



(XDR-480-xx)



(XDR-480-xxLA)



(XDR-480-xxPI)



IS 13252



## Features

- 85~305Vac input with PFC (277Vac available)
- Global certificates in multi-fields(ITE 62368-1, Industrial 61558-1/-2-16,61010) & Marine DNV,SEMI47,CID2 HazLoc approved
- 48mm ultra slim width
- High efficiency up to 96% and no load power dissipation<1W by R.C.
- Built-in MODBus protocol
- 200% peak power capability
- 600% transient peak current capability
- Built-in constant current limiting circuit
- Current sharing up to 1920W (3+1) for parallel use
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fanless design, cooling by free air convection
- Over voltage category III (OVC III)
- -40~+85°C wide range operation temperature(>+60°C derating)
- Operating altitude up to 5000 meters
- Built-in remote ON/OFF control and DC OK relay contact
- Ultra low inrush current <6~15A
- Built-in ORing FET
- Tool free terminal block (LA Type)
- Conformal coating
- Can be installed on DIN rail TS-35/75 or15
- 5 years warranty

## Description

The XDR-480 series is a 480W AC/DC high-end ultra slim industrial DIN rail power. Key features of this series include a narrow 48mm casing, optimizing system installation space, and an ultra-wide input range of 85~305Vac suitable for global use. It boasts a maximum efficiency of 96% and a low standby power consumption of 1W by R.C for energy savings and carbon reduction. It supports MODBus communication interface, provides constant current with up to 200% peak power, and can handle instantaneous peak current of 600%. It has a fanless design, ultra-wide operating temperature range of -40 to +85°C (up to +60°C at full load); OVCIII compliance; parallel function capability up to 1920W; ultra-low inrush current of <6~15A, and includes DC OK and remote ON/OFF functions. It also has a built-in ORing FET, the internal PCB has a coating for basic moisture and dust protection, and it has multiple terminal blocks for selection. With comprehensive protection functions, complete safety certifications, and a 5-years warranty, the XDR-480 series is a compact, high-performance, and highly reliable DIN rail power supply.

## Model Encoding

XDR - 480 - 24

- Output terminal type
- Output voltage(12V/24V/36V/48V)
- Output wattage
- Series name

## Applications

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

## GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

| Terminal Type Options |                                                                                                      | Note     |
|-----------------------|------------------------------------------------------------------------------------------------------|----------|
| Blank                 | Screw Terminal  | In stock |
| LA                    | Lever Actuated  | In stock |
| PI                    | Push In         | In stock |



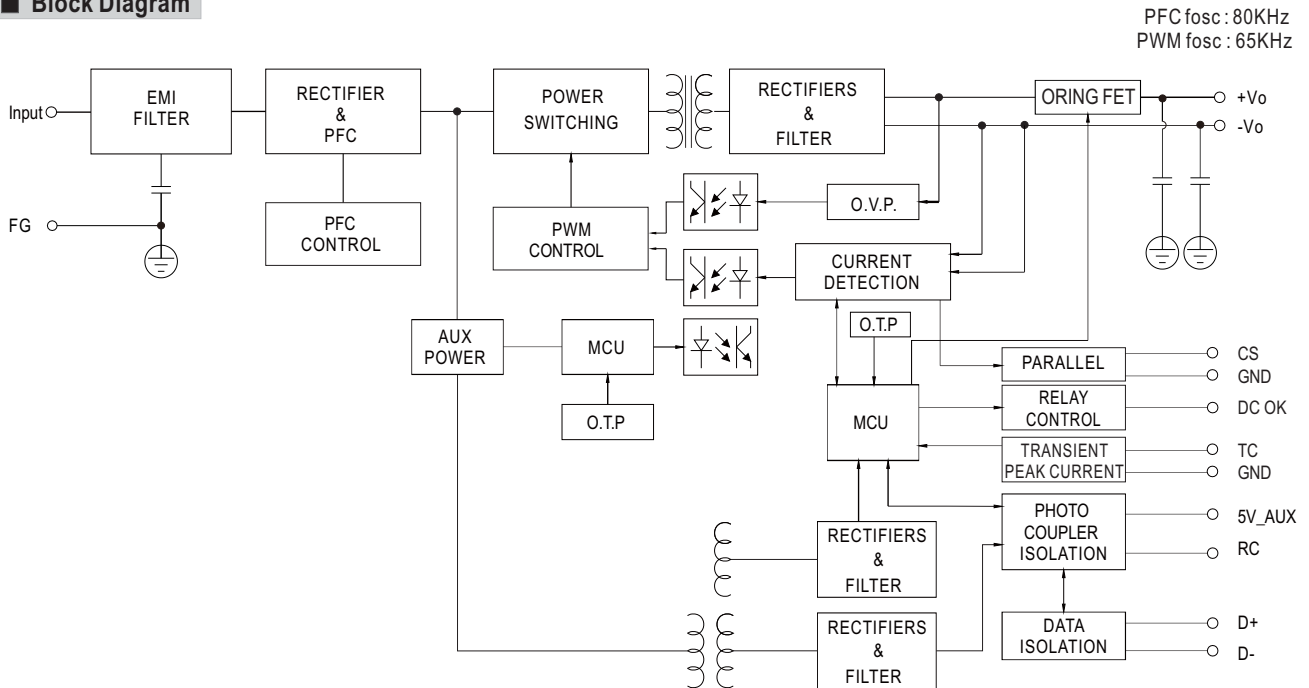
480W AC/DC High-End Ultra Slim Industrial DIN Rail Power

XDR-480series

| SPECIFICATION                    |                  | XDR-480-12                                                                                                                        | XDR-480-24           | XDR-480-36                                        | XDR-480-48 |
|----------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------|------------|
|                                  |                  | =Blank, LA, PI                                                                                                                    |                      |                                                   |            |
| OUTPUT                           |                  |                                                                                                                                   |                      |                                                   |            |
| DC VOLTAGE                       |                  | 12V                                                                                                                               | 24V                  | 36V                                               | 48V        |
| LOAD CURRENT RANGE               |                  | 0 ~ 30A                                                                                                                           | 0 ~ 20A              | 0 ~ 13.3A                                         | 0 ~ 10A    |
| RATED POWER                      |                  | 360W                                                                                                                              | 480W                 |                                                   |            |
| PEAK                             | CURRENT (5sec.)  | 60A                                                                                                                               | 40A                  | 26.6A                                             | 20A        |
|                                  | POWER (5sec.)    | 720W                                                                                                                              | 960W                 |                                                   |            |
| RIPPLE & NOISE (max.)<br>Note.2  |                  | 100mVp-p                                                                                                                          | 100mVp-p             | 120mVp-p                                          | 120mVp-p   |
| VOLTAGE ADJ. RANGE               |                  | 12 ~ 15V                                                                                                                          | 24 ~ 29V             | 36 ~ 42V                                          | 48 ~ 55V   |
| VOLTAGE TOLERANCE<br>Note.3      |                  | ± 1.0%                                                                                                                            | ± 1.0%               | ± 1.0%                                            | ± 1.0%     |
| LINE REGULATION                  |                  | ± 0.5%                                                                                                                            | ± 0.5%               | ± 0.5%                                            | ± 0.5%     |
| LOAD REGULATION                  |                  | ± 1.0%                                                                                                                            | ± 1.0%               | ± 1.0%                                            | ± 1.0%     |
| SETUP, RISE TIME                 |                  | 1500ms, 150ms/277Vac                                                                                                              | 1500ms, 150ms/230Vac | 1500ms, 150ms/115Vac at full load                 |            |
| HOLD UP TIME (Typ.)              |                  | 15ms/277Vac                                                                                                                       | 15ms/230Vac          | 15ms/115Vac at full load                          |            |
| INPUT                            |                  |                                                                                                                                   |                      |                                                   |            |
| AC VOLTAGE RANGE                 |                  | 85 ~ 305Vac                                                                                                                       |                      |                                                   |            |
| DC VOLTAGE RANGE                 |                  | 80 ~ 431Vdc (Derating 50% Load @80Vdc)                                                                                            |                      |                                                   |            |
| NO LOAD CONSUMPTION(Typ.)        | Remote Power OFF | 1W@115Vac & 230Vac & 277Vac                                                                                                       |                      |                                                   |            |
|                                  | Remote Power ON  | 3W@115Vac & 230Vac & 277Vac                                                                                                       |                      |                                                   |            |
| FREQUENCY RANGE                  |                  | 47 ~ 63Hz                                                                                                                         |                      |                                                   |            |
| POWER FACTOR (Typ.)              |                  | PF>0.98/115Vac                                                                                                                    | PF>0.95/230Vac       | PF>90%/277Vac at full load                        |            |
| EFFICIENCY (Typ.)                |                  | 94%                                                                                                                               | 95.5%                | 95.5%                                             | 96%        |
| AC CURRENT (Typ.)                |                  | 6A/115Vac                                                                                                                         | 3A/230Vac            | 2.5A/277Vac                                       |            |
| INRUSH CURRENT (Typ.)            |                  | COLD START                                                                                                                        | 6A/115Vac            | 10A/230Vac                                        | 15A/277Vac |
| LEAKAGE CURRENT                  |                  | <1mA / 240Vac    <1.5mA / 277Vac                                                                                                  |                      |                                                   |            |
| PROTECTION                       |                  |                                                                                                                                   |                      |                                                   |            |
| OVERLOAD                         |                  | 105%~200% rated output power for more than 5 sec then constant current limiting at rate current without shutdown when Vo=30%~100% |                      |                                                   |            |
|                                  |                  | Hiccup mode when Vo<30% rated voltage                                                                                             |                      |                                                   |            |
| OVER VOLTAGE                     |                  | 16 ~ 19V                                                                                                                          | 30~ 34V              | 43 ~ 50V                                          | 57 ~ 66V   |
|                                  |                  | Protection type : Shut down o/p voltage, re-power on to recover                                                                   |                      |                                                   |            |
| OVER TEMPERATURE                 |                  | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down                                       |                      |                                                   |            |
| FUNCTION                         |                  |                                                                                                                                   |                      |                                                   |            |
| PARALLEL                         |                  | Up to 1920W (3+1) units; Please refer to Function Manual for more details.                                                        |                      |                                                   |            |
| DC OK RELAY CONTACT              |                  | Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load                                                                  |                      |                                                   |            |
| REMOTE CONTROL                   |                  | Power ON :RC(Pin9) and 5V_AUX(Pin10) short .                                                                                      |                      | Please refer to Function Manual for more details. |            |
|                                  |                  | Power OFF:RC(Pin9) and 5V_AUX(Pin10) open.                                                                                        |                      |                                                   |            |
| MODBus INTERFACE                 |                  | Communication provides functions such as control, setting, and monitoring.                                                        |                      |                                                   |            |
| TRANSIENT PEAK CURRENT CAPABILTY |                  | 600% rated current for 15ms                                                                                                       |                      |                                                   |            |
| ENVIRONMENT                      |                  |                                                                                                                                   |                      |                                                   |            |
| WORKING TEMP.                    |                  | -40 ~ +85℃ (Refer to "Derating Curve")                                                                                            |                      |                                                   |            |
| WORKING HUMIDITY                 |                  | 20 ~ 95% RH non-condensing                                                                                                        |                      |                                                   |            |
| STORAGE TEMP., HUMIDITY          |                  | -40 ~ +85℃, 10 ~ 95% RH non-condensing                                                                                            |                      |                                                   |            |
| TEMP. COEFFICIENT                |                  | ± 0.03%/℃ (0 ~ 60℃)                                                                                                               |                      |                                                   |            |
| VIBRATION                        |                  | Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6                      |                      |                                                   |            |

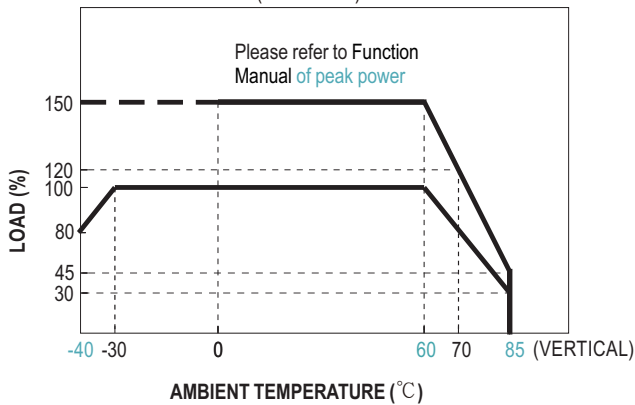
| SPECIFICATION                                                                                                                                                                                                                                                                                                                 |                                                                                                          | XDR-480-12 <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                           | XDR-480-24 <input type="checkbox"/> | XDR-480-36 <input type="checkbox"/>                                | XDR-480-48 <input type="checkbox"/> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------|-------------------------------------|
|                                                                                                                                                                                                                                                                                                                               |                                                                                                          | <input type="checkbox"/> =Blank, LA, PI                                                                                                                                                                                                                                                                                                                       |                                     |                                                                    |                                     |
| SAFETY & EMC                                                                                                                                                                                                                                                                                                                  |                                                                                                          | Note.4&5&6                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                    |                                     |
| SAFETY STANDARDS                                                                                                                                                                                                                                                                                                              | CB<br>TUV<br>UL<br>CCC<br>BSMI<br>EAC<br>Marine DNV<br>SEMI F47<br>KC/BIS                                | IEC62368-1, IEC61558-1/-2-16, IEC61010-1/-2-201<br>BS EN/EN62368-1,BS EN/EN61558-1/-2-16,BS EN/EN61010-1/-2-201<br>UL 121201/CSA C22.2 NO.213.17 Class I,DIV2 Group A,B,C,D Hazardous Locations T4;UL61010-1/-2-201<br>GB4943.1<br>CNS15598-1<br>TPTC004<br><br>approved<br>KC62368-1 and BIS IS 13252 (Part 1) certified, No stock ,contact sales by request |                                     |                                                                    |                                     |
| OVER VOLTAGE CATEGORY                                                                                                                                                                                                                                                                                                         | Note.7                                                                                                   | IEC/EN 61558-1/-2-16 (OVC III, altitude up to 2000m )<br>IEC/EN/UL 61010-1/-2-201 (OVC II, altitude up to 5000m )<br>IEC/EN 62368-1 (OVC II, altitude up to 5000m )                                                                                                                                                                                           |                                     |                                                                    |                                     |
| SAFETY EXTRA-LOW VOLTAGE(SELV)                                                                                                                                                                                                                                                                                                |                                                                                                          | IEC/EN 61558-2-16 (SELV)<br>IEC/EN 62368-1 (SELV / ES1 )                                                                                                                                                                                                                                                                                                      |                                     |                                                                    |                                     |
| WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                             |                                                                                                          | I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                          |                                                                                                          | I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC/25℃ / 70%RH                                                                                                                                                                                                                                                                                                         |                                     |                                                                    |                                     |
| EMC EMISSION                                                                                                                                                                                                                                                                                                                  | Parameter                                                                                                | Standard                                                                                                                                                                                                                                                                                                                                                      |                                     | Test Level / Note                                                  |                                     |
|                                                                                                                                                                                                                                                                                                                               | Conducted                                                                                                | BS EN/EN55032 (CISPR32) /<br>BS EN/EN61204-3 / CNS15936 / KS C 9832                                                                                                                                                                                                                                                                                           |                                     | Class B                                                            |                                     |
|                                                                                                                                                                                                                                                                                                                               | Radiated                                                                                                 | BS EN/EN55032 (CISPR32) /<br>BS EN/EN61204-3 / CNS15936 / KS C 9832                                                                                                                                                                                                                                                                                           |                                     | Class B                                                            |                                     |
|                                                                                                                                                                                                                                                                                                                               | Harmonic Current                                                                                         | BS EN/EN61000-3-2                                                                                                                                                                                                                                                                                                                                             |                                     | Class A                                                            |                                     |
|                                                                                                                                                                                                                                                                                                                               | Voltage Flicker                                                                                          | BS EN/EN61000-3-3                                                                                                                                                                                                                                                                                                                                             |                                     | -----                                                              |                                     |
| EMC IMMUNITY                                                                                                                                                                                                                                                                                                                  | BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2) ,KS C 9835,SEMI F47 tested at 200Vac |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
|                                                                                                                                                                                                                                                                                                                               | Parameter                                                                                                | Standard                                                                                                                                                                                                                                                                                                                                                      |                                     | Test Level / Note                                                  |                                     |
|                                                                                                                                                                                                                                                                                                                               | ESD                                                                                                      | BS EN/EN61000-4-2                                                                                                                                                                                                                                                                                                                                             |                                     | Level 4, 15KV air ; Level 4, 8KV contact; criteria A               |                                     |
|                                                                                                                                                                                                                                                                                                                               | Radiated                                                                                                 | BS EN/EN61000-4-3                                                                                                                                                                                                                                                                                                                                             |                                     | Level 3, 10V/m ; criteria A                                        |                                     |
|                                                                                                                                                                                                                                                                                                                               | EFT / Burst                                                                                              | BS EN/EN61000-4-4                                                                                                                                                                                                                                                                                                                                             |                                     | Level 4, 4KV ; criteria A                                          |                                     |
|                                                                                                                                                                                                                                                                                                                               | Surge                                                                                                    | BS EN/EN61000-4-5                                                                                                                                                                                                                                                                                                                                             |                                     | Level 4, 2KV/Line-Line ;Level 4, 4KV/Line-Line-Chassis ;criteria A |                                     |
|                                                                                                                                                                                                                                                                                                                               | Conducted                                                                                                | BS EN/EN61000-4-6                                                                                                                                                                                                                                                                                                                                             |                                     | Level 3, 10V ; criteria A                                          |                                     |
|                                                                                                                                                                                                                                                                                                                               | Magnetic Field                                                                                           | BS EN/EN61000-4-8                                                                                                                                                                                                                                                                                                                                             |                                     | Level 4, 30A/m ; criteria A                                        |                                     |
| OTHERS                                                                                                                                                                                                                                                                                                                        |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| MTBF                                                                                                                                                                                                                                                                                                                          | 1139.7K hrs min. Telcordia SR-332 (Bellcore); 154.5K hrs min. MIL-HDBK-217F (25℃)                        |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| DIMENSION                                                                                                                                                                                                                                                                                                                     | 48*125.2*125mm (W*H*D)                                                                                   |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| PACKING                                                                                                                                                                                                                                                                                                                       | 1.1Kg; 12pcs/ 14.2Kg / 1.16CUFT                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| NOTE                                                                                                                                                                                                                                                                                                                          |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| 1. All parameters NOT specially mentioned are measured at 230Vac 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 0.1 μ F & 47 μ F 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. (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| 5. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1.                                                                                                      |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| 6. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information.                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).                                                                                                                                                                       |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| 8. 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.                                                                                            |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |
| ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>                                                                                                                                      |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                    |                                     |

## Block Diagram

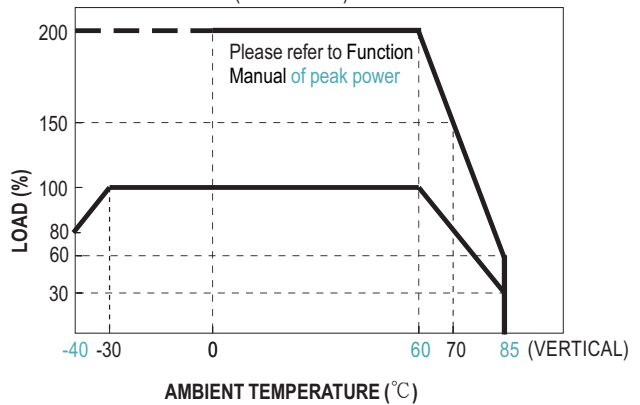


## Derating Curve

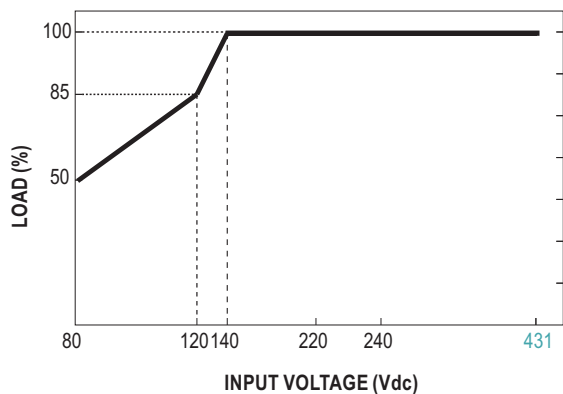
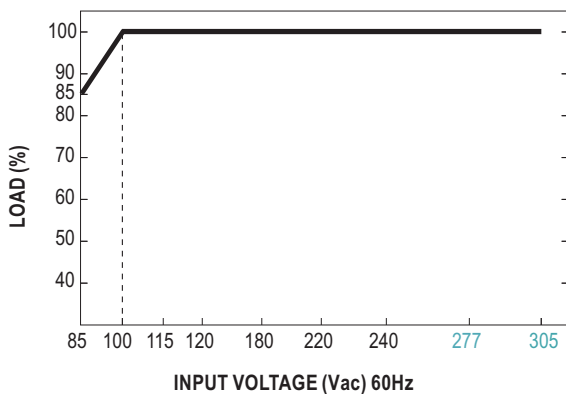
Suitable for 100/110/115/120Vac System  
(85~132Vac)



Suitable for 220/230/240/277Vac System  
(180~305Vac)



## Output derating VS input voltage



## ■ Peak Power

$$P_{av} = \frac{P_{pk} \times t + P_{npk} \times (T-t)}{T} \leq P_{rated}$$

$$\text{Duty} = \frac{t}{T} \times 100\% \leq 35\%$$

$$t \leq 5 \text{ sec}$$

$P_{av}$  : Average output power (W)

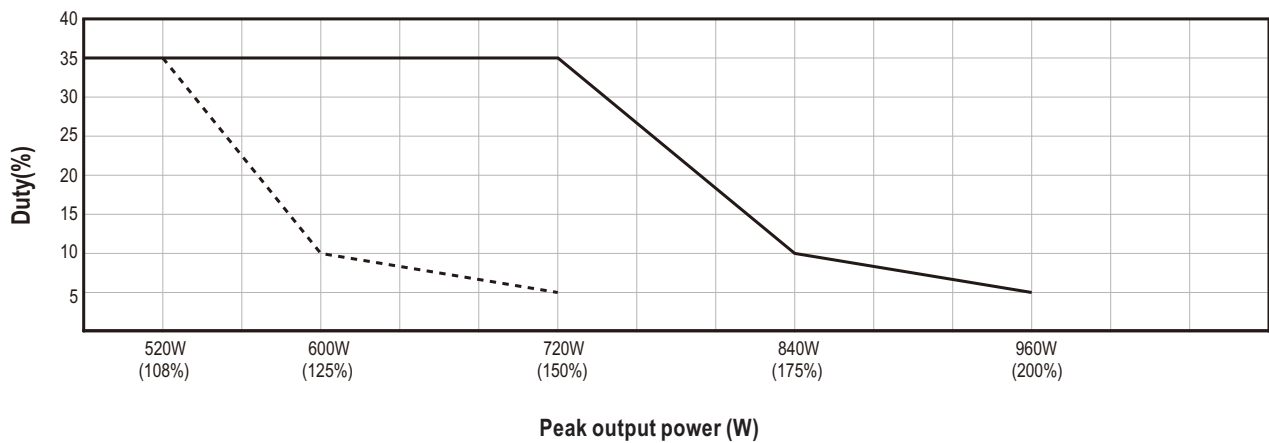
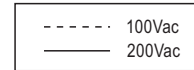
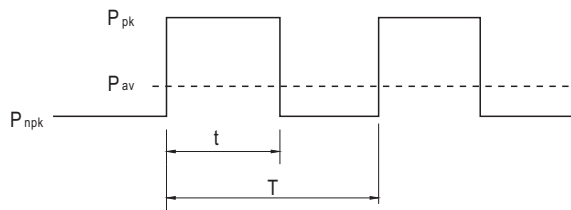
$P_{pk}$  : Peak output power (W)

$P_{npk}$  : Non-peak output power(W)

$P_{rated}$  : Rated output power(W)

$t$  : Peak power width(sec)

$T$  : Period(sec)



### For example (24V model) :

$V_{in} = 200\text{Vac}$      $\text{Duty}_{\text{max}} = 5\%$

$$P_{av} = P_{rated} = 480\text{W}$$

$$P_{pk} = 960\text{W}$$

$$t \leq 5 \text{ sec}$$

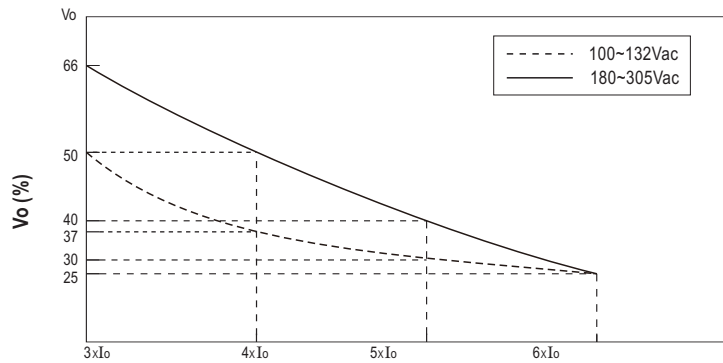
$$T \geq \frac{5 \text{ sec}}{5\%} \geq 100\text{sec}$$

$$P_{npk} \leq \frac{T P_{av} - t P_{pk}}{T-t}$$

$$P_{npk} \leq 454.7\text{W}$$

## ■ Transient peak current Capability

※ The power supply can provide transient peak current to support the start-up of inductive or capacitive loads.  
The maximum duration and voltage dips are explained below.

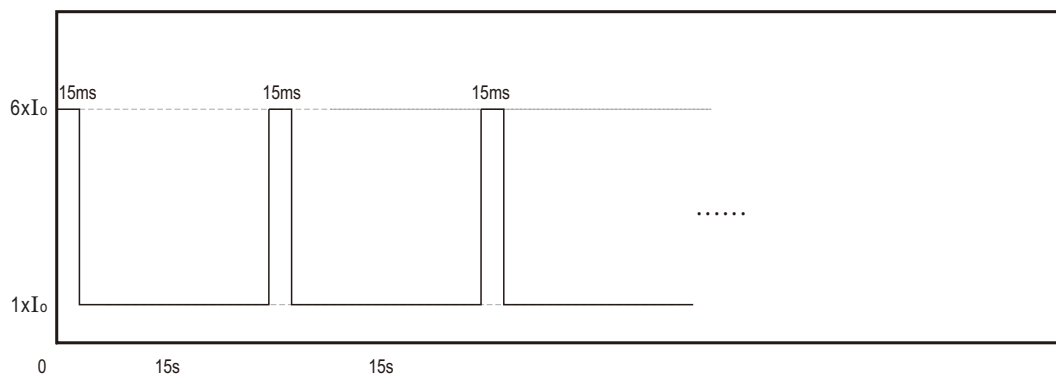


Transient peak current voltage dip

| Load | 100~132Vac<br>Vo(%) | 180~305Vac<br>Vo(%) | Time  |
|------|---------------------|---------------------|-------|
| 3xIo | 50                  | 66                  | 100ms |
| 4xIo | 37                  | 50                  | 70ms  |
| 5xIo | 30                  | 40                  | 40ms  |
| 6xIo | 25                  | 25                  | 15ms  |

※ After a transient peak current event occurs, the rated load must be maintained for at least 15 seconds before the next event.

**For example : (600% transient peak current)**

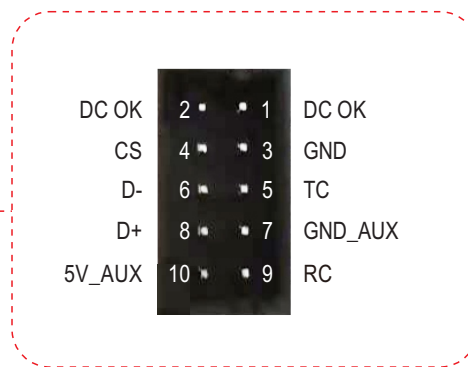
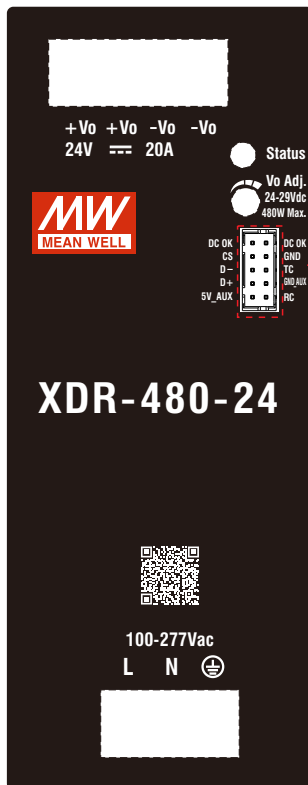


## ■ Function Manual

| Pin No. | Function               | Description                                                                                                                                                                                               |
|---------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1,2     | DC OK<br>Relay Contact | Contact close : PSU turns ON/DC_OK ;<br>Contact open : PSU turns OFF/DC_fail;<br>Contact ratings (max.): 30Vdc/1A ,30Vac/0.5A resistive load.                                                             |
| 3       | GND                    | When units are connected in parallel, the GND pins of the units should be connected mutually to allow current balance between units.                                                                      |
| 4       | CS                     | Current sharing signal. When units are connected in parallel, the CS pins of the units should be connected mutually to allow current balance between units.                                               |
| 5       | TC (Note.1)            | The unit can enable the transient peak current by dry contact between TC(Pin5) and GND(Pin3).<br>Power ON: Short; Power OFF: Open.                                                                        |
| 6       | D- (Note.2)            | Data line used in MODBUS interface                                                                                                                                                                        |
| 8       | D+ (Note.2)            |                                                                                                                                                                                                           |
| 7       | GND_AUX                | The signal return is isolated from the output terminal. (+Vo & -Vo)                                                                                                                                       |
| 9       | RC (Note.2)            | The unit can turn the output ON/OFF by electrical signal or dry contact between RC ON/OFF(Pin9) and 5V_AUX(Pin10).<br>Power ON: Short(4~5Vdc);Power OFF: Open(<0.5Vdc);The Maximum input voltage is 5Vdc. |
| 10      | 5V_AUX                 | For remote control signal only. Isolated from the output terminals.                                                                                                                                       |

Note1: Non-isolated signal, referenced to GND.

Note2: Isolated signal, referenced to GND-AUX.

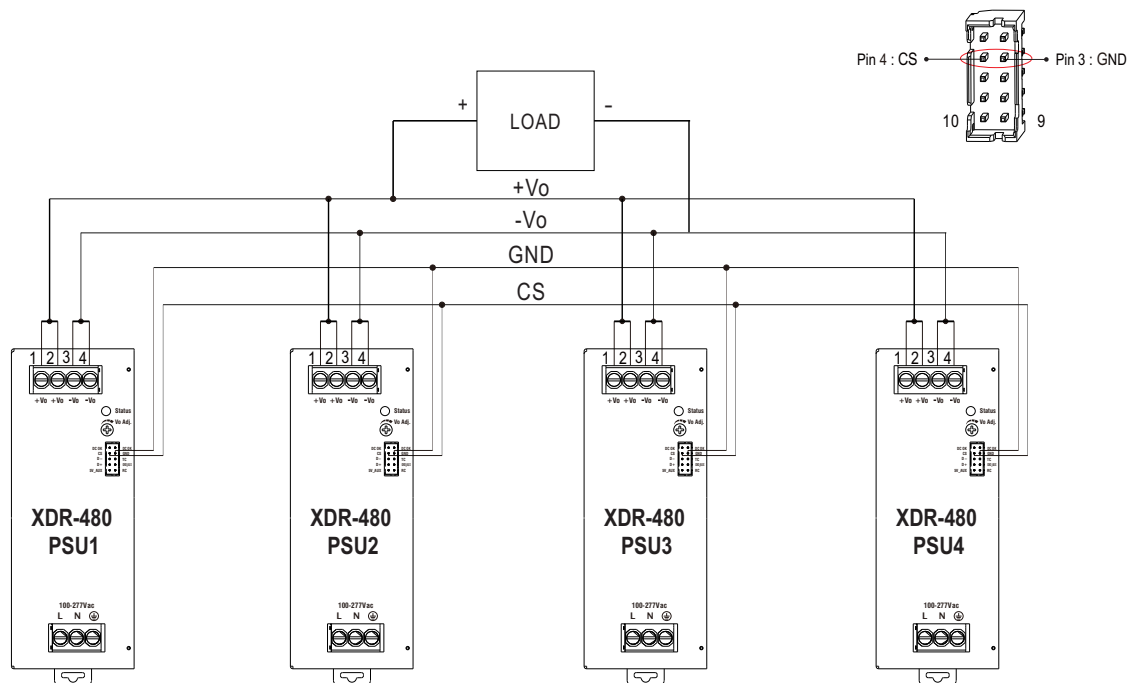


## 1. Parallel Use

XDR-480 has the built-in active current sharing function and can be connected in parallel, up to 4 units, to provide higher output power as exhibited below :

