

Power Supplies

RAX, RAX-E Series

AC Input
Single Output, Long Life

FEATURES

- Compatible with a wide range of source voltages(RAX30W series).
- AC.100V input(RAX) and AC.200V input(RAX-E) types are available.
- Adjustable output voltage.
- Remote ON-OFF.
- Remote sensing.

PART NUMBERS AND RATINGS

RAX:AC.100V INPUT(UL/CSA APPROVED)

WIDE INPUT ONLY FOR 30W TYPE(UL/CSA/TÜV APPROVED)

Output voltage (V)	30W type		50W type	
	Current(A)	Part No.	Current(A)	Part No.
3	6	RAX03-6R0		
5	6	RAX05-6R0	10	RAX05-10R
12	2.5	RAX12-2R5	4.2	RAX12-4R2
15	2	RAX15-2R0	3.4	RAX15-3R4
24	1.3	RAX24-1R3	2.1	RAX24-2R1
28	1.1	RAX28-1R1		
48			1	RAX48-1R0

RAX-E:AC.200V INPUT(UL/CSA/TÜV APPROVED)

Output voltage (V)	50W type	
	Current(A)	Part No.
3		
5	10	RAX05-10RE
12	4.2	RAX12-4R2E
15	3.4	RAX15-3R4E
24	2.1	RAX24-2R1E
28		
48	1	RAX48-1R0E



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SPECIFICATIONS

30W TYPE

Part No.		RAX03-6R0	RAX05-6R0	RAX12-2R5	RAX15-2R0	RAX24-1R3	RAX28-1R3
Output voltage, current* ¹		3V • 6A	5V • 6A	12V • 2.5A	15V • 2A	24V • 1.3A	28V • 1.1A
Maximum output power	W	18	30	30	30	31.2	30.8
Input requirements							
Input voltage Eac	V	85 to 270[Rating: 100-120/200-240]					
Input frequency	Hz	47 to 66[Rating: 50-60](Single phase)					
Input current	A	1/0.5max.[100/240V]					
Fuse rating	A	2.5[Internal]					
Surge current	A	18/36max.[120/240V, 1st surge current, reset after roughly 30s min.]					
Leakage current	mA	0.5/0.75max.[120/240V, 60Hz output rating]					
Efficiency	% [100V]	70typ.	75typ.	80typ.	80typ.	80typ.	80typ.
Output characteristics							
Output voltage	V	3	5	12	15	24	28
Voltage variable range	V	1.8 to 3.6	4 to 5.5	8.4 to 13.2	12 to 16.5	16.8 to 26.4	22.4 to 30.8
Maximum output current* ¹	A	6	6	2.5	2	1.3	1.1
Minimum output current	A	0	0	0	0	0	0
Overvoltage threshold	V	3.8 to 4.6	6 to 6.9	13.7 to 15.7	17 to 19.5	27 to 30.5	32 to 35
Overcurrent threshold	A	6.6 to 7.8	6.6 to 7.8	2.8 to 3.6	2.2 to 2.7	1.5 to 1.9	1.3 to 1.8
Voltage stability	Input variation	%	1.5max.(0.8typ.)[85 to 132V, 170 to 270V]				
	Load variation	%	1.5max.(0.8typ.)[0 to 100% load]				
	Temperature variation	%	2max.(1typ.) 3V:3max.(2typ.)[-10 to +50°C]				
	Drift	%	0.5max.(0.1typ.)[25°C, input and output ratings, after input voltage ON for 30min to 8h]				
	Dynamic load	%/ms	±4max./1max.[50 to 100% sudden load change, tr, tf ≥ 50μs]				
Ripple Ep-p	mV	50max.	50max.	80max.	80max.	100max.	100max.
Ripple noise Ep-p	mV	100max.	100max.	170max.	200max.	290max.	330max.
Start up time	ms	300max.[100V]					
Hold up time	ms	20min.[100V]					
Accessory equipment							
Operation indicator		LED(green) illuminates when voltage output is ON.					
Overvoltage protection* ²		Output voltage shielding type, set value fixed.					
Overcurrent protection		Fixed current and voltage threshold type, automatic recovery.					
Remote ON-OFF		Yes(Floating)					
Remote sensing		Yes					
Output voltage external function		Yes					
Standards							
Safety standards		UL1950, CSA ELECTRICAL BULLETIN No.1402C, EN60950 (TÜV) approved.					
Noise terminal voltage		FCC class B compliant.					
Construction							
External dimensions HxWxL	mm	110×33×146					
Weight	g	550max.					
Mounting method		Can be attached to 2 sides.					
Case material		Frame and cover:Aluminum					

