

**FEATURE**

- n RoHS compliant
- n AC input range selectable by switch
- n Protections: Short circuit/Over load/ Over voltage/ Over temperature
- n High efficiency to 83%
- n Can be installed on DIN rail TS-35/7.5 or 15
- n 1500VAC input to output isolation
- n 100% full load burn-in test
- n LED indicator for power on
- n Operating temperature range  $-10\text{ }^{\circ}\text{C}$  to  $50\text{ }^{\circ}\text{C}$



Order Code	Input Voltage(Vac)	Input Current(A)		Output Voltage(Vdc)	Output Current(A)	%Eff. (Typ)
		0% Load	100% Load			
TD-120-12	176-264	0.02	1.3	12	10	80
TD-120-24	176-264	0.02	1.3	24	5	83
TD-120-48	176-264	0.02	1.3	48	2.5	83

**INPUT CHARACTERISTICS**

Parameter	Conditions	Min.	Typ.	Max.	Units
Frequency range		47	50	63	Hz
Input Voltage range	Over all operating resistive load	176	220	264	Vac
	Over all operating resistive load	248	300	370	Vdc
Inrush current (max)				20A/115VAC 40A/230VAC	
Leakage current					<3.5mA/240VAC

**OUTPUT CHARACTERISTICS**

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage Accuracy	12V output types			$\pm 2$	%
	24V, 48V output types			$\pm 1$	
Line Regulation	Low line to high line			$\pm 0.5$	%
Load Regulation	10% total load to 100% total load			$\pm 1$	%
Output Current Limit					105%~150% Nominal Output
Short Circuit Protection					Continuous
Ripple and Noise	20MHz BW			100	mVp-p
Transient Response	25% Step Load Change	Error band		$\pm 5\%$	$V_{o,nom}$
		Recovery Time		500	$\mu\text{s}$
Setup, rise time		500mS, 70mS/230VAC	500mS, 70mS/115VAC		at full load
Hold up time				36mS/230VAC 32mS/115VAC	at full load

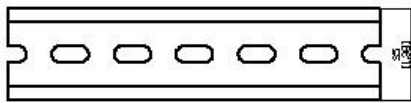
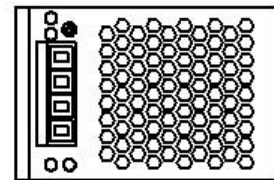
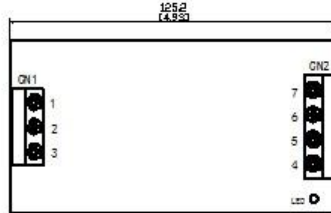
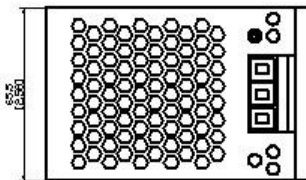
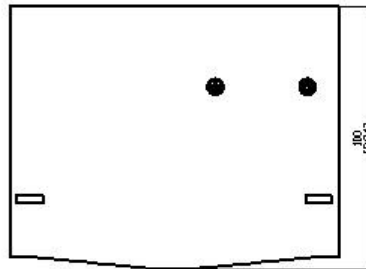
## ISOLATED 120W REGULATED OUTPUT AC/DC CONVERTERS

### GENERAL CHARACTERISTICS

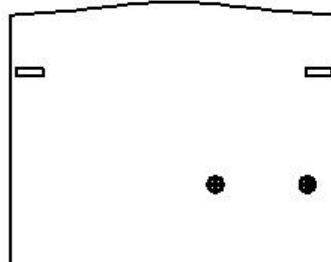
Efficiency	See Table
Isolation Voltage(P-S,1min,5mA)	3000Vac min.
Safety	UL508,UL60950-1,TUV EN60950-1 approved
Altitude	2000m
Operation Ambient Temperature Range	-10°C ~50°C
Derating	Above50°C,Linearly to Zero Power at +50°C
Cooling	Natural Convection
Storage Temperature Range	-20°C to +85°C
Temperature Coefficient	±0.03%
Humidity	90%RH max. Non condensing
MTBF	MIL-HDBK-217F,GB,25°C,Full Load 450K.hrs Typ
Dimensions	65.5 x125.2x100mm (2.58x4.93x3.94 inches)
Weight	800g

### TECHNICAL DIMENSIONS & PIN CONNECTION

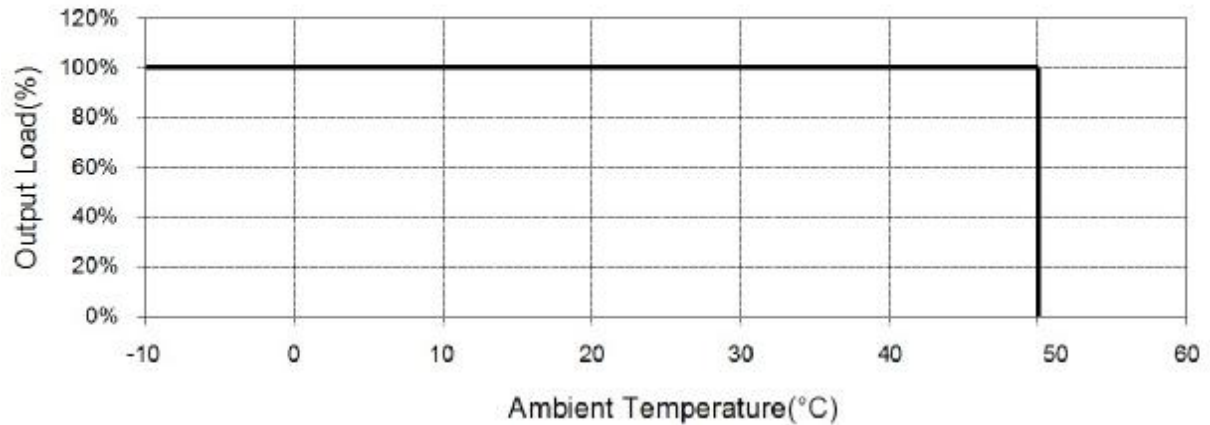
All Dimensions In Millimeters [Inches]  
 Tolerance Millimeters: X=±1.0, XX=±.25  
 Inches: XX=±.04, XXX=±.010



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15



PIN CONNECTION	
Pin	Function
1	FG
2	N
3	L
4	V-
5	V+
6	DO-
7	DO+

**TD-120 Series Derating Curve****Typical Derating Curve VS Ambient Temperature****Note**

1. Measured From High Line to Low Line.
2. Measured From Full Load to min. Load.
3. Maximum case temperature under any operating condition should Not be exceeded 50°C.
4. The output ripple and noise is measured with 10uF tantalum and 1uF Ceramic capacitor across output.
5. All Specifications Typical at Nominal Line, Full Load, and 25°C Unless Otherwise Noted.