

# POWER SUPPLY

## DPS series

## TPS series



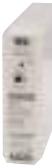
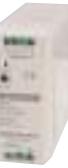
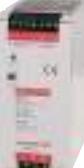
AC-DC Power supply  
**DPS series**



AC-DC Power supply  
**TPS series**

# Table of contents

## » DPS series (1 page)

Model	DPS-15S	DPS-30S	DPS-50S	DPS-75S
Appearance				
Dimension (mm)	25 X 90 X 103	40 X 90 X 103	40 X 90 X 103	56 X 124 X 97.8
Power output	15 W	30 W	50 W	75 W
Input voltage	100 – 240 V AC (※ Designed voltage range : 85 – 264 V AC)			
Output voltage	5 V, 12 V, 15 V, 24 V			12 V, 24 V, 48 V
Voltage fluctuation range	$\pm 5 \sim 10\%$ (Varies due to the internal VR)			
Protective circuit	Over voltage, Over current, Over heat, Short circuit			
Dielectric strength	2,700 V AC for 1 minute (Between the input terminal and output terminal)			
Insulation resistance	100 MΩ min, 500 V DC (Between the input terminal and output terminal)			

Model	DPS-100S	DPS-120S	DPS-180S	DPS-240S
Appearance				
Dimension (mm)	56 X 124 X 97.8	66 X 124 X 97.8	66 X 124 X 97.8	125.5 X 124 X 97.8
Power output	100 W	120 W	180 W	240 W (※ DPS-240S-12 : 216 W)
Input voltage	100 – 240 V a.c. (※ Design voltage range : 85 – 264 V a.c.)	100 – 120 V a.c. / 200 – 240 V a.c. ※ Automatic input selection (Auto-select input)		
Output voltage	12 V, 24 V, 48 V		24 V, 48 V	12 V, 24 V, 48 V
Voltage fluctuation range	$\pm 5 \sim 10\%$ (Varies due to the internal VR)			
Protective circuit	Over voltage, Over current, Over heat, Short circuit			
Dielectric strength	2,700 V AC for 1 minute (Between the input terminal and output terminal)			
Insulation resistance	100 MΩ min, 500 V DC (Between the input terminal and output terminal)			

## » TPS series (10 page)

Model	TPS-15S	TPS-30S	TPS-50S	TPS-75S	TPS-100S				
Appearance									
Dimension (mm)	64.1 X 97.5 X 32	79 X 98 X 37	83 X 125 X 39.8	96 X 135 X 40.2	93 X 199 X 50				
Power output	15 W	30 W	50 W	75 W	100 W				
Input voltage	88 – 264 V AC 50 – 60 Hz (※ Included the percentage of voltage fluctuation. )								
Output voltage	5 V, 12 V, 15 V, 24 V								
Voltage fluctuation range	$\pm 5 \sim \pm 10\%$ (Varies due to the internal VR)								
Protective circuit	Over voltage, Over heat, Short circuit	Over voltage, Over current, Over heat, Short circuit							
Dielectric strength	2,700 V AC for 1 minute (Between the input terminal and output terminal)								
Insulation resistance	100 MΩ min, 500 V DC (Between the input terminal and output terminal)								

Model	TPS-150S	TPS-220S	TPS-350S	TPS-450S	
Appearance					
Dimension (mm)	93 X 209 X 65	93 X 209 X 65	115 X 230 X 50	115 X 230 X 50	
Power output	150 W	220 W	350 W	450 W	
Input voltage	88 – 264 V AC 50 – 60 Hz (※ Included the percentage of voltage fluctuation. )				
Output voltage	5 V, 12 V, 15 V, 24 V	12 V, 15 V, 24 V	12 V, 24 V, 48 V	12 V, 24 V, 48 V	
Voltage fluctuation range	$\pm 5 \sim \pm 10\%$ (Varies due to the internal VR)				
Over current protection	110 ~ 250 % of output rated current [ depending on the specification ]				
Over voltage protection	Protection function at 110 ~ 140% of output current				
Dielectric strength	2,700 V AC for 1 minute (Between the input terminal and output terminal)				
Insulation resistance	100 MΩ min, 500 V DC (Between the input terminal and output terminal)				

# AC-DC Power supply

# DPS series



## » Feature

- 35 mm DIN Rail Installation method
- Low output voltage fluctuation rate
- Low heating due to high efficiency
- DC OK Signal Relay Output Built-in
- Protection function against overcurrent, overvoltage, and overheating
- Various products from 15 W to 240 W
- Output ON Pilot Lamp (LED)
- Input voltage: 100 – 240 V Free Voltage or automatic selection of 110/220V



## » Suffix code

Model	Code			Description
DPS-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DPS Power supply (DIN Rail Type)
Power output	15			15 W
	30			30 W
	50			50 W
	75			75 W
	100			100 W
	120			120 W
	180			180 W
	240			240 W [※ Only DPS-240S-12 : 216 W]
Number of output voltage	S			1 Output [Single output]
Output voltage classification	05			5 V DC (DPS-75S, DPS-100S, DPS-120S, DPS-180S, DPS-240S Exclude)
	12			12 V DC (DPS-180S Exclude)
	15			15 V DC (DPS-75S, DPS-100S, DPS-120S, DPS-180S, DPS-240S Exclude)
	24			24 V DC
	48			48 V DC (DPS-15S, DPS-30S, DPS-50S Exclude)

# 15 Watt

(5 V, 12 V, 15 V, 24 V DC)

DPS series

## » Specification

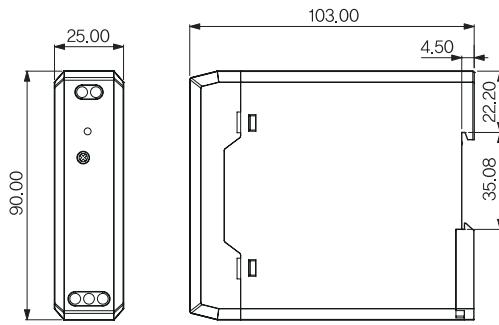
Model		DPS-15S-05	DPS-15S-12	DPS-15S-15	DPS-15S-24
Output	Rated output voltage	5 V	12 V	15 V	24 V
	Rated output current	3 A	1.3 A	1 A	0.63 A
	Rated power output	15 W			
	Peak current	3.6 A	1.44 A	1.2 A	0.75 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %	±1 %	±1 %
	Ripple	80 mV p-p max	120 mV p-p max	120 mV p-p max	150 mV p-p max
	Ambient temperature fluctuation	±1 %	±1 %	±1 %	±1 %
	Running time	200 ms max (110 V AC, Io=100 %)			
	Remaining time	10 ms min (110 V AC, Io=100 %)			
Input	Voltage fluctuation range	4.6 - 5.3 V	11.2 - 13.7 V	13.6 - 16.1 V	22.6 - 27.6 V
	Voltage setting range	±1 % max (Rated output voltage)			
Protection function	Input voltage	100 - 240 V AC [※ Designed voltage range : 85 - 264 V AC]			
	Input frequency	50 - 60 Hz (47 - 63 Hz)			
	Current (A)	110 V AC	0.3	0.3	0.3
		220 V AC	0.16	0.16	0.16
	Efficiency	220 V AC	76 %	81 %	82 %
	Inrush current	110 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start)		
		220 V AC	40 A Typ. (Ta=25 °C, Io=100 % at Cold start)		
	Leakage current	110 V AC	0.35 mA max		
		220 V AC	0.75 mA max		
ETC	Over current protection		Protective function performed within 110 ~ 200 % of the rated output current		
	Over voltage protection		6.8 - 7.9 V	14.5 - 17.2 V	17.5 - 20.5 V
	Overheating protection		Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.		
	Protection of output short		Auto Re-start		
	DC OK Signal		Green LED (ON when output voltage is normal)		
Environment	Dielectric strength		2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)		
			1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)		
			500 V AC for 1 min, Detection current = 10 mA, (Output - FG)		
			500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)		
	Insulation resistance		50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)		
	Ambient temperature		- 25 ~ +50 °C (Refer to the derating curve of output load )		
Ambient humidity		20 ~ 90 % RH (With no condensation)			
Storage temperature		- 40 ~ +85 °C (With no condensation)			
Vibration resistance		10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)			
Shock resistance		150 G, 3 times for each of 6 directions . (State of packing)			
Weight		150 g	144 g	144 g	140 g

## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	DC output terminal
②	-V OUT	
③	⏚	FG
④	AC(N)	
⑤	AC(L)	AC Input terminal
⑥	V-ADJ	
⑦	DC OK	Output indication LED

## » Dimension (Unit : mm)



# 30 Watt

(5 V, 12 V, 15 V, 24 V DC)

## » Specification

DPS series

Model		DPS-30S-05	DPS-30S-12	DPS-30S-15	DPS-30S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	6 A	2.5 A	2 A	1.25 A	
	Rated power output	30 W				
	Peak current	7.2 A	3.0 A	2.4 A	1.5 A	
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %	±0.5 %	
	Load voltage fluctuation rate	±1 %	±1 %	±1 %	±1 %	
	Ripple	80 mV p-p max	120 mV p-p max	120 mV p-p max	150 mV p-p max	
	Ambient temperature fluctuation	±1 %	±1 %	±1 %	±1 %	
	Running time	200 ms max (110 V AC, Io=100 %)				
	Remaining time	10 ms min (110 V AC, Io=100 %)				
Input	Voltage fluctuation range	4.6 - 5.3 V	11.2 - 13.7 V	13.6 - 16.1 V	22.6 - 27.6 V	
	Voltage setting range	±1 % max (Rated output voltage)				
Protection function	Input voltage	100 - 240 V AC [※ Designed voltage range : 85 - 264 V AC]				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	0.53	0.53	0.53	
		220 V AC	0.3	0.3	0.3	
	Efficiency	220 V AC	82 %	85 %	86 %	
	Inrush current	110 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start)			
		220 V AC	40 A Typ. (Ta=25 °C, Io=100 % at Cold start)			
	Leakage current	110 V AC	0.35 mA max			
		220 V AC	0.75 mA max			
ETC	Over current protection		Protective function performed within 110 ~ 200 % of the rated output current			
	Over voltage protection		6.8 - 7.9 V	14.5 - 17.2 V	17.5 - 20.5 V	30 - 36 V
	Overheating protection		Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.			
	Protection of output short		Auto Re-start			
	DC OK Signal		Green LED (ON when output voltage is normal)			
Environment	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)				
		1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)				
		500 V AC for 1 min, Detection current = 10 mA, (Output - FG)				
		500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)				
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)				
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % RH (With no condensation)				
	Storage temperature	- 40 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)				
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)				
	Weight	262 g	242 g	242 g	244 g	

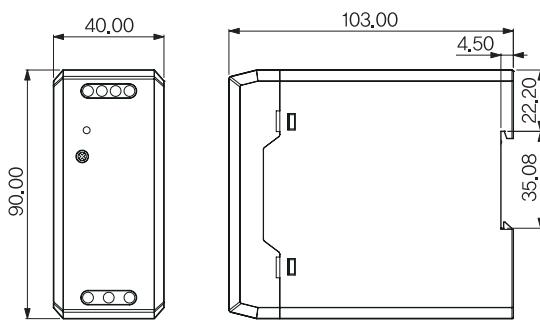
## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	FG	
④	AC (N)	AC Input terminal
⑤	AC (L)	
⑥	V-ADJ	Output voltage variable volume
⑦	DC OK	Output indication LED

※ Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

## » Dimension



# 50 Watt

(5 V, 12 V, 15 V, 24 V DC)

