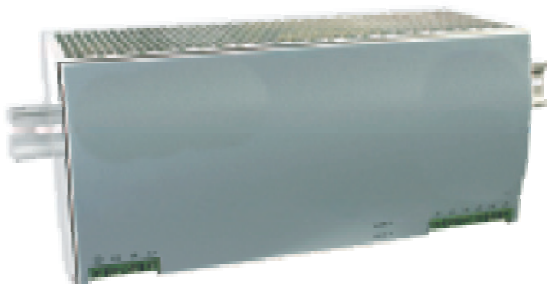




# 960W Three Phase Industrial DIN RAIL Power Supply

## AKL10010-xx



### Features :

- Three-Phase AC 340 ~ 550V wide range input
- High efficiency 91% and low dissipation
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Optional parallel function(1+1)
- Cooling by free air convection
- 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

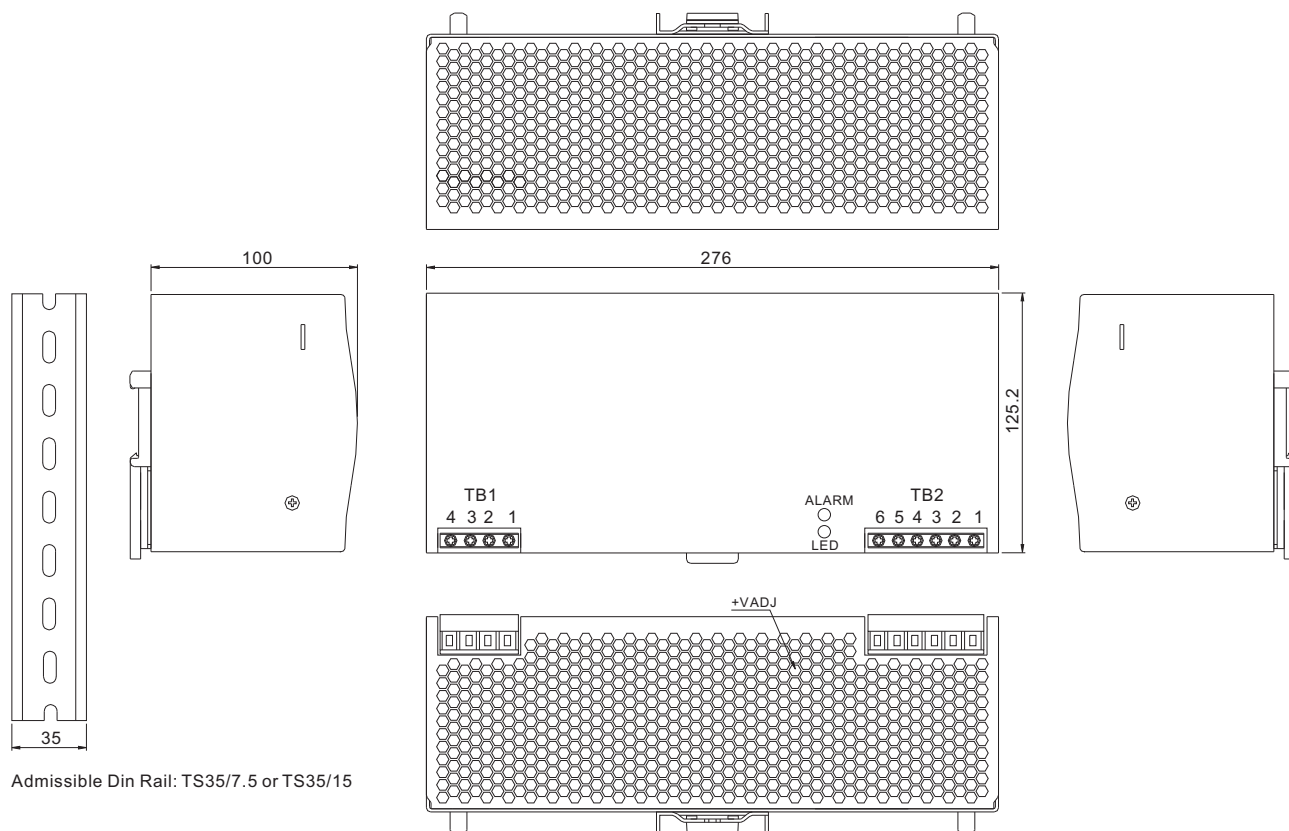
MODEL		AKL10010-01		AKL10010-02	
OUTPUT	DC VOLTAGE	24V		48V	
	RATED CURRENT	40A		20A	
	CURRENT RANGE	0 ~ 40A		0 ~ 20A	
	RATED POWER	960W		960W	
	RIPPLE & NOISE (max.) <small>Nota.2</small>	80mVp-p		80mVp-p	
	VOLTAGE ADJ. RANGE	24 ~ 28V		48 ~ 55V	
	VOLTAGE TOLERANCE <small>Nota.3</small>	±1.0%		±1.0%	
	LINE REGULATION	±0.5%		±0.5%	
	LOAD REGULATION	±0.5%		±0.5%	
	SETUP, RISE TIME	200ms, 60ms/400VAC		200ms, 60ms/500VAC at full load	
	HOLD TIME (Typ.)	14ms/400VAC		30ms/500VAC at full load	
INPUT	VOLTAGE RANGE	Three-Phase 340 ~ 550VAC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	91%		92%	
	AC CURRENT (Typ.)	2A/400VAC		1.6A/500VAC	
	INRUSH CURRENT (max.)	COLD START 50A			
	LEAKAGE CURRENT	<3.5mA / 530VAC			
PROTECTION	OVER LOAD	105 ~ 125% rated output power Protection type : Constant current limiting, unit will shut down o/p voltage after 3 sec. , re-power on to recover			
	OVER VOLTAGE	30 ~ 36V		59 ~ 66V	
	OVER TEMPERATURE	110℃ ±5℃ (TSW1) Detect on heatsink of power transistor      85℃ ±5℃ (TSW2) Detect on heatsink of power diode Protection type : Shut down o/p voltage, recovers automatically after temperature goes down			
ENVIRONMENT	WORKING TEMP.	-20 ~ +60℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)			
	VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6			
SAFETY & EMC <small>(Note 4)</small>	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			
OTHERS	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			
	MTBF	122.5Khrs min.      MIL-HDBK-217F (25℃)			
	DIMENSION	276*125.2*100mm (W*H*D)			
	PACKING	3.3Kg; 4pcs/14.2Kg/1.14CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25℃ 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.				

