

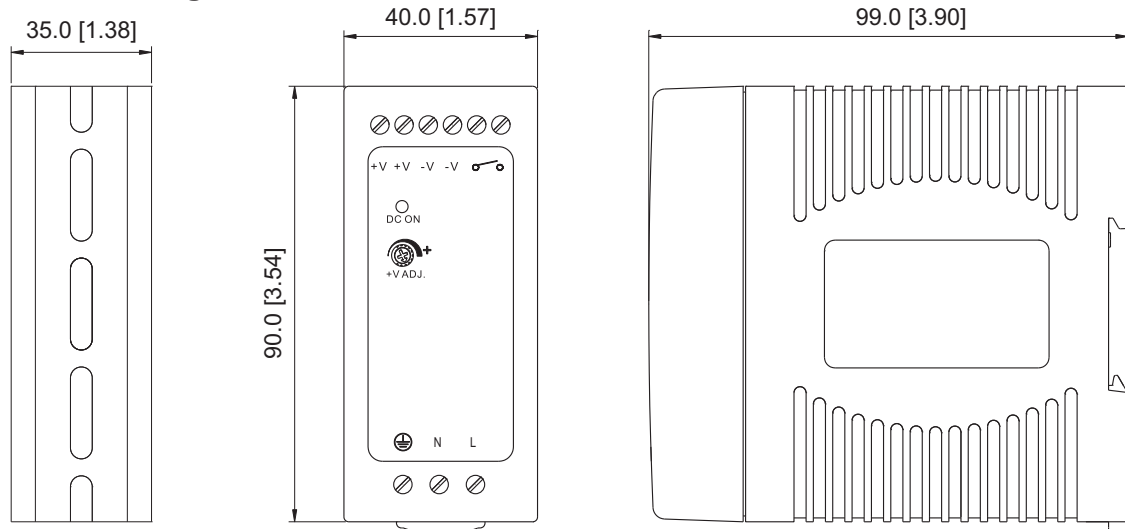
**Features:**

- Universal AC input / Full range
- Installed on DIN rail TS-35 / 7.5 or 15
- Brown-out protection
- Protection: SCP, OLP, OVP
- High operation temperature up to 70°C
- True DC OK signal output
- Withstand 2G vibration test
- UL 508 (Industrial control equipment) listed
- UL 1310 Class 2 Power unit / LPS pass



