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POWER SUPPLY

DPS series
TPS series







AC-DC Power supply
DPS series







AC-DC Power supply
TPS series






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» 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 | ±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 (※ 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 | ±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 (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 | ±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-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 | ±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 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



DIN Rail Type

» 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

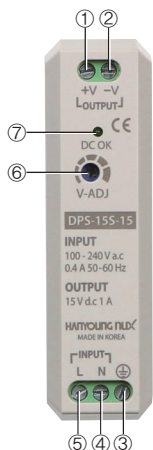
(5 V, 12 V, 15 V, 24 V DC)

DPS series

» Specification

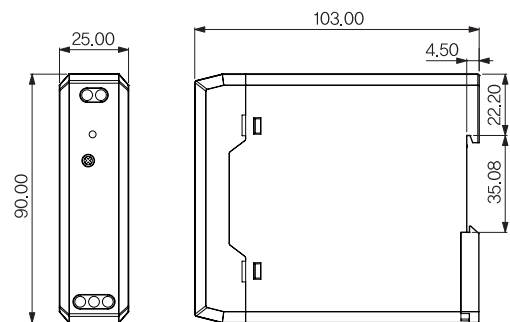
| Model | | DPS-15S-05 | DPS-15S-12 | DPS-15S-15 | DPS-15S-24 | |
|-----------------------|---|--|--|----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 3 A | 1.3 A | 1 A | 0.63 A | |
| | Rated power output | 15 W | | | | |
| | 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, I _o =100 %) | | | | |
| | Remaining time | 10 ms min (110 V AC, I _o =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 _a =25 °C, I _o =100 % at Cold start) | | | |
| | | 220 V AC | 40 A Typ. (T _a =25 °C, I _o =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

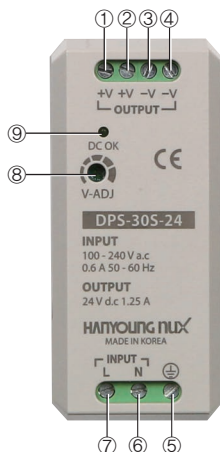
(5 V, 12 V, 15 V, 24 V DC)

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 _o =100 %) | | | | |
| | Remaining time | 10 ms min (110 V AC, I _o =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. (Ta=25 °C, I _o =100 % at Cold start) | | | |
| | | 220 V AC | 40 A Typ. (Ta=25 °C, I _o =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 | |

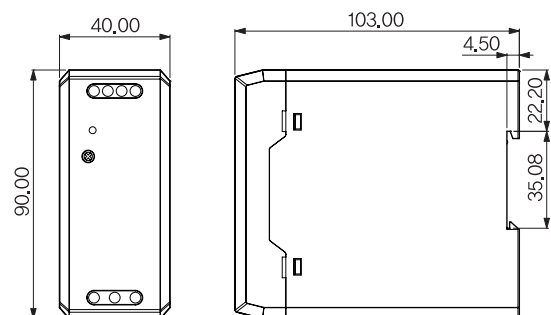
» Connection diagram



| 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

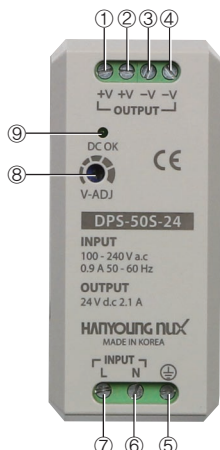
(5 V, 12 V, 15 V, 24 V DC)

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 _o =100 %) | | | | |
| | Remaining time | 10 ms min (110 V AC, I _o =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 _a =25 °C, I _o =100 % at Cold start) | | | |
| | | 220 V AC | 40 A Typ. (T _a =25 °C, I _o =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 | |

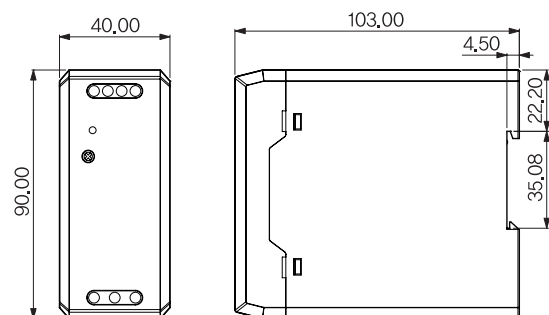
» Connection diagram



| 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

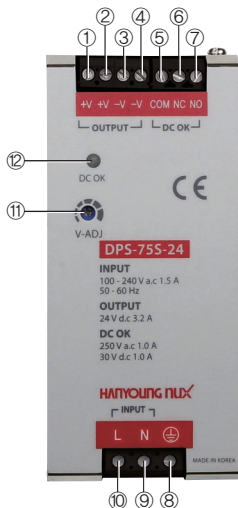
(12 V, 24 V, 48 V DC)

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 | 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, I _o =100 %) | | | |
| | Remaining time | 10 ms min (110 V AC, I _o =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 _a =25 °C, I _o =100 % at Cold start) | | |
| | | 220 V AC | 40 A Typ. (T _a =25 °C, I _o =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 | |

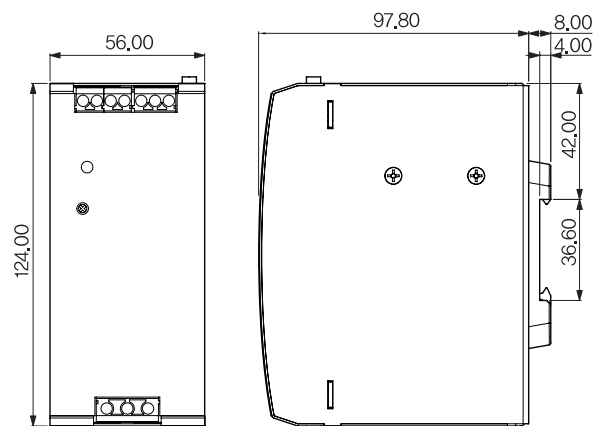
» Connection diagram



| Terminal number | Terminal name | Description |
|-----------------|---------------|--------------------------------|
| ① | +V OUT | + Output terminal |
| ② | | |
| ③ | -V OUT | - Output terminal |
| ④ | | |
| ⑤ | COM | DC OK Relay output |
| ⑥ | NC | |
| ⑦ | NO | |
| ⑧ | ⊕ | 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

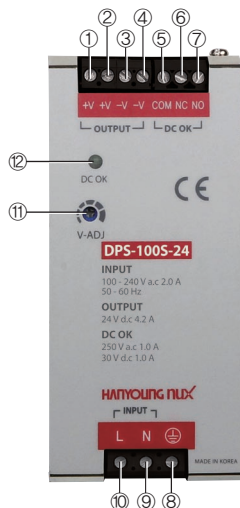
(12 V, 24 V, 48 V DC)

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 _o =100 %) | | | |
| | Remaining time | 20 ms min (110 V AC, I _o =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 | 1.72 | 1.7 | 1.7 |
| | | 220 V AC | 0.93 | 0.9 | 0.93 |
| | Efficiency | 220 V AC | 86 % | 88 % | 88 % |
| | Inrush current | 110 V AC | 20 A Typ. (Ta=25 °C, I _o =100 % at Cold start) | | |
| | | 220 V AC | 40 A Typ. (Ta=25 °C, I _o =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 | |

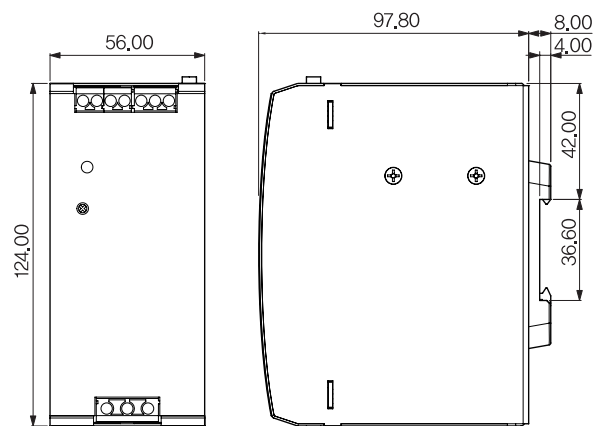
» Connection diagram



| Terminal number | Terminal name | Description |
|-----------------|---------------|--------------------------------|
| ① | +V OUT | + Output terminal |
| ② | -V OUT | - Output terminal |
| ③ | COM | DC OK Relay output |
| ④ | NC | |
| ⑤ | V-ADJ | Output voltage variable volume |
| ⑥ | AC (IN) | AC Input terminal |
| ⑦ | AC (L) | |
| ⑧ | DC OK | Output indication LED |
| ⑨ | L | |
| ⑩ | N | |

※ 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)

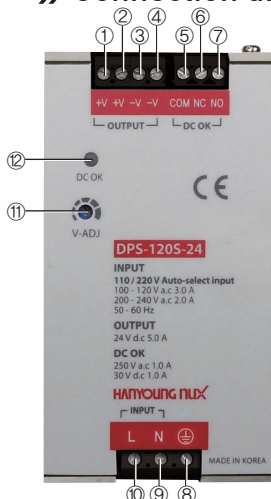
DPS series

» 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 _o =100 %) | | | |
| | Remaining time | 30 ms min (110 V AC, I _o =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 _o =100 % at Cold start) | | |
| | | 220 V AC | 40 A Typ. (Ta=25 °C, I _o =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 | |

