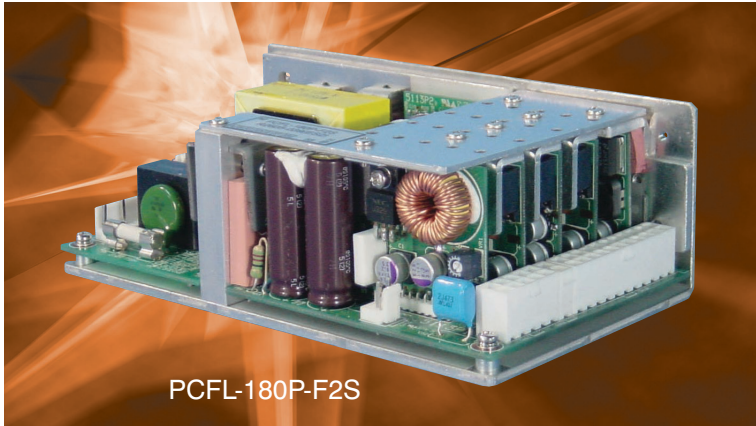


Heavy Duty & Compact Multi-output Fanless power supply



Product lineup

AC100-240V Input (AC85~264V)

Model	Output voltage						Backup at Blackout	Note
	+24V	+3.3V	+5V	+12V	-12V	+5VSB		
PCFL-180P-X2S2	—	○	○	○	○	○	○	ATX Output
PCFL-180P-F1S	○	—	○	○	○	○	—	Multi-Output
PCFL-180P-F2S	○	○	○	○	○	○	—	ATX+24V Output

DC 24V Input (DC20~36V)

Model	Output voltage						Backup at Blackout	Note
	+24V	+3.3V	+5V	+12V	-12V	+5VSB		
PCFD-180P-X2S	—	○	○	○	○	○	○	ATX Output

This power supply is one of the heavy-duty power supplies which survived Nipron's unique severe test, "Power Match", to meet customers' tough reliability requirement.

"Power Match" is the test to meet customers' severe requirement on reliability under our power policy, that is, "Power supply (Heart) shall never be broken" cultivated by 35-year manufacturing experience of power supplies.

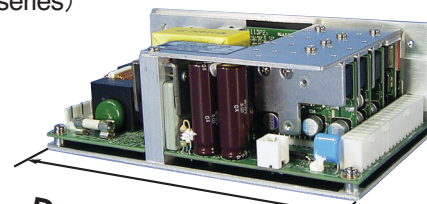
"Power Match" (Severe Test) Items

- Input voltage ON/OFF at high temp.
- Excess Input test
- Low Input at high temp.
- Line noise test
- Vibration-Energization
- Lightning surge test
- Load ON/OFF at high temp.
- Overload at high temp.
- Over temperature test
- Electrostatic test
- Resonant vibration test
- Combined random severe test

160mm depth to meet market requirement

Compact size with 160mm depth to respond to compact requirement for FA devices such as panel computer, DVR devices.

Our unique new circuit system, input-capacitorless system (patent pending), has made this specification come true. (PCFL series)



Up to 60°C operating range regardless of installation directions

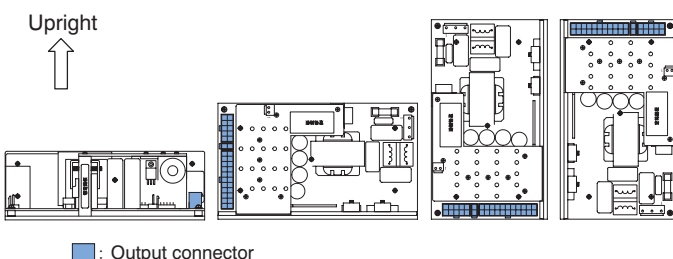
Fanless power supply needs no specific installation place or directions. Our fanless power supply gives customers the easy use under FA environment, assuring up to 60°C operating range regardless of installation directions. Also, this product has proved that it can continuously operate for 9 hours even at 90°C by "Power Match."

※ In actual operation, the unit stops due to protection function, but the function was removed at the test to measure its real ability.

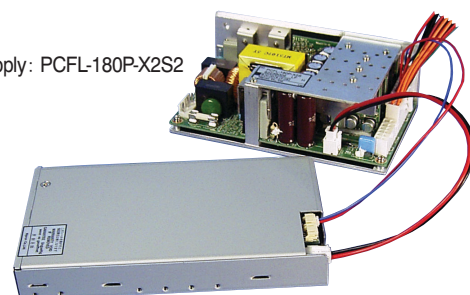
Blackout backup available

With the battery package connected, products with backup function at blackout are lined up.

Installation directions

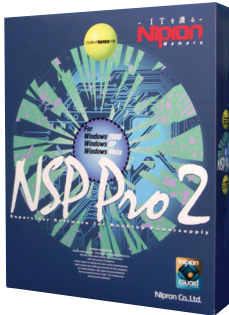


Power supply: PCFL-180P-X2S2



With Windows system, loss of system data, or HDD crash in the worst case, is likely to occur when power failures such as unexpected blackout or voltage fluctuation happen.

Backing up at blackout enables system backup operation to save system data and perform even automatic shutdown of Windows when input power fails due to unexpected blackout or voltage fluctuations.



Automatic shutdown software "NSP Pro 2"

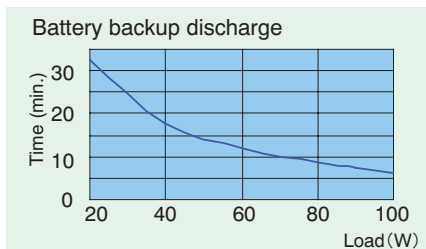
When blackout occurs, non-stop system operation is performed due to blackout confirmation timer for short period of time. For long period of blackout, Windows is shut down safely by automatic shutdown function.

Battery package to be connected is compact with 3.5 inch bay size adopting Ni-MH battery.



Battery package "BS17A-H24/2.0L"

Ni-MH battery package installable into 3.5 inch bay.



* The curve is reference only at initial use, not guaranteed.

3.3V and 5V output power: **Strengthened!**

Our Fanless power supply has 3.3V and 5V strengthened ! Covering load current of 3.3V and 5V required by most FA equipments.

Model	at natural air cooling and max. load					
	+24V	+3.3V	+5V	+12V	-12V	+5VSB
PCFL-180P-X2S2	—	10A	10A	7.5A	0.3A	1.5A
PCFL-180P-F1S	3.75A	—	10A	7.5A	0.3A	1.5A
PCFL-180P-F2S	3.75A	10A	10A	7.5A	0.3A	1.5A
PCFD-180P-X2S	—	10A	10A	7.5A	0.3A	1A

Flexible to customers' demand

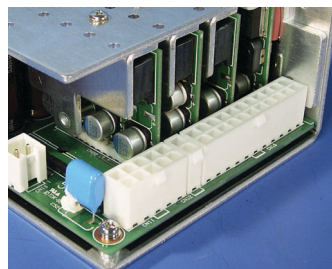
To respond flexibly to customers' demand:

- ① Min. load for all outputs: 0A (zero amp.) spec.
- ② Removable output harnesses
- ③ Chopper unit for each output

Have become reality.

① Each output is individually controlled to have min. load of 0A. Any load combination within the output spec. is here for you without paying attention to min. load.

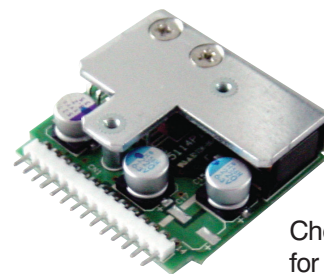
② Corresponding to a variety of connectors such as 20pin, 24pin, peripheral and S-ATA connector. In addition, customization of connectors and harness length to meet customer's requirement is available.



Removable output harness



③ With chopper unit for individual outputs adopted, customization of output, such as 15V output, is easily obtained.

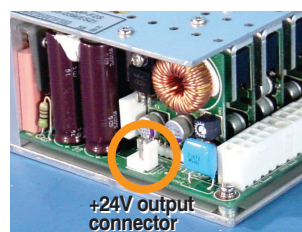


Chopper unit for output

Standard lineup: models with 24V for mechanism systems

Models with 24V equipped for mechanism systems are lined up as standard.

Customers need no preparation for 24V separately.



With +24V equipped "PCFL-180P-F1S" "PCFL-180P-F2S"

Specification summary

PCFL series

Input voltage	AC 85V to 264V						
Output voltage	+24V	+3.3V	+5V	+12V	-12V	+5VSB	
Max. output current / Power (continuous)	at natural air cooling (basic structure)	3.75A	10A	10A	7.5A	0.3A	1.5A
		total 60W					Max. 90W
	at natural air cooling (with special AL heat sink)	4.25A	10A	10A	8.5A	0.3A	1.5A
total 70W					Max. 102W		
at forced air cooling* (with external fan)	5A	10A	10A	10A	0.3A	1.5A	
	Max. 150W						
Peak output current/Power (5 sec. max.)	7.5A	10A	10A	15A	0.3A	2A	
Max. 180W							
Min. load current	0A	0A	0A	0A	0A	0A	

* For forced air cooling, airflow of more than 0.5m³/min. on the component surface is required.

Dimensions (W × H × D)	93 × 55 × 160 (mm)
------------------------	--------------------

Model	Standard price	Output voltage					
		+24V	+3.3V	+5V	+12V	-12V	+5VSB
PCFL-180P-X2S2	¥13,650-	—	○	○	○	○	○
PCFL-180P-F1S	¥13,500-	○	—	○	○	○	○
PCFL-180P-F2S	¥14,300-	○	○	○	○	○	○

PCFD-180P-X2S

Input voltage	DC 20V~36V					
Output voltage	+3.3V	+5V	+12V	-12V	+5VSB	
Max. output current / Power (continuous)	at natural air cooling (basic structure)	10A	10A	7.5A	0.3A	1A
		total 60W				
	at natural air cooling (with special AL heat sink)	10A	10A	8.5A	0.3A	1A
total 70W					Max. 102W	
at forced air cooling* (with external fan)	10A	10A	10A	0.3A	1.5A	
	Max. 120W					
at forced air cooling* (with external fan)	10A	10A	15A	0.3A	1.8A	
	Max. 180W					
Min. load current	0A	0A	0A	0A	0A	

* For forced air cooling, airflow of more than 0.5m³/min. on the component surface is required.

Dimensions (W × H × D)	93 × 55 × 160 (mm)
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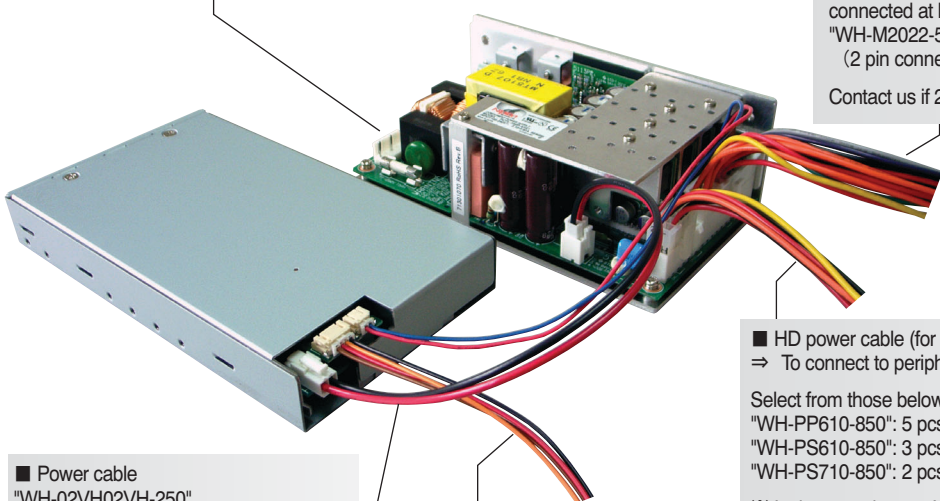
Standard price	¥15,000-
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※ For more details of product specifications, visit our Web site below.

<http://www.nipron.com>

Connection image of optional part

■ Input cable
Contact us if the cable is required.



■ Power cable
"WH-02VH02VH-250"
To charge/discharge connected between power supply and battery package.

■ Signal harness "WH-S1004-500-02"
(COM port connector type for Windows 2000 / XP / Vista): To connect to COM port of the motherboard
Other harnesses below are ready:
"WH-S1004-500-01": COM port connector type for Windows 95/98/NT
"WH-S0604-500": 6 pin connector type
"WH-C04PH-500": Wire cut-off type

■ Main power cable
⇒ To connect to main connector of the motherboard

Select from those below according to number of connector pins of the motherboard and the length.

"WH-M2022-500": 20 pin, 500mm

"WH-M2022-300": 20 pin, 300mm

"WH-M2422-500": 24 pin, 500mm

★ Select the harness below when backup with batter package connected at blackout is required.

"WH-M2022-500-01": 20 pin, 500mm

(2 pin connector branching from to be connected to battery package).

Contact us if 24 pin type is required.

■ HD power cable (for peripheral devices)
⇒ To connect to peripheral devices such as HDD and FDD.

Select from those below according to the peripheral devices to connect to.

"WH-PP610-850": 5 pcs. for HD, 1 pc. for FD

"WH-PS610-850": 3 pcs. for HD, 2 pcs. for HD (S-ATA), 1 pc. for FD

"WH-PS710-850": 2 pcs. for HD, 4 pcs. for HD (S-ATA), 1 pc. for FD

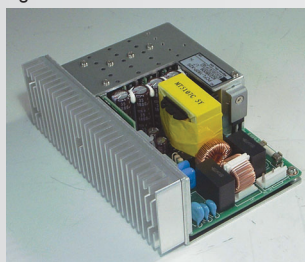
※ In the case that +12V4 pin power connector is required; Power conversion connector from HD connector to +12V4 pin is ready.

"WH5105": Harness length 80mm

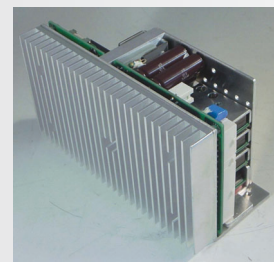
"WH5105-02": Harness length 320mm

■ Heat sink
With "AF5113-1605" for the side, or "AF5113-1609" for the bottom, output power can be increased from max. 90W to 102W.

Images

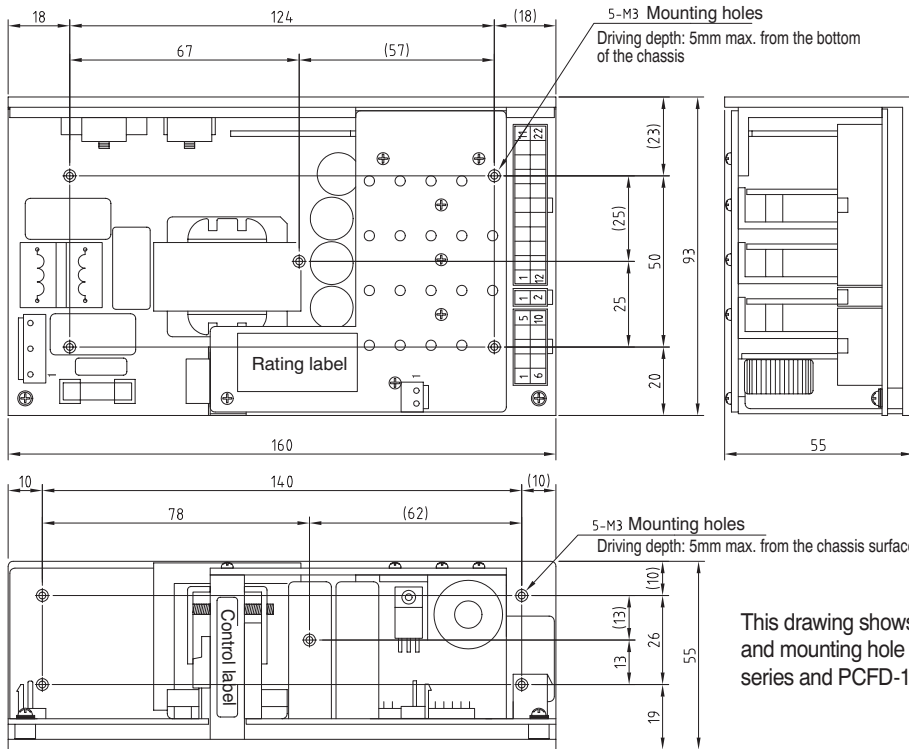


"AF5113-1605" mounted on the side



"AF5113-1609" mounted on the bottom

Dimensions (PCFL-180P-F2S)



Convenient for Amusement device power supply (+5V/+3.3V/+12V) Leakage current: 0.3mA max. at AC 100V input

CONTINUOUS 150W/Peak 180W SFX power supply equipped with Chassis and Fan: Coming soon! (2008 June-July)

This unit is SFX12V power supply to have PCFL series installed corresponding to SFX12V APPENDIX D size mounting space.

- Installing to SFX12V power supply mounting PC case becomes available. (Depth is larger than SFX12V).
- With battery package (BS17A-H24/2.0L) connected, Backup at blackout is enabled.*
- With attachment panel (ACC2837), mounting to ATX power supply mounting space (PS/2 size) is acceptable

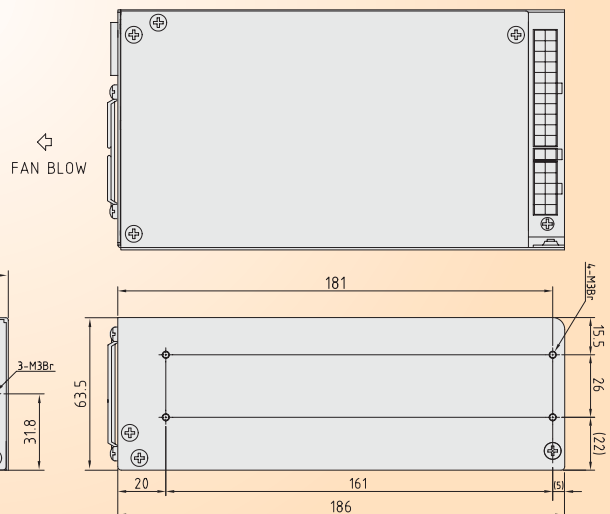


Specification summary

Model	Output voltage					
	+24V	+3.3V	+5V	+12V	-12V	+5VSB
PCFL-180P-X2S2-SF	—	○	○	○	○	○
PCFL-180P-F1S-SF	○	—	○	○	○	○
PCFL-180P-F2S-SF	○	○	○	○	○	○

Input voltage	AC 85V~264V					
Output voltage	+24V	+3.3V	+5V	+12V	-12V	+5VSB
Max. output current/ Power (continuous)	5A	10A	10A	10A	0.3A	1.5A
	Max. 150W					
Peak output current/ Power (5 sec. max.)	7.5A	10A	10A	15A	0.3A	2A
	Max. 180W					
Min. load current	0A	0A	0A	0A	0A	0A

Dimensions



* Only PCFL-180P-X2S2-SF accepts backup at blackout for the output power of up to 90W.
(If backup for higher output than 90W is required, please contact us).

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- Specifications, design, and prices in the catalog are subject to change without prior notice.
- When using a product, please contact us for a product specifications and make sure to check all the items for proper use.

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