



480W Three Phase Industrial DIN RAIL Power Supply

AKL10009-xx



Features :

- Three-Phase AC 340 ~ 550V wide range input
- High efficiency 89% and low dissipation
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test

SPECIFICATION

MODEL		AKL10009-01		AKL10009-02	
OUTPUT	DC VOLTAGE	24V		48V	
	RATED CURRENT	20A		10A	
	CURRENT RANGE	0 ~ 20A		0 ~ 10A	
	RATED POWER	480W		480W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p		80mVp-p	
	VOLTAGE ADJ. RANGE	24 ~ 28V		48 ~ 55V	
	VOLTAGE TOLERANCE <small>Note.3</small>	±1.0%		±1.0%	
	LINE REGULATION	±0.5%		±0.5%	
	LOAD REGULATION	±0.5%		±0.5%	
	SETUP, RISE TIME	1200ms, 40ms/400VAC		800ms, 40ms/500VAC at full load	
HOLD TIME (Typ.)	16ms/400VAC		35ms/500VAC at full load		
INPUT	VOLTAGE RANGE	Three-Phase 340 ~ 550VAC		480 ~ 780VDC	
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	89%		90%	
	AC CURRENT (Typ.)	1.7A/400VAC		1.3A/500VAC	
	INRUSH CURRENT (Typ.)	COLD START 50A			
	LEAKAGE CURRENT	<3.5mA / 530VAC			
PROTECTION	OVER LOAD	105 ~ 150% rated output power			
		Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	OVER VOLTAGE	30 ~ 36V		59 ~ 66V	
		Protection type : Shut down o/p voltage, re-power on to recover			
	OVER TEMPERATURE	110C±5°C (TSW) Detect on heatsink of power switch			
	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
ENVIRONMENT	WORKING TEMP.	-20 ~ +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 ~ 50°C)			
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, UL60950-1, TUV EN60950-1 Approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC 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			
	EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11), EN55022 (CISPR22), EN61204-3 Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61204-3, EN61000-6-2 (EN50082-2) Heavy industry level, criteria A			
OTHERS	MTBF	91.1Khrs min. MIL-HDBK-217F (25)			
	DIMENSION	227*125.2*100mm (W*H*D)			
	PACKING	2.5Kg; 6pcs/16Kg/1.75CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 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. 5. Dual phase operation: derating of 20% is required.				

