

# POWER SUPPLY

*DPS series*  
*TPS series*



AC-DC Power supply  
**DPS series**











AC-DC Power supply  
**TPS series**







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## » DPS series

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	±5 ~ 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 (※ 단, DPS-240S-12 : 216 W 임)
Input voltage	100 - 240 V AC (85 - 264 V AC)	100 - 120 V AC / 200 - 240 V AC ※ Auto-select input		
Output voltage	12 V, 24 V, 48 V		24 V, 48 V	12 V, 24 V, 48 V
Voltage fluctuation range	±5 ~ 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

Model	TPS-15S	TPS-30S	TPS-50S	TPS-75S
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
Power output	15 W	30 W	50 W	75 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	±5 ~ ±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-100S	TPS-150S	TPS-220S
Appearance			
Dimension (mm)	93 X 199 X 50	93 X 209 X 65	93 X 209 X 65
Power output	100 W	150 W	220 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
Voltage fluctuation range	±5 ~ ±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 width of DIN Rail Installation method
- Low output voltage fluctuation rate
- Low heating due to high efficiency
- DC OK Signal Relay Output Built-in
- Protection function for 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

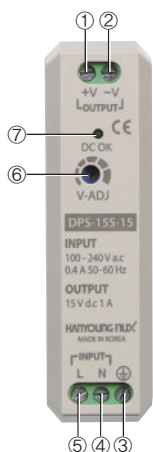
(5 V, 12 V, 15 V, 24 V DC)

## DPS series

### » Specification

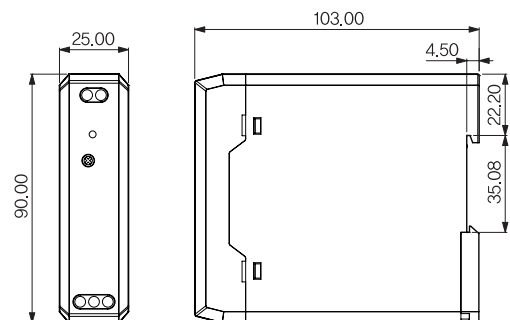
Model		DPS-15S-05	DPS-15S-12	DPS-15S-15	DPS-15S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	3 A	1.2 A	1 A	0.63 A	
	Rated power output	15 W				
	Peak current	3.6 A	1.44 A	1.2 A	0.75 A	
	Circuit voltage fluctuation rate	±0.5 %	±0.5 %	±0.5 %	±0.5 %	
	Load voltage fluctuation 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, I <sub>o</sub> =100 %)				
	Remaining time	10 ms min (110 V AC, I <sub>o</sub> =100 %)				
	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)				
Input	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	0.3
		220 V AC	0.16	0.16	0.16	0.16
	Efficiency	220 V AC	76 %	81 %	82 %	86 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
		220 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
Leakage current	110 V AC	0.35 mA max				
	220 V AC	0.75 mA max				
Protection function	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)				
ETC	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)					
Environment	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 %, 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)	AC Input terminal
⑤	AC(L)	
⑥	V-ADJ	Output voltage variable volume
⑦	DC OK	Output indication LED

### » Dimension (Unit : mm)



# 30 Watt

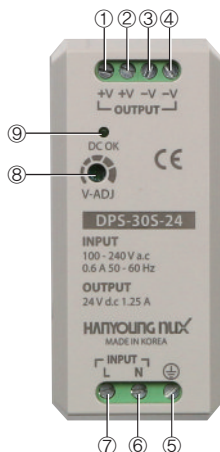
(5 V, 12 V, 15 V, 24 V DC)

## DPS series

### » Specification

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, I <sub>o</sub> =100 %)				
	Remaining time	10 ms min (110 V AC, I <sub>o</sub> =100 %)				
	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)				
Input	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	0.53
		220 V AC	0.3	0.3	0.3	0.3
	Efficiency	220 V AC	82 %	85 %	86 %	86 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
		220 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
Leakage current	110 V AC	0.35 mA max				
	220 V AC	0.75 mA max				
Protection function	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)				
ETC	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)					
Environment	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 %, 3 times for each of 6 directions (State of packing)				
	Weight	262 g	242 g	242 g	244 g	

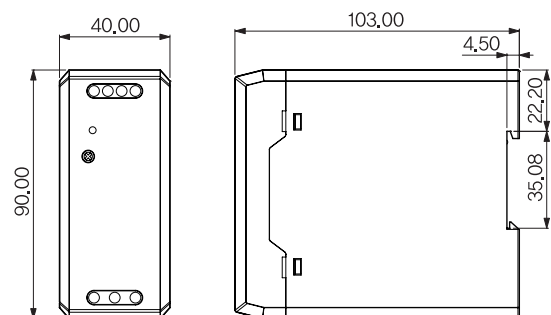
### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②		
③	-V OUT	- Output terminal
④		
⑤	⊕	FG
⑥	AC (N)	AC Input terminal
⑦	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)



# 50 Watt

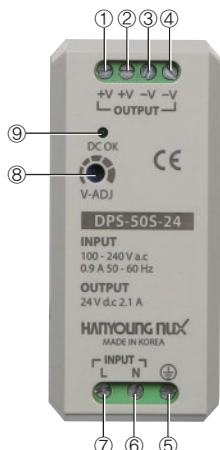
(5 V, 12 V, 15 V, 24 V DC)

## 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, I <sub>o</sub> =100 %)				
	Remaining time	10 ms min (110 V AC, I <sub>o</sub> =100 %)				
	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)				
Input	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	0.9
		220 V AC	0.5	0.5	0.5	0.5
	Efficiency	220 V AC	81 %	86 %	88 %	88 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
		220 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)			
Leakage current	110 V AC	0.35 mA max				
	220 V AC	0.75 mA max				
Protection function	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)				
ETC	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)					
Environment	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 %, 3 times for each of 6 directions (State of packing)				
	Weight	274 g	270 g	268 g	266 g	

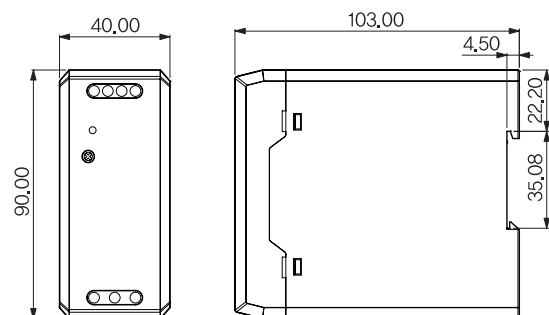
### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②		
③	-V OUT	- Output terminal
④		
⑤	FG	AC Input terminal
⑥	AC (N)	
⑦	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

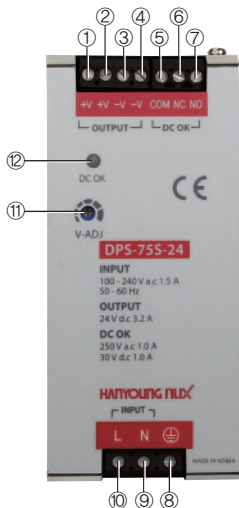
( 12 V, 24 V, 48 V DC)

## 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	7.5 A	3.8 A	1.9 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, I <sub>o</sub> =100 %)			
	Remaining time	10 ms min (110 V AC, I <sub>o</sub> =100 %)			
	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	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	1.3	1.3	1.3
		220 V AC	0.71	0.71	0.71
	Efficiency	220 V AC	85 %	86 %	90 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)		
		220 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)		
	Leakage current	110 V AC	0.35 mA max		
220 V AC		0.75 mA max			
Protection function	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)			
ETC	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)				
Environment	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 %, 3 times for each of 6 directions (State of packing)			
	Weight	536 g	528 g	524 g	

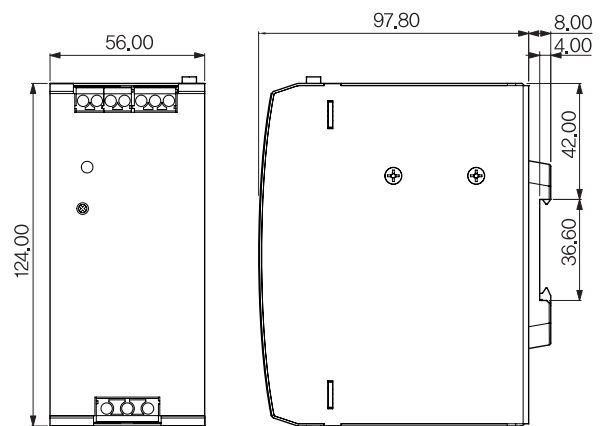
### » Connection diagram



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



# 100 Watt

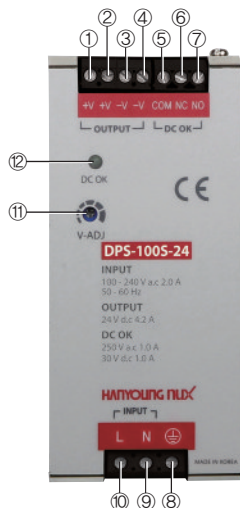
( 12 V, 24 V, 48 V DC)

## DPS series

### » Specification

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, I <sub>o</sub> =100 %)			
	Remaining time	10 ms min (110 V AC, I <sub>o</sub> =100 %)			
	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	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	0.93	0.9	0.9
		220 V AC	1.72	1.7	1.7
	Efficiency	220 V AC	86 %	88 %	88 %
	Inrush current	110 V AC	20 A Typ. (Ta=25 °C, I <sub>o</sub> =100 % at Cold start)		
		220 V AC	40 A Typ. (Ta=25 °C, I <sub>o</sub> =100 % at Cold start)		
Leakage current	110 V AC	0.35 mA max			
	220 V AC	0.75 mA max			
Protection function	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)			
ETC	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)				
Environment	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 %, 3 times for each of 6 directions (State of packing)			
	Weight	556 g	558 g	562 g	

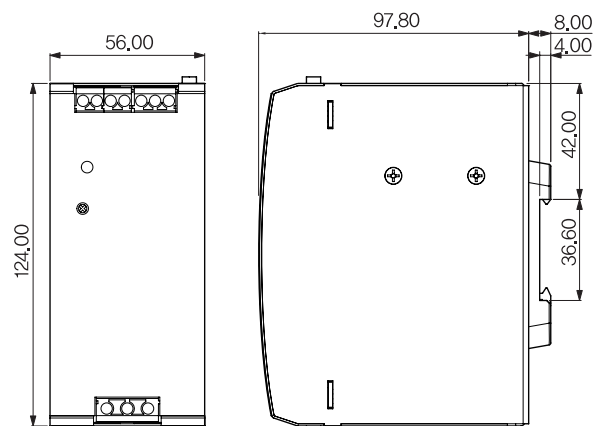
### » Connection diagram



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





# 120 Watt

( 12 V, 24 V, 48 V DC)

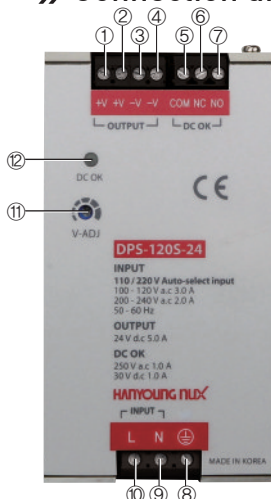
## DPS series

### » 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, I <sub>o</sub> =100 %)			
	Remaining time	30 ms min (110 V AC, I <sub>o</sub> =100 %)			
	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	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	2.1	2.1	2.1
		220 V AC	1.1	1.1	1.1
	Efficiency	220 V AC	83 %	87 %	88 %
	Inrush current	110 V AC	20 A Typ. (Ta=25 °C, I <sub>o</sub> =100 % at Cold start)		
		220 V AC	40 A Typ. (Ta=25 °C, I <sub>o</sub> =100 % at Cold start)		
Leakage current	110 V AC	0.35 mA max			
	220 V AC	0.75 mA max			
Protection function	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)			
ETC	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)				
Environment	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 %, 3 times for each of 6 directions (State of packing)			
	Weight	670 g	658 g	654 g	

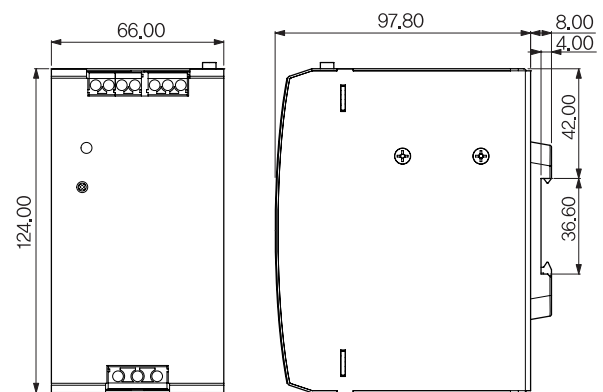
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

### » 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	FG
⑥	⊕	
⑦	AC (N)	AC Input terminal
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

# 180 Watt

( 12 V, 24 V, 48 V DC)

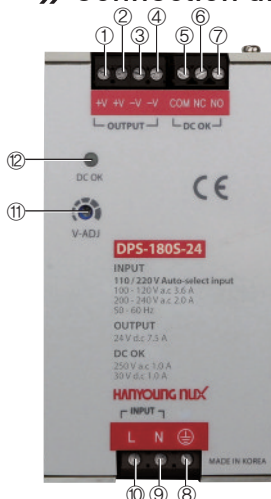
## DPS series

### » Specification

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	700 ms max (110 V AC, I <sub>o</sub> =100 %)		
	Remaining time	30 ms min (110 V AC, I <sub>o</sub> =100 %)		
	Voltage fluctuation range	22.6 - 27.6 V	45.2 - 50.1 V	
Voltage setting range	±1 % max (Rated output voltage)			
Input	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	91	91
	Efficiency	220 V AC	1.95 %	1.95 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)	
		220 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)	
Leakage current	110 V AC	0.35 mA max		
	220 V AC	0.75 mA max		
Protection function	Over current protection	Protective function performed within 110 ~ 200 % of the rated output current		
	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)			
ETC	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)			
Environment	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 ٪, 3 times for each of 6 directions (State of packing)		
	Weight	682 g	680 g	

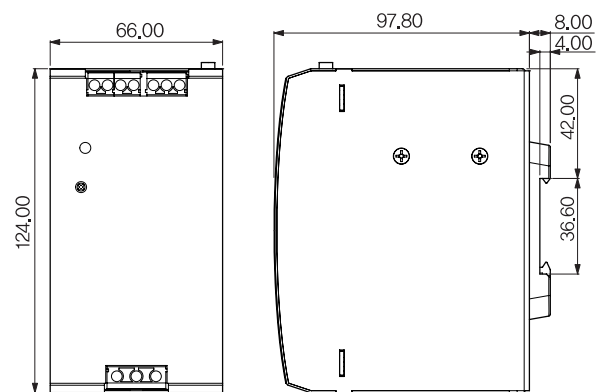
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Output terminal
②	-V OUT	- Output terminal
③	COM	DC OK Relay output
④	NC	
⑤	NO	
⑥	⊕	FG
⑦	AC (N)	AC Input terminal
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)

