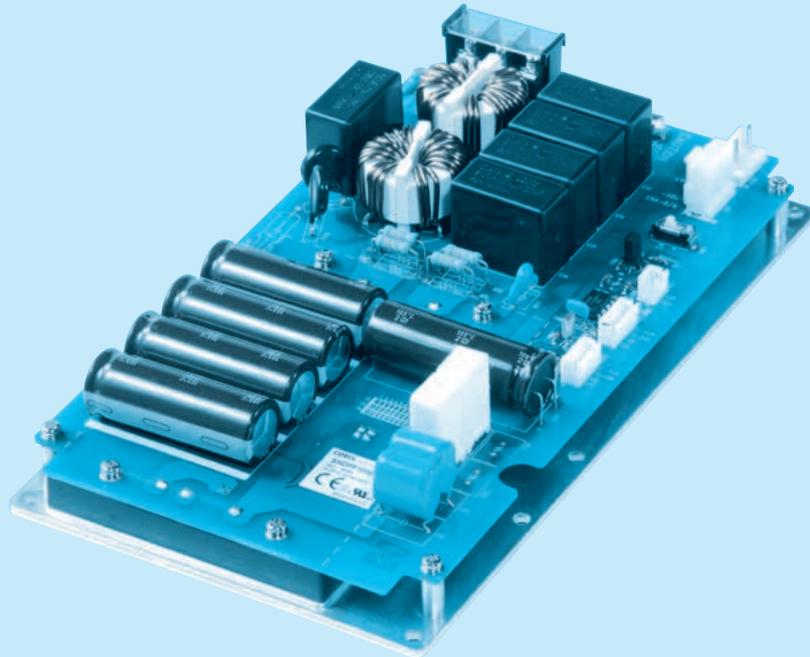




SNDPF-series



Feature

Compact AC-DC converter, SNDPF series includes DPF series
Conduction cooling is possible by the combination with SNDBS and SNDHS series

Harmonic attenuator (Complies with IEC61000-3-2)

High efficiency 90% (AC100V) 95% (AC200V)

Universal input voltage (AC85-264V)

Built-in inrush current protection

Parallel operation is possible (Built-in current balancing function)

Built-in overvoltage and thermal protection circuits

Inverter operating monitoring (IOG)

Enable signal (ENA)

Safety agency approvals

UL60950-1, C-UL, EN62368-1

Complies with and DENAN

CE marking

Low Voltage Directive

RoHS Directive

UKCA marking

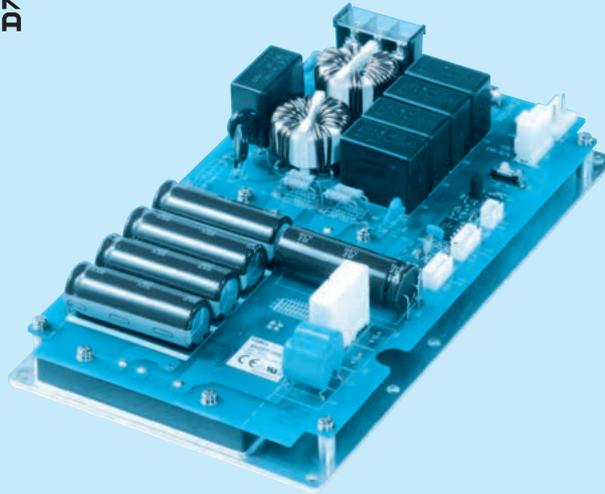
Electrical Equipment Safety Regulