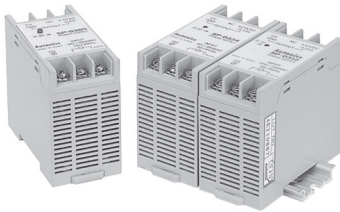




Product Overview

Type	DIN rail mount type Switching Mode Power Supply (SMPS)		
Model	SP-0305	SP-0312	SP-0324
Appearances & Dimensions	 [W37.5×H75×L65mm]		
Output power	3W		
Input	100-240VAC~ (permissible voltage: 85-264VAC~)		
Voltage	50/60Hz		
Frequency	Max. 0.15A		
Current consumption	67 to 74%		
Efficiency	5VDC ⁻⁻⁻		
Output	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	
Voltage	0.6A	0.13A	
Current	Voltage adjustment range Max. ±5%		
Voltage adjustment range	Ripple Max. 5%		
Ripple	Voltage fluctuation ratio Max. 0.5% (at 85-264VAC 100% load)		
Voltage fluctuation ratio	Over-current protection Min. 110%		
Over-current protection	Reference P-4 to 7		
Reference			

Type	General-purpose Switching Mode Power Supply (SMPS)												
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 & Dimensions	 [W97×H40×L120mm]						 [W97×H42×L160mm]						
Output power	30W	50W	30W	50W	30W	50W	75W	100W	75W	100W	75W	100W	
Voltage ^{※5}	100-240VAC~ (permissible voltage: 85-264VAC~)						100-120/200-240VAC~ (permissible voltage: 85-132/170-264VAC~) switching type						
Input	50/60Hz												
Efficiency ^{※1}	Min. 60%	Min. 67%	Min. 74%		Min. 80%		Min. 70%		Min. 78%	Min. 72%	Min. 78%	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	5VDC ⁻⁻⁻		12VDC ⁻⁻⁻		24VDC ⁻⁻⁻		5VDC ⁻⁻⁻		12VDC ⁻⁻⁻		24VDC ⁻⁻⁻		
Voltage	6A	10A	2.5A	4.2A	1.5A	2.1A	15A	20A	6.3A	8.5A	3.2A	4.2A	
Current	Voltage adj. range ^{※4} ±5%												
Voltage adj. range ^{※4}	Input fluctuation ^{※2} Max. ±0.5%												
Input fluctuation ^{※2}	Max. ±2%		Max. ±1%				Max. ±2%		Max. ±1%				
Load fluctuation ^{※1}	Ripple ^{※1} Max. ±1%												
Ripple ^{※1}	Max. 200ms		Max. 150ms				Max. 250ms						
Starting time ^{※1}	Holding time ^{※1} Min. 10ms												
Holding time ^{※1}	Min. 5ms						Min. 5ms		Min. 10ms	Min. 5ms	Min. 10ms		
Protect function	Max. 30A (100VAC)/Max. 40A (240VAC)		Max. 20A (100VAC)				Max. 45A (100VAC)/Max. 50A (240VAC)		Max. 35A (100VAC)/Max. 40A (240VAC)	Max. 45A (100VAC)/Max. 50A (240VAC)	Max. 35A (100VAC)/Max. 40A (240VAC)		
Inrush current protection	Min. 110%						Min. 105%		Min. 110%				
Over-current protection							6.5V ±10%		16V ±10%		30V ±10%		
Over-voltage protection ^{※3}	Max. 5ms						Max. 10ms		Max. 5ms	Max. 10ms	Max. 5ms		
Short protection	Reference P-8 to 11												
Reference													

※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: The output voltage adjuster (V.ADJ) should be used within voltage adjustment range.

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

Product Overview

Type	General-purpose Switching Mode Power Supply (SMPS)	
Model	SPA-400-24	
Appearances & Dimensions		
	[W120×H61×L204.8mm]	
Output power	400.8W	
Voltage	200-240VAC~ (permissible voltage: 190-264VAC~)	
Frequency	50/60Hz	
Input condition	Efficiency (typical) ^{※1}	220VAC~ 85% (after 10min of power ON)
	Current consumption (typical)	220VAC~ Max. 4.6A
	Leakage current (typical)	220VAC~ Max. 1mA
Output characteristics	Voltage	24VDC ⁻⁻⁻
	Current	16.7A
	Voltage adjustment range ^{※2}	22.8-25.2VDC ⁻⁻⁻
	Input variation	Max. ±0.5%
	Load variation	Max. ±1%
	Temperature drift	360mV
	Ripple&Ripple noise	Max. 290mV
Start-up time (typical) ^{※1}	220VAC~	1800-2300ms
	200VAC~	Max. 17ms
Protection	Inrush current protection (typical) ^{※1}	220VAC~ 40A
	Over-current protection	110 to 160% (recovers automatically after the cause for over-current is removed)
	Over-voltage protection	27-33VDC
	Temp. rising limit	Yes
Remote control	Yes (output voltage ON for shorting, output voltage OFF for open)	
Reference	P-8 to 11	

※1: It is for 100% load.

※2: The output voltage adjuster (V.ADJ) should be used within voltage adjustment range.