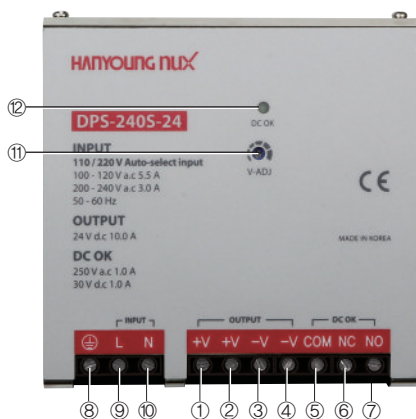
## DPS series

### » 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, I <sub>o</sub> =100 %)			
	Remaining time	30 ms min (110 V AC, I <sub>o</sub> =100 %)			
	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	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	4.5	4.5	4.5
		220 V AC	2.4	2.4	2.4
	Efficiency	220 V AC	90 %	92 %	93 %
		Inrush current	20 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)		
	Leakage current	110 V AC	40 A Typ. (T <sub>a</sub> =25 °C, I <sub>o</sub> =100 % at Cold start)		
220 V AC		0.35 mA max			
Protection function	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)			
ETC	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)				
Environment	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	

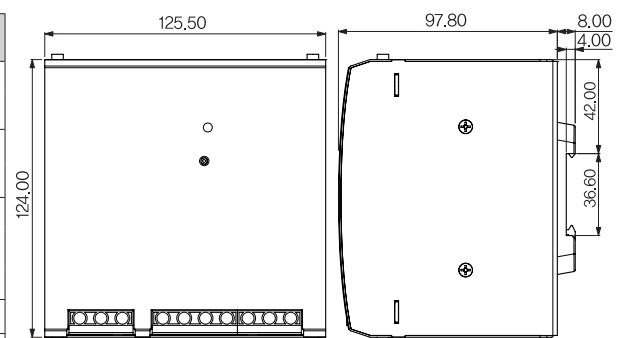
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

### » Connection diagram



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



## AC-DC Power supply

# TPS series



### » Feature

- Maximize the effect of protection against heat with using the Aluminum case. (30 W - 75 W)
- Output voltage adjustable volume built-in
- Output ON Pilot lamp (LED)
- Free Voltage (100 - 240 V AC)
- Inrush Current Limit Circuit built-in
- Over current, Over voltage (except for 15 W), output short circuit, and overheating protection function

### » Suffix code

Model	Code	Description
TPS-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TPS Power supply
Power output	15	15 W
	30	30 W
	50	50 W
	75	75 W
	100	100 W
	150	150 W
	220	220 W
	350	350 W
	450	450 W
	600	600 W
Number of output voltage	S	1 Output (Single output)
	D	2 Output (Dual output)
Output voltage classification	05	5 V DC
	12	12 V DC
	15	15 V DC
	24	24 V DC

# 15 Watt

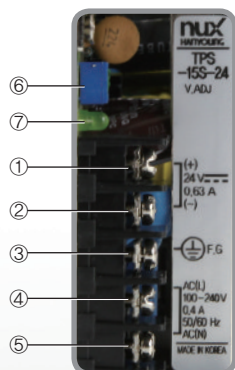
(5 V, 12 V, 15 V, 24 V DC)

TPS series

## » Specification

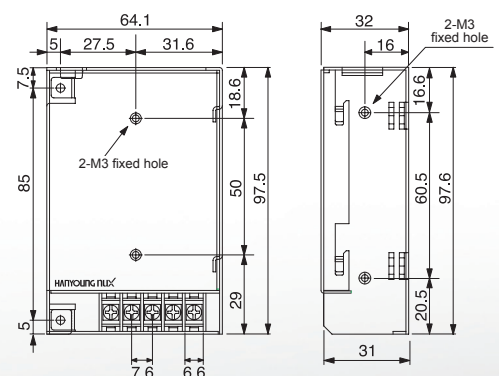
Model		TPS-15S-05	TPS-15S-12	TPS-15S-15	TPS-15S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	3 A	1.3 A	1 A	0.63 A	
	Rated power output	15 W	15.6 W	15 W	15.1 W	
	Peak current	3.9 A	1.4 A	1.3 A	0.8 A	
	Circuit voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Load voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±1 % max (Rated output voltage)				
Input	Input voltage	100 - 240 V AC (※ Designed voltage range : 88 - 264 V AC)				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	0.4	0.4	0.4	0.4
		220 V AC	0.2	0.2	0.2	0.2
	Efficiency	220 V AC	75 %	79 %	83 %	84 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 %)			
		220 V AC	40 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 %)			
Leakage current	110 V AC	3.5 mA max				
	220 V AC	3.5 mA max				
Protection function	Over voltage protection	Protective function performed within 110 ~ 190 % of the rated output current				
	Overheating protection	135 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)				
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)					
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (Not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 228 g (Excluded the weight of box)				

## » Connection diagram



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

## » Dimension (Unit : mm)



# 30 Watt

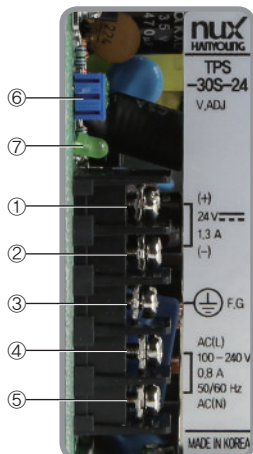
(5 V, 12 V, 15 V, 24 V DC)