## DPS series

### » Specification

Model		DPS-50S-05	DPS-50S-12	DPS-50S-15	DPS-50S-24					
Output	Rated output voltage	5 V	12 V	15 V	24 V					
	Rated output current	10 A	4.2 A	3.4 A	2.1 A					
	Rated power output			50 W						
	Peak current	12 A	5.04 A	4.08 A	2.52 A					
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %	±0.5 %					
	Load voltage fluctuation rate	±1 %	±1 %	±1 %	±1 %					
	Ripple	80 mV p-p max	120 mV p-p max	120 mV p-p max	150 mV p-p max					
	Ambient temperature fluctuation	±1 %	±1 %	±1 %	±1 %					
	Running time	200 ms max (110 V AC, Io=100 %)								
	Remaining time	10 ms min (110 V AC, Io=100 %)								
Input	Voltage fluctuation range	4.6 - 5.3 V	11.2 - 13.7 V	13.6 - 16.1 V	22.6 - 27.6 V					
	Voltage setting range	±1 % max (Rated output voltage)								
Protection function	Input voltage	100 - 240 V AC [※ Designed voltage range : 85 - 264 V AC]								
	Input frequency	50 - 60 Hz (47 - 63 Hz)								
	Current (A)	110 V AC	0.9	0.9	0.9					
		220 V AC	0.5	0.5	0.5					
	Efficiency	220 V AC	81 %	86 %	88 %					
	Inrush current	110 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start)							
		220 V AC	40 A Typ. (Ta=25 °C, Io=100 % at Cold start)							
	Leakage current	110 V AC	0.35 mA max							
		220 V AC	0.75 mA max							
ETC	Over current protection		Protective function performed within 110 ~ 200 % of the rated output current							
	Over voltage protection		6.8 - 7.9 V	14.5 - 17.2 V	17.5 - 20.5 V	30 - 36 V				
	Overheating protection		Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.							
	Protection of output short		Auto Re-start							
	DC OK Signal		Green LED (ON when output voltage is normal)							
Environment	Dielectric strength		2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)							
			1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)							
			500 V AC for 1 min, Detection current = 10 mA, (Output - FG)							
			500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)							
	Insulation resistance		50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)							
	Ambient temperature	- 25 ~ +70 °C [Refer to the derating curve of output load]								
Ambient humidity	Ambient humidity	20 ~ 90 % RH [With no condensation]								
	Storage temperature	- 40 ~ +85 °C [With no condensation]								
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)								
	Shock resistance	150 %, 3 times for each of 6 directions [State of packing]								
	Weight	274 g	270 g	268 g	266 g					

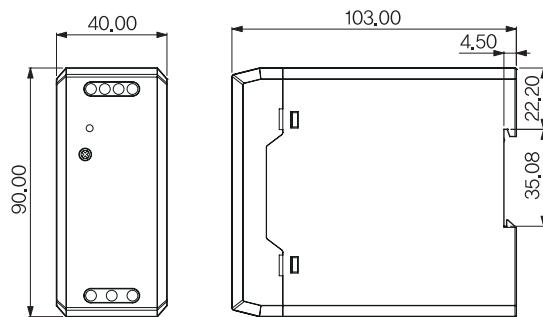
### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②		
③	-V OUT	- Output terminal
④		
⑤	⊕	FG
⑥	AC (N)	AC Input terminal
	AC (L)	
⑧	V-ADJ	Output voltage variable volume
⑨	DC OK	Output indication LED

※ Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

### » Dimension (Unit : mm)



# 75 Watt

( 12 V, 24 V, 48 V DC)

## DPS series

### » Specification

Model		DPS-75S-12	DPS-75S-24	DPS-75S-48
Output	Rated output voltage	12 V	24 V	48 V
	Rated output current	6.25 A	3.13 A	1.57 A
	Rated power output		75 W	
	Peak current	6.3 A	3.2 A	1.6 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %	±1 %
	Ripple	120 mV max	150 mV max	240 mV max
	Ambient temperature fluctuation	±1 %	±1 %	±1 %
	Running time		200 ms max (110 V AC, Io=100 %)	
	Remaining time		10 ms min (110 V AC, Io=100 %)	
Input	Voltage fluctuation range	11.2 - 13.7 V	22.6 - 27.6 V	45.2 - 50.1 V
	Voltage setting range		±1 % max (Rated output voltage)	
Protection function	Input voltage	100 - 240 V AC [※ Designed voltage range : 85 - 264 V AC]		
	Input frequency	50 - 60 Hz (47 - 63 Hz)		
	Current (A)	110 V AC 220 V AC	1.3 0.71	1.3 0.71
	Efficiency	220 V AC	85 %	86 %
	Inrush current	110 V AC 220 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start) 40 A Typ. (Ta=25 °C, Io=100 % at Cold start)	
	Leakage current	110 V AC 220 V AC	0.35 mA max 0.75 mA max	
	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current		
	Over voltage protection	14 - 18 V	30 - 34 V	59 - 63 V
ETC	Overheating protection	Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C		
	Protection of output short	Auto Re-start		
	DC OK Signal	Green LED (ON when output voltage is normal)		
	DC OK Output	Relay output (ON when rated output is over 85%), 250 V AC 1 A max, 30 V DC 1 A max)		
Environment	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)		
		1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)		
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)		
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)		
	Ambient humidity	20 ~ 90 % RH (With no condensation)		
	Storage temperature	- 40 ~ +85 °C (With no condensation)		
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)		
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)		
	Weight	536 g	528 g	524 g

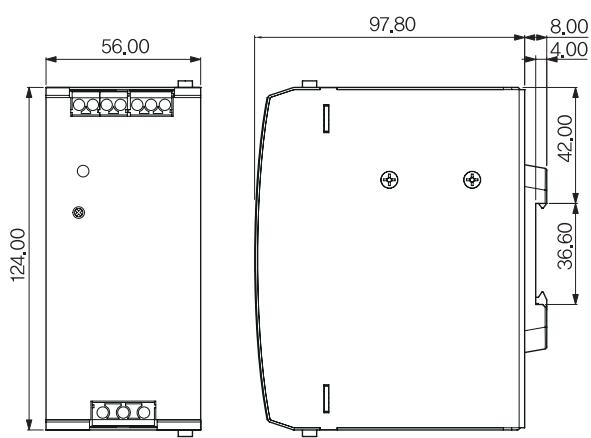
### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	
④	NC	DC OK Relay output
⑤	NO	
⑥	FG	
⑦	AC (N)	
⑧	AC (L)	AC Input terminal
⑨	V-ADJ	Output voltage variable volume
⑩	DC OK	Output indication LED

\* Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

### » Dimension



# 100 Watt

( 12 V, 24 V, 48 V DC)

## » Specification

DPS series

Model		DPS-100S-12	DPS-100S-24	DPS-100S-48
Output	Rated output voltage	12 V	24 V	48 V
	Rated output current	7.5 A	4.2 A	2.1 A
	Rated power output	90 W	100 W	100 W
	Peak current	9.0 A	5.0 A	2.5 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %	±1 %
	Ripple	120 mV max	150 mV max	240 mV max
	Ambient temperature fluctuation	±1 %	±1 %	±1 %
	Running time	200 ms max (110 V AC, Io=100 %)		
	Remaining time	20 ms min (110 V AC, Io=100 %)		
Input	Voltage fluctuation range	11.2 - 13.7 V	22.6 - 27.6 V	45.2 - 50.1 V
	Voltage setting range	±1 % max (Rated output voltage)		
Protection function	Input voltage	100 - 120 V AC / 200 - 240 V AC ※ Auto-select input		
	Input frequency	50 - 60 Hz (47 - 63 Hz)		
	Current (A)	110 V AC 220 V AC	1.72 0.93	1.7 0.9
	Efficiency	220 V AC	86 %	88 %
	Inrush current	110 V AC 220 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start) 40 A Typ. (Ta=25 °C, Io=100 % at Cold start)	
	Leakage current	110 V AC 220 V AC	0.35 mA max 0.75 mA max	
ETC	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current		
	Over voltage protection	14 - 18 V	30 - 34 V	59 - 63 V
	Overheating protection	Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.		
	Protection of output short	Auto Re-start		
	DC OK Signal	Green LED (ON when output voltage is normal)		
	DC OK Output	Relay output (ON when rated output is over 85%), 250 V AC 1 A max, 30 V DC 1 A max)		
Environment	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)		
		1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)		
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)		
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)		
	Ambient humidity	20 ~ 90 % RH (With no condensation)		
	Storage temperature	- 40 ~ +85 °C (With no condensation)		
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)		
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)		
	Weight	556 g	558 g	562 g

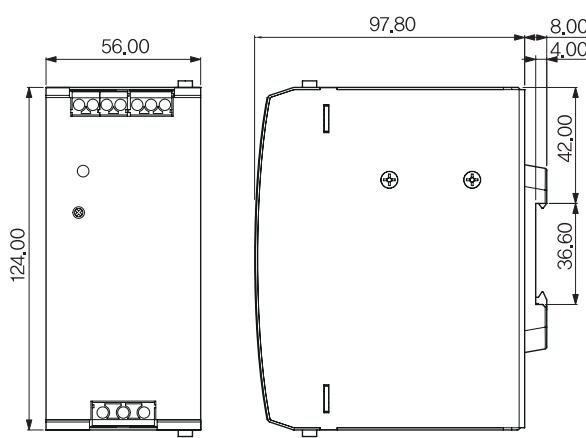
## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	
④	NC	DC OK Relay output
⑤	NO	
⑥	FG	
⑦	AC (N)	
⑧	AC (L)	
⑨	V-ADJ	Output voltage variable volume
⑩	DC OK	Output indication LED

\* Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

## » Dimension



# 120 Watt

(12 V, 24 V, 48 V DC)

DPS series

## » Specification

Model		DPS-120S-12	DPS-120S-24	DPS-120S-48
Output	Rated output voltage	12 V	24 V	48 V
	Rated output current	10 A	5 A	2.5 A
	Rated power output	120 W		
	Peak current	12 A	6 A	3 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %	±1 %
	Ripple	120 mV max	150 mV max	240 mV max
	Ambient temperature fluctuation	±1 %	±1 %	±1 %
	Running time	700 ms max (110 V AC, Io=100 %)		
	Remaining time	30 ms min (110 V AC, Io=100 %)		
Input	Voltage fluctuation range	11.2 - 13.7 V	22.6 - 27.6 V	45.2 - 50.1 V
	Voltage setting range	±1 % max (Rated output voltage)		
	Input voltage	100 - 120 V AC / 200 - 240 V AC ※ Auto-select input		
Protection function	Input frequency	50 - 60 Hz (47 - 63 Hz)		
	Current (A) 110 V AC	2.1	2.1	2.1
	220 V AC	1.1	1.1	1.1
	Efficiency	83 %	87 %	88 %
	Inrush current 110 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start)		
	220 V AC	40 A Typ. (Ta=25 °C, Io=100 % at Cold start)		
ETC	Leakage current 110 V AC	0.35 mA max		
	220 V AC	0.75 mA max		
Environment	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current		
	Over voltage protection	14 - 18 V	30 - 34 V	59 - 63 V
	Overheating protection	Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.		
	Protection of output short	Auto Re-start		
	DC OK Signal	Green LED (ON when output voltage is normal)		
	DC OK Output	Relay output (ON when rated output is over 85%), 250 V AC 1 A max, 30 V DC 1 A max)		
Insulation resistance	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)		
		1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)		
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)		
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)		
Weight	Ambient humidity	20 ~ 90 % RH (With no condensation)		
	Storage temperature	- 40 ~ +85 °C (With no condensation)		
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)		
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)		
	Weight	670 g	658 g	654 g

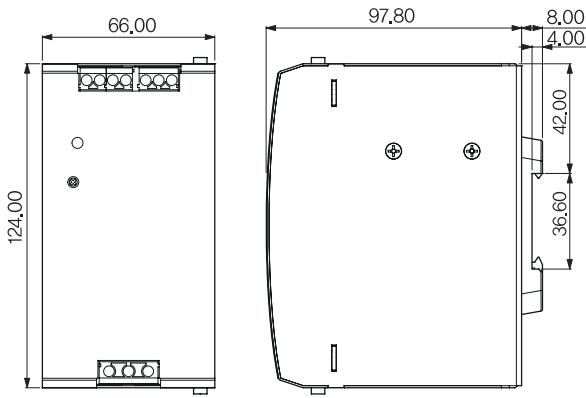
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	DC OK Relay output
④	NC	
⑤	NO	
⑥	⑦	
⑧	FG	
⑨	AC (N)	AC Input terminal
⑩	AC (L)	
⑪	V-ADJ	Output voltage variable volume
⑫	DC OK	Output indication LED

## » Dimension (Unit : mm)



※ Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

# 180 Watt

( 24 V, 48 V DC )

## » Specification

DPS series

Model		DPS-180S-24	DPS-180S-48
Output	Rated output voltage	24 V	48 V
	Rated output current	7.5 A	3.8 A
	Rated power output	180 W	180 W
	Peak current	9 A	4.6 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %
	Ripple	150 mV max	240 mV max
	Ambient temperature fluctuation	±1 %	±1 %
	Running time	500 ms max (110 V AC, Io=100 %)	
	Remaining time	30 ms min (110 V AC, Io=100 %)	
Input	Voltage fluctuation range	22.6 - 27.6 V	45.2 - 50.1 V
	Voltage setting range	±1 % max (Rated output voltage)	
Protection function	Input voltage	100 - 120 V AC / 200 - 240 V AC ※ Auto-select input	
	Input frequency	50 - 60 Hz (47 - 63 Hz)	
	Current (A) 110 V AC	3.3	3.3
	220 V AC	1.95	1.95
	Efficiency 220 V AC	92 %	92 %
	Inrush current 110 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start)	
	220 V AC	40 A Typ. (Ta=25 °C, Io=100 % at Cold start)	
	Leakage current 110 V AC	0.35 mA max	
	220 V AC	0.75 mA max	
	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current	
ETC	Over voltage protection	30 - 34 V	59 - 63 V
	Overheating protection	Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.	
	Protection of output short	Auto Re-start	
	DC OK Signal	Green LED (ON when output voltage is normal)	
	DC OK Output	Relay output (ON when rated output is over 85%), 250 V AC 1 A max, 30 V DC 1 A max)	
	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output) 1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG) 500 V AC for 1 min, Detection current = 10 mA, (Output - FG) 500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)	
Environment	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)	
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)	
	Ambient humidity	20 ~ 90 % RH (With no condensation)	
	Storage temperature	- 40 ~ +85 °C (With no condensation)	
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)	
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)	
	Weight	682 g	680 g

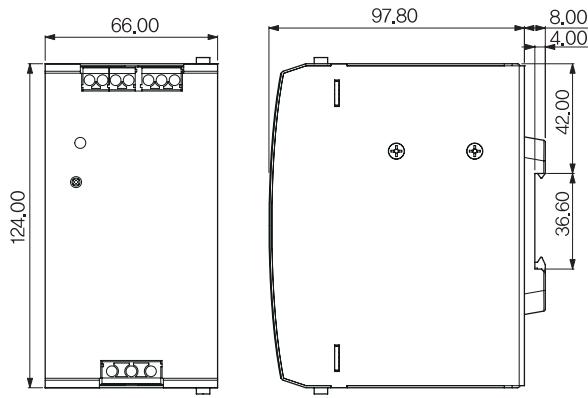
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	
④	NC	DC OK Relay output
⑤	NO	
⑥	FG	
⑦	AC (N)	
⑧	AC (L)	
⑨	V-ADJ	Output voltage variable volume
⑩	DC OK	Output indication LED