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

(C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

(F) Rotary Encoders

(G) Connectors/
Connector Cables/
Sensor Distribution
Boxes/Sockets

(H) Temperature Controllers

(I) SSRs / Power Controllers

(J) Counters

(K) Timers

(L) Panel Meters

(M) Tacho / Speed / Pulse Meters

(N) Display Units

(O) Sensor Controllers

(P) Switching Mode Power Supplies






(Q) Stepper Motors & Drivers & Controllers

(R) Graphic/ Logic Panels

(S) Field Network Devices

(T) Software

Product Overview

Type	DIN rail mount type Switching Mode Power Supply (SMPS)																
Model	SPB -015 -05	SPB -015 -12	SPB -015 -24	SPB -030 -05	SPB -030 -12	SPB -030 -24	SPB -060 -12	SPB -060 -24	SPB -060 -48	SPB -120 -12	SPB -120 -24	SPB -120 -48	SPB -240 -12	SPB -240 -24	SPB -240 -48		
Appearances & Dimensions																	
	[W22.5×H90×L90mm]			[W30×H90×L90mm]			[W36×H100×L110mm]			[W50×H115×L110mm]			[W80×H115×L110mm]				
Output power	15W	15.6W		25W	30W	31.2W	60W		62.4W	96W	120W		240W				
Input	Voltage 100-240VAC~ (permissible voltage: 85-264VAC~/120-370VDC~)																
	Frequency 50/60Hz																
	Efficiency ^{*1} (typical)	100VAC~ 77%	80%	83%	77%	82%	84%	81%	84%	85%	82%	82%	85%	87%	89%	89%	
	Power factor ^{*1}	—	—	—	—	—	—	—	—	—	Min. 0.9	Min. 0.9	Min. 0.9	Min. 0.9	Min. 0.9	Min. 0.9	
Current consumption ^{*1} (typical)	100VAC~	0.35A	0.35A	0.34A	0.56A	0.63A	0.63A	1.24A	1.21A	1.19A	1.19A	1.49A	1.43A	2.76A	2.71A	2.73A	
	240VAC~	0.19A	0.19A	0.19A	0.30A	0.35A	0.35A	0.66A	0.65A	0.64A	0.52A	0.61A	0.61A	1.14A	1.12A	1.13A	
Power factor correction circuit	—									Built-in			Built-in				
Output	Voltage	5VDC ⁻⁻⁻	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	5VDC ⁻⁻⁻	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	48VDC ⁻⁻⁻	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	48VDC ⁻⁻⁻	12VDC ⁻⁻⁻	24VDC ⁻⁻⁻	48VDC ⁻⁻⁻	
	Current	3A	1.3A	0.65A	5A	2.5A	1.3A	5A	2.5A	1.3A	8A	5A	2.5A	20A	10A	5A	
	Voltage adjustment range ^{*2}	Max. ±10%			Max. ±10%			Max. ±5%			Max. ±5%			Max. ±5%			
	Input variation ^{*3}	Max. ±0.5%			Max. ±0.5%			Max. ±0.5%			Max. ±0.5%			Max. ±0.5%			
	Load variation	Max. ±1%			Max. ±1%			Max. ±1%			Max. ±1%			Max. ±1%			
	Ripple&Ripple noise ^{*1,*4}	Max. ±1.5%		Max. ±1%		Max. ±1.5%		Max. ±1%		Max. ±1%		Max. ±1%		Max. ±1.5%		Max. ±1%	
	Start-up time ^{*1} (typical)	100VAC~	500ms	550ms	650ms	600ms	550ms	550ms	520ms	550ms	1200ms	1200ms	760ms	1200ms	75ms	87ms	75ms
		240VAC~	550ms	550ms	650ms	600ms	550ms	550ms	530ms	550ms	400ms	400ms	280ms	400ms	45ms	56ms	45ms
Hold time ^{*1} (typical)	100VAC~	24ms	25ms	25ms	20ms	15ms	15ms	15ms	14ms	15ms	98ms	81ms	87ms	33ms	36ms	25ms	
	240VAC~	190ms	190ms	190ms	130ms	110ms	110ms	100ms	110ms	108ms	97ms	81ms	86ms	33ms	36ms	25ms	
Protection	Inrush current protection (typical)	100VAC~	7A	7A	7A	7A	7A	6A	13A	14A	10A	9A	16A	10A	8A	8A	8A
	Over-current protection ^{*4}	105 to 160%			105 to 160%			105 to 160%			105 to 160%			105 to 160%			
	Over-voltage protection	—			—			—			16.0V ±10%	30.0V ±10%	58.0V ±10%	16.0V ±10%	30.0V ±10%	58.0V ±10%	
	Output low-voltage indicate	4.2V ±10%	9.6V ±10%	20.0V ±10%	4.2V ±10%	9.6V ±10%	20.0V ±10%	9.6V ±10%	20.0V ±10%	43.0V ±10%	9.6V ±10%	20.0V ±10%	43.0V ±10%	10.0V ±10%	20.0V ±10%	43.0V ±10%	
Reference	P-12 to 15																

*1: It is for 100% load.

*2: The output voltage adjuster (V.ADJ) should be used within voltage adjustment range.

*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.