TPS series

## » Specification

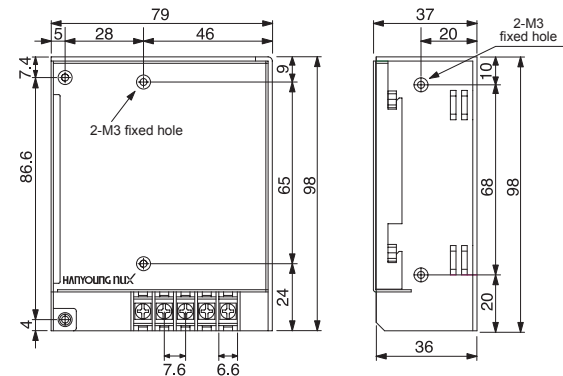
Model		TPS-30S-05	TPS-30S-12	TPS-30S-15	TPS-30S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	6 A	2.5 A	2 A	1.3 A	
	Rated power output	30 W			31.2 W	
	Peak current	7.5 A	3.5 A	2.2 A	1.5 A	
	Circuit voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Load voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max(110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±1 % max (Rated output voltage)				
Input	Input voltage	100 - 240 V AC (※ Designed voltage range : 88 - 264 V AC)				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	0.8	0.8	0.8	0.8
		220 V AC	0.4	0.4	0.4	0.4
	Efficiency	220 V AC	72 %	84 %	85 %	85 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
		220 V AC	40 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
Leakage current	110 V AC	3.5 mA max				
	220 V AC	3.5 mA max				
Protection function	Over current protection	Protective function performed within 110 ~ 220 % of the rated output current				
	Over voltage protection	5.75 - 7.0 V	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)				
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)					
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 238 g (Excluded the weight of box)				

## » Connection diagram



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

## » Dimension (Unit : mm)





# 50 Watt

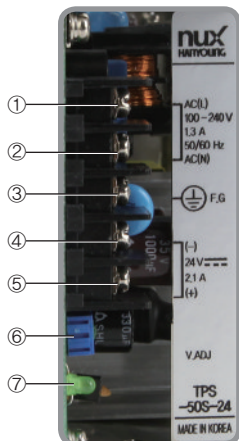
(5 V, 12 V, 15 V, 24 V DC)

TPS series

## » Specification

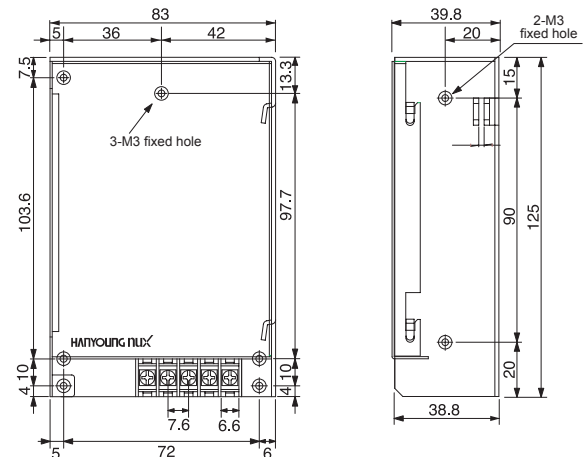
Model		TPS-50S-05	TPS-50S-12	TPS-50S-15	TPS-50S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	9 A	4.2 A	3.4 A	2.1 A	
	Rated power output	45 W	50.4 W	51 W	50.4 W	
	Peak current	12 A	5.5 A	4.0 A	2.8 A	
	Circuit voltage fluctuation rate	± 50 mV	± 120 mV	± 150 mV	± 240 mV	
	Load voltage fluctuation rate	± 50 mV	± 120 mV	± 150 mV	± 240 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	± 1% max (Rated output voltage)				
Input	Input voltage	100 - 240 V AC (※ Designed voltage range : 88 - 264 V AC)				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	1.3	1.3	1.3	1.3
		220 V AC	0.6	0.6	0.6	0.6
	Efficiency	220 V AC	75 %	83 %	85 %	87 %
		110 V AC	20 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
	Inrush current	220 V AC	40 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
110 V AC		3.5 mA max				
Leakage current	220 V AC	3.5 mA max				
	110 V AC	3.5 mA max				
Protection function	Over current protection	Protective function performed within 110 ~ 190 % of the rated output current				
	Over voltage protection	5.75 - 7.0 V	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)				
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)					
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 328 g (Excluded the weight of box)				

## » Connection diagram



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

## » Dimension (Unit : mm)



# 75 Watt

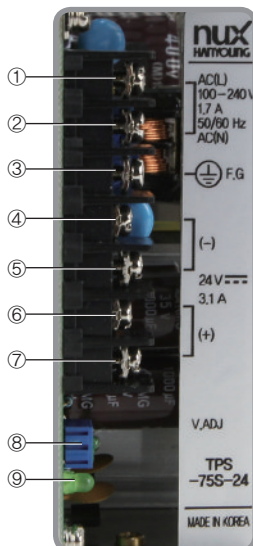
(5 V, 12 V, 15 V, 24 V DC)

