

■ Features :

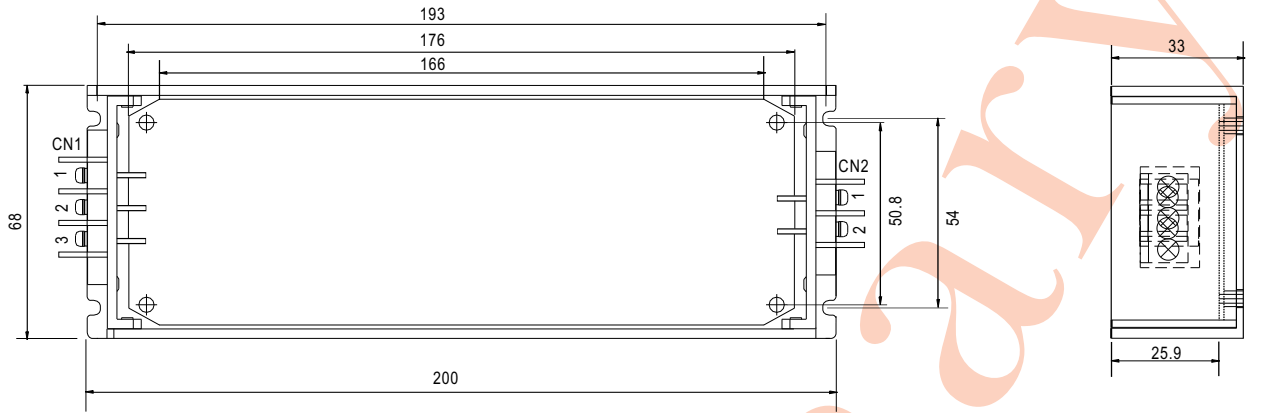
- Universal AC input / Full range
- Built in active PFC circuit compliance to EN61000-3-2 class C
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- ZVS technology to reduce power dissipation
- 3 years warranty(100% load 12hr/day≡5years)
- 300VAC surge input for 30 seconds
- 3 times surge output current for 30ms
- TTL signal for over-temperature warning



**SPECIFICATION**

MODEL	ULP-150-12	ULP-150-15	ULP-150-24	ULP-150-36	ULP-150-48	
OUTPUT	DC VOLTAGE	12V	15V	24V	36V	48V
	RATED CURRENT	12.5A	10A	6.3A	4.2A	3.2A
	CURRENT RANGE (convection)	0 ~ 12.5A	0 ~ 10A	0 ~ 6.3A	0 ~ 4.2A	0 ~ 3.2A
	CURRENT RANGE (with silicone)	0 ~ 15A	0 ~ 12A	0 ~ 7.5A	0 ~ 5.0A	0 ~ 3.75A
	PEAK CURRENT	37.5A/30ms	30A/30ms	18.75A/30ms	12.6A/30ms	9.6A/30ms
	RATED POWER (convection)	150W	150W	151.2W	151.2W	153.6W
	RATED POWER(with silicone)	180W	180W	180W	180W	180W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3		±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	2000ms, 100ms/230VAC      4000ms, 100ms/115VAC at full load				
HOLD UP TIME (Typ.)	16ms/230VAC      16ms/115VAC at full load					
INPUT	VOLTAGE RANGE Note.5	90 ~ 280VAC      127 ~ 396VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	0.95/230VAC      0.98/115VAC at full load				
	EFFICIENCY (Typ.)	88%	88%	90%	90%	90%
	AC CURRENT (Typ.)	2A/115VAC	1A/230VAC			
	INRUSH CURRENT (Typ.)	22A/115VAC	44A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed				
	OVER VOLTAGE	13.5 ~ 16.3V	17 ~ 21V	26.7 ~ 32.4V	41.4 ~ 48.6V	53 ~ 64.8V
	OVER TEMPERATURE	80°C ±5°C (TSW1) detect on heatsink of power transistor				
		TTL signal for over-temperature warning Protection type : Shut down o/p voltage, recovers automatically after fault condition is removed				
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	EN61347-2-13, UI1012, UL60950-1, EN60950-1 approved				
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC/70%RH				
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B,				
	HARMONIC CURRENT	Compliance to EN61000-3-2, CLASS C				
	EMS IMMUNITY	Compliance to EN61547, heavy industry level, criteria A				
OTHERS	MTBF	K hrs min.    MIL-HDBK-217F (25°C)				
	DIMENSION	200*68*33mm (L*W*H)				
	PACKING					
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li> <li>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</li> </ol>					

■ Mechanical Specification



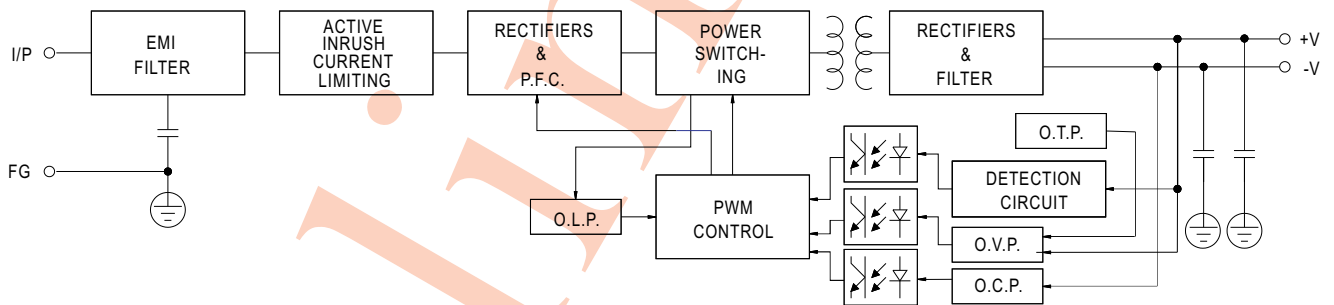
AC Terminal pin NO Assignment(CN1)

Pin No.	Assignment
1	FG
2	AC/N
3	AC/L

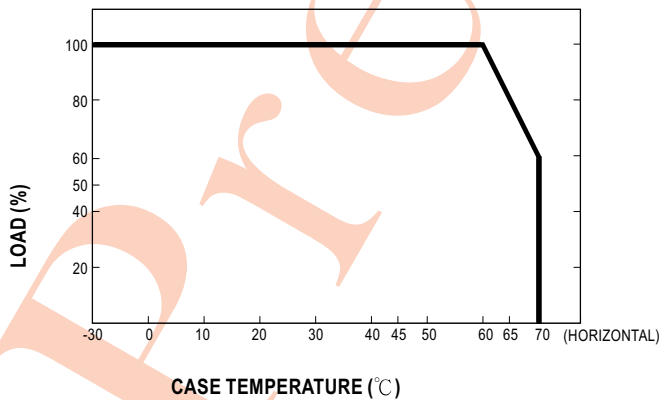
DC Terminal pin NO Assignment(CN2)

Pin No.	Assignment
1	V+
2	V-

■ Block Diagram



■ Derating Curve



■ Static Characteristics

