

UHP-200A Series

200W Single Output with PFC Function Power Supply



Case: 8919KC
167 x 55 x 26mm

Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Low Profile: 26mm
- Built-in PFC function
- Fanless design, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Low leakage current <1.0mA
- LED indicator for power on
- 3 years warranty



Specification

INPUT	Voltage	90 ~ 264VAC	127VDC ~ 370VDC	
	Frequency	47 ~ 63 Hz		
	Power Factor	PF \geq 0.97/115VAC, PF \geq 0.95/230VAC at full load		
	AC Current	3.0A/115VAC	2.0A/230VAC	
	Inrush Current (Typ.)	Cold start 85A/230VAC		
	Leakage Current	<1.0mA/240VAC		
OUTPUT	MODEL No.	UHP-200A-4.2	UHP-200A-4.5	UHP-200A-5
	Voltage	4.2V	4.5V	5V
	Rated Current	40A	40A	40A
	Current Range	0 ~ 40A	0 ~ 40A	0 ~ 40A
	Rated Power	168W	180W	200W
	R&N	200mVp-p	200mVp-p	200mVp-p
	Efficiency	88%	88%	88.5%
	Voltage Adjustment Range	4.0 ~ 4.4V	4.3 ~ 4.7V	4.7 ~ 5.3V
	Voltage Tolerance	\pm 4.0%	\pm 4.0%	\pm 4.0%
	Line Regulation	\pm 0.5%	\pm 0.5%	\pm 0.5%
	Load Regulation	\pm 2.5%	\pm 2.5%	\pm 2.5%
	Setup Rise Time	2000ms, 200ms/230VAC at full load, 3000ms, 200ms/115VAC at 80% load		
	Hold Up Time	10ms/230VAC 10ms/115VAC		
	DC OK Function	PSU turns on: DC ok; PSU turns off: DC fail		
	PROTECTION	Overload	110 ~ 140% rated output power	
Short Circuit		Protection type: Hiccup mode, recovers automatically after fault condition is removed		
Over Voltage		4.6~6V	5~6.4V	5.6~7.1V
Over Temperature		Protection type: Hiccup mode, recovers automatically after fault condition is removed		
ENVIRONMENT	Working Temperature	-30 ~ +50°C (Please refer to 'Output Load vs Temperature' section)		
	Working Humidity	20 ~ 90% RH non-condensing		
	Storage Temperature	-40 ~ +85°C, 10 ~ 95% RH non-condensing		
	Temp Coefficient	\pm 0.03%/°C (0 ~ 50°C)		
	Vibration	10 ~ 500Hz, 5G 10 min./1cycle, period for 60 min. each along X, Y, Z axes		
SAFETY & EMC	Safety Standards	UL60950-1, TUV EN60950-1, CCC GB4943 approved		
	Withstand Voltage	I/P-O/P:3.0KVAC	I/P-FG:2KVAC	O/P-FG:0.5KVAC
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH		
	EMC Emission	Compliance to EN55022 (CISPR22), GB9254, Class B, EN61000-3-2, -3, GB17625.1		
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, Light industry level (surge 4KV)		
OTHERS	M.T.B.F.	204K hrs min. MIL-HDBK-217F (25°C)		
	Packing	0.42Kg; 20pcs/11.4Kg/0.76CUFT		

1. All parameters NOT specially mentioned are measured at 347VAC input, rated load and 25°C of ambient temperature.
2. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1uF & 47uF parallel capacitor.
3. Tolerance: line regulation and load regulation.
4. Derating may be needed under low input voltages. Please check the static characteristics for more details.
5. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to the increase of the set up time.
6. Transient response measure shall be made with 10% load at least.
6. The power supply is considered as a component that will be operated in combination with final equipment. All the EMC tests have been executed by mounting the unit on a 360mm \times 360mm metal plate with 1mm of thickness. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

