

RS PRO 60W

Chassis Mounted Switch Mode Power

Supplies

2761480

2761482

2761484

2761486

2761488

Features

- Universal 85 - 305VAC and 100 - 430VDC
- Efficiency up to 91%
- Operating temperature range - 40°C to +85°C
- Compact size, high power density (96.10 x 54.00 x 35.50mm)
- 5000m altitude operation
- Over-voltage category OVC III (meets EN62477, 5000m)
- EMI performance meets CISPR32 / EN55032 CLASS B EN55014
- Safety EN/IEC/UL62368-1, EN61558-1, EN60335-1/62477-1
- Meets surge $\pm 2\text{KV}$ without additional filtering.



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Chassis mount Class II AC-DC power supply suitable for a wide range of industrial, consumer and telecom instruments and applications.

This compact, high efficiency series provides reinforced insulation and excellent EMC performance.

The converters meet IEC/UL/EN62368, IEC/EN60335/62477, EN61558 standards and CLASS B limits of CISPR32 / EN55032/ EN55014 without external components.

Model	AC-DC 60W power supply
Mounting Type	Chassis mount
Package Type	Black plastic, flame-retardant and heat-resistant (UL94V-0)
MTBF	MIL-HDBK-217F@25°C > 500,000 h
Applications	Industrial control systems, instrumentation, and electrical equipment

RS Item No.	Input Voltage	Output Voltage	Output Current	Wattage	Efficiency	Capacitive Load (Max)
2761480	85 to 305V ac 100 to 430V dc	+ 5V DC	10A	50W	89%	2000
2761482	85 to 305V ac 100 to 430V dc	+ 12V DC	5A	60W	91%	5000
2761484	85 to 305V ac 100 to 430V dc	+ 15V DC	4A	60W	90%	3000
2761486	85 to 305V ac 100 to 430V dc	+ 24V DC	2.5A	60W	90%	1800
2761488	85 to 305V ac 100 to 430V dc	+ 48V DC	1.25A	60W	91%	470

Input Specifications

Input Specification	
Voltage Range	85 to 305V ac, 100 to 430V dc
Frequency	47 to 63Hz
AC Current Rating	1.8A/115V ac, 1.0A/230V ac
Inrush Current	30A / 115 ac, 60A / 230V ac
Input Protection	3.15A/300V, slow-blow, required

Output Specifications

Item	Operating Conditions	Min	Typ	Max.	Unit
Output Voltage Accuracy	5V/12V/15V/24V/48	-	±2	-	%
Line Regulation	Full Load	-	±1	-	
Load Regulation	0% - 100% load	-	±1.5	-	
Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	-	80	150	mV
Standby Power Consumption	230VAC	-	0.3	0.45	W
Minimum Load		0	-	-	%
Hold-up Time	115VAC	-	8	-	ms
	230VAC	-	65	-	
Temperature Coefficient		-	±0.02	-	%/°C
Short Circuit Protection		Hiccup, continuous, self-recover			
Over-current Protection		≥140% I _o , self-recovery			
Over-voltage Protection	5V	≤9VDC (Hiccup or clamp)			
	12V	≤16VDC (Hiccup or clamp)			
	15V	≤25VDC (Hiccup or clamp)			
	24V	≤35VDC (Hiccup or clamp)			
	48V	≤60VDC (Hiccup or clamp)			
Note: *The “Tip and barrel method” is used for ripple and noise test, output parallel 47uF electrolytic capacitor and 1uF ceramic capacitor, please refer to AC-DC Converter Application Notes for specific information.					

General Specifications

Item	Operating Conditions	Min	Typ	Max.	Unit
Isolation	Input-output Electric Strength Test for 1min, leakage current <5mA	4200	-	-	VAC
Insulation Resistance	Input - output At 500VDC	100	-	-	M Ω
Operating Temperature		-40	-	+85	°C
Storage Temperature		-40	-	+85	
Storage Humidity		-	-	95	%RH
Power Derating	-40°C to -25°C (85-200VAC input)	3.33	-	-	% / °C
	-40°C to -25°C (200-305VAC input)	1.33	-	-	
	+40°C to +70°C 5V	1.5	-	-	
	+45°C to +70°C 12V/15V/24V/ 48V	1.8	-	-	

Switching Power Supplies



	+50°C to +70°C	5V/12V/15V/24V/48V	2.25	-	-	
	+70°C to +85°C		2	-	-	
	85VAC - 100VAC		1.33	-	-	%VAC
	277VAC - 305VAC		0.72	-	-	
Operating Altitude Derating	2000m-5000m		6.7	-	-	%/Km
Safety Standard	IEC/UL62368-1 safety approved&EN62368-1, BS EN 62368-1(Report); Design refer to IEC/EN60335-1/62477-1, EN61558-1					
Safety Class	CLASS II					
MTBF	MIL-HDBK-217F@25°C	500,000 h				

