

Product Feature

1. Full range AC voltage input
2. Small size, ultra-thin type, thickness 30mm
3. No-load power consumption <0.2W
4. Protection type: Output short circuit/over load/over voltage
5. Natural air cooling
6. Complies with IEC/BS EN/EN60335-1(PD3) and IEC/BS EN/EN61558-1,2-16
7. It can be operated at an altitude of 5000m
8. High efficiency, long life and high reliability
9. Power start LED indication
10. Overvoltage level III
11. 100% full load aging test



3 years
Warranty

230g/Typ.

Describe

The EN-50 series is a full-range 85V-264V AC input, with 5V, 12V, 15V, 24V, 36V and 48V outputs available throughout the series. With 30mm ultra-thin design, single output closed switching power supply.

In addition to the efficiency of more than 87%, the design of the metal mesh housing enhances the heat dissipation capacity, so that the EN-50 series products can operate in the temperature range of -30°C~+70°C without a fan. Provides ultra-low no-load power consumption (less than 0.2W), making it easy for the end system to meet international energy requirements. The EN-50 is fully protected and complies with international safety regulations IEC/BS EN/EN60335-1(PD3) and IEC/BS EN/EN 61558-1,2-16, UL62368-1 and GB4943.

The EN-50 series provides a cost-effective solution for a wide range of industrial applications.

Application areas

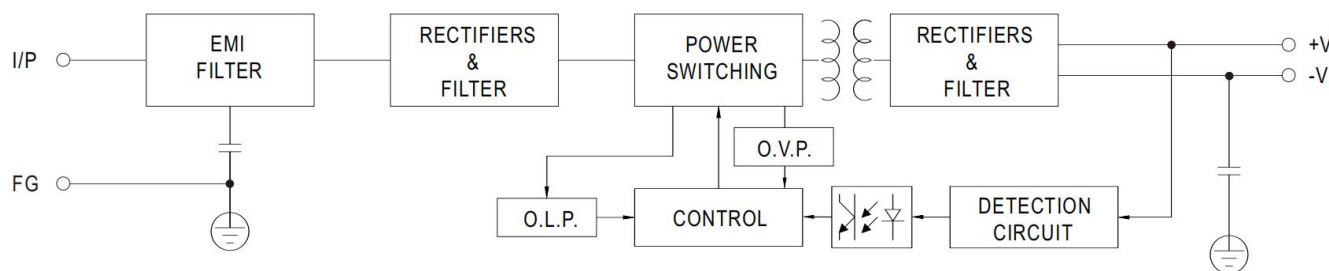
- Industrial automation machinery
- Mechanical and electrical equipment
- Industrial control system
- Electronic instruments and equipment

Electrical Specifications

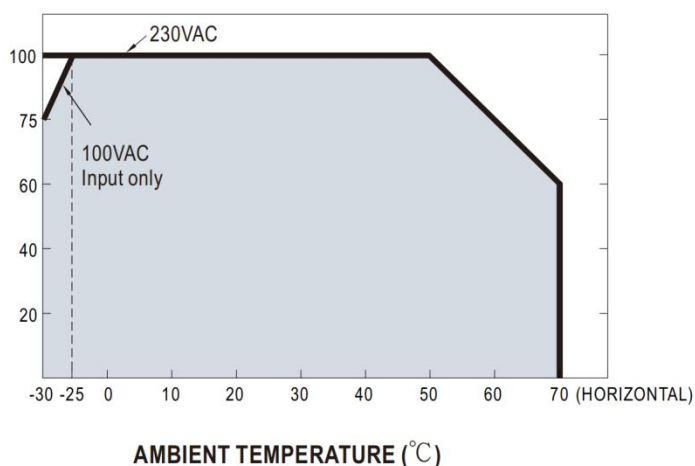
Model number	EN-50-05	EN-50-12	EN-50-15	EN-50-24	EN-50-36	EN-50-48
DC output	5V	12V	15V	24V	36V	48V
Current	10A	4.2A	3.3A	2.2A	1.45A	1.1A
Current range	0-10A	0-4.2A	0-3.3A	0-2.2A	0-1.45A	0-1.1A
Rated power	50W	50W	50W	50W	50W	50W
Ripple and Noise(Max)(20MHZ)	80mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
Voltage adjustment range	4.5-5.5V	10.2-13.8V	13.5-18V	21.6-28.8V	32.4-39.6V	43.2-52.8V
Voltage accuracy	±2%	±1%	±1%	±1%	±1%	±1%
Linear adjustment rate	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load adjustment rate	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Start/rise time	1000ms,30ms/240VAC 2000ms,30ms/100VAC at full load					
Holding time(Typ.)	30ms/230VAC 12ms/115VAC at full load					
Input voltage range	AC 85V-264V DC 120V-373V					
Frequency range	47-63Hz					
Efficiency	81%	85%	85%	86%	86%	87%
Input current	0.95A typ.@115V	0.56A typ.@230V				

