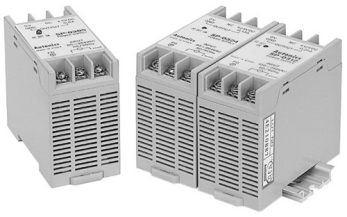
Product Overview

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	Voltage	100-240VAC (permissible voltage: 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
	Voltage adjustment range	Max. ±5%		
	Ripple	Max. 5%		
	Voltage fluctuation ratio	Max. 0.5% (at 85-264VAC 100% load)		
Over-current protection		Min. 110%		
Reference		**P-4 to 7**		

Type		General-purpose Switcing 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		CE (except for output voltage 5VDC) **SPA-030/050 Series**  [W97×H40×L120mm]						**SPA-075/100 Series**  [W97×H42×L160mm]					
Output power		30W	50W	30W	50W	30W	50W	75W	100W	75W	100W	75W	100W
Input	Voltage※5	100-240VAC (permissible voltage: 85-264VAC)						100-120/200-240VAC (permissible voltage: 85-132/170-264VAC) switching type					
	Frequency	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
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 adj. range※4	±5%											
	Input fluctuation※2	Max. ±0.5%											
	Load fluctuation※1	Max. ±2%		Max. ±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	
Protect function	Inrush current protection	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)	
	Over-current protection	Min. 110%							Min. 105%	Min. 110%			
	Over-voltage protection※3	—						6.5V ±10%		16V ±10%		30V ±10%	
	Short protection	Max. 5ms						Max. 10ms		Max. 5ms	Max. 10ms	Max. 5ms	
Reference		**P-8 to 11**											

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

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]			Line-up  [W36×H100×L110mm]			Line-up  [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%
		240VAC	76%	79%	82%	78%	83%	85%	83%	86%	87%	85%	85%	88%	90%	92%	92%
	Power factor※1		—			—			—			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
		240VAC	32A	30A	31A	29A	31A	29A	19A	17A	37A	37A	20A	37A	22A	25A	26A
	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: Adjusting voltage by the output adjuster (V.ADJ), it is changed the below 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.