MTS050-□F Series

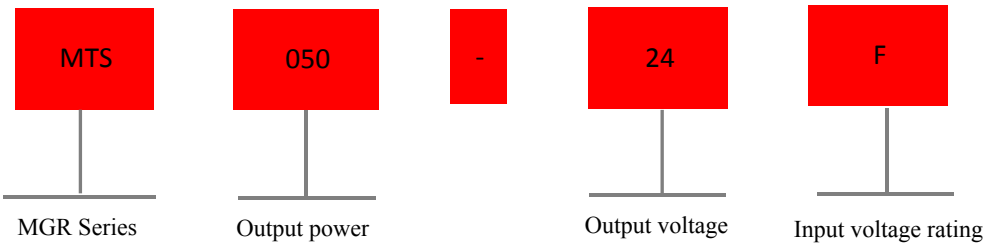
▲ Features

No load power consumption＜0.2W
Withstand 300VAC surge input for 5 second
Miniature size and 1U low profile
High operating temperature up to 70℃
Protections:short circuit/overload/over voltage
Universal AC input /Full range
Withstand 5G vibration test
High effciency,long life and high reliability
Cooling by free air convection
Operating altitude up to 5000meters
LED indicator for power on
100% full load burn-in test
3 years warranty

▲ Applications

Industrial automation control system
Intelligent control system
Electronic instruments and devices
LED control
Household appliances

▲ Model code



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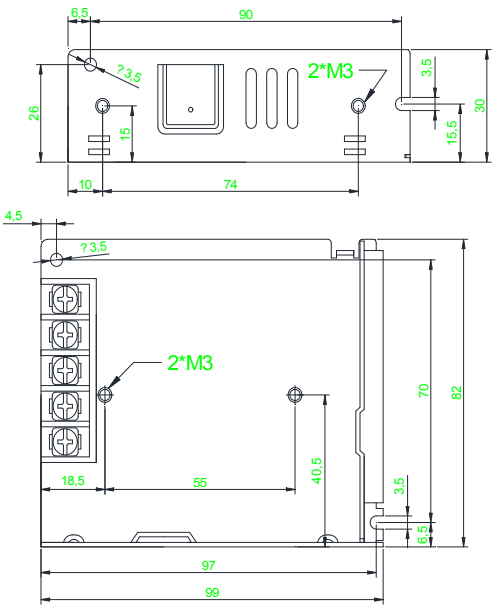
Electrical specifications

Input parameter							
Voltage range	85-264VAC 120-373VDC						
AC current	0.95A/115VAC 0.56A/230VAC						
Frequency range	47-63Hz						
Inrush current (max)	45A/230VAC						
Output parameter							
DC voltage (V)	3.3	5V	12V	15V	24V	36V	48V
Efficiency	80%	83%	86%	88%	88%	89%	90%
Voltage adj.range	±10%						
Rated Current (A)	10A	10A	4.2A	3.4A	2.2A	1.45A	1.1A
Rated power(W)	33W	50W	50.4W	51W	52.8W	52.2W	52.8W
Ripple & noise(max)Note.2	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
Voltage tolerange Note.3	±3%	±2%	±1%	±1%	±1%	±1%	±1%
Line regulation Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load regulation Note.5	±2%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Setup，rise time	1000ms 30ms/230VAC 2000ms 30ms/115VAC(at full load)						
Hold up time	20ms/230VAC 16ms/115VAC(at full load)						
Status indicator	Green LED						
Protect function							
Overload	The rated output power is 110%-150%						
	Protection mode: Hiccup mode, recovers automatically after fault condition is removed						
Over voltage(V)	3.8-4.45V	5.9-7.3V	13.8-16.2V	18.75-21.75V	28.8-33.6V	41.4-48.6V	55.2-64.8V
	Protection mode:Hiccup mode, recovers automatically after fault condition is removed						
Safety and electromagnetic compatibility							
Withstand voltage	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC						
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG :100M Ohms/500VDC/25℃/70％RH						
Safety specification	60950-1、GB4943.1						
EMC emission	Design Reference EN55022(CISPR22)Class B,EN61000-3-2,-3						
EMC immunity	Design Reference EN61000-4-2，3，4，5，6，8，11，EN61000-6-1, light industry level, criteria A						
Environmental parameters							
Working temperature	- 25～+70 ℃ （Refer to "Derating curve "）						
Storage temperature	- 40～+85℃						
Storage humidity	10-95％RH						
Vibration	10-500Hz,2G 10 min/cycle X,Y,Z axis 60 minutes.						
The other parameters							
Mean time between failure	645K hrs min MIL-HDBK-217F(25℃)						
Installation	Back-mounted						
Protection class	IP20						
Weight	0.2kg						
Length*width*height	99*82*30						

Order data	**Parameters to describes**	**Order type**
	MTS 33.0W 10A/3.3V	MTS050-03F
	MTS 50.0W 10A/5V	MTS050-05F
	MTS 50.4W 4.2A/12V	MTS050-12F
	MTS 51.0W 3.4A/15V	MTS050-15F
	MTS 52.8W 2.2A/24V	MTS050-24F
	MTS 52.2W 1.45A/36V	MTS050-36F
	MTS 52.8W 1.1A/48V	MTS050-48F

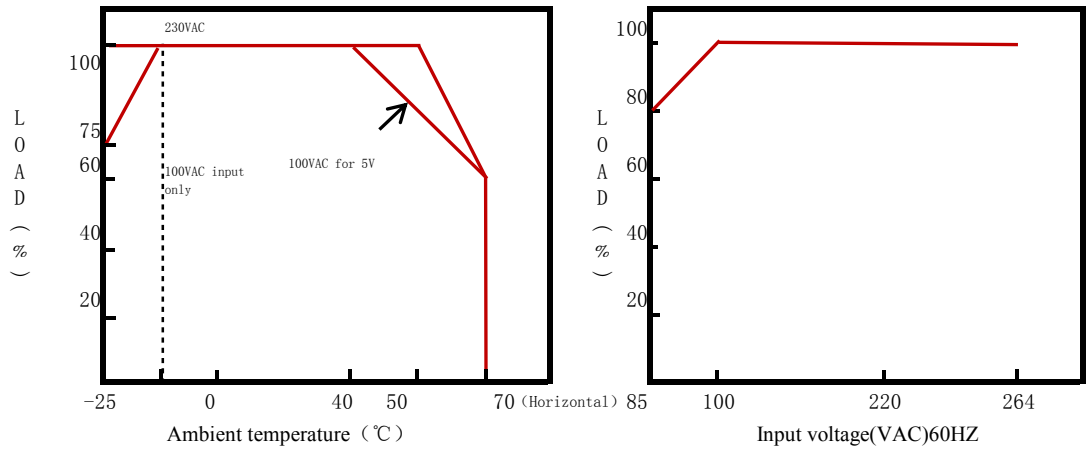
Installation diagram



Installation Instructions

Terminal spec	U Type of the width of the terminal	Wire installation specification	Max. Torque
9S Terminals	8mm MAX	22-12AWG	1.2N.m(MAX)

Derating curve



Note:

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 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Line regulation is measured from low line to high line at rated load.
5. Load regulation is measured from 0% to 100% rated load.
6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set uptime.
7. 3.3V,5V when the load factor 0-50%,the switching power less is reduced by burst operation,which will cause ripple and ripple noise to go beyond the specifications.
8. The ambient temperature derating of 5 ℃/1000m is needed for operating altitude greater than 2000m(6500ft).