Surge current (cold start)	45A typ.@230V					
Leakage current	<0.75mA @240V					
Overload protection	110-150% of rated output power					
	Protected mode:hiccup mode.the converter should re-work after fault disappear					
Overvoltage protection	5.75-6.9V	13.8-16.2V	18.7-21.7V	28.8-33.6V	41.4-48.6V	55.2-64.8V
	Protected mode:hiccup mode.the converter should re-work after fault disappear					
Short circuit protection	Output terminal short circuit					
	Protected mode:hiccup mode.the converter should re-work after fault disappear					
Operating temperature/humidity	-30°C-+70°C/20-90%RH,No condensation (see "Derating curve")					
Storage temperature/humidity	-40°C-+85°C/10-95%RH,No condensation					
Temperature coefficient	±0.03%/°C(0-50°C)					
Overvoltage level	III;On the basis of EN61558, EN50178, EN60664-1,EN62477-1;It can reach altitudes of up to 2000 meters					
Safety specification	Compliance with UL62368-1,TUVBS EN/EN62368-1,BS EN/EN61558-1/-2-16,CCC GB4943.1,BSMI CNS14336-1,EAC TPTC004					
Withstand voltage	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.25KVAC					
Insulation impedance	I/P-O/P,I/P-FG,O/P-FG:100M Ohm/500VDC					
Electromagnetic compatibility	Compliance with EN55032,EN55014,EN61000-3-2,GB/T9254,BSMI CNS13438,FCC Class B					
dimension	Reference structure diagram					
weight	230g					
Heat dissipation mode	Natural convection					
MTBF	>60Khours MIL-HDBK-217F(25°C)					