## » Dimension (Unit : mm)



※ Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device

# 240 Watt

(12 V, 24 V, 48 V DC)

DPS series

## » Specification

Model		DPS-240S-12	DPS-240S-24	DPS-240S-48
Output	Rated output voltage	12 V	24 V	48 V
	Rated output current	18 A	10 A	5 A
	Rated power output	216 W	240 W	
	Peak current	21 A	12 A	6 A
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %
	Load voltage fluctuation rate	±1 %	±1 %	±1 %
	Ripple	120 mV max	150 mV max	240 mV max
	Ambient temperature fluctuation	±1 %	±1 %	±1 %
	Running time	700 ms max (110 V AC, Io=100 %)		
	Remaining time	30 ms min (110 V AC, Io=100 %)		
Input	Voltage fluctuation range	11.2 - 13.7 V	22.6 - 27.6 V	45.2 - 50.1 V
	Voltage setting range	±1 % max (Rated output voltage)		
Protection function	Input voltage	100 - 120 V AC / 200 - 240 V AC ※ Auto-select input		
	Input frequency	50 - 60 Hz (47 - 63 Hz)		
	Current (A)	110 V AC 220 V AC	4.5 2.4	4.5 2.4
	Efficiency	220 V AC	90 %	92 %
	Inrush current	110 V AC 220 V AC	20 A Typ. (Ta=25 °C, Io=100 % at Cold start) 40 A Typ. (Ta=25 °C, Io=100 % at Cold start)	
	Leakage current	110 V AC 220 V AC	0.35 mA max 0.75 mA max	
ETC	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current		
	Over voltage protection	16 - 18 V	28.5 - 33 V	56 - 59 V
	Overheating protection	Protection circuit is in operation when PWM controller's junction temperature is over 135~140°C.		
	Protection of output short	Auto Re-start		
	DC OK Signal	Green LED (ON when output voltage is normal)		
	DC OK Output	Relay output (ON when rated output is over 85%), 250 V AC 1 A max, 30 V DC 1 A max)		
Environment	Dielectric strength	2,700 V AC for 1 min, Detection current = 10 mA, (Input - Output)		
		1,500 V AC for 1 min, Detection current = 10 mA, (Input - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - FG)		
		500 V AC for 1 min, Detection current = 10 mA, (Output - DC OK)		
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG, DC OK)		
	Ambient temperature	- 25 ~ +70 °C (Refer to the derating curve of output load)		
	Ambient humidity	20 ~ 90 % RH (With no condensation)		
	Storage temperature	- 40 ~ +85 °C (With no condensation)		
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (DIN Rail is installed without applying voltage)		
	Shock resistance	150 G, 3 times for each of 6 directions (State of packing)		
	Weight	896 g	892 g	890 g

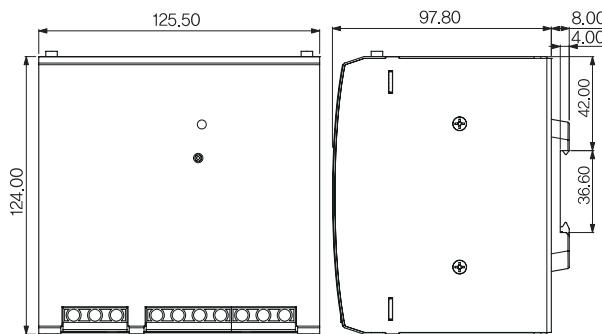
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

## » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	DC OK Relay output
④	NC	
⑤	NO	
⑥	FG	
⑦	AC (L)	AC Input terminal
⑧	AC (N)	
⑨	V-ADJ	Output voltage variable volume
⑩	DC OK	Output indication LED

## » Dimension (Unit : mm)



※ Terminal ① and ② are connected inside the device  
Terminal ③ and ④ are connected inside the device