



Features

- Three-Phase 340 ~ 550VAC wide range input (Dual phase operation possible)
- 63mm slim width
- Built-in passive PFC function compliance to EN61000-3-2
- High efficiency 92% and low power dissipation
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Full power between -30~+60 °C
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL61010(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- DC OK relay contact
- 3 years warranty

Applications

- Industrial control system
- Semiconductor fabrication equipment
- Factory automation
- Electro-mechanical apparatus

Description

TDR-240 is one economical slim 240W Din rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 63mm in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 3 ϕ 340VAC to 550VAC (Dual Phase operation possible) and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current. TDR-240 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 92 %, the entire series can operate at the ambient temperature between -30°C and 70°C under air convection. It is equipped with constant current mode for over-load protection, fitting various inductive or capacitive applications. The complete protection functions and relevant certificates for industrial control apparatus (UL61010-1, UL61010-2-201, EN61558-1, EN61558-2-16, EAC TP TC 004 approved, and etc.) make TDR-240 a very competitive power supply solution for industrial applications.

Model Encoding

TDR - 240 - 24

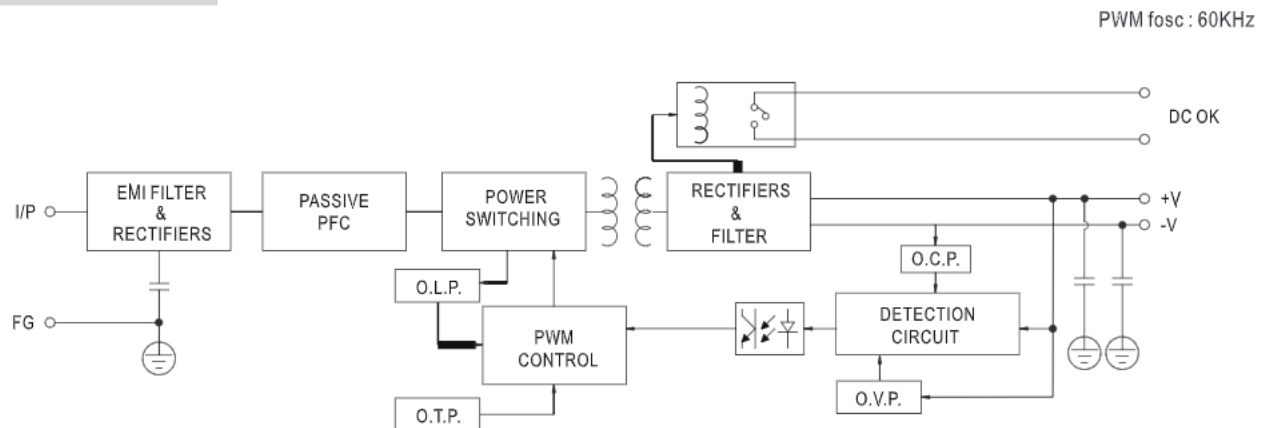




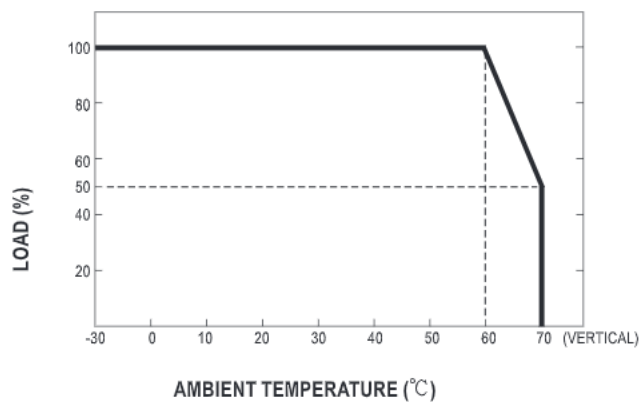
SPECIFICATION

| MODEL | | TDR-240-24 | TDR-240-48 | |
|--------------------------------|--|--|---|--|
| OUTPUT | DC VOLTAGE | 24V | 48V | |
| | RATED CURRENT | 10A | 5A | |
| | CURRENT RANGE | 0 ~ 10A | 0 ~ 5A | |
| | RATED POWER | 240W | 240W | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 120mVp-p | |
| | VOLTAGE ADJ. RANGE | 24 ~ 28V | 48 ~ 55V | |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | ±1.0% | |
| | LINE REGULATION | ±0.5% | ±0.5% | |
| | LOAD REGULATION | ±1.0% | ±1.0% | |
| | SETUP, RISE TIME | 2000ms, 60ms/400VAC 1500ms, 60ms/500VAC at full load | | |
| | HOLD UP TIME (Typ.) | 20ms / 400VAC 40ms / 500VAC at full load | | |
| INPUT | VOLTAGE RANGE Note.4 | Three-Phase 340 ~ 550VAC (Dual phase operation possible in connecting L1,L3,FG or L2,L3,FG) or 480 ~ 780VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | POWER FACTOR (Typ.) | PF≥0.53/400VAC PF≥0.52/500VAC at full load | | |
| | EFFICIENCY (Typ.) | 92% | 92% | |
| | AC CURRENT (Typ.) | 0.69A/400VAC 0.6A/500VAC | | |
| | INRUSH CURRENT (Typ.) | COLD START 50A | | |
| | LEAKAGE CURRENT | <2mA / 530VAC | | |
| PROTECTION | OVERLOAD | 105 ~ 130% rated output power Protection type : Constant current limiting, unit will hiccup after 3 sec. | | |