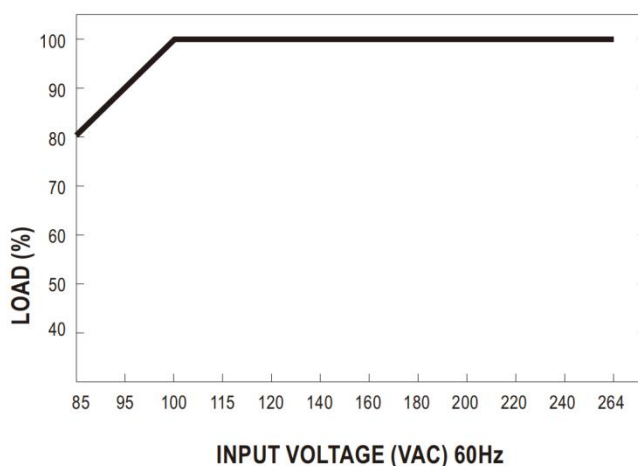
Block Diagram



Derating Curve

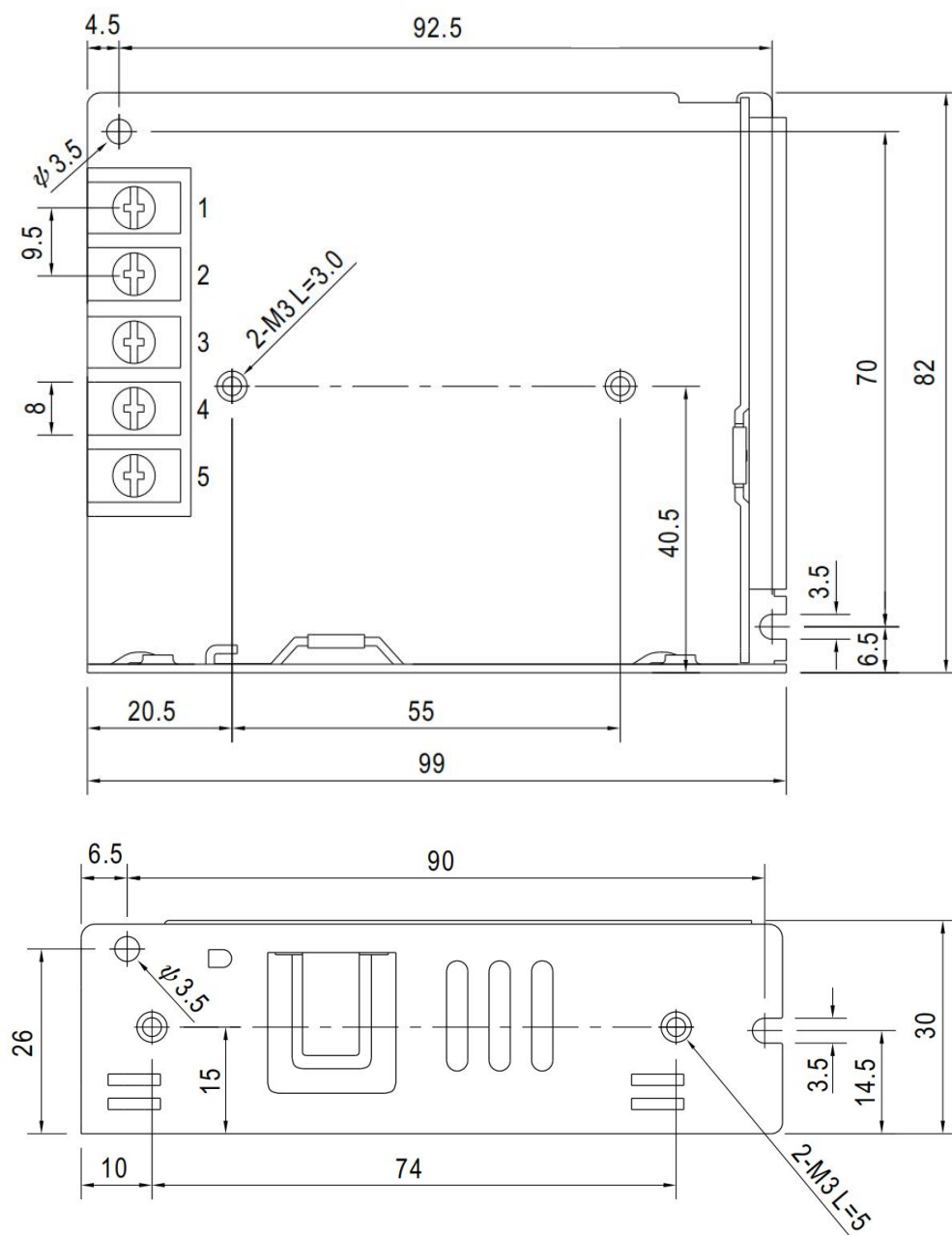


Output Derating VS Input Voltage



Mechanical Specification

Unit:mm



Terminal Pin No. Assignment

Pin	Function
1	AC/L
2	AC/N
3	FG
4	DC output -V
5	DC output +V

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