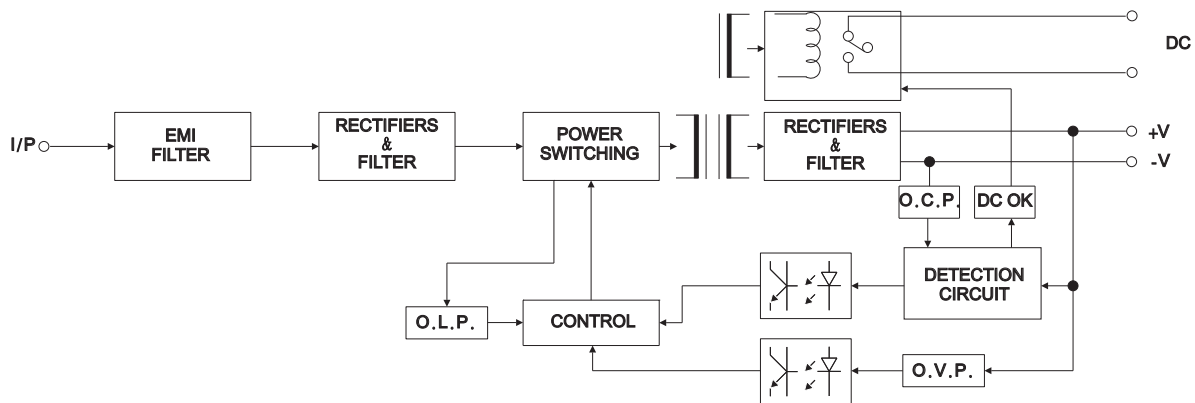
| MODEL        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DN-40-12                                                                                                                      |                                                                                | DN-40-15     | DN-40-24     | DN-40-48     |          |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------|--------------|--------------|----------|
| Output       | DC Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12V                                                                                                                           |                                                                                | 15V          | 24V          | 48V          |          |
|              | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.4A                                                                                                                          |                                                                                | 2.7A         | 1.7A         | 0.85A        |          |
|              | Current Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 ~ 3.4A                                                                                                                      |                                                                                | 0 ~ 2.7A     | 0 ~ 1.7A     | 0 ~ 0.85A    |          |
|              | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 40.8W                                                                                                                         |                                                                                | 40.5W        | 40.8W        | 40.8W        |          |
|              | Ripple & Noise (Max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Note.2                                                                                                                        | 100mVp-p                                                                       |              | 100mVp-p     | 120mVp-p     | 180mVp-p |
|              | Voltage Adj. Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.8 ~ 13.2V                                                                                                                  |                                                                                | 13.5 ~ 16.5V | 21.6 ~ 26.4V | 43.2 ~ 52.8V |          |
|              | Voltage Tolerance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Note.3                                                                                                                        | ±1%                                                                            |              | ±1%          | ±1%          | ±1%      |
|              | Line Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±1%                                                                                                                           |                                                                                | ±1%          | ±1%          | ±1%          |          |
|              | Load Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±1%                                                                                                                           |                                                                                | ±1%          | ±1%          | ±1%          |          |
|              | Setup, Rise Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | < 800ms, < 50ms / 230VAC at full load                                                                                         |                                                                                |              |              |              |          |
|              | Hold Up Time (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | > 32ms / 230VAC, >16ms / 115VAC at full load                                                                                  |                                                                                |              |              |              |          |
| Input        | Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Note.4                                                                                                                        | 88 ~ 264VAC, 124 ~ 370VDC                                                      |              |              |              |          |
|              | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 47 ~ 63Hz                                                                                                                     |                                                                                |              |              |              |          |
|              | Efficiency (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 84%                                                                                                                           |                                                                                | 84%          | 84%          | 85%          |          |
|              | AC Current (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.8 A / 115VAC, 0.4A / 230VAC                                                                                                 |                                                                                |              |              |              |          |
|              | Inrush Current (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COLD START 30A / 115VAC, 60A / 230VAC                                                                                         |                                                                                |              |              |              |          |
|              | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | < 1mA / 230VAC                                                                                                                |                                                                                |              |              |              |          |
| Protection   | Over Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | > 105% rated output power<br>Protection type: constant current limit, recovers automatically after fault condition is removed |                                                                                |              |              |              |          |
|              | Over Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 115 ~ 150% rated output voltage<br>Protection type: latch-off mode                                                            |                                                                                |              |              |              |          |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                               |                                                                                |              |              |              |          |
| Environment  | Working Temp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -20 ~ +70°C (Refer to de-rating curve)                                                                                        |                                                                                |              |              |              |          |
|              | Working Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20 ~ 90% RH non-condensing                                                                                                    |                                                                                |              |              |              |          |
|              | Storage Temp. & Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -40 ~ +85°C, 10 ~ 95% RH                                                                                                      |                                                                                |              |              |              |          |
|              | Temp. Coefficient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±0.03% / °C (0 ~ 50°C)                                                                                                        |                                                                                |              |              |              |          |
|              | Vibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10 ~ 500Hz, 2G 10min. / 1cycle, period for 60min. Each along X, Y, Z axes                                                     |                                                                                |              |              |              |          |
| Safety & EMC | Safety Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Certified UL 508; EN 60950-1; UL 1310 Class 2 Power Supply                                                                    |                                                                                |              |              |              |          |
|              | Withstand Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC)                                                 |                                                                                |              |              |              |          |
|              | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC                                                                                   |                                                                                |              |              |              |          |
|              | EMI Conduction & Radiation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Certified EN 55022; EN 61000-6-3                                                                                              |                                                                                |              |              |              |          |
|              | Power Harmonic & Voltage Fluctuation and Flicker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Certified EN 61000-3-2; EN 61000-3-3                                                                                          |                                                                                |              |              |              |          |
|              | Note.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EMS Immunity                                                                                                                  | Certified EN 61204-3; EN 55024; EN 61000-6-1; IEC 61000-4-2, 3, 4, 5, 6, 8, 11 |              |              |              |          |
| Others       | DC OK signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Relay contact (30VDC / 1A, 120VAC / 1A)                                                                                       |                                                                                |              |              |              |          |
|              | Connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | I/P: 3 poles, O/P: 6 poles screw terminal                                                                                     |                                                                                |              |              |              |          |
|              | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 410K HRS Certified MIL-HDBK-217F                                                                                              |                                                                                |              |              |              |          |
|              | Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Air convection                                                                                                                |                                                                                |              |              |              |          |
|              | Dimension (WxHxD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 40.0x90.0x99.0 mm / 1.57x3.54x3.90 inch                                                                                       |                                                                                |              |              |              |          |
|              | Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.29kg; 27pcs / 8.83kg / 0.6CUFT                                                                                              |                                                                                |              |              |              |          |
| Note         | 1. All parameters NOT specially mentioned are measured at 230VAC 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 0.1uF & 47uF parallel capacitor.<br>3. Tolerance: includes setup time tolerance, line regulation and load regulation.<br>4. De-rating may apply in low input voltage. Please check the de-rating curve for more details.<br>5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |                                                                                                                               |                                                                                |              |              |              |          |

### Mechanical Drawings:



install DIN rail TS-35 / 7.5 or TS-35 / 15

### Block Diagram:



### DC OK Relay Contact:

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| Contact Close          | When the output voltage reaches the adjusted output voltage |
| Contact Open           | When the output voltage drop below 90% rated output voltage |
| Contact Ratings (max.) | 30V / 1A resistive load                                     |

### De-rating Curve:

