

MCHQ150 series

150W Constant Voltage Single Output LED Power Supply



■ Features:

- Universal AC Input / Full Range
- Protections: Short circuit / Over load / Overvoltage / Over temperature
- Cooling by free air convection
- Built-in active PFC function
- IP67 design for indoor and outdoor applications
- Compliance to worldwide safety regulations for lighting



ELECTRICAL SPECIFICATION

MODEL	MCHQ150V12	MCHQ150V24	MCHQ150V36	MCHQ150V48
OUTPUT				
RATED VOLTAGE	12V	24V	36V	48V
RATED CURRENT	12.5A	6.25A	4.17A	3.12A
POWER RANGE	1 ÷ 150W			
RATED POWER	150W			
LINE REGULATION	± 1%			
LOAD REGULATION	± 1%			
VOLTAGE TOLERANCE [3]	11.4 ÷ 12.6V	22.8 ÷ 25.2V	34.5 ÷ 37.5V	46 ÷ 50V
RIPPLE & NOISE (max.) [2]	440mV _{p-p}	680mV _{p-p}	1000mV _{p-p}	1500mV _{p-p}
SETUP, RISE TIME [4]	3000ms, 80ms / 115VAC			
HOLD UP TIME (typ.)	10ms / 115VAC, 30ms / 230VAC at full load			
INPUT				
VOLTAGE RANGE	90 ÷ 264VAC			
FREQUENCY RANGE	47 ÷ 63Hz			
POWER FACTOR (typ.)	PF > 0.98 / 115VAC, PF > 0.95 / 230VAC at full load			
EFFICIENT (typ.)	90%	92%	93%	93%
AC CURRENT (typ.)	1.6A/115VAC, 0.8A / 230VAC			
INRUSH CURRENT (typ.)	75A / 230VAC(25°C)			
LEAKAGE CURRENT (max.)	1mA / 230VAC			
PROTECTIONS				
OVER CURRENT	Range: 110 ÷ 160% rated current			
	Type: Constant current limiting, auto-recovery.			
SHORT CIRCUIT	Type: hiccup mode, auto-recovery.			
OVER VOLTAGE	14 ÷ 20V	28 ÷ 36V	42 ÷ 55V	56 ÷ 72V
	Type: shut down output voltage, re-power on to recovery.			
OVER TEMPERATURE	Range: 110°C ± 10°C			
	Type: shut down output voltage, re-power on to recovery.			

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ENVIRONMENT

WORKING TEMPERATURE	-20°C ÷ 45°C
WORKING HUMIDITY	20 ÷ 98% RH non-condensing
STORAGE TEMPERATURE AND HUMIDITY	-30°C ÷ 70°C, 10 ÷ 98% RH non-condensing
TEMPERATURE COEFFICIENT	± 0.05% / °C (-20°C ÷ 45°C)
VIBRATION	10 ÷ 500Hz, 5G, 12min / cycle, period for 30min. each along X, Y, Z axes
IP PROTECTION	IP67

SAFETY & EMC REGULATIONS

SAFETY STANDARDS	Compliance to EN61347-1, EN61347-2-13 (TUV Certificate No. R 50199045)
WITHSTAND VOLTAGE	I-P/O-P: 5.3kVDC/1min; I-P/FG: 2.7kVDC/1min; O-P/FG: 0.7kVDC/1min
ISOLATION RESISTANCE	I-P/O-P; O-P/FG; I-P/FG: 50MΩ/500VDC/25°C/70%
EMC EMISSION	Compliance to EN55015 (TUV Certificate No. CC 50217070)
EMC IMMUNITY	Compliance to EN61547; EN55024; EN61000-4-2, -3, -4, -5, -6, -8, -11 (TUV Certificate No. CC 50217070)
HARMONIC CURRENT	Compliance to EN61000-3-3; EN61000-3-2 class C(100% load), (TUV Certificate No. CC 50217070)

OTHERS

MTBF	352 000 hrs MIL-HDBK-217F (25°C)
DIMENSIONS	217 x 67 x 42mm
WEIGHT AND PACKING	1.1kg; 15pcs./box; box weight and dimensions: 17.8kg, 24 x 26 x 27.8cm

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. Setup and rise time is measured from 0 to 90% rated output voltage.
5. 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-qualified to comply with EMC Directives.

MECHANICAL SPECIFICATION

