

Input	
Input range	90-264 Vac (wide range) 188-288 Vdc
Frequency	47-63 Hz, single phase AC
Inrush current	40A maximum inrush current
Efficiency	90%,94%,91% (20%;50%;100% load) 230Vac
Conducted EMI	FCC Subpart J EN55022 Class B
Radiated EMI	FCC Subpart J EN55022 Class B
Power factor	0.99 typical
Leakage current	<1mA at 240V RMS, and <0.5mA at 120VRMS
Hold up time	14 ms minimum
Output	
Main DC voltage	+12 V @ 65A 90 - 264 Vac
Stand-By	+12 Vsb @ 3 A (5 V @ 5 A TBA)
Adjustment range	Factory Set, no pot adjustments
Regulation	+12 Vdc; ±4% +12 Vsb; ±5%
Over current	+12 Vdc; 71A max, The keep time of peak load is 12S +12 Vsb, 10A max
Over voltage	+12 Vdc; 13.5 - 15 Vdc +12 Vsb; 13.5 - 15 Vdc
Under voltage	+12 Vdc; 10.5 - 11 V (latch off)
Turn-on delay	2.5 Second max
+12 V Output Rise Time	5 - 50 ms, Monotonic Rise

Ordering Information

Output	Nominal Output Voltage Set Point	Set Point Tolerance	Total Regulation	Minimum Current	Maximum Current	Output Ripple P/P	Over Current
HK800A-C1	12.0 Vdc 12 Vsb	±0.2% ±1%	±4% ±5%	0A 0A	65A 3A	120 mV 120 mV	150% of nominal 5-10A

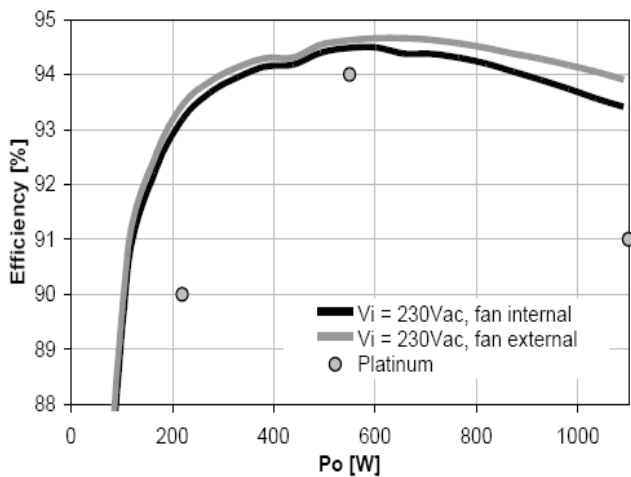
*Over current latches off if overcurrent lasts over 2 second, otherwise it is auto recovery.

Logic Control

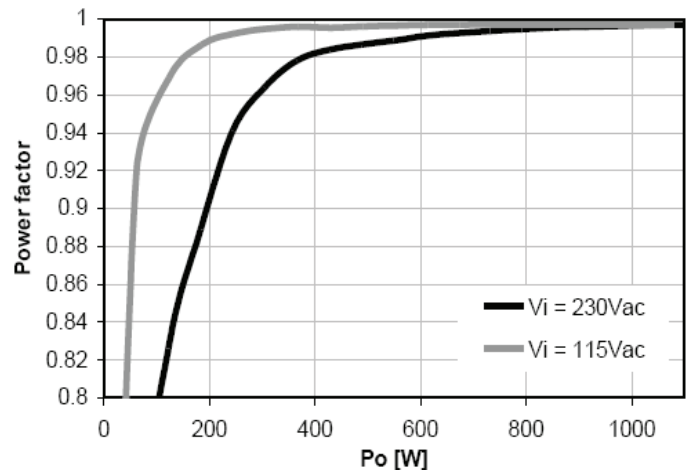
PS_ON	When this signal is not pulled low by the system, or left open, all the outputs (except for 12Vsb) shall be turned off
POK	Active TTL HIGH when output is within regulation limits.
PS_KILL	If PSkill signal is high or open state, the power supply shall locked and can not turn on.
SMB_ALARM	Complies with SMBus standard

Environmental Specifications

Operating temperature	0 °C to 55 °C
Storage temperature	-40 °C to +70 °C Altitude, operating 10,000 ft
Electromagnetic susceptibility / Input transients	-EN61000-3-2, -3-3 -EN61000-4-2, 4.3, 4-4, -4-5, 4-11 Level -EN55024:1998
RoHS & lead-free compliant (no tantalum caps).	RoHS6
Humidity	5 to 95% RH, non-condensing
Shock and vibration	Operating :Half-sine 5 G;None operating: Half-sine 140 G
MTBF (Demonstrated)	250 K Hrs at full load, 55 °C



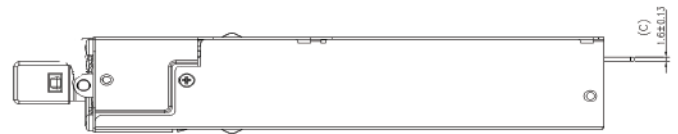
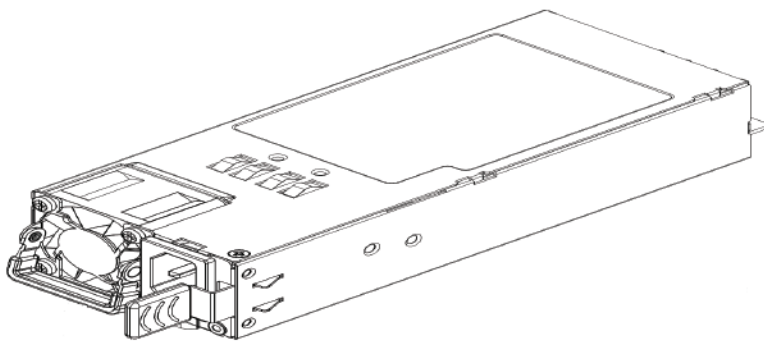
Efficiency vs. load current(ratio metric loading)



