



Наличие и актуальные цены на

**DDR-15G-15**

<https://www.mean-well.ru/store/DDR-15G-15/>



User's Manual



## Feature

- Width only 17.5mm (1SU)
- 4:1 ultra wide input range
- -40~+85°C wide working temperature
- No minimum load required
- DC output adjustable ( $\pm 10\%$ )
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Protections: Short circuit / Overload / Over voltage /  
Input reverse polarity /  
Input under voltage protection
- 4KVdc I/O isolation(Reinforced isolation)
- 3 years warranty

## Applications

- Industrial control system
- Semi-conductor fabrication equipment
- Factory automation
- Electro-mechanical
- Wireless network
- Telecom or datacom system

## GTIN CODE

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

## Description

DDR-15 series is a 15W DIN Rail type DC-DC converter with main features including DIN rail-type easy installation, ultra slim width (17.5mm), 4: 1 ultra wide input voltage, -40~+85°C wide operating temperature, 4KVdc I/O isolation, adjustable output voltage ( $\pm 10\%$ ) and full protective functions...etc.

This series has two input options: 9~36V / 18~75V and various output options: 3.3V / 5V / 12V / 15V / 24V and can be used for industrial control, security control, communication system and other fields. Suitable applications are DC buck/boost regulator, increasing system insulation level and voltage drop compensation along cable...etc.

## Model Encoding

DDR - 15 G - 24

- Output voltage(3.3/5/12/15/24Vdc)
- Input voltage (G: 9~36Vdc, L: 18~75Vdc)
- Rated wattage
- Series name



## SPECIFICATION

| MODEL                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DDR-15G-3.3                                                                                                             | DDR-15G-5                                                                          | DDR-15G-12   | DDR-15G-15                                          | DDR-15G-24   |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|-----------------------------------------------------|--------------|
| OUTPUT                           | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.3V                                                                                                                    | 5V                                                                                 | 12V          | 15V                                                 | 24V          |
|                                  | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.5A                                                                                                                    | 3A                                                                                 | 1.25A        | 1A                                                  | 0.63A        |
|                                  | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 ~ 3.5A                                                                                                                | 0 ~ 3A                                                                             | 0 ~ 1.25A    | 0 ~ 1A                                              | 0 ~ 0.63A    |
|                                  | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 11.6W                                                                                                                   | 15W                                                                                | 15W          | 15W                                                 | 15W          |
|                                  | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50mVp-p                                                                                                                 | 50mVp-p                                                                            | 60mVp-p      | 75mVp-p                                             | 100mVp-p     |
|                                  | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3.0 ~ 3.6V                                                                                                              | 4.5 ~ 5.5V                                                                         | 9 ~ 13.2V    | 13.5 ~ 16.5V                                        | 21.6 ~ 28V   |
|                                  | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ±2.0%                                                                                                                   | ±2.0%                                                                              | ±2.0%        | ±2.0%                                               | ±2.0%        |
|                                  | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ±0.5%                                                                                                                   | ±0.5%                                                                              | ±0.5%        | ±0.5%                                               | ±0.5%        |
|                                  | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ±1.5%                                                                                                                   | ±1%                                                                                | ±0.5%        | ±0.5%                                               | ±0.5%        |
|                                  | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 120ms, 85ms at full load                                                                                                |                                                                                    |              |                                                     |              |
|                                  | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | G-type: 8ms@24Vdc input                                                                                                 |                                                                                    |              |                                                     |              |
| EXTERNAL CAPACITANCE LOAD (Max.) | 3300 μ F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3300 μ F                                                                                                                | 1200 μ F                                                                           | 1200 μ F     | 680 μ F                                             |              |
| INPUT                            | VOLTAGE RANGE Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 9 ~ 36Vdc                                                                                                               |                                                                                    |              |                                                     |              |
|                                  | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 84%                                                                                                                     | 84%                                                                                | 85%          | 85%                                                 | 86%          |
|                                  | DC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.8A /24Vdc                                                                                                             |                                                                                    |              |                                                     |              |
|                                  | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 15A /24Vdc                                                                                                              |                                                                                    |              |                                                     |              |
| PROTECTION                       | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 110 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                                                                    |              |                                                     |              |
|                                  | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.8 ~ 4.7V                                                                                                              | 5.75 ~ 7V                                                                          | 13.8 ~ 16.2V | 17.25 ~ 20.25V                                      | 28.8 ~ 32.4V |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Protection type : Shut down o/p voltage, re-power on to recover                                                         |                                                                                    |              |                                                     |              |
|                                  | REVERSE POLARITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | By internal MOSFET, no damage, recovers automatically after fault condition removed                                     |                                                                                    |              |                                                     |              |
|                                  | UNDER VOLTAGE LOCKOUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Power ON≥9V , OFF≤8.5V                                                                                                  |                                                                                    |              |                                                     |              |
| ENVIRONMENT                      | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -40 ~ +85℃ (Refer to "Derating Curve")                                                                                  |                                                                                    |              |                                                     |              |
|                                  | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5 ~ 95% RH non-condensing                                                                                               |                                                                                    |              |                                                     |              |
|                                  | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -40 ~ +85℃, 5 ~ 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            |                                                                                    |              |                                                     |              |
|                                  | OPERATING ALTITUDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5000 meters                                                                                                             |                                                                                    |              |                                                     |              |
| SAFETY & EMC<br>(Note 5)         | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UL 62368-1, IEC 62368-1, AS/NZS 62368.1, EAC TP TC 004 approved                                                         |                                                                                    |              |                                                     |              |
|                                  | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I/P-O/P:4KVdc                                                                                                           |                                                                                    |              |                                                     |              |
|                                  | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | I/P-O/P>100M Ohms / 500Vdc / 25℃/ 70% RH                                                                                |                                                                                    |              |                                                     |              |
|                                  | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Parameter                                                                                                               | Standard                                                                           |              | Test Level / Note                                   |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Conducted                                                                                                               | BS EN/EN55032                                                                      |              | Class B                                             |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Radiated                                                                                                                | BS EN/EN55032                                                                      |              | Class B                                             |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Voltage Flicker                                                                                                         | BS EN/EN61000-3-3                                                                  |              | -----                                               |              |
|                                  | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BS EN/EN55035 , BS EN/EN61000-6-2(BS EN/EN50082-2)                                                                      |                                                                                    |              |                                                     |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Parameter                                                                                                               | Standard                                                                           |              | Test Level / Note                                   |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ESD                                                                                                                     | BS EN/EN61000-4-2                                                                  |              | Level 3, 8KV air ; Level 3, 6KV contact; criteria A |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Radiated                                                                                                                | BS EN/EN61000-4-3                                                                  |              | Level 3, 10V/m ; criteria A                         |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EFT / Burst                                                                                                             | BS EN/EN61000-4-4                                                                  |              | Level 3, 2KV ; criteria A                           |              |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Surge                                                                                                                   | BS EN/EN61000-4-5                                                                  |              | Level 3, 1KV/Line-Line ; 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                                                                                                                    | 3446.2K hrs min. Telcordia SR-332 (Bellcore) ; 907.2K hrs min. MIL-HDBK-217F (25℃) |              |                                                     |              |
|                                  | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 17.5*90*54.5mm (W*H*D)                                                                                                  |                                                                                    |              |                                                     |              |
|                                  | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 68g; 160pcs/12Kg/1.14CUFT                                                                                               |                                                                                    |              |                                                     |              |
| NOTE                             | 1. All parameters NOT specially mentioned are measured at 24VDC input, rated load and 25℃ of ambient temperature.<br>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.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltage. Please check the derating curve for more details.<br>5. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the 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)<br>6. 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).<br>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx |                                                                                                                         |                                                                                    |              |                                                     |              |

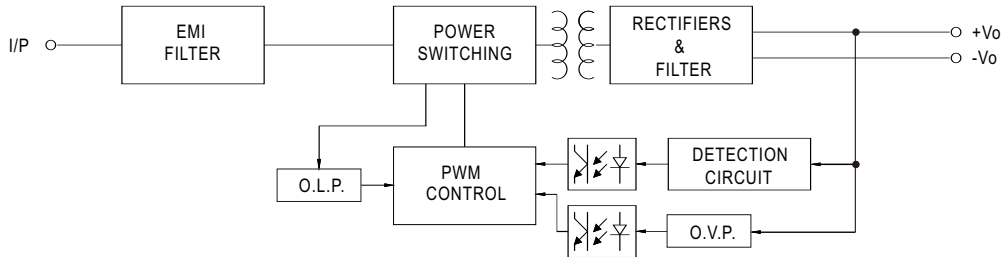


## SPECIFICATION

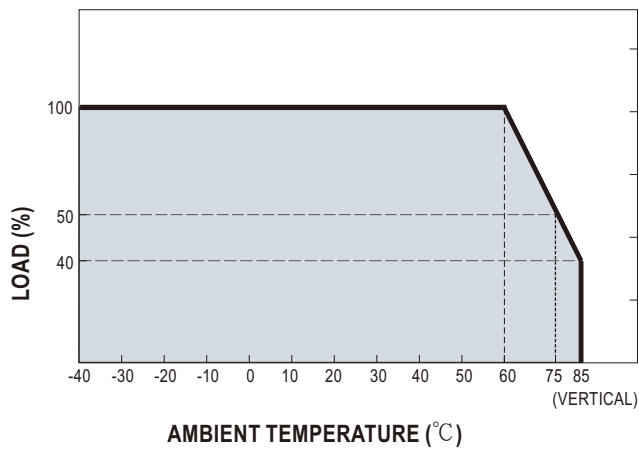
| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DDR-15L-3.3                                                                                                             | DDR-15L-5         | DDR-15L-12                         | DDR-15L-15                                          | DDR-15L-24   |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------|-----------------------------------------------------|--------------|
| OUTPUT                                  | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.3V                                                                                                                    | 5V                | 12V                                | 15V                                                 | 24V          |
|                                         | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.5A                                                                                                                    | 3A                | 1.25A                              | 1A                                                  | 0.63A        |
|                                         | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0 ~ 4.5A                                                                                                                | 0 ~ 3A            | 0 ~ 1.25A                          | 0 ~ 1A                                              | 0 ~ 0.63A    |
|                                         | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15W                                                                                                                     | 15W               | 15W                                | 15W                                                 | 15W          |
|                                         | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50mVp-p                                                                                                                 | 50mVp-p           | 60mVp-p                            | 75mVp-p                                             | 100mVp-p     |
|                                         | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.0 ~ 3.6V                                                                                                              | 4.5 ~ 5.5V        | 9 ~ 13.2V                          | 13.5 ~ 16.5V                                        | 21.6 ~ 28V   |
|                                         | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±2.0%                                                                                                                   | ±2.0%             | ±2.0%                              | ±2.0%                                               | ±2.0%        |
|                                         | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±0.5%                                                                                                                   | ±0.5%             | ±0.5%                              | ±0.5%                                               | ±0.5%        |
|                                         | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±1.5%                                                                                                                   | ±1%               | ±0.5%                              | ±0.5%                                               | ±0.5%        |
|                                         | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120ms, 85ms at full load                                                                                                |                   |                                    |                                                     |              |
|                                         | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | L-type: 16ms@48Vdc input                                                                                                |                   |                                    |                                                     |              |
| EXTERNAL CAPACITANCE LOAD (Max.)        | 3300 $\mu$ F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3300 $\mu$ F                                                                                                            | 1200 $\mu$ F      | 1200 $\mu$ F                       | 680 $\mu$ F                                         |              |
| INPUT                                   | VOLTAGE RANGE <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 18 ~ 75Vdc                                                                                                              |                   |                                    |                                                     |              |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 84%                                                                                                                     | 85%               | 86%                                | 86%                                                 | 87%          |
|                                         | DC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.4A/48Vdc                                                                                                              |                   |                                    |                                                     |              |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 15A/48Vdc                                                                                                               |                   |                                    |                                                     |              |
| PROTECTION                              | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 110 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                   |                                    |                                                     |              |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3.8 ~ 4.7V                                                                                                              | 5.75 ~ 7V         | 13.8 ~ 16.2V                       | 17.25 ~ 20.25V                                      | 28.8 ~ 32.4V |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Protection type : Shut down o/p voltage, re-power on to recover                                                         |                   |                                    |                                                     |              |
|                                         | REVERSE POLARITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | By internal MOSFET, no damage, recovers automatically after fault condition removed                                     |                   |                                    |                                                     |              |
|                                         | UNDER VOLTAGE LOCKOUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Power ON≥18V , OFF≤17V                                                                                                  |                   |                                    |                                                     |              |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -40 ~ +85°C (Refer to "Derating Curve")                                                                                 |                   |                                    |                                                     |              |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5 ~ 95% RH non-condensing                                                                                               |                   |                                    |                                                     |              |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -40 ~ +85°C, 5 ~ 95% RH non-condensing                                                                                  |                   |                                    |                                                     |              |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±0.03%/°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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2000 meters                                                                                                             |                   |                                    |                                                     |              |
| SAFETY & EMC<br><small>(Note 5)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IEC 62368-1 (LVD) ,AS/NZS 62368.1 approved; Design refer to UL508                                                       |                   |                                    |                                                     |              |
|                                         | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P:4KVdc                                                                                                           |                   |                                    |                                                     |              |
|                                         | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I/P-O/P>100M Ohms / 500Vdc / 25°C / 70% RH                                                                              |                   |                                    |                                                     |              |
|                                         | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Parameter                                                                                                               | Standard          |                                    | Test Level / Note                                   |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Conducted                                                                                                               | BS EN/EN55032     |                                    | Class B                                             |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Radiated                                                                                                                | BS EN/EN55032     |                                    | Class B                                             |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Voltage Flicker                                                                                                         | BS EN/EN61000-3-3 |                                    | -----                                               |              |
|                                         | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BS EN/EN55035 , BS EN/EN61000-6-2(BS EN/EN50082-2)                                                                      |                   |                                    |                                                     |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Parameter                                                                                                               | Standard          |                                    | Test Level / Note                                   |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ESD                                                                                                                     | BS EN/EN61000-4-2 |                                    | Level 3, 8KV air ; Level 3, 6KV contact; criteria A |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Radiated                                                                                                                | BS EN/EN61000-4-3 |                                    | Level 3, 10V/m ; criteria A                         |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EFT / Burst                                                                                                             | BS EN/EN61000-4-4 |                                    | Level 3, 2KV ; criteria A                           |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Surge                                                                                                                   | BS EN/EN61000-4-5 |                                    | Level 3, 1KV/Line-Line ; 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              | 907K hrs min. MIL-HDBK-217F (25°C) |                                                     |              |
| DIMENSION                               | 17.5*90*54.5mm (W*H*D)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                         |                   |                                    |                                                     |              |
| PACKING                                 | 68g; 160pcs/12Kg/1.19CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                         |                   |                                    |                                                     |              |
| NOTE                                    | 1. All parameters NOT specially mentioned are measured at 48VDC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 $\mu$ f & 47 $\mu$ f parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltage. Please check the derating curve for more details.<br>5. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<br>6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>※ 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

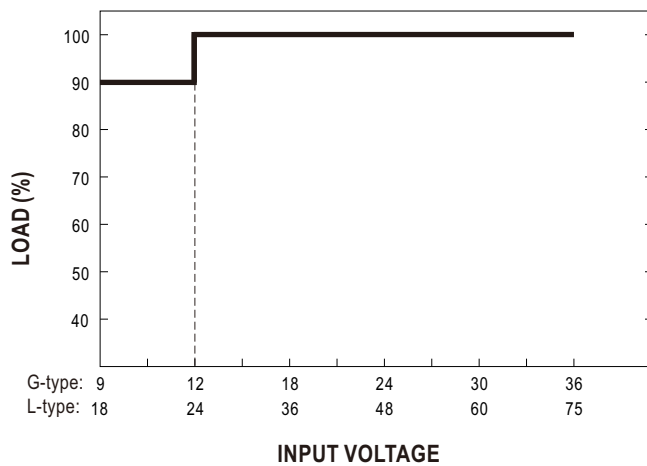
fosc : 100KHz



## Derating Curve

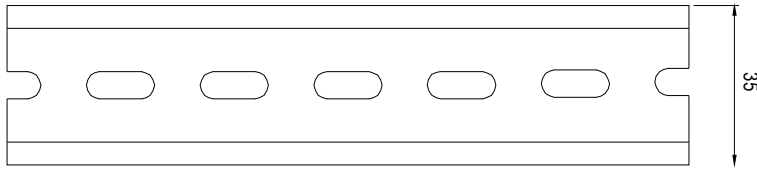
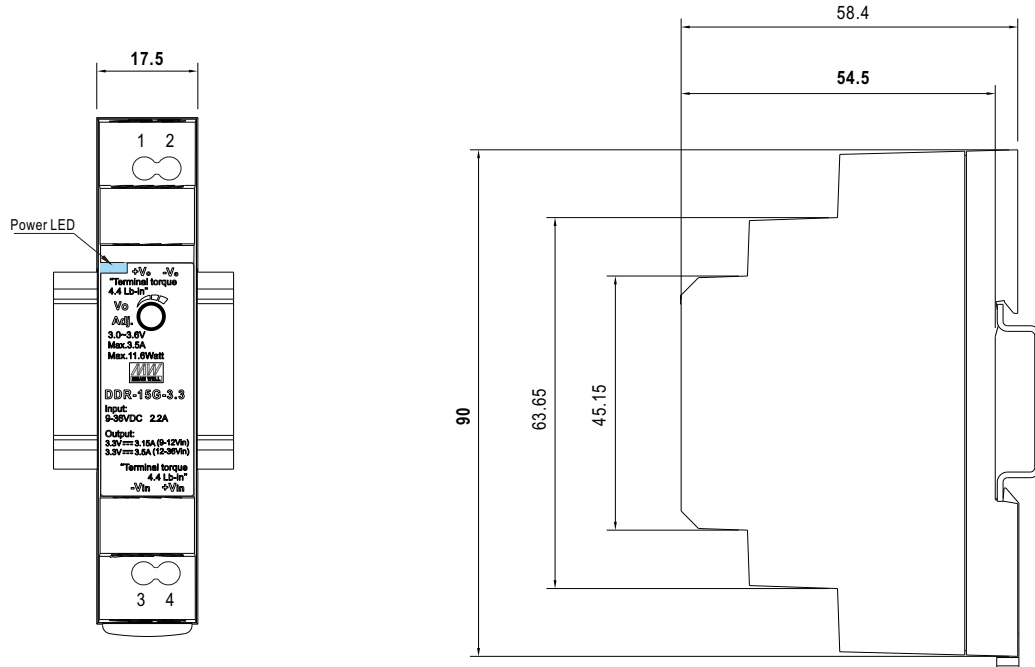


## Output derating VS input voltage



## Mechanical Specification

(Unit: mm , tolerance  $\pm 0.5\text{mm}$ )



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

### Terminal Pin No. Assignment

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

## Installation Manual

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