320Watts Single Output

Qualtek Electronics Corporation

QPDF-320 Series



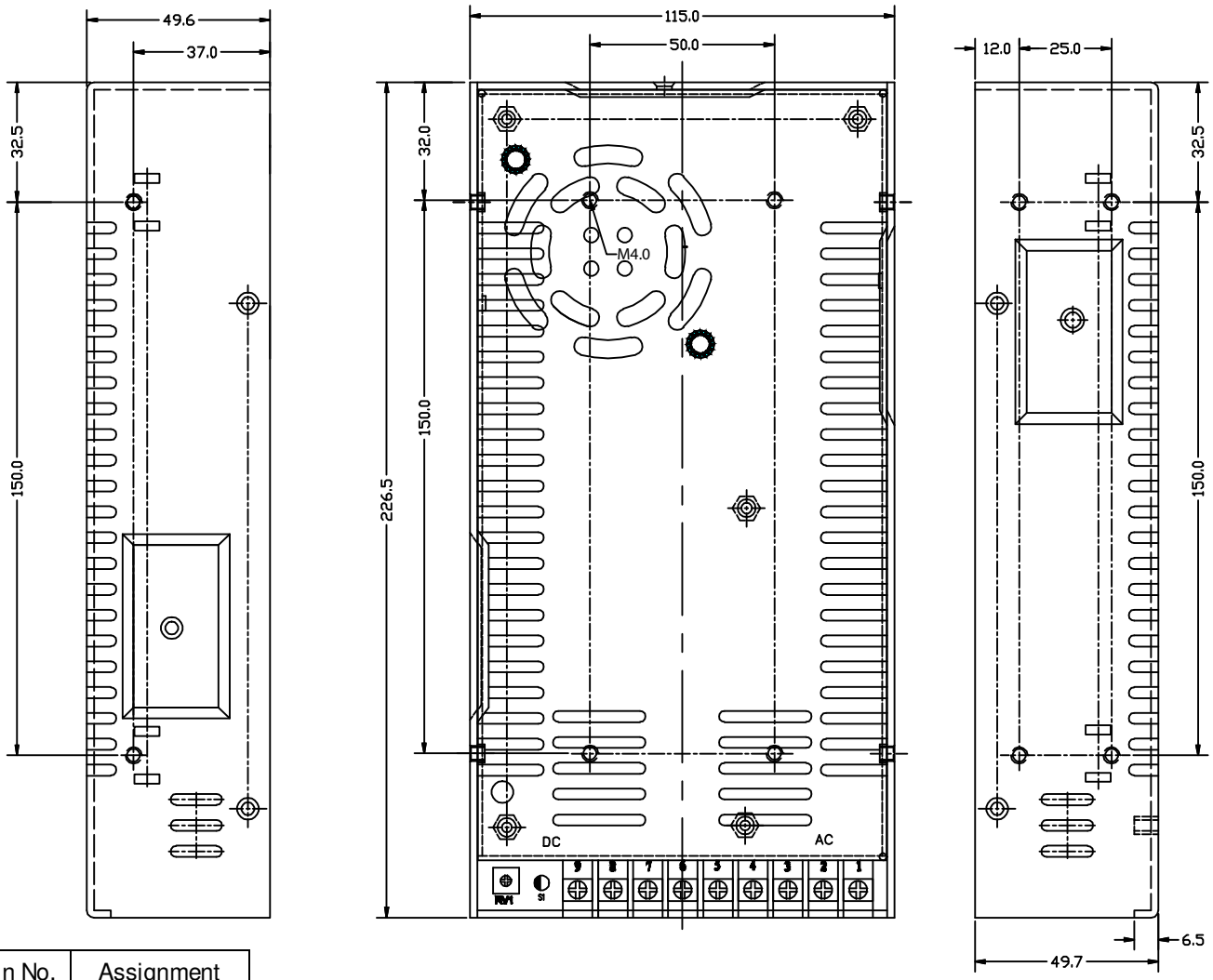
Features:

- Universal AC input/ Full range
- Built-in active PFC function, PF>0.95
- High Efficiency, and High Reliability
- Output Protections: OLP/OTP/OVP/SCP
- Wide operating ambient temperature (-25°C~70°C)
- Conformal Coating on PCB Soldering Side
- All using 105°C long life electrolytic capacitors.
- 100% full load burn-in test