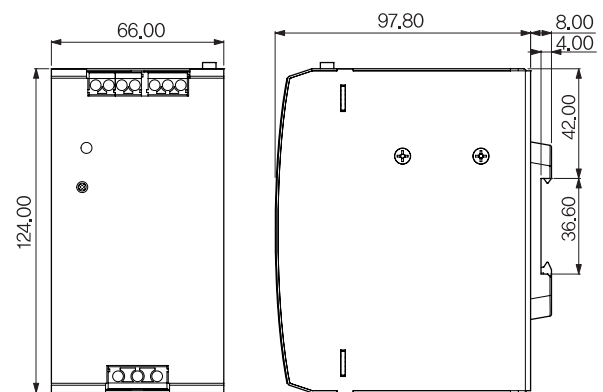
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

» 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 | |
| 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

180 Watt

(24 V, 48 V DC)

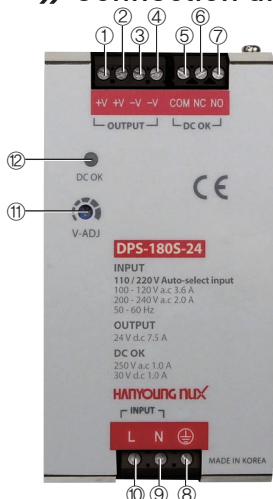
DPS series

» 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 | 500 ms max (110 V AC, I _o =100 %) | | |
| | Remaining time | 30 ms min (110 V AC, I _o =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 | 1.95 | 1.95 |
| | Efficiency | 220 V AC | 92 % | 92 % |
| | Inrush current | 110 V AC | 20 A Typ. (T _a =25 °C, I _o =100 % at Cold start) | |
| | | 220 V AC | 40 A Typ. (T _a =25 °C, I _o =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 %g, 3 times for each of 6 directions (State of packing) | | |
| | Weight | 682 g | 680 g | |

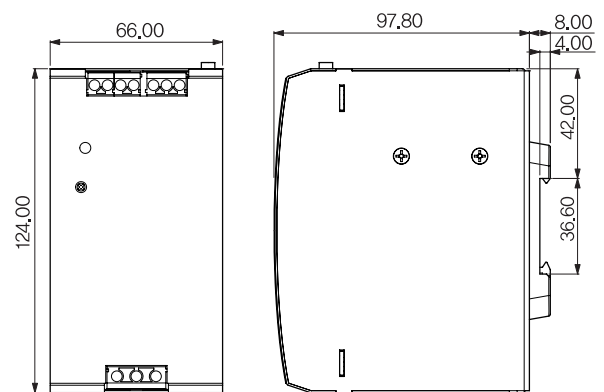
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

» Connection diagram



| Terminal number | Terminal name | Description |
|-----------------|---------------|--------------------------------|
| ① | +V OUT | + Output terminal |
| ② | -V OUT | - Output terminal |
| ③ | COM | 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)

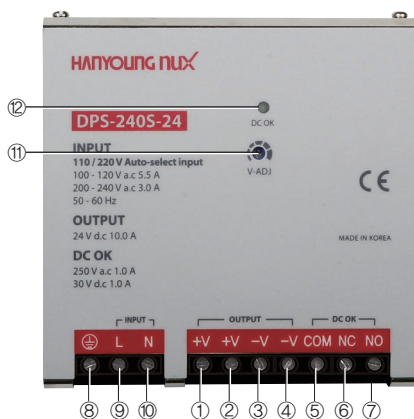
DPS series

» 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, Io=100 %) | | | |
| | Remaining time | 30 ms min (110 V AC, Io=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 | 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 | | | |
| 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 %, 3 times for each of 6 directions (State of packing) | | | |
| | Weight | 896 g | 892 g | 890 g | |

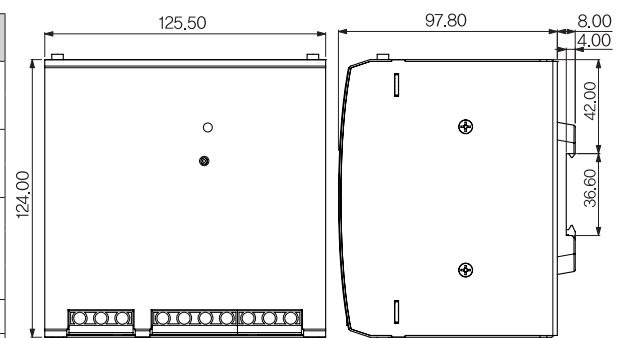
※ Auto-select input selects input voltage automatically without input output 100-120 V AC or 200 - 240 V AC.

» 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 | |
| Number of output voltage | S | 1 Output (Single output) |
| Output voltage classification | 05 | 5 V DC (*Except for 220 W, 350 W, 450 W) |
| | 12 | 12 V DC |
| | 15 | 15 V DC (*Except for 350 W, 450 W) |
| | 24 | 24 V DC |
| | 48 | 48 V DC (*Only for 350 W, 450 W) |

15 Watt

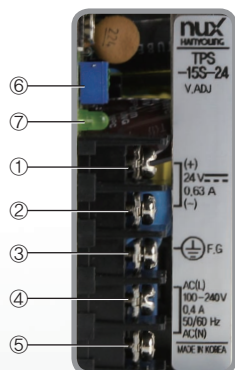
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

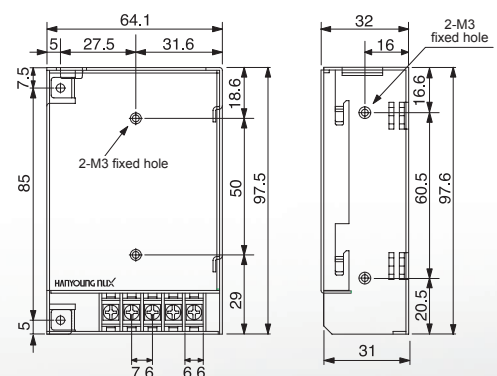
| Model | | TPS-15S-05 | TPS-15S-12 | TPS-15S-15 | TPS-15S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 3 A | 1.3 A | 1 A | 0.63 A | |
| | Rated power output | 15 W | 15.6 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 100 %) | | | |
| | | 220 V AC | 40 A Typ. (T _a = 25 °C, I _o = 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

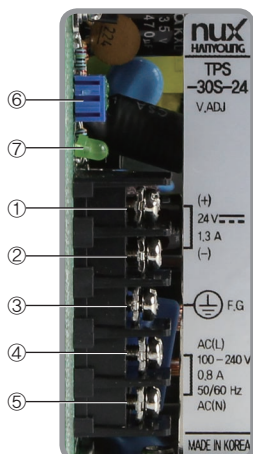
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

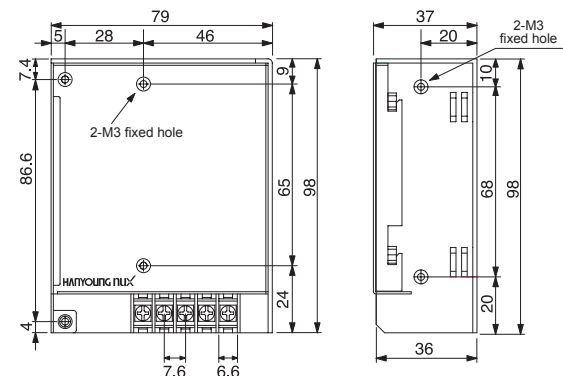
| Model | | TPS-30S-05 | TPS-30S-12 | TPS-30S-15 | TPS-30S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 6 A | 2.5 A | 2 A | 1.3 A | |
| | Rated power output | 30 W | | | 31.2 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 100 % at COLD START) | | | |
| | | 220 V AC | 40 A Typ. (T _a = 25 °C, I _o = 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

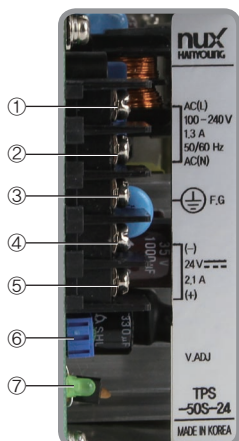
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

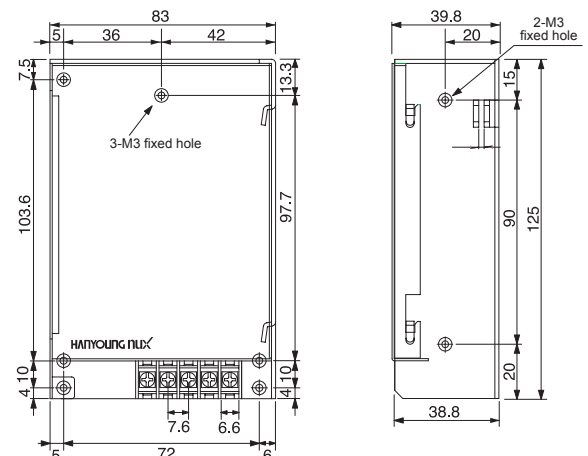
| Model | | TPS-50S-05 | TPS-50S-12 | TPS-50S-15 | TPS-50S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 9 A | 4.2 A | 3.4 A | 2.1 A | |
| | Rated power output | 45 W | 50.4 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 % |
| | Inrush current | 110 V AC | 20 A Typ. (T _a = 25 °C, I _o = 100 % at COLD START) | | | |
| | | 220 V AC | 40 A Typ. (T _a = 25 °C, I _o = 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 ~ 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 | ⊕ | FG |
| 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

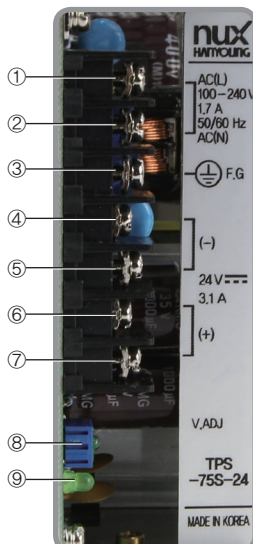
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

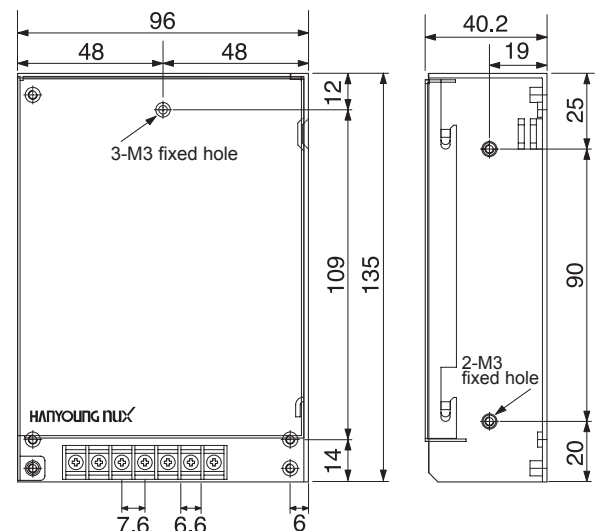
| Model | | TPS-75S-05 | TPS-75S-12 | TPS-75S-15 | TPS-75S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 13 A | 6.3 A | 5 A | 3.1 A | |
| | Rated power output | 65 W | 75.6 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 100 % at COLD START) | | | |
| | | 220 V AC | 40 A Typ. (T _a = 25 °C, I _o = 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

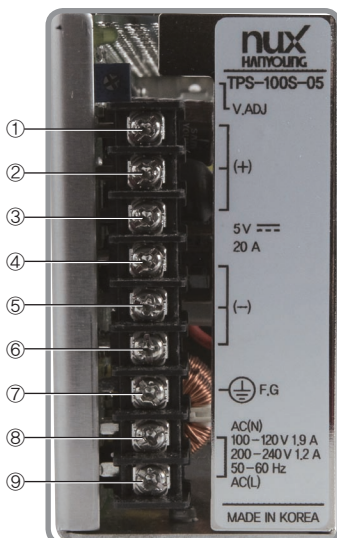
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

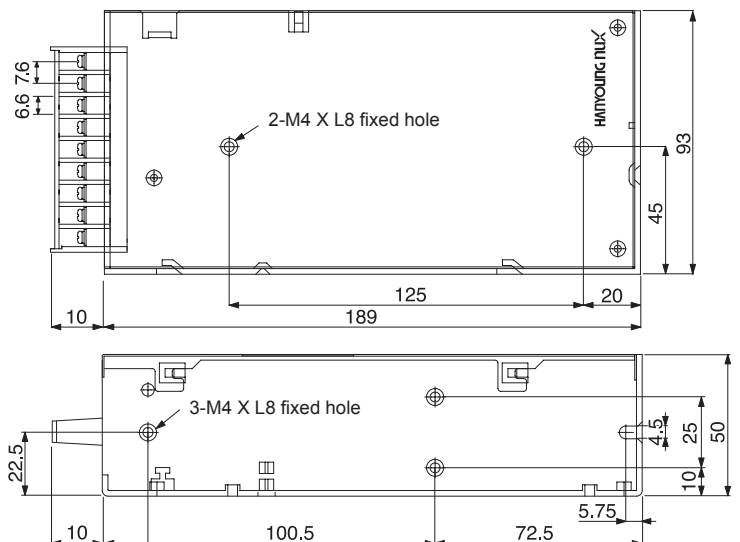
| Model | | TPS-100S-05 | TPS-100S-12 | TPS-100S-15 | TPS-100S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 20 A | 8.4 A | 6.7 A | 4.2 A | |
| | Rated power output | 100 W | 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 100 % at COLD START) | | | |
| | Inrush current | 220 V AC | 50 A Typ. (T _a = 25 °C, I _o = 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 ~ 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

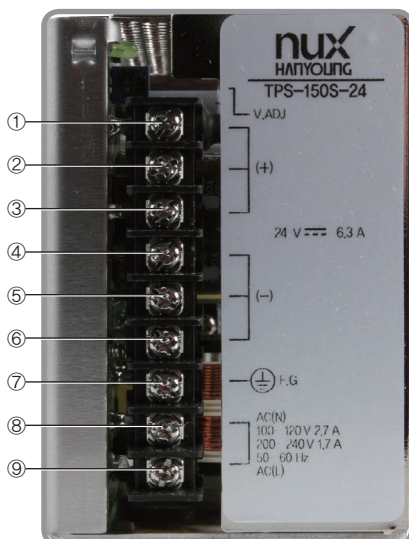
(5 V, 12 V, 15 V, 24 V DC)

TPS series

» Specification

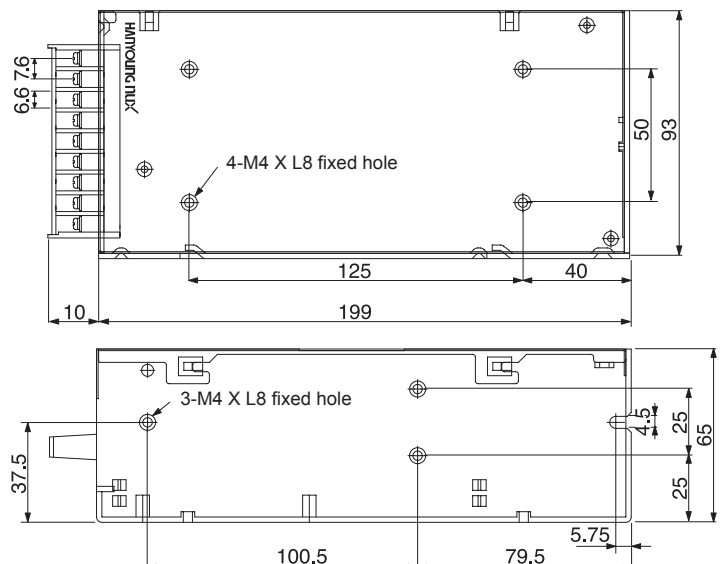
| Model | | TPS-75S-05 | TPS-75S-12 | TPS-75S-15 | TPS-75S-24 | |
|-----------------------|--|---|--|-----------------|----------------|------|
| Output | Rated output voltage | 5 V | 12 V | 15 V | 24 V | |
| | Rated output current | 27 A | 12.5 A | 10 A | 6.3 A | |
| | Rated power output | 135 W | 150 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 _o = 100 %) | | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 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

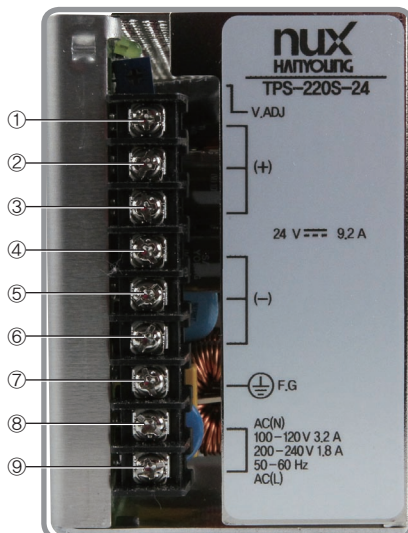
(12 V, 15 V, 24 V DC)

TPS series

» Specification

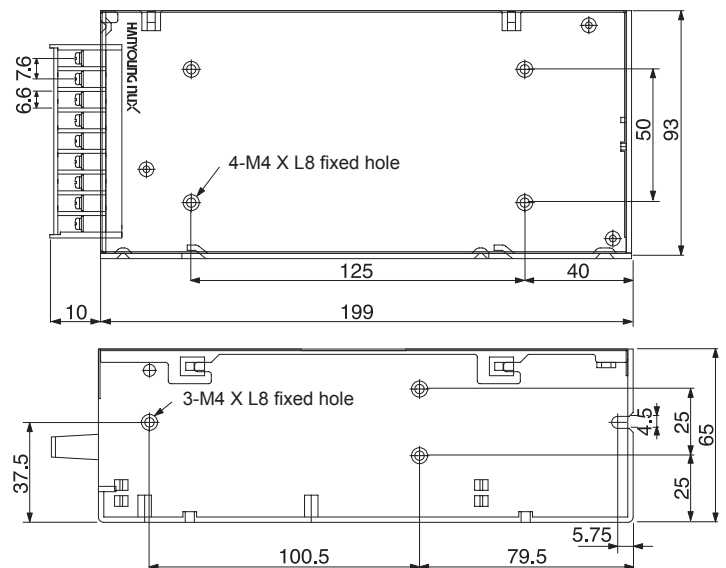
| Model | | TPS-220S-12 | TPS-220S-15 | TPS-220S-24 | |
|-----------------------|--|---|--|----------------|------|
| Output | Rated output voltage | 12 V | 15 V | 24 V | |
| | Rated output current | 17 A | 14.7 A | 9.2 A | |
| | Rated power output | 204 W | 220.5 W | 220.8 W | |
| | Peak current | 20 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 _o = 100 %) | | | |
| | Remaining time | 20 ms min (110 V AC, I _o = 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 _a = 25 °C, I _o = 100 % at COLD START) | | |
| | | 220 V AC | 40 A Typ. (T _a = 25 °C, I _o = 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)



350 Watt

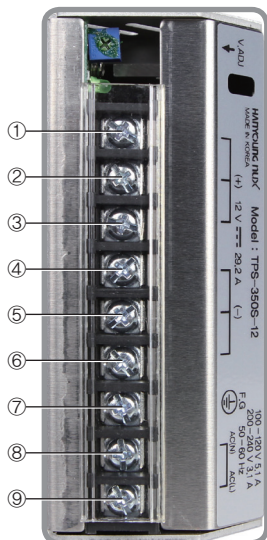
(12 V, 24 V, 48 V DC)

TPS series

» Specification

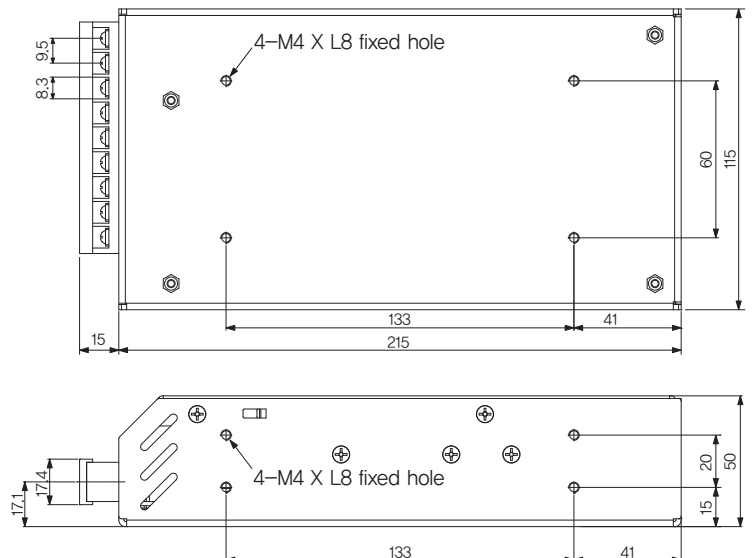
| Model | | TPS-350S-12 | TPS-350S-24 | TPS-350S-48 | |
|-----------------------|--|---|---|----------------|------|
| Output | Rated output voltage | 12 V | 24 V | 48 V | |
| | Rated output current | 29.2 A | 14.6 A | 7.3 A | |
| | Rated power output | 350.4 W | 350.4 W | 350.4 W | |
| | Peak current | 36 A | 20 A | 8 A | |
| | Circuit voltage fluctuation rate | ±36 mV | ±72 mV | ±144 mV | |
| | Load voltage fluctuation rate | ±36 mV | ±72 mV | ±144 mV | |
| | Ripple/noise | 120/200 mV max | 120/200 mV max | 150/240 mV max | |
| | Ambient temperature fluctuation | 120 mV | 240 mV | 480 mV | |
| | Running time | 500 ms max (110 V AC, lo = 100 %) | | | |
| | Remaining time | 20 ms min (110 V AC, lo = 100 %) | | | |
| | Voltage fluctuation range | 11.4 – 12.6 V | 22.8 – 25.2 V | 45.6 – 50.4 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 | 5.1 | 5.0 | 4.9 |
| | | 220 V AC | 3.1 | 3.1 | 3.0 |
| | Efficiency | 220 V AC | 86 % | 90 % | 90 % |
| | Inrush current | 110 V AC | 40 A Typ. (Ta = 25°C, lo = 100 % at COLD START) | | |
| | | 220 V AC | 60 A Typ. (Ta = 25°C, lo = 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 ~ 135 % of the rated output current | | | |
| | Over voltage protection | 13.8 – 16.8 V | 27.6 – 33.6 V | 52.8 – 67.2 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 %g, 3 times for each of 6 directions (State of packing) | | | |
| | Weight | approx. 1,100 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)



450 Watt

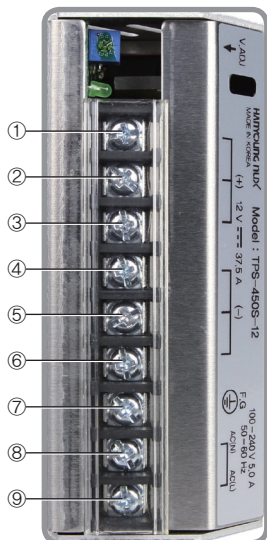
(12 V, 24 V, 48 V d.c.)

TPS series

» Specification

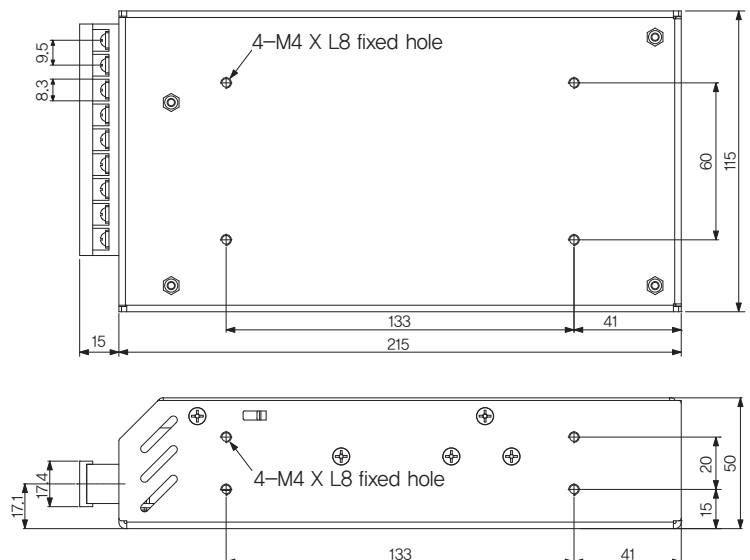
| Model | | TPS-450S-12 | TPS-450S-24 | TPS-450S-48 | |
|-----------------------|--|---|--|----------------|--------|
| Output | Rated output voltage | 12 V | 24 V | 48 V | |
| | Rated output current | 37.5 A | 18.8 A | 9.4 A | |
| | Rated power output | 450.0 W | 451.2 W | 451.2 W | |
| | Peak current | 55 A | 28 A | 13 A | |
| | Circuit voltage fluctuation rate | ±60 mV | ±120 mV | ±240 mV | |
| | Load voltage fluctuation rate | ±120 mV | ±240 mV | ±480 mV | |
| | Ripple/noise | 120/200 mV max | 150/240 mV max | 240/340 mV max | |
| | Ambient temperature fluctuation | 120 mV | 240 mV | 480 mV | |
| | Running time | 500 ms max (110 V a.c., lo = 100 %) | | | |
| | Remaining time | 20 ms min (110 V a.c., lo = 100 %) | | | |
| | Voltage fluctuation range | 11.4 – 12.6 V | 22.8 – 25.2 V | 45.6 – 50.4 V | |
| | Voltage setting range | ± 0.5 % max (Rated output voltage) | | | |
| Input | Input voltage | 100 – 240 V AC (* Design voltage range : 88–264 V AC) | | | |
| | Input frequency | 50/60 Hz (47 ~ 63 Hz) | | | |
| | Current (A) | 110 V AC | 2.3 | 2.1 | 2.2 |
| | | 220 V AC | 4.9 | 4.3 | 4.5 |
| | Power factor | 110 V AC | PF > 0.99 % (With PFC) | | |
| | | 220 V AC | PF > 0.95 % (With PFC) | | |
| | Efficiency | 220 V AC | 88.5 % | 91 % | 91.5 % |
| | Inrush current | 110 V AC | 22 A Typ. (Ta = 25 °C, lo = 100 % at COLD START) | | |
| | | 220 V AC | 44 A Typ. (Ta = 25 °C, lo = 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 120 ~ 145 % of the rated output current | | | |
| | Over voltage protection | 13.8 – 16.8 V | 27.6 – 33.6 V | 52.8 – 67.2 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) | | | |
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» 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)



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Main switch / Sign tower / Signal light / Buzzer / Terminal block / Fuse holder / Control box / Cable connector

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