*¹ Current rating(maximum output current) is determined for -10 to +50°C. Derating is required when used outside this temperature range.

*² Recovery occurs after roughly 30s upon reset.

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AC Input

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SPECIFICATIONS

50W TYPE

Part No.	AC.100 to 120V input		RAX05-10R	RAX12-4R2	RAX15-3R4	RAX24-2R1	RAX48-1R0
	AC.200 to 240V input		RAX05-10RE	RAX12-4R2E	RAX15-3R4E	RAX24-2R1E	RAX48-1R0E
Output voltage, current*			5V • 10A	12V • 4.2A	15V • 3.4A	24V • 2.1A	48V • 1A
Maximum output power		W	50	50.4	51	50.4	48
Input requirements							
Input voltage Eac	RAX	V	85 to 132[Rating: 100-120]				
	RAX-E	V	170 to 264[Rating: 200-240]				
Input frequency		Hz	47 to 440[Rating: 50-60](Single phase)				
Input current	RAX	A	1.6max.[Input and output ratings]				
	RAX-E	A	0.8max.[Input and output ratings]				
Fuse rating		A	3.15[Internal]				
Surge current	RAX	A	15/17max.[25°C, 100/120V, output rating]		1st surge current, reset after roughly 15s min.		
	RAX-E	A	30/34max.[25°C, 200/240V, output rating]				
Leakage current	RAX	mA	0.5max.[25°C, 100-120V, output rating]				
	RAX-E	mA	0.75max.[25°C, 200-240V, output rating]				
Efficiency		%	75typ.[25°C, input and output ratings]				
Output characteristics							
Output voltage		V	5	12	15	24	48
Voltage variable range		V	4 to 5.5	8.4 to 13.2	12 to 16.5	16.8 to 26.4	32.6 to 52.8
Maximum output current*1		A	10	4.2	3.4	2.1	1
Minimum output current		A	0	0	0	0	0
Overvoltage threshold		V	6 to 6.9	13.7 to 15.7	17 to 19.5	27 to 30.5	55 to 63
Overcurrent threshold		A	10.5 to 11	4.5 to 4.8	3.6 to 3.9	2.3 to 2.5	1.1 to 1.3
Voltage stability	Input variation	%	1.5max.(0.8typ.)[Within the input voltage range]				
	Load variation	%	1.5max.(0.8typ.)[10 to 100% load]				
	Temperature variation	%	2max.(1typ.)[0 to +60°C]				
	Drift	%	0.5max.[25°C, input and output ratings, after input voltage ON for 30min to 8h]				
	Dynamic load	%/ms	±4max./1max.[50 to 100% sudden load change]				
			Total variation 4max.(2typ.)				
Ripple Ep-p		mV	50max.	80max.	80max.	100max.	150max.
Ripple noise Ep-p		mV	100max.	170max.	200max.	290max.	530max.
Start up time		ms	200max.[25°C, input and output ratings]				
Hold up time		ms	20min.[25°C, input and output ratings]				
Accessory equipment							
Operation indicator			Yes				
Overvoltage protection			Output voltage shielding type, recovers upon reset, set value fixed.				
Overcurrent protection			Fixed current and voltage threshold type, automatic recovery.				
Remote ON-OFF			Yes(Floating)				
Remote sensing			Yes				
Output voltage external variable function			Yes				
Standards							
Safety standards	RAX	UL1950D3, CSA ELECTRICAL BULLETIN No.1402C approved.					
	RAX-E	UL1950D3, CSA ELECTRICAL BULLETIN No.1402C, EN60950(TÜV) approved.					
Noise terminal voltage			FCC class A compliant.				
Construction							
External dimensionsH×W×L		mm	110×45×190				
Weight		g	800max.				
Mounting method			Can be attached to 3 sides.				
Case material			Aluminum(Phosphoric and anodized surface)				

* Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

Power Supplies

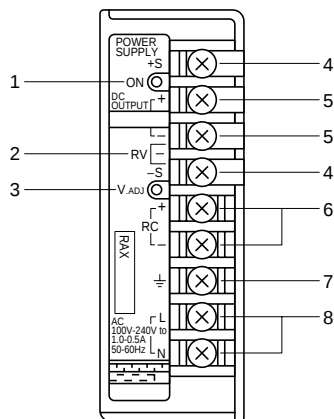
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TERMINAL DESIGNATIONS AND FUNCTIONS

30W TYPE



Terminal No. 1: Operation indicator LED(ON)

This green LED becomes illuminated when voltage is output.

Terminal No. 2: Output voltage adjustment terminal(RV)

Output voltage can be controlled remotely by adjustment of resistance between RV and output(+). When using remote control of output voltage, please remove the jumper between +S and output(+).

Terminal No. 3: Output voltage adjustment trim(V.ADJ)

Adjusts output voltage.

Terminal No. 4: Remote sensing terminals(+S, -S)

These are normally jumpered. When controlling voltage to the load, please remove jumper, and wire these terminals.

Terminal No. 5: DC output terminals(DC OUTPUT +, -)

Connect to load.

Terminal No. 6: Remote ON-OFF terminals(+RC, -RC)

Output is turned ON-OFF by disconnecting-connecting the RC terminals(output ON when open). RC terminals are floating.

Terminal No. 7: Frame ground terminal(G)

Connect to earth ground. This is connected to the case.

Terminal No. 8: AC input terminals(L, N)

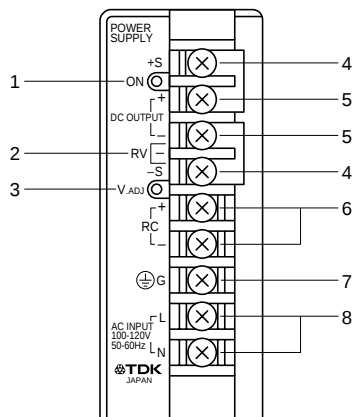
Connect to single phase power supply.

RAX series: AC.100V power supply

RAX30W series: AC. 100 to 200V power supply

RAX-E series: AC.200V power supply

50W TYPE



SUNSTAR 商斯达实业集团是集研发、生产、工程、销售、代理经销、技术咨询、信息服务等为一体的高科技企业，是专业高科技电子产品生产厂家，是具有 10 多年历史的专业电子元器件供应商，是中国最早和最大的仓储式连锁规模经营大型综合电子零部件代理分销商之一，是一家专业代理和分销世界各大品牌 IC 芯片和电子元器件的连锁经营综合性国际公司，专业经营进口、国产名厂名牌电子元件，型号、种类齐全。在香港、北京、深圳、上海、西安、成都等全国主要电子市场设有直属分公司和产品展示展销窗口门市部专卖店及代理分销商，已在全国范围内建成强大统一的供货和代理分销网络。我们专业代理经销、开发生产电子元器件、集成电路、传感器、微波光电元器件、工控机/DOC/DOM 电子盘、专用电路、单片机开发、MCU/DSP/ARM/FPGA 软件硬件、二极管、三极管、模块等，是您可靠的一站式现货配套供应商、方案提供商、部件功能模块开发配套商。商斯达实业公司拥有庞大的资料库，有数位毕业于著名高校——有中国电子工业摇篮之称的西安电子科技大学（西军电）并长期从事国防尖端科技研究的高级工程师为您精挑细选、量身订做各种高科技电子元器件，并解决各种技术问题。

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