

DIN rail mounting type switching mode power supply [SP Series]

■ Specifications

Model		SP-0305	SP-0312	SP-0324
Appearances				
Output power		3W		
Input	Power supply	100-240VAC(85-264VAC)		
	Frequency	50/60Hz		
	Current consumption	Max. 0.15A		
	Efficiency	67 to 74%		
Output	Voltage	5VDC	12VDC	24VDC
	Current	0.6A	0.25A	0.13A
	Allowable voltage range	Max. ±5%		
	Ripple	Max. 5%		
	Voltage fluctuation ratio	Max. 0.5%(at 85-264VAC 100% Load)		
	Overcurrent protection	Min. 110%		
Series / Parallel operation		Not available		
Output indicator		Red LED		
Insulation resistance		100MΩ(at 500VDC megger)		
Dielectric strength		2000VAC 50/60Hz for 1 minute		
Vibration		0.75mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		300m/s ² (approx. 30G) in each of X, Y, Z directions for 3 times		
Environ-ment	Ambient temperature	-10 to 50°C, storage : -20 to 70°C		
	Ambient humidity	35 to 85%RH		
Unit weight		Approx. 100g		

※Environment resistance is rated at no freezing of condensation.

■ Dimensions

(unit: mm)

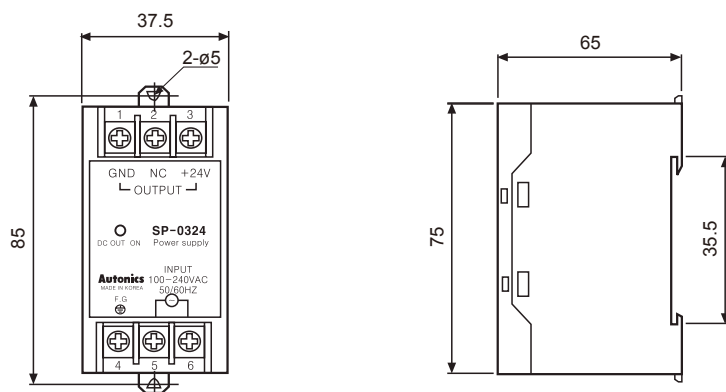


Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor& Driver&Controller

Graphic/Logic panel

Field network device

Switching mode power supply with minimized noise and ripple [SPA Series]

Ordering information

SPA	—	030	—	24	
					Output voltage
					05 5VDC
					12 12VDC
					24 24VDC
					Output power
					030 30W
					050 50W
					075 75W
					100 100W
					Item
					SPA Switching Mode Power Supply

Specifications

Model	SPA-030-05	SPA-050-05	SPA-030-12	SPA-050-12	SPA-030-24	SPA-050-24	SPA-075-05	SPA-100-05	SPA-075-12	SPA-100-12	SPA-075-24	SPA-100-24
Appearances												
Capacity	30W	50W	30W	50W	30W	50W	75W	100W	75W	100W	75W	100W
Input	Power supply ^{※5} 100-240VAC(85-264VAC) 100-120/200-240VAC(85-132/170-264VAC) switching type Frequency 50/60Hz											
Efficiency ^{※1}	Min. 60%	Min. 67%	Min. 74%	Min. 74%	Min. 80%	Min. 80%	Min. 70%	Min. 78%	Min. 72%	Min. 78%	Min. 80%	Min. 80%
Current consumption ^{※1}	Max. 1.2A	Max. 1.6A	Max. 1.0A	Max. 1.4A	Max. 0.8A	Max. 1.1A	Max. 3.0A	Max. 2.0A	Max. 3.0A	Max. 2.0A	Max. 2.5A	Max. 2.5A
Output	Voltage 5VDC 12VDC 24VDC 5VDC 12VDC 24VDC Current 6A 10A 2.5A 4.2A 1.5A 2.1A 15A 20A 6.3A 8.5A 3.2A 4.2A Voltage adjustment range ^{※4} ±5% Input fluctuation ratio ^{※2} Max. ±0.5% Load fluctuation ratio ^{※1} Max. ±2% Max. ±1% Ripple ^{※1} Max. ±1% Starting time ^{※1} Max. 200ms Max. 150ms Max. 250ms Holding time ^{※1} Min. 10ms Min. 5ms Min. 10ms Min. 5ms Min. 10ms											
Protection	Inrush current protection Max. 30A(100VAC) Max. 40A(200VAC) Max. 20A(100VAC) Max. 45A(100VAC) /Max. 50A(240VAC) Output overcurrent protection ^{※3} Min. 110% Min. 105% Min. 110% Output overvoltage protection — 6.5V ±10% 16V ±10% 30V ±10% Output short-circuit protection Max. 5ms Max. 10ms Max. 5ms Min. 10ms Max. 5ms											
Output indicator	Green LED											
Insulation resistance	Min. 100MΩ(between all input and output terminals with 500VDC)											
Dielectric strength	3.0kVAC 50/60Hz for 1 min. (between all input and output terminals) 1.5kVAC 50/60Hz for 1 min. (between all input terminals F.G)											
Vibration	0.75mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours											
Shock	300m/s ² (approx. 30G) in each of X, Y, Z directions for 3 times											
EMS	Conforms to EN61000-6-2											
EMI	Conforms to EN61000-6-4											
Protection	IEC60950, IEC50178 standard											
Environment	Ambient temperature -10 to 50°C -10 to 40°C -10 to 50°C Storage temperature -25 to 65°C Ambient humidity 25 to 85%RH, storage: 25 to 90%RH											
Approval	CE (except for 5VDC)											
Unit weight	Approx. 350g						Approx. 400g					

※1: 100% load for rated input voltage(100VAC).

※2: Rated input voltage [SPA-030/050 Series : 100-240VAC(85-264VAC) SPA-075/100 Series : 100-120/200-240(85-132/170-264VAC)] under 100% of load.

SPA-100-05 is under 100% of load for [100-120/200-240VAC(100-132/190-264VAC)].

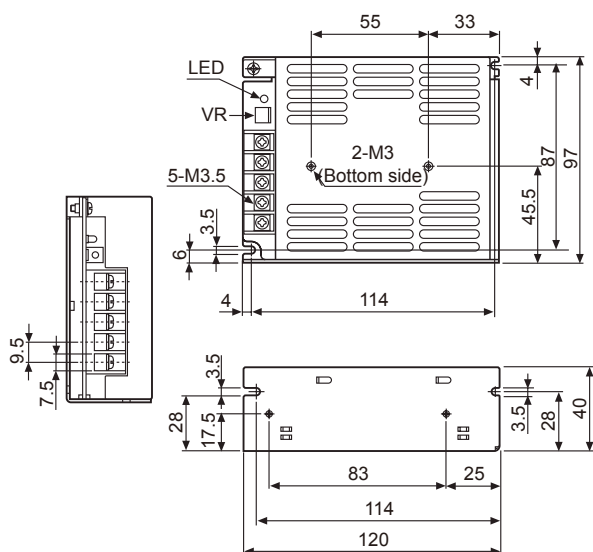
※3: Rated input voltage(100VAC). ※4: Vary voltage by output voltage adjuster, it is changed over voltage variation range(±5%).

※5: The rated input voltage of SPA-100-05 is 100-120/200-240VAC(100-132/190-264VAC).

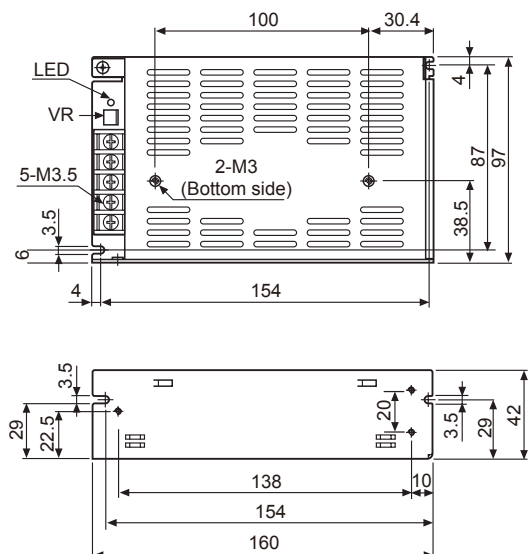
※Environment resistance is rated at no freezing or condensation.

■ Dimensions

● SPA-030/050 Series



● SPA-075/100 Series



(unit: mm)

DIN rail mounting switching mode power supply [SPB Series]

■ Ordering information

SPB	—	060	—	24	
					Output voltage
					12 12VDC
					24 24VDC
					48 48VDC
					Output power
					060 60W
					120 120W
					240 240W
					Item
					SPB Switching Mode Power Supply

■ Specifications

Model	SPB-060-12	SPB-060-24	SPB-120-24	SPB-240-12	SPB-240-24	SPB-240-48
Appearances	NEW 		NEW 	NEW		
Output power	60W		120W	240W		
Input	Voltage100-240VAC(85-264VAC)					
	Frequency50/60Hz					
	Efficiency※1Min. 75%		Min. 80%	Min. 86%	Min. 88%	
	Power factor※1—		Min. 0.9			
	Current consumption※1Max. 1.6A		Max. 1.9A	Max. 3.8A		
Power factor correction circuit	—		Built-in			

※1: It is for the rated input voltage 100-240VAC, and 100% load.

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Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor & Driver&Controller

Graphic/Logic panel

Field network device

Specifications

Model		SPB-060-12	SPB-060-24	SPB-120-24	SPB-240-12	SPB-240-24	SPB-240-48
Output	Voltage	12VDC	24VDC		12VDC	24VDC	48VDC
	Current	5A	2.5A	5A	20A	10A	5A
	Voltage adjustment range※2	Max. ±5%					
	Input variation※3	Max. ±0.5%					
	Load variation※1	Max. ±1%			Max. ±1.5%		
	Ripple※1	Max. ±1%			Max. ±3%	Max. 1.5%	Max. ±1%
	Start-up time※1	Max. 600ms		Max. 1000ms			
	Hold time※1	Min. 10ms			Min. 20ms		
Protection	Inrush current protection	Max. 25A (100VAC), Max. 40A(240VAC)			Max. 50A(100VAC), Max. 50A(240VAC)		
	Output over current protection※4	Min. 105%					
	Output over voltage protection	—		30.0V ±10%	16.0V ±10%	30.0V ±10%	58.0V ±10%
	Output short-circuit protection	Max. 10ms					
	Output low-voltage indicate	9.6V±10%	20.0V±10%		10.0V±10%	20.0V±10%	43.0V±10%
Output indicator		Green LED					
Insulation resistance		Min. 100MΩ(at 500VDC megger between all input terminals and output terminals)					
Dielectric strength		3000VAC 50/60Hz for 1 min. (between all input terminals and output terminals) 1500VAC 50/60Hz for 1 min. (between all input terminals and F.G.)					
Vibration		0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 2 hour					
Shock		300m/s ² (approx. 30G) in each of X, Y, Z directions for 3 times					
EMS		Conforms to EN61000-6-2					
EMI		Conforms to EN61000-6-4					
Safety		IEC60950, IEC50178					
Environ-ment	Ambient temperature	-10 to 50°C, storage: -25 to 65°C					
	Ambient humidity	25 to 85%RH, storage: 25 to 90%RH					
Protection		IP20(IEC standard)					
Unit weight※5		Approx. 347g(approx. 274g)		Approx. 570g (approx. 466g)	Approx. 866g(approx. 736g)		

※1: It is for the rated input voltage 100-240VAC, and 100% load.

※2: Adjusting voltage by the output adjuster (V.ADJ), it is changed the below voltage adjustment range(±5%).

※3: It is for the rated input voltage 100-240VAC(85-264VAC), and 100% load.

※4: It is for the rated input voltage 100-240VAC.

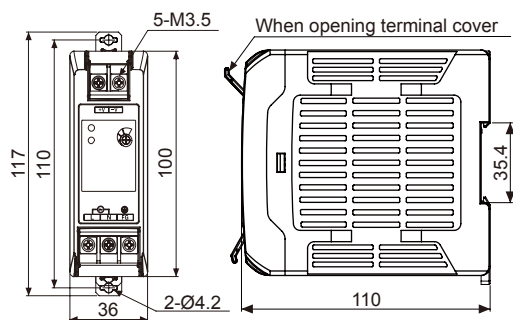
※5: The weight is with packaging and the weight in parentheses is only unit weight.

※Environment is rated at no freezing or condensation.

Dimensions

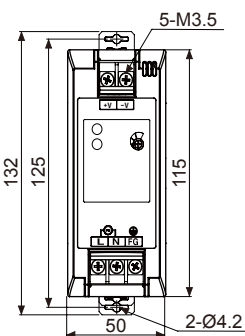
(unit: mm)

● SPB-060 Series



※Side sizes are same as
SPB-060/120 /240 Series.

● SPB-120 Series



● SPB-240 Series