TPS series

## » Specification

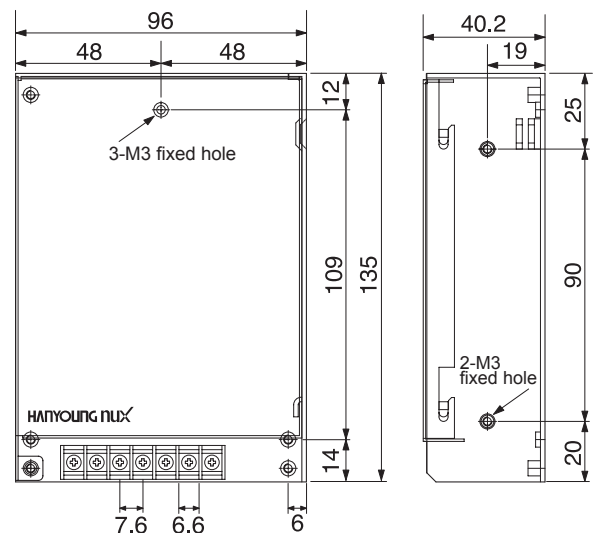
Model		TPS-75S-05	TPS-75S-12	TPS-75S-15	TPS-75S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	13 A	6.3 A	5 A	3.1 A	
	Rated power output	65 W	75.6 W	75 W	74.4 W	
	Peak current	15 A	7.0 A	5.3 A	3.5 A	
	Circuit voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Load voltage fluctuation rate	±50 mV	±120 mV	±150 mV	±240 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±1 % max (Rated output voltage)				
Input	Input voltage	100 - 240 V AC (※ Designed voltage range : 88 - 264 V AC)				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	1.7	1.7	1.7	1.7
		220 V AC	0.8	0.8	0.8	0.8
	Efficiency	220 V AC	77 %	85 %	85 %	87 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
		220 V AC	40 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
Leakage current	110 V AC	3.5 mA max				
	220 V AC	3.5 mA max				
Protection function	Over current protection	Protective function performed within 110 ~ 170 % of the rated output current				
	Over voltage protection	5.75 - 7.0 V	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)				
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)					
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 394 g (Excluded the weight of box)				

## » Connection diagram



Terminal number	Terminal name	Description
①	AC (L)	AC Input terminal
②	AC (N)	
③	⊕	FG
④	-V OUT	DC output terminal
⑤	(-)	
⑥	+V OUT	
⑦	V-ADJ	Output voltage variable volume
⑧		
⑨	DC OK	Output indication LED

## » Dimension (Unit : mm)



# 100 Watt

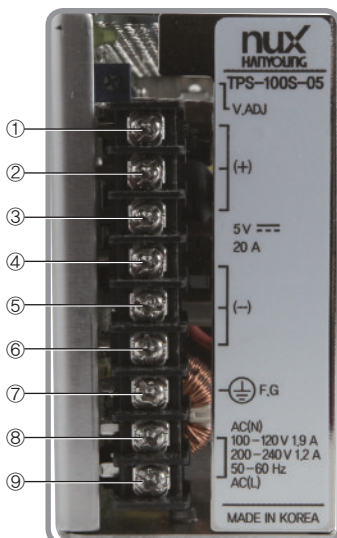
(5 V, 12 V, 15 V, 24 V DC)

## TPS series

### » Specification

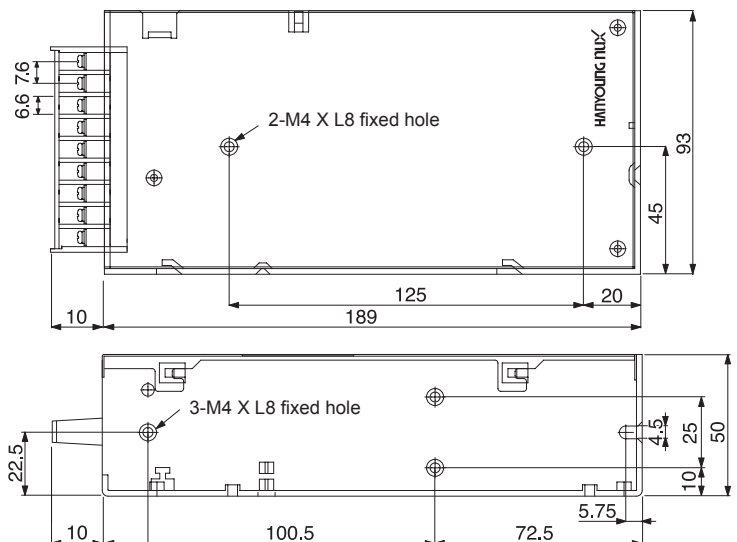
Model		TPS-100S-05	TPS-100S-12	TPS-100S-15	TPS-100S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	20 A	8.4 A	6.7 A	4.2 A	
	Rated power output	100 W	100.8 W	100.5 W	100.8 W	
	Peak current	27 A	13 A	10 A	6 A	
	Circuit voltage fluctuation rate	±25 mV	±36 mV	±45 mV	±72 mV	
	Load voltage fluctuation rate	±50 mV	±36 mV	±45 mV	±72 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±0.5 % max (Rated output voltage)				
Input	Input voltage	100 - 120 / 200 - 240 V AC				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	1.88	1.75	1.75	1.69
		220 V AC	1.0	0.93	0.91	0.90
	Efficiency	220 V AC	80 %	87 %	87 %	90 %
		110 V AC	25 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
	Leakage current	220 V AC	50 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
110 V AC		3.5 mA max				
Protection function	Over current protection	Protective function performed within 110 ~ 170 % of the rated output current				
	Over voltage protection	5.75 - 7.0 V	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)						
	Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)				
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 650 g (Excluded the weight of box)				

### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Out
②	+V OUT	
③	+V OUT	
④	-V OUT	- Out
⑤	-V OUT	
⑥	-V OUT	
⑦	⊕	FG
⑧	AC (N)	AC Input terminal
⑨	AC (L)	

### » Dimension (Unit : mm)





# 150 Watt

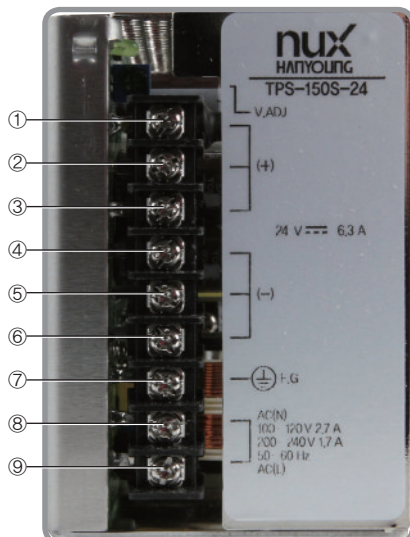
(5 V, 12 V, 15 V, 24 V DC)

## TPS series

### » Specification

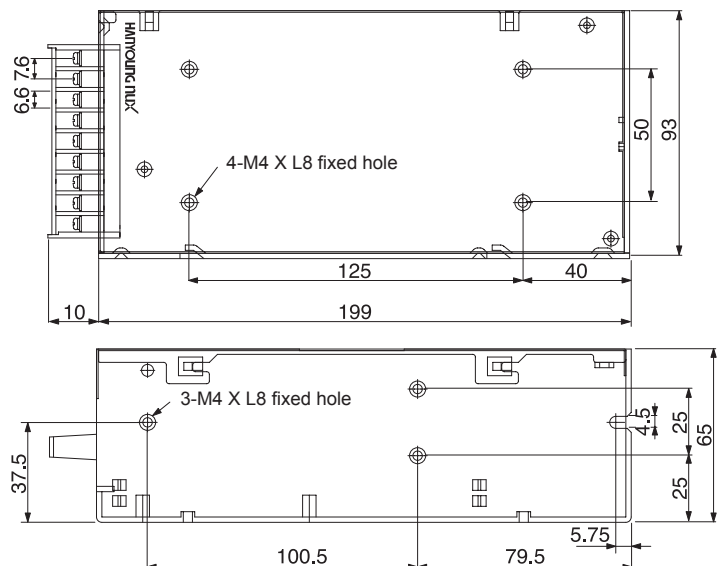
Model		TPS-75S-05	TPS-75S-12	TPS-75S-15	TPS-75S-24	
Output	Rated output voltage	5 V	12 V	15 V	24 V	
	Rated output current	27 A	12.5 A	10 A	6.3 A	
	Rated power output	135 W	150 W	150 W	151 W	
	Peak current	33 A	14 A	14 A	10 A	
	Circuit voltage fluctuation rate	±25 mV	±36 mV	±45 mV	±72 mV	
	Load voltage fluctuation rate	±50 mV	±36 mV	±45 mV	±72 mV	
	Ripple/noise	50/100 mV max	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	50 mV	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)				
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)				
	Voltage fluctuation range	4.75 - 5.25 V	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±0.5 % max (Rated output voltage)				
Input	Input voltage	100 - 120 / 200 - 240 V AC				
	Input frequency	50 - 60 Hz (47 - 63 Hz)				
	Current (A)	110 V AC	2.95	2.85	2.85	2.75
		220 V AC	1.75	1.65	1.65	1.55
	Efficiency	220 V AC	78 %	87 %	85 %	89 %
		Inrush current	28 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)			
	Leakage current	110 V AC	3.5 mA max			
220 V AC		3.5 mA max				
Protection function	Over current protection	Protective function performed within 110 ~ 170 % of the rated output current				
	Over voltage protection	5.75 - 7.0 V	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C				
	Protection of output short	Auto Re-start				
	Output signal LED	Green LED				
ETC	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)				
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)					
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)				
	Ambient humidity	20 ~ 90 % R.H (With no condensation)				
	Storage temperature	-30 ~ +85 °C (With no condensation)				
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)				
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)				
	Weight	approx. 726 g (Excluded the weight of box)				

### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Out
②	+V OUT	
③	+V OUT	
④	-V OUT	- Out
⑤	-V OUT	
⑥	-V OUT	
⑦	⊕	FG
⑧	AC (N)	AC Input terminal
⑨	AC (L)	