- (1) The transient peak current capability needs to be disabled, The TC pin of the units cannot be connected to GND .
- (2) Parallel operation is available by connecting the units shown as below (CS, GND are connected mutually in parallel).
- (3) Difference of output voltages among parallel units should be less than 0.2V.
- (4) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)  

$$= (\text{The rated current per unit}) \times (\text{Number of unit}) \times 0.9.$$
- (5) In parallel operation 4 units is the maximum, please consult the manufacture for other applications.
- (6) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.
- (7) When in parallel operation, the minimum output load should be greater than 5% of total output load.  
 (Min. load > 5% rated current per unit x number of unit)
- (8) In parallel connection, maybe only one unit (master) operate if the total output load is less than 5% of rated load condition.  
 The other PSUs (slaves) may go into standby mode and their output Green LEDs & relays will not turn on.
- (9) CS and GND lines should be twisted in pairs.

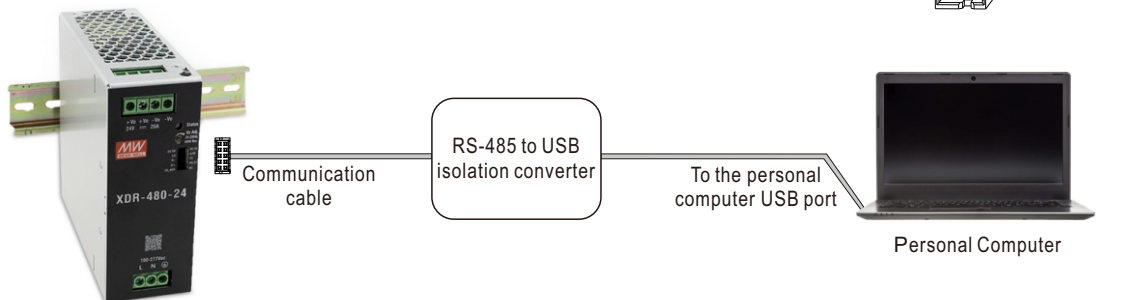


## 2. Support MODBus Communication

Communication provides functions such as control, setting, and monitoring.

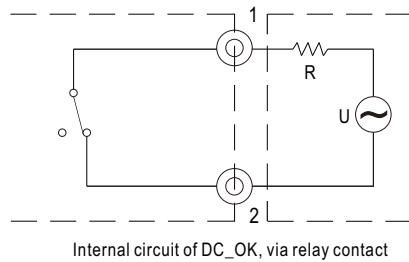
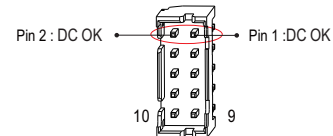
Parameters include output voltage, output power, input voltage, etc

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



### 3. 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. |

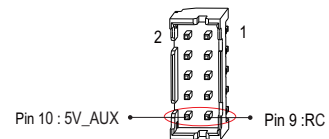


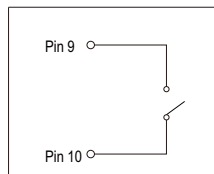
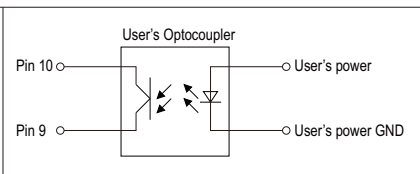
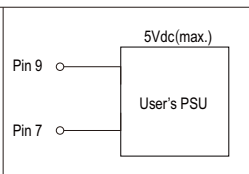
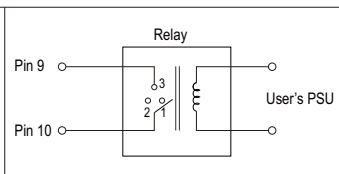
External voltage source (U) and resistor (R)  
(The max. Sink is 30Vdc/1A, 30Vac/0.5A)

### 4. Remote ON/OFF Control

The PSU can be turned ON/OFF by using the "Remote Control" function.

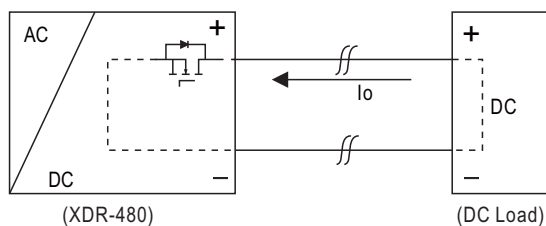
|                  |                                    |
|------------------|------------------------------------|
| PSU Vo Status    | Between RC(Pin9) and 5V_AUX(Pin10) |
| Remote power ON  | Short (Pin9=4~5V)                  |
| Remote power OFF | Open (Pin9=0~0.5V)                 |



|                                                                                                                     |                                                                                                                                       |                                                                                                                                      |                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|  <p>R.C. by external switch.</p> |  <p>R.C. by user's optocoupler control module.</p> |  <p>R.C. by user's external auxiliary power.</p> |  <p>R.C. by user's Relay control module.</p> |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|

### 5. Protection Against Inverse Voltages From The Load

Prevent PSU damage from Back Electro magnetic Force during deceleration of motor or inductive load.



| PSU'S ORing FET turn OFF voltage |                                |
|----------------------------------|--------------------------------|
| MODEL                            | Max. allowable reverse voltage |
| XDR-480-12                       | <16V                           |
| XDR-480-24                       | <35V                           |
| XDR-480-36                       | <50V                           |
| XDR-480-48                       | <63V                           |

## 6.LED Status Indictors

| Description                                                                | Output of alarm                                                                                                                                                                               |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Restore Factory Settings                                                   | Green : 3 Blink           |
| DC OK                                                                      | Green                                                                                                        |
| DC Fail                                                                    | Red                                                                                                          |
| Overload<br>(115Vac: >150% rated current)<br>(230Vac: >200% rated current) | Red : 1 Blink/Pause       |
| Over voltage                                                               | Red : 2 Blink/Pause       |
| Over temperature                                                           | Red : 3 Blink/Pause     |
| Against Inverse Voltages From The Load                                     | Red : 4 Blink/Pause   |
| High Ambient Temperature Warning                                           | Red : Blink           |
| Others (Note)                                                              | Red : 5 Blink/Pause   |

Note: Others include protection status AC UVP、Internal Communication error and EEPROM error.