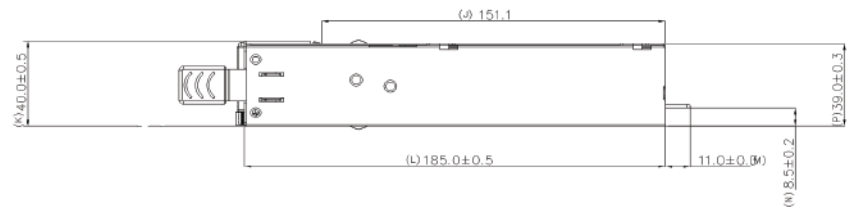
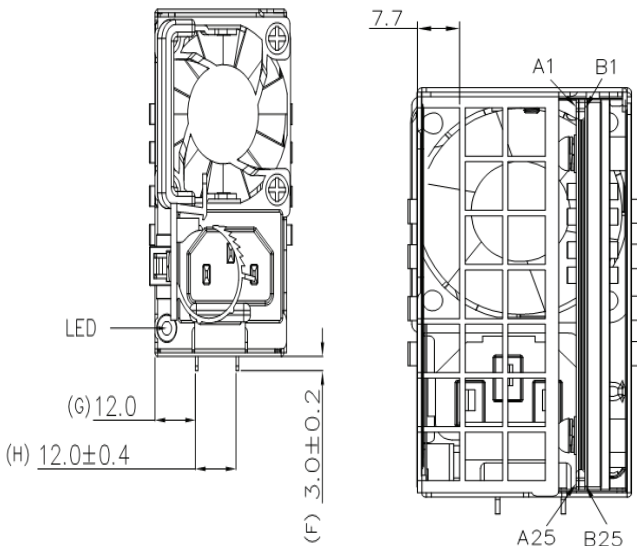
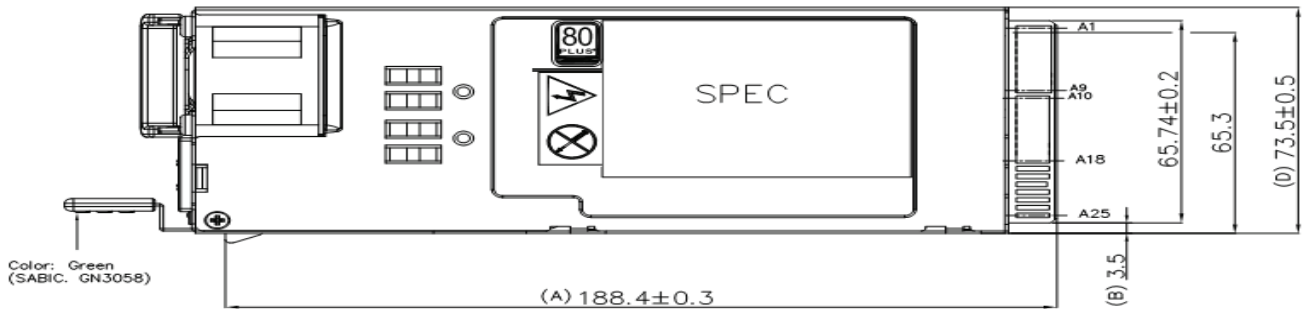
Power factor vs. load current

Mechanical Drawing

Condition	LED Status
PDB fault/ protection	Green blinking at 2second high and 500ms low
Normal work	Green Color
Module fault/protection in operating mode	Amber continuously
Warning	Amber blinking at 1Hz
Communication failure between primary side and secondary side	Amber blinking at 0.5Hz.
Power cord unplugged/AC loss	Green blinking at 0.5Hz



AIR FLOW DIRECTION



DIMENSIONAL TOLERANCES

()	()	()	HOLES : ±0.05	ANGLES : ±0.5°		
<30	:±0.25	DECIMALS	UP~100 :±0.2	250~300 :±0.4	UP~600 :±1.5	
>30~100	:±0.35	X	:±0.3	100~150 :±0.25	300~350 :±0.45	600~900 :±2.4
>100~300	:±0.5	X.X	:±0.2	150~200 :±0.3	350~400 :±0.5	900~OVER :±3.1
ABOVE 300	:±0.6	X.XX	:±0.1	200~250 :±0.35		

I/O PIN ASSIGNMENT

PIN	SIGNAL NAME	PIN	SIGNAL NAME
A1	GND	B1	GND
A2	GND	B2	GND
A3	GND	B3	GND
A4	GND	B4	GND
A5	GND	B5	GND
A6	GND	B6	GND
A7	GND	B7	GND
A8	GND	B8	GND
A9	GND	B9	GND
A10	+12V	B10	+12V
A11	+12V	B11	+12V
A12	+12V	B12	+12V
A13	+12V	B13	+12V
A14	+12V	B14	+12V
A15	+12V	B15	+12V
A16	+12V	B16	+12V
A17	+12V	B17	+12V
A18	+12V	B18	+12V
A19	SDA	B19	A0
A20	SCL	B20	A1
A21	PSDN	B21	12VSB
A22	SMB-ALERT	B22	CR_1
A23	RETRUN_S	B23	12LS
A24	+12VRS	B24	PSKill
A25	PWDK	B25	NC

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