### » Dimension (Unit : mm)



# 220 Watt

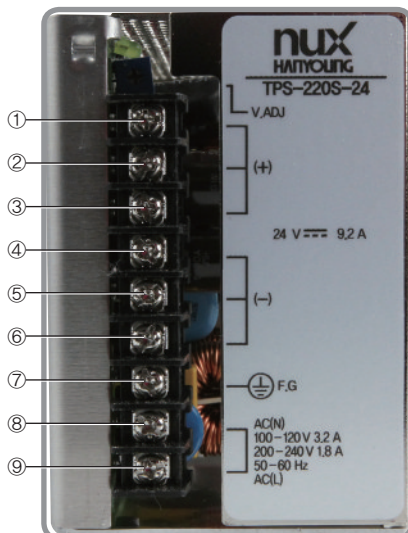
(5 V, 12 V, 15 V, 24 V DC)

## TPS series

### » Specification

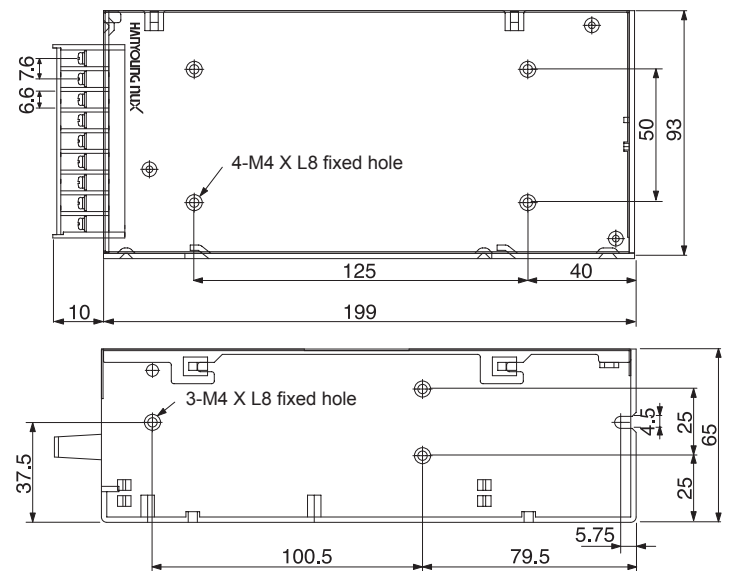
Model		TPS-220S-12	TPS-220S-15	TPS-220S-24	
Output	Rated output voltage	12 V	15 V	24 V	
	Rated output current	17 A	14.7 A	9.2 A	
	Rated power output	204 W	220.5 W	220.8 W	
	Peak current	20 A	20 A	13 A	
	Circuit voltage fluctuation rate	±36 mV	±45 mV	±72 mV	
	Load voltage fluctuation rate	±36 mV	±45 mV	±72 mV	
	Ripple/noise	80/170 mV max	80/170 mV max	100/200 mV max	
	Ambient temperature fluctuation	120 mV	150 mV	240 mV	
	Running time	500 ms max (110 V AC, I <sub>o</sub> = 100 %)			
	Remaining time	20 ms min (110 V AC, I <sub>o</sub> = 100 %)			
	Voltage fluctuation range	11.4 - 12.6 V	14.25 - 15.75 V	22.8 - 25.2 V	
	Voltage setting range	±0.5 % max (Rated output voltage)			
Input	Input voltage	100 - 120 / 200 - 240 V AC			
	Input frequency	50 - 60 Hz (47 - 63 Hz)			
	Current (A)	110 V AC	3.2	3.2	3.1
		220 V AC	1.8	1.8	1.7
	Efficiency	220 V AC	86 %	86 %	90 %
	Inrush current	110 V AC	20 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)		
		220 V AC	40 A Typ. (T <sub>a</sub> = 25 °C, I <sub>o</sub> = 100 % at COLD START)		
Leakage current	110 V AC	3.5 mA max			
	220 V AC	3.5 mA max			
Protection function	Over current protection	Protective function performed within 110 ~ 170 % of the rated output current			
	Over voltage protection	13.8 - 16.8 V	17.3 - 21 V	27.6 - 33.6 V	
	Overheating protection	140 °C			
	Protection of output short	Auto Re-start			
	Output signal LED	Green LED			
ETC	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)			
Insulation resistance	50 MΩ min. (Input - Output, FG), (Output - FG)				
Environment	Ambient temperature	-20 ~ +50 °C (Refer to the derating curve of output load)			
	Ambient humidity	20 ~ 90 % R.H (With no condensation)			
	Storage temperature	-30 ~ +85 °C (With no condensation)			
	Vibration resistance	10 - 55 Hz, peak amplitude 0.375 mm, 2 hours for each of 3 directions (not in motion)			
	Shock resistance	150 %, 3 times for each of 6 directions (State of packing)			
	Weight	approx. 726 g (Excluded the weight of box)			

### » Connection diagram



Terminal number	Terminal name	Description
①	+V OUT	+ Out
②	+V OUT	
③	+V OUT	
④	-V OUT	- Out
⑤	-V OUT	
⑥	-V OUT	
⑦	⊕	FG
⑧	AC [N]	AC Input terminal
⑨	AC [L]	

### » Dimension (Unit : mm)





Pulsadores de control

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Regulador de potencia tipo tiristor

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