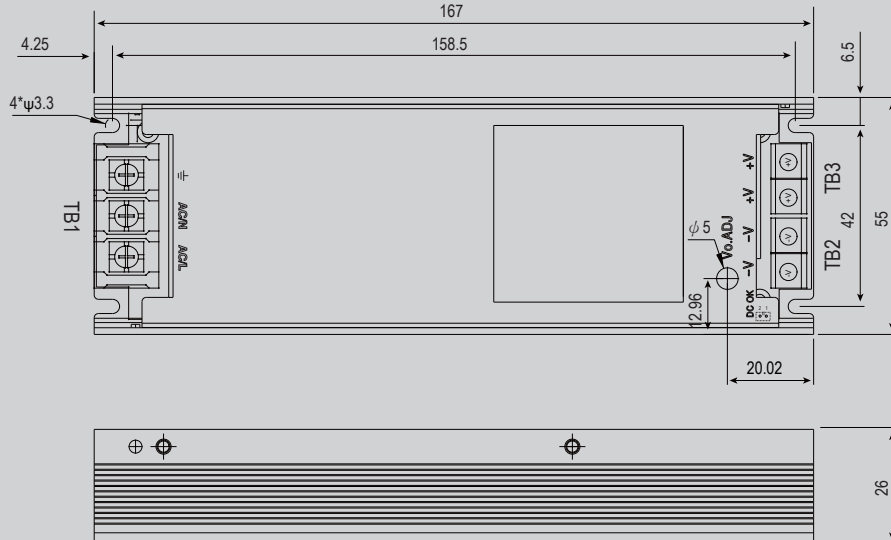
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Mechanical Diagram

CASE NO.: 249A Unit:mm



AC Input Terminal(TB1) pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1	AC/L	(DECA) T14-EM11033703	13Kgf-cm
2	AC/N		
3	⊕		

DC Output Terminal(TB2, TB3) pin NO. Assignment

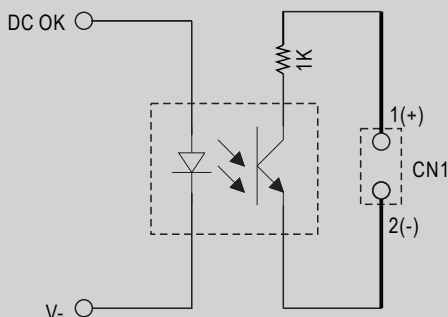
Pin No.	Assignment	Terminal	Max mounting torque
1,2	-V	(MW) TB-HTP-200-40A	8Kgf-cm
3,4	+V		

DC OK Connector(CN1):JST B2B-PH-K-S or equivalent

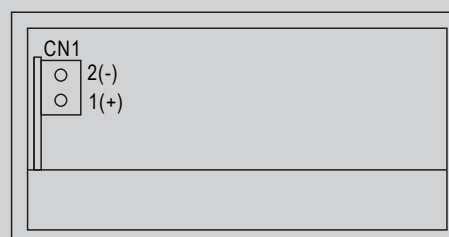
Pin No.	Assignment	Mating Housing	Terminal
1	DC OK +V	JST PHR-2 or equivalent	JST SPH-002T-P0.5S or equivalent
2	DC COM		

Function Manual

1. Internal circuit of DC ok



Contact Close	PSU turns on	DC ok
Contact Open	PSU turns off	DC fail
Contact Rating(max.)	10Vdc/1mA	