| | OVER VOLTAGE | 30 ~ 36V | 56 ~ 65V Protection type : Hiccup mode, recovers automatically after fault condition is removed. | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | |
| FUNCTION | DC OK REALY CONTACT RATINGS (max.) | 60VDC/0.3A, 30VDC/1A, 30VAC/0.5A resistive load | | |
| ENVIRONMENT | WORKING TEMP. Note.5 | -30 ~ +70°C (Refer to "Derating Curve") | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH non-condensing | | |
| | TEMP. COEFFICIENT | ±0.05%/°C (0 ~ 60°C) | | |
| | VIBRATION | Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | | |
| | OPERATING ALTITUDE Note.6 | 5000 meters | | |
| | OVER VOLTAGE CATEGORY | III; According to EN61558, EN50178, EN60664-1, EN62477-1, EN60204-1; altitude up to 2000 meters | | |
| SAFETY & EMC (Note 7) | SAFETY STANDARDS | UL61010-1, UL61010-2-201, EN61558-1, EN61558-2-16, EAC TP TC 004 approved | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4.8KVAC I/P-FG:2.4KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C/ 70% RH | | |
| | EMC EMISSION | Parameter | Standard | Test Level / Note |
| | | Conducted | EN61204-3 | Class B |
| | | Radiated | EN61204-3 | Class B |
| | | Harmonic Current | EN61000-3-2 | Class A |
| | | Voltage Flicker | EN61000-3-3 | ----- |
| | EMC IMMUNITY | EN55024 , EN61204-3 | | |
| | | Parameter | Standard | Test Level / Note |
| | | ESD | EN61000-4-2 | Level 4, 15KV air ; Level 4, 8KV contact |
| | | Radiated Field | EN61000-4-3 | Level 3 |
| | | EFT / Burst | EN61000-4-4 | Level 3 |
| | | Surge | EN61000-4-5 | Level 4, 2KV / Line-Line, Level 4, 4KV/ Line-Earth |
| | | Conducted | EN61000-4-6 | Level 3 |
| Magnetic Field | | EN61000-4-8 | Level 4 | |
| Voltage Dips and Interruptions | | EN61000-4-11 | >95% dip 0.5 periods, 30% dip 25 periods> 95% interruptions 250 periods | |
| OTHERS | MTBF | 515.4K hrs min. Telcordia SR-332(Bellcore); 215.6K hrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 63*125.2*113.5mm (W*H*D) | | |
| | PACKING | 1Kg ; 12pcs/13Kg/1.06CUFT | | |
| 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. Dual phase operation is allowed under certain derating to output load. Please refer to derating curves for details. 5. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 6. The ambient temperature derating of 3.5°C/1000m is needed for operating altitude higher than 2000m(6500ft). 7. 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) | | | |

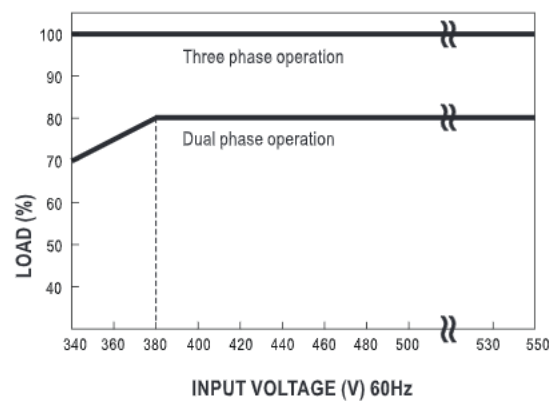
■ BLOCK DIAGRAM



■ DERATING CURVE



■ OUTPUT DERATING VS INPUT VOLTAGE



Note : When the dual phase input voltage is between 340~380Vac and ambient temperature is between -10°C~-30°C, the power supply may experience hiccup at cold start. The power supply will start up normally after 5~10 seconds.

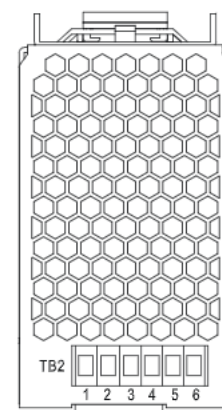
■ DC OK RELAY CONTACT

| | |
|------------------------|--------------------------------------|
| Contact Close | PSU turns on / DC OK. |
| Contact Open | PSU turns off / DC Fail. |
| Contact Ratings (max.) | 30VDC/1A, 30VAC/0.5A resistive load. |

Terminal Pin No. Assignment (TB2)

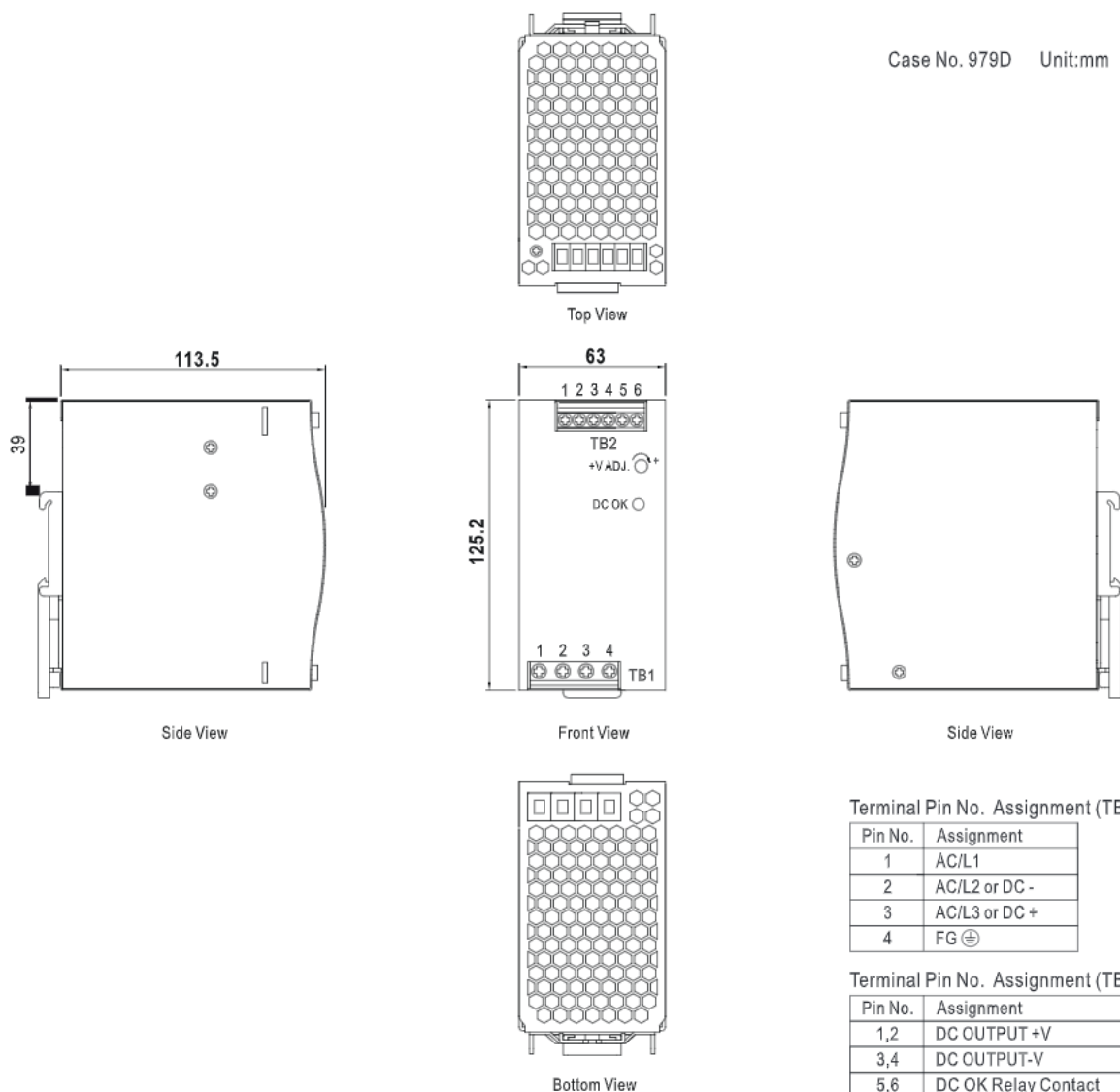
| Pin No. | Assignment |
|---------|---------------------|
| 5,6 | DC OK Relay Contact |

※ Please contact MEAN WELL for more details.

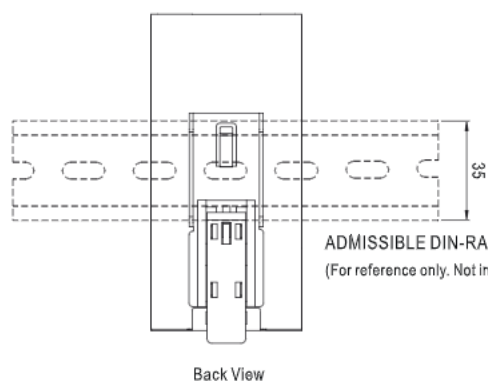


MECHANICAL SPECIFICATION

Case No. 979D Unit:mm



Installation Instruction



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15
(For reference only. Not included with unit.)

This series fits DIN-RAIL TS35/7.5 or TS35/15.
For installation details, please refer to the Instruction manual.

Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>