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## Mechanical Specification

Case No.934 Unit:mm



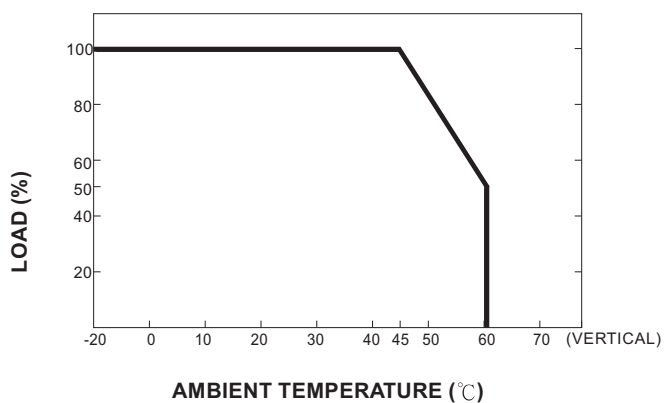
TB1 Terminal Pin. No Assignment

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

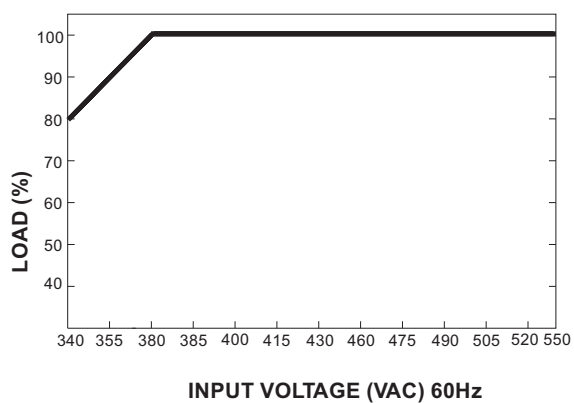
TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2,3	DC OUTPUT +V
4,5,6	DC OUTPUT -V

## Derating Curve



## Static Characteristics



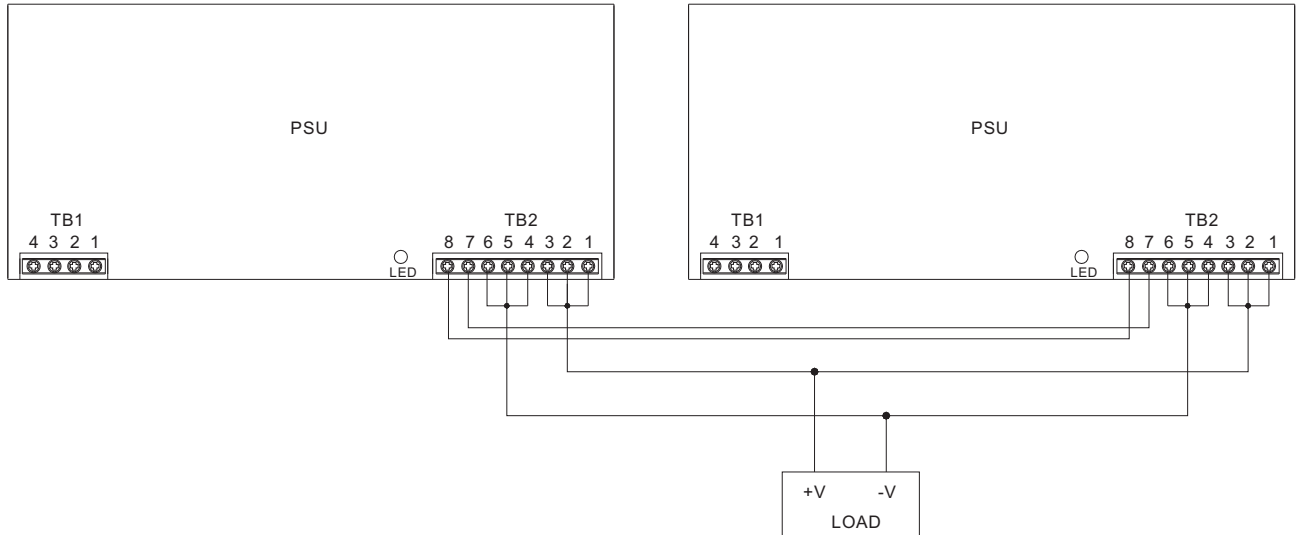
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**Parallel Function (1+1)-Optional (Special order required)**



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
1,2,3	DC OUTPUT +V
4,5,6	DC OUTPUT -V
7	GND
8	P(Current Share)

Note: Under parallel operation, if the load current is too small, only one PSU(master) would provide the power and hence the LED indicator of other PSUs may not light up.