

DMVL-100 series

100W Single Output Switching Power Supply(CV+CC) with PFC Function



■ Features:

- Constant voltage design
- Built-in active PFC function, PFC > 0.9
- Universal AC input / Full range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Class 2 power unit, Isolation class II
- IP54 design

IP54 Class 2

ELECTRICAL SPECIFICATION

MODEL	DMVL-100-24
OUTPUT	
DC VOLTAGE	24V
RATED CURRENT	4.1A
RATED POWER	100W
LINE REGULATION	± 1%
LOAD REGULATION	± 3%
VOLTAGE TOLERANCE [3]	± 5%
RIPPLE & NOISE (max.) [2]	720mV _{p-p}
SETUP, RISE, HOLD UP TIME [5]	<500ms, 50ms, 10ms
INPUT	
VOLTAGE RANGE	90 ÷ 305VAC; 127 ÷ 430VDC
FREQUENCY RANGE	47 ÷ 63Hz
EFFICIENCY (typ.)	87%
AC CURRENT (typ.)	1.4A/115VAC, 0.7A / 230VAC
POWER FACTOR	PF > 0.9 / 230VAC; PF > 0.9 / 115VAC at full load
INRUSH CURRENT (max.)	<120A / 230VAC(25°C)
PROTECTIONS	
OVER CURRENT	Range: 100 ÷ 120% rated current
	Type: U _{out} = 15 ÷ 24V: constant current limiting; U _{out} < 15V: hiccup mode, auto-recovery.
SHORT CIRCUIT	Type: hiccup mode, auto-recovery.
OVER VOLTAGE	Max. 35V
	Type: hiccup mode, auto-recovery.
OVER TEMPERATURE	Range: 110°C ± 5°C
	Type: shut down output voltage. Recovers automatically after temperature goes down.

DMVL-100 series

100W Single Output Switching Power Supply(CV+CC) with PFC Function



WORKING ENVIRONMENT

WORKING TEMPERATURE	-25°C ÷ 55°C
WORKING HUMIDITY	20 ÷ 95% RH non-condensing
STORAGE TEMPERATURE AND HUMIDITY	-40°C ÷ 80°C, 10 ÷ 95% RH non-condensing

SAFETY AND EMC REGULATIONS

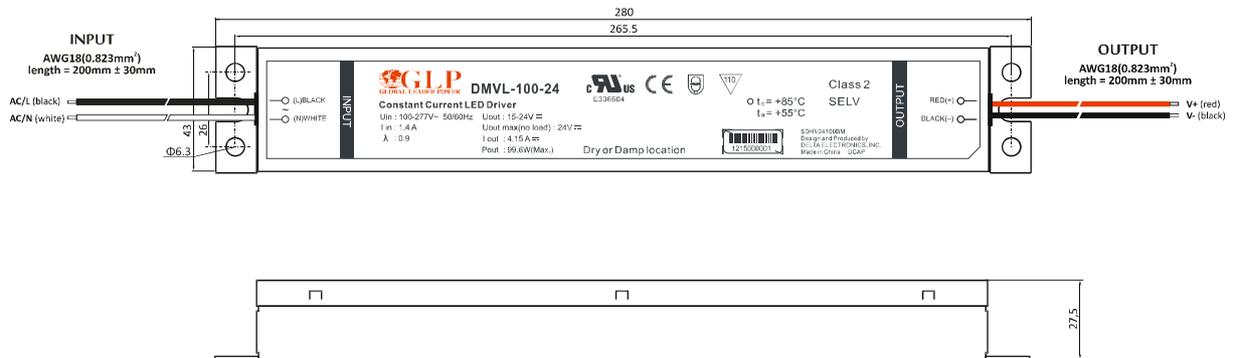
SAFETY STANDARDS	Compliance to EN 61347-1, EN 61347-2-13, UL 8750
WITHSTAND VOLTAGE	I-P/O-P: 3.75kVAC; I-P/GND: 1.5kVAC; O-P/GND: 0.5kVAC
ISOLATION RESISTANCE	I-P/O-P, I-P/GND, O-P/GND: 100MΩ/500VDC/25°C/70%
EMC EMISSION	Compliance to EN 55015
EMC IMMUNITY	Compliance to EN 61547; IEC 61000-4-2, -3, -4, -5, -6, -8, -11
HARMONIC CURRENT	Compliance z EN61000-3-3; EN61000-3-2 class C (≥ 50% load)

OTHERS

MTBF	975 000 h, Telcordia SR-332 (40°C)
DIMENSIONS	280 x 43 x 27mm (L x W x H)
WEIGHT	0.63 kg

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.
5. Setup and rise time is measured from 0 to 90% rated output voltage.
6. 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



CONSTANT VOLTAGE + CONSTANT CURRENT MODE OPERATION