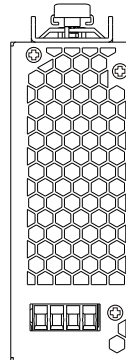
## ■ Mechanical Specification

(Unit:mm , Tolerance  $\pm 1$ mm)

Case No. 303

Ⓐ : Terminal Pin No.Assignment

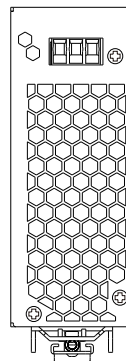
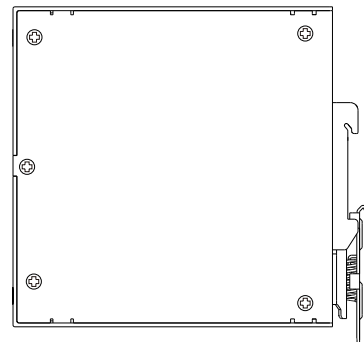
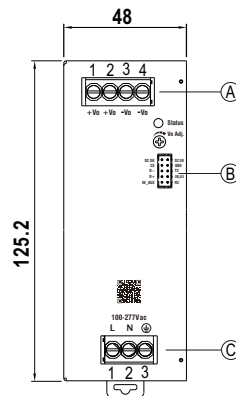
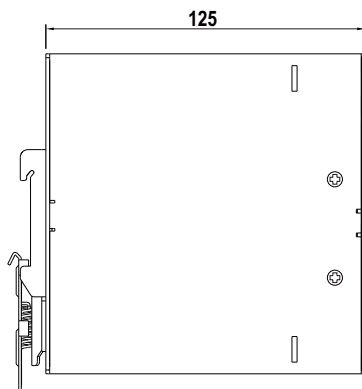
| Pin No. | Assignment    |
|---------|---------------|
| 1,2     | DC Output +Vo |
| 3,4     | DC Output -Vo |



Ⓑ : Control Pin No. Assignment:JS-2008R-2x05 or equivalent

| Mating Housing                | Terminal                |
|-------------------------------|-------------------------|
| JS-2007-2x05-BK or equivalent | JS-2007-T or equivalent |

| Pin No. | Assignment           |
|---------|----------------------|
| 1,2     | DC OK                |
| 3       | GND(Current sharing) |
| 4       | CS(Current sharing)  |
| 5       | TC                   |
| 6       | D-                   |
| 7       | GND_AUX              |
| 8       | D+                   |
| 9       | RC                   |
| 10      | 5V_AUX               |



Ⓒ : Terminal Pin No.Assignment

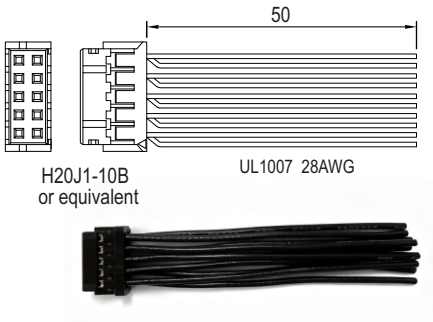
| Pin No. | Assignment            |
|---------|-----------------------|
| 1       | AC/L or DC Input +Vin |
| 2       | AC/N or DC Input -Vin |
| 3       | FG ⚡                  |

## Recommend Wiring

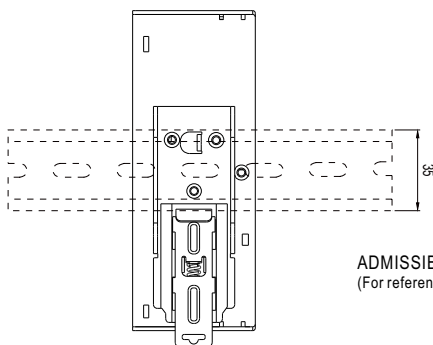
|                       |       | AC Input T.B          | DC Output T.B         |
|-----------------------|-------|-----------------------|-----------------------|
| Solid Wire            |       | 6mm <sup>2</sup> max. | 6mm <sup>2</sup> max. |
| A.W.G                 |       | 18~10 AWG             | 16~10 AWG             |
| Wire Stripping Length | Blank | 10~11mm               | 10~11mm               |
|                       | LA    | 11~12mm               | 11~12mm               |
|                       | PI    | 14~15mm               | 14~15mm               |
| Screw Terminal Torque | Blank | 5 Lb-In               | 5 Lb-In               |
|                       | LA/PI | Not applicable        |                       |

## Accessory List

Communication interface mating wire (standard accessory)

| No. | Item        |                                                                                                                                        | Quantity       |
|-----|-------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1   | Mating wire |  <p>H20J1-10B or equivalent</p> <p>UL1007 28AWG</p> | 1pcs/per model |

## Installation Instruction



This series fits DIN rail TS35/7.5 or TS35/15.

For installation details, please refer to the Instruction manual.

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

## Installation Manual

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