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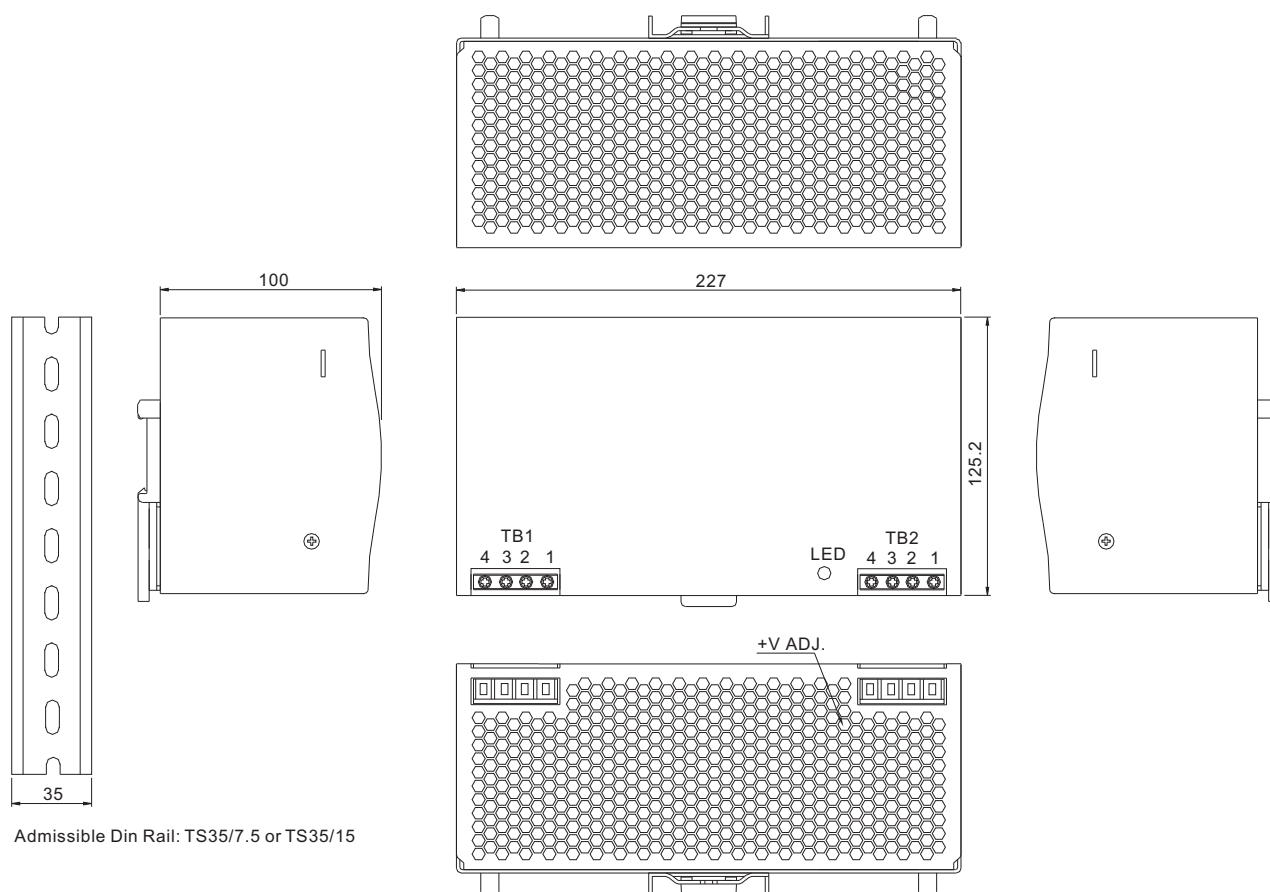


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Mechanical Specification

Case No.930A Unit:mm



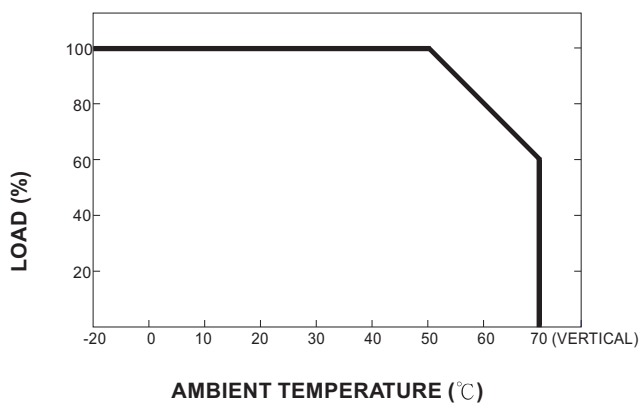
TB1 Terminal Pin. No Assignment

Pin No.	Assignment
1	AC/L1
2	AC/L2
3	AC/L3
4	FG⊕

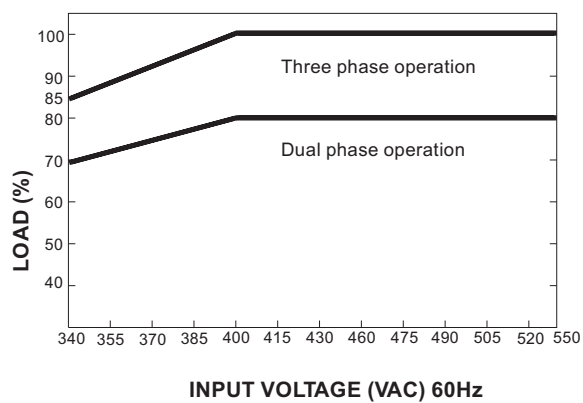
TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

Derating Curve



Static Characteristics



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