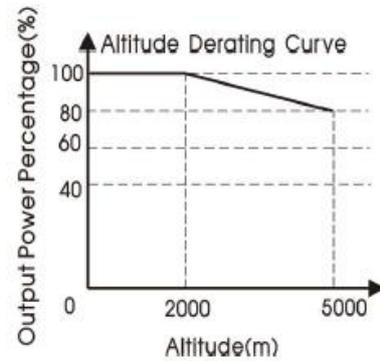
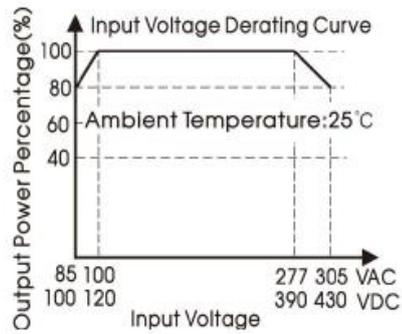
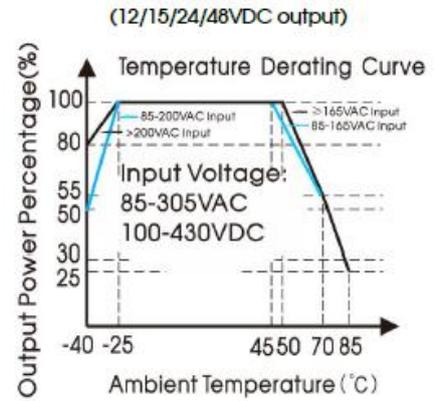
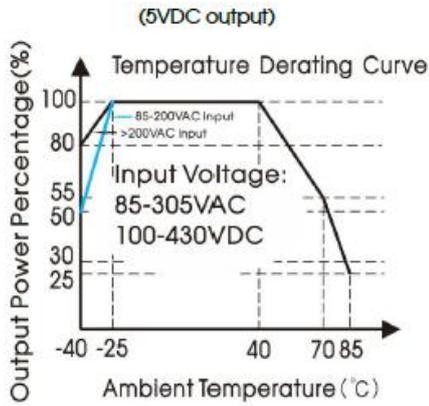
Mechanical Specifications

Case Material	Black plastic, flame-retardant and heat-resistant (UL94V-0)
Dimensions	96.10 x 54.00 x 35.50 mm
Weight	177g (Typ.)
Cooling Method	Free air convection

EMC Specifications

Emissions	CE	CISPR32/EN55032 CLASS B	
	RE	CISPR32/EN55032 CLASS B	
Immunity	ESD	IEC/EN 61000-4-2 Contact \pm 6KV/Air \pm 8KV	Perf. Criteria A
	RS	IEC/EN 61000-4-3 10V/m	Perf. Criteria A
	EFT	IEC/EN 61000-4-4 \pm 2KV	Perf. Criteria A
		IEC/EN61000-4-4 \pm 4KV (See Fig. 2 for recommended circuit)	Perf. Criteria A
	Surge	IEC/EN61000-4-5 line to line \pm 2KV	Perf. Criteria A
		IEC/EN61000-4-5 line to line \pm 2KV/line to PE \pm 4KV (See Fig. 2 for recommended circuit)	Perf. Criteria A
	CS	IEC/EN61000-4-6 10 Vr.m.s	Perf. Criteria A
Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11 0%, 70%	Perf. Criteria B	

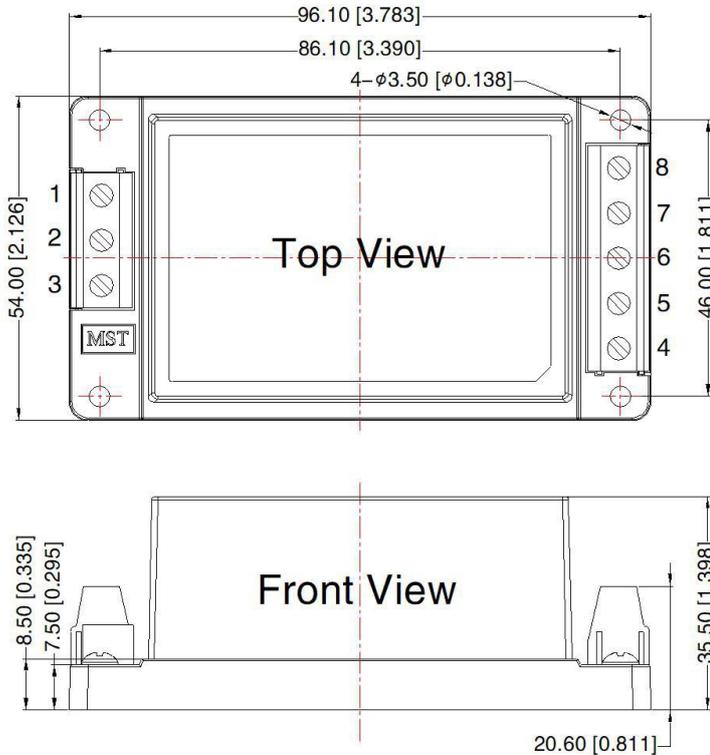
Product Characteristic Curve



Note: ① With an AC Input between 85-100VAC/277-305VAC and a DC Input between 100-120VDC/390-430VDC. the output power must be derated as per temperature derating curves:
 ② This product is suitable for applications using natural air cooling; for applications in closed environment please consult Mornsun FAE.

Dimensions and recommended layout

THIRD ANGLE PROJECTION



Pin-Out	
Pin	Function
1	NC
2	AC(N)
3	AC(L)
4	+Vo
5	NC
6	NC
7	NC
8	-Vo

Note:
 Unit: mm[inch]
 Wire range: 24-12AWG
 Tightening torque: Max 0.4N · M
 General tolerances: $\pm 1.00[\pm 0.039]$

Additional Information

Custom Tariff Number	85044095
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Notes

1. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet.
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^\circ\text{C}$, humidity<75% with nominal input voltage and rated output load.
3. All index testing methods in this datasheet are based on our Company's corporate standards.
4. Products are related to laws and regulations: see "Features" and "EMC".
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations and shall be handled by qualified units.