CE CB cULus RoHS Compliant

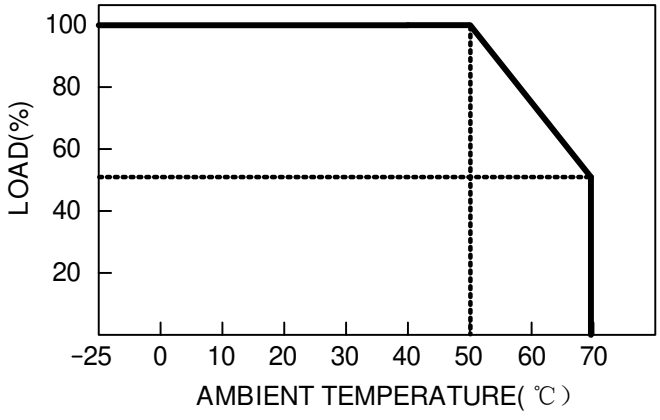
Model		QPDF-320-3.3	QPDF-320-4	QPDF-320-5	QPDF-320-7.5	QPDF-320-12	QPDF-320-24	QPDF-320-28	QPDF-320-36	QPDF-320-48
Output Characteristics										
DC Output		3.3V	4V	5V	7.5V	12V	24V	28V	36V	48V
Rated Current		60A	60A	60A	40A	25A	13A	11A	8.8A	6.7A
Current Range		0~60A	0~60A	0~60A	0~40A	0~25A	0~13A	0~11A	0~8.8A	0~6.7A
Ripple and Noise	0~65°C	<150mV	<150mV	<150mV	<150mV	<150mV	<150mV	<150mV	<200mV	<240mV
	-20~0°C	<180mV	<180mV	<180mV	<180mV	<180mV	<180mV	<180mV	<200mV	<240mV
Voltage ADJ. Range		3.1V~3.6V	3.7V~4.3V	4.4V~5.3V	6.6V~8.4V	10.5V~13.3V	19.7V~26.4V	25.7V~30.4V	33.2V~38.4V	41.5V~53.1V
Voltage Accuracy		±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
Line Regulation		±0.5%	±0.5%	±0.5%	±0.5%	±0.3%	±0.2%	±0.2%	±0.2%	±0.2%
Load Regulation		±1.0%	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Set-up Time		<2.5s (115VAC input, full load) <1.2s(230VAC input, full load)								
Hold-up Time		3.3V/4V/5V >14ms (230VAC input, full load) 7.5V/12V/24V/28V/36V/48V >16ms (230VAC input, full load)								
Temperature Coefficient		±0.03%/°C								
Overshoot and Undershoot		<5.0%								
Input Characteristics										
Voltage Range		88VAC~264VAC, 124VDC~370VDC								
Frequency Range		47Hz-63Hz								
Power Factor (Typical)		PF>0.98/115VAC PF>0.95/230VAC								
Efficiency (Typical)	115VAC	72%	73%	73%	77%	78%	79%	79%	80%	81%
	230VAC	77%	78%	79%	83%	86%	87%	87%	87%	88%
AC Current (max)		5.0A								
Inrush Current (Typical)		<23A@115VAC Cold start <45A@230VAC Cold Start								
Leakage Current		Input-Output: <0.1mA Input-PG: <0.75mA								
Protection										
Over Load (OLP)		105%~135% of rated output current, hiccup mode, auto recovery								
Over Temperature (OTP)		85°C ± 5°C (heatsink of power transistor); shut down, auto recover after the temperature decreases								
Over Voltage (OVP)		110%~150% of rated output voltage, shut down, re-power on to recover								
Short Circuit (SCP)		Long-term mode, auto recovery								
Environmental Characteristics										
Operating Amb. Temp. & Hum		-25°C~70°C; 20%~90% RH Non-Condensing								
Storage Temp. & Hum		-40°C~85°C: 10%-95% RH Non-Condensing								
Safety Standards		UL60950-1; EN60950-1: 2006								
Withstand Voltage		Primary-Secondary: 3.0KVAC;≤10mA. Primary-PG: 1.5KVAC;≤10mA. Secondary-PG: 0.5KVDC;≤10mA								
Isolation Resistance		≥100M ohms								
EMI Conduction & Radiation		Compliance to EN55022(CISPR22) Class B								
Harmonic Current		Compliance to EN61000-3-2, 17625.1-2003								
EMS Immunity		Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV50204, light industry level, criteria A								
General Characteristics										
MTBF (MIL-HDBK-217F)		More than 300,000Hrs (25°C, Full load)								
Dimension (LxWxH)		226.5x115x50mm								
Packing		10PCS/CTN. G.W: 11.6kgs								
Cooling Method		Forced air cooling (built-in DC fan)								

MECHANICAL SPECIFICATIONS



Pin No.	Assignment
1	AC-L
2	AC-N
3	F.G
4,5,6	DC output -V
7,8,9	DC output +V

DERATING CURVE



UNIT: mm