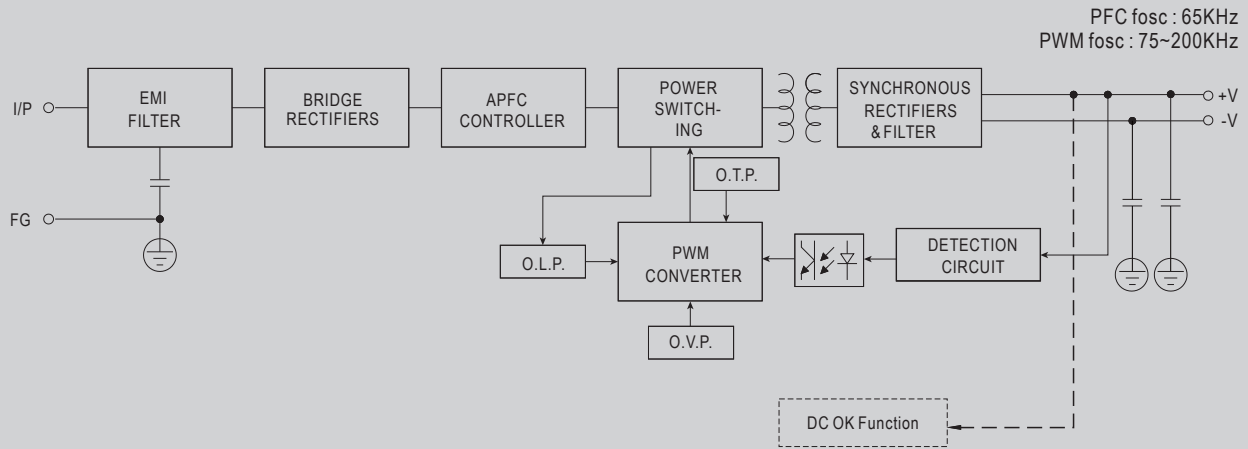


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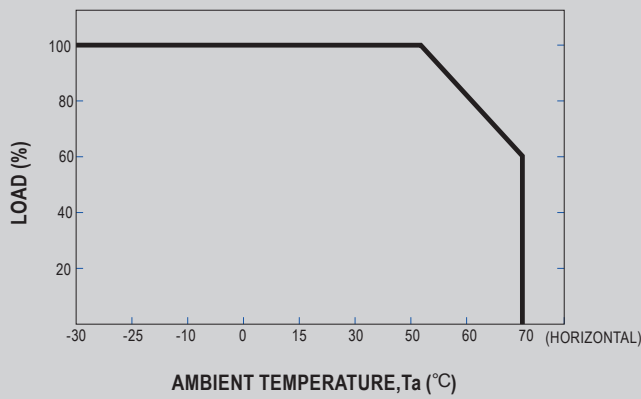
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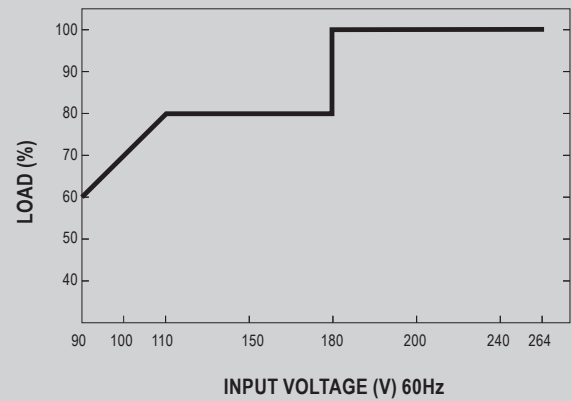
Block Diagram



Output Load vs Temperature



Static Characteristic



UHP-200A Series

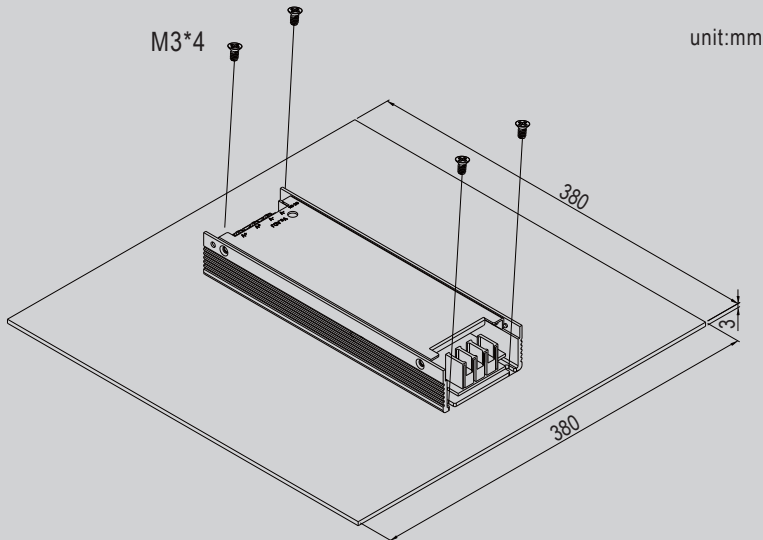
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Installation

1. Operate with additional aluminum plate

In order to meet the “Derating Curve” and the “Static Characteristics”, UHP-200A series must be installed onto an aluminum plate (or the cabinet of the same size) on the bottom. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and UHP-200A series must be firmly mounted at the center of the aluminum plate.



2. For heat dissipation, at least 5cm installation distance around the PSU should be kept, shown as below:

