

DMV-80D-24 series

80W PWM output LED Power supply with dimming 2 in 1 function



■ Features:

- Constant voltage PWM style output (330Hz)
- Built-in active PFC function
- Universal AC input / Full range
- Protections: Short circuit / Over current / Over voltage
- Built-in 2 in 1 dimming function (voltage / resistance)
- Cooling by free air convection
- Class 2 power unit
- IP54 design

IP54 Class 2

ELECTRICAL SPECIFICATION

| MODEL | DMV-80D-24 |
|----------------------------------|--|
| OUTPUT | |
| RATED VOLTAGE | 24V |
| RATED CURRENT | 3.3A |
| RATED POWER | 80W |
| TOLERANCE [3] | ± 5% |
| FREQUENCY (typ.) | 330Hz |
| RIPPLE & NOISE (max.) [2] | 300mV _{p-p} |
| INPUT | |
| VOLTAGE RANGE | 90 ÷ 277VAC; 127 ÷ 390VDC |
| FREQUENCY RANGE | 47 ÷ 63Hz |
| EFFICIENCY (typ.) | 85% |
| AC CURRENT (typ.) | 1.1A/115VAC, 0.6A / 230VAC |
| POWER FACTOR | PF > 0.9 / 230VAC; PF > 0.9 / 115VAC at full load |
| PROTECTIONS | |
| OVER CURRENT | Range: 95 ÷ 120% rated current |
| | Type: shut down output voltage. Re-power on to recovery. |
| SHORT CIRCUIT | Type: hiccup mode, auto-recovery. |
| OVER VOLTAGE | Max. 32V |
| | Type: shut down output voltage. Re-power on to recovery. |
| WORKING ENVIRONMENT | |
| WORKING TEMPERATURE | -30°C ÷ 60°C |
| WORKING HUMIDITY | 20 ÷ 95% RH non-condensing |
| STORAGE TEMPERATURE AND HUMIDITY | -40°C ÷ 80°C, 10 ÷ 95% RH non-condensing |

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SAFETY AND EMC REGULATIONS

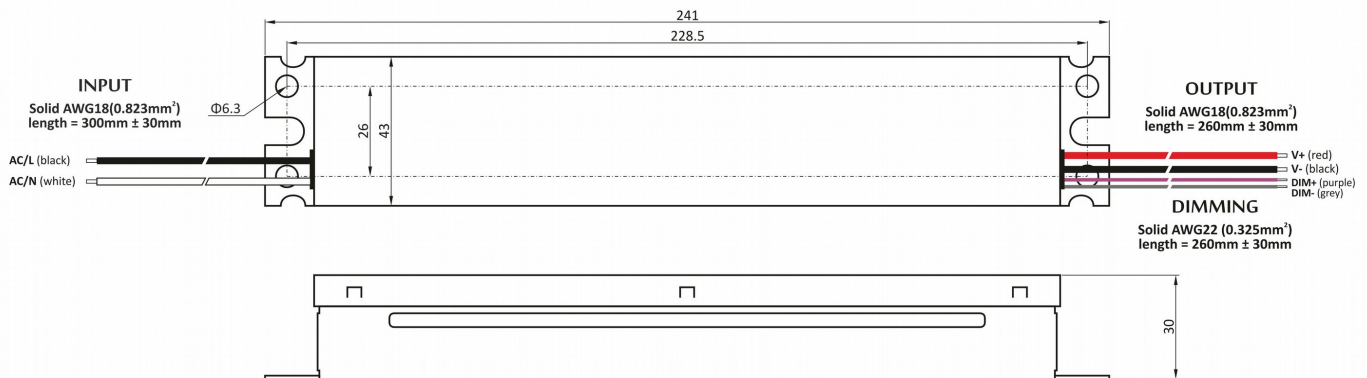
| | |
|-----------------------------|--|
| SAFETY STANDARDS | Compliance to EN 61347-1, EN 61347-2-13, UL 8750 |
| WITHSTAND VOLTAGE | I-P/O-P: 3.75kVAC; I-P/GND: 1.5kVAC; O-P/GND: 0.5kVAC |
| ISOLATION RESISTANCE | I-P/O-P, I-P/GND, O-P/GND: 100MΩ/500VDC/25°C/70% |
| EMC EMISSION | Compliance to EN 55015 |
| EMC IMMUNITY | Compliance to EN 61547; IEC 61000-4-2, -3, -4, -5, -6, -8, -11 |
| HARMONIC CURRENT | Compliance z EN61000-3-3; EN61000-3-2 class C |

OTHERS

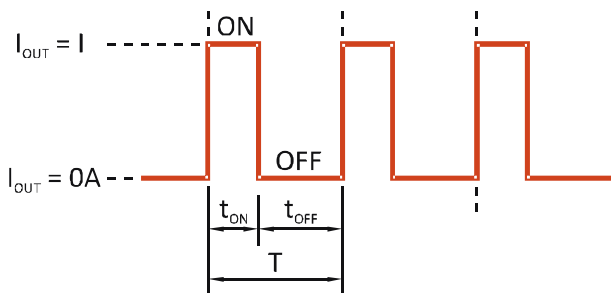
| | |
|-------------------|------------------------------------|
| LIFETIME | 50 000 h (40°C) |
| MTBF | 975 000 h, Telcordia SR-332 (40°C) |
| DIMENSIONS | 241 x 43 x 30mm (L x W x H) |
| WEIGHT | 0.62kg |

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF i 47μF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. Power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment must be re-qualify to comply with EMC Directives.

MECHANICAL SPECIFICATION



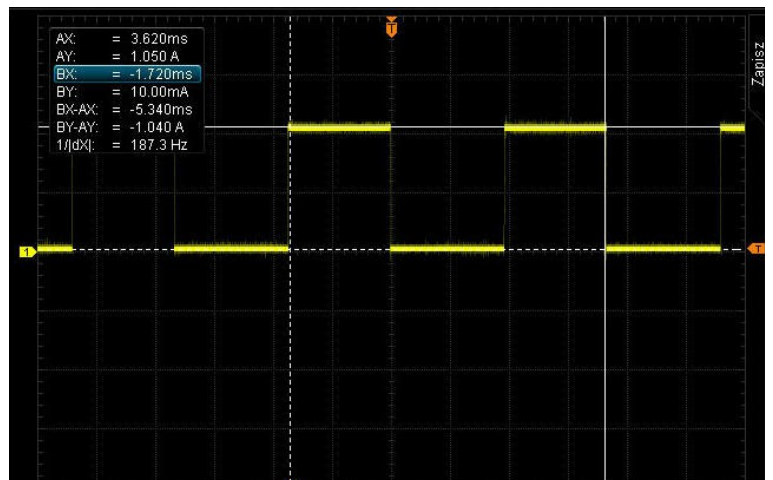
PWM STYLE OUTPUT



$$t_{ON} + t_{OFF} = T$$

$$\frac{t_{ON}}{T} \times 100\% = d \rightarrow \text{Duty Cycle(\%)}$$

$$\frac{1}{T} = f = 330\text{Hz} \rightarrow \text{PWM frequency}$$



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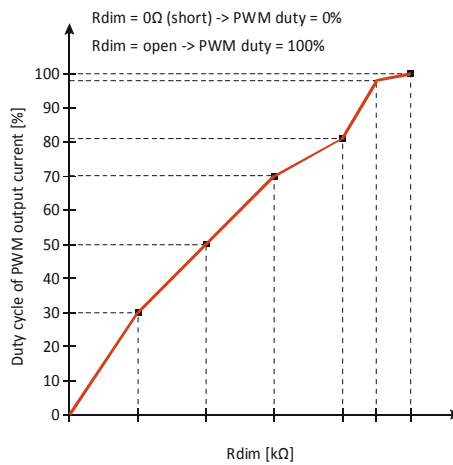
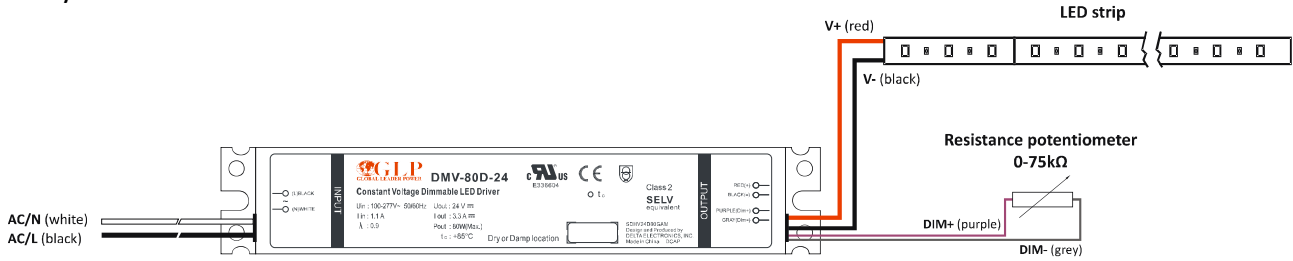
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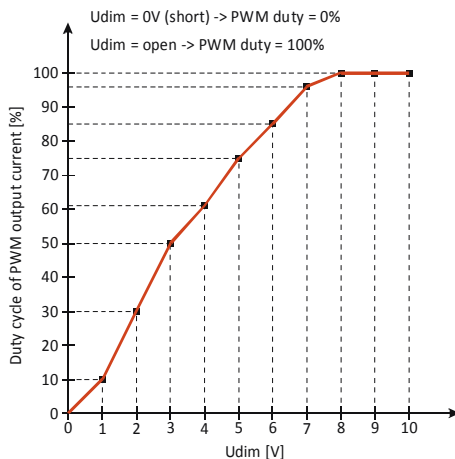
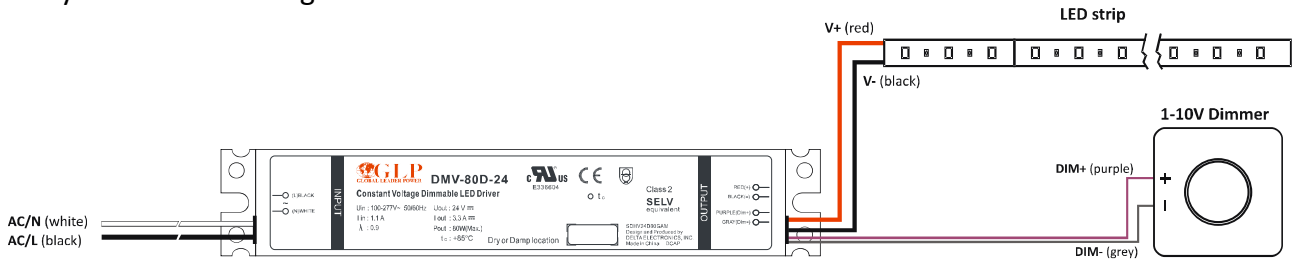
DIMMING FUNCTION

For use dimming function connect dimmer to DIM+ and DIM- terminals. Dimming effect is achieved by changing duty of output PWM style in 0%÷100% range. You can use dimming function by one of two ways:

1. By variable resistance $0k\Omega \div 75k\Omega$.



2. By variable DC voltage $1\div 10V$.



| Compatible dimmers |
|-----------------------|
| • OSRAM DIM MCU |
| • BERKER 2891 10 |
| • Other 1-10V dimmers |