



**THE DATASHEET OF  
DRT-960-24**





■ Features :

- Three-Phase AC 340 ~ 550V wide range input
- High efficiency 91% and low dissipation
- Protections: Short circuit / Overload / 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
- 3 years warranty

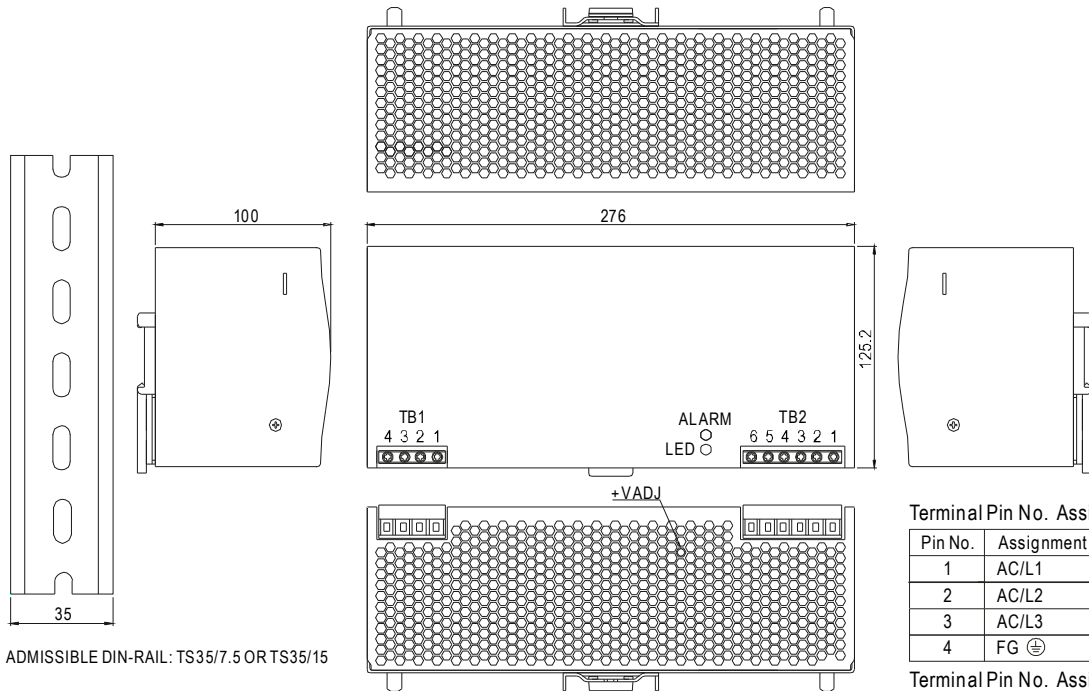


**SPECIFICATION**

MODEL	DRT-960-24	DRT-960-48	
OUTPUT	DC VOLTAGE	24V	48V
	RATED CURRENT	40A	20A
	CURRENT RANGE	0 ~ 40A	0 ~ 20A
	RATED POWER	960W	960W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p
	VOLTAGE ADJ. RANGE	24 ~ 28V	48 ~ 55V
	VOLTAGE TOLERANCE Note.3	±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 UP TIME (Typ.)	14ms/400VAC    30ms/500VAC at full load		
INPUT	VOLTAGE RANGE	Three-Phase 340 ~ 550 VAC (Dual phase operation possible in connecting L1,L3,FG Note.5)	
	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	OVERLOAD	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°C ±5°C (TSW1) detect on heatsink of power transistor    85°C ±5°C (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°C (Refer to "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:2KVAC    O/P-FG:0.5KVAC	
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH	
	EMC EMISSION	Compliance to EN55011 (CISPR11), EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3	
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 (EN50082-2), heavy industry level, criteria A	
OTHERS	MTBF	122.5K hrs min.    MIL-HDBK-217F (25°C)	
	DIMENSION	276*125.2*100mm (W*H*D)	
	PACKING	3.3Kg; 4pcs/14.2Kg/1.14CUFT	
NOTE	<p>1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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.</p> <p>5. Dual phase operation(connecting L1,L3,FG)is allowed under certain derating to output load. Please refer to the derating curves for details.</p>		

**Mechanical Specification**

Case No.934 Unit:mm



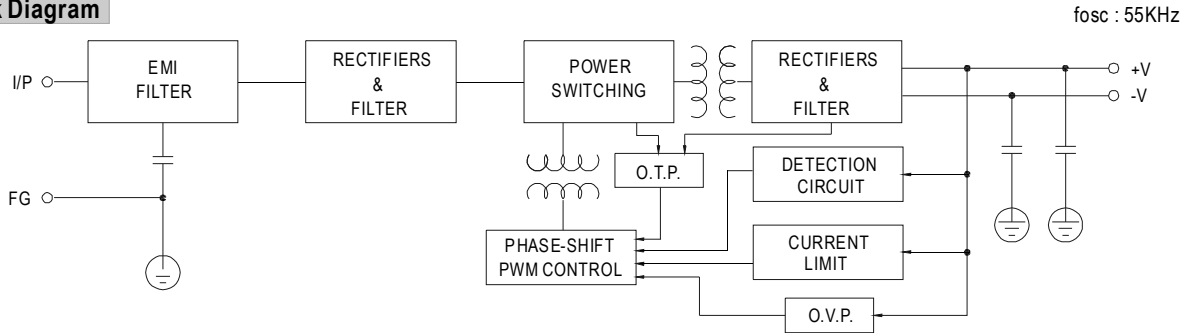
**Terminal Pin No. Assignment (TB1)**

Pin No.	Assignment
1	AC/L1
2	AC/L2
3	AC/L3
4	FG $\oplus$

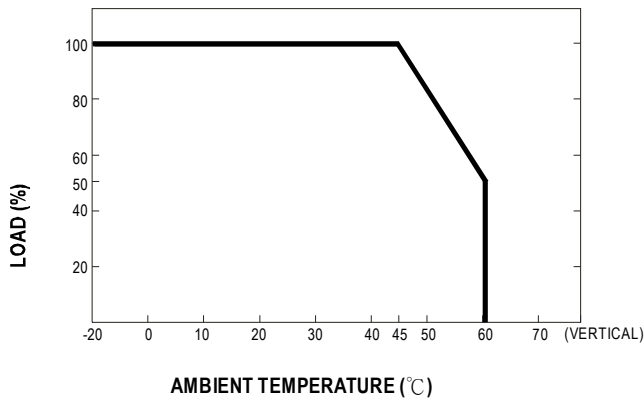
**Terminal Pin No. Assignment (TB2)**

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

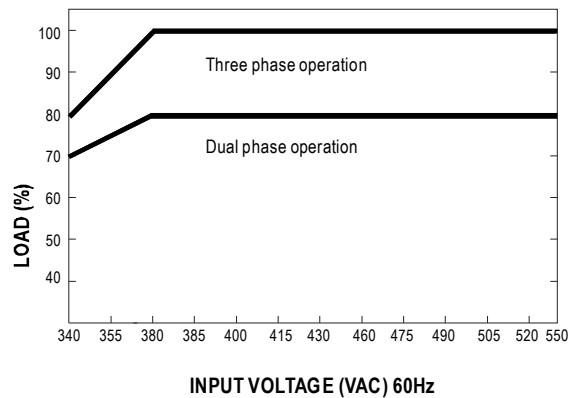
**Block Diagram**



**Derating Curve**

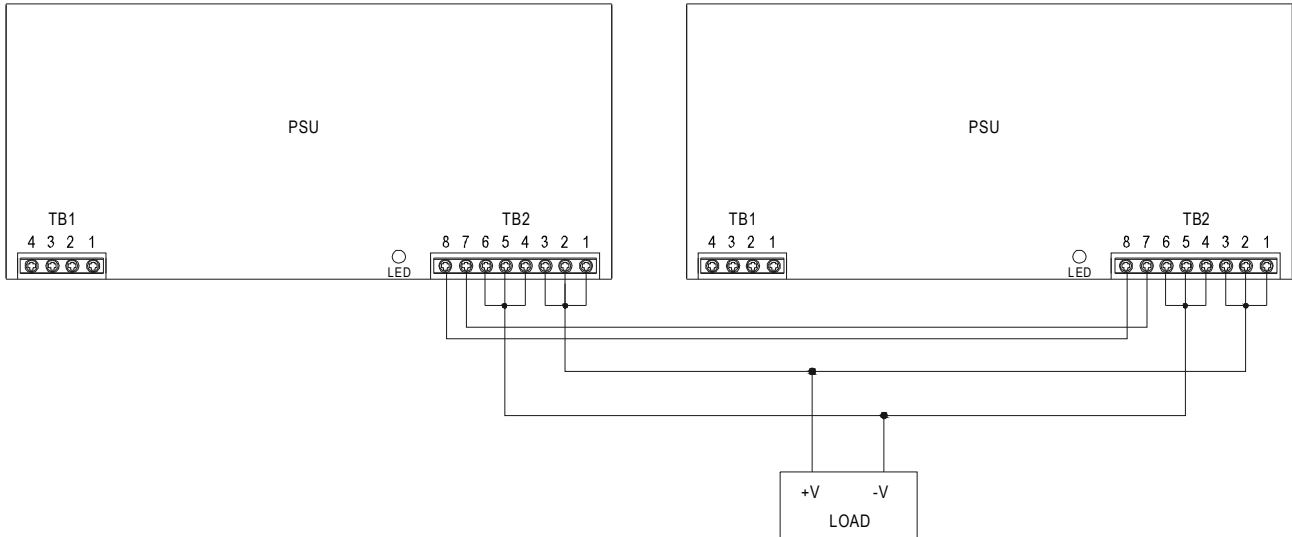


**Static Characteristics**



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

When in parallel operation, the minimum output load should be greater than 3% of total output load.  
 (Min. load >3% rated current per unit x number of unit)



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.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View DRT-960-24 on WIN SOURCE](#)
-  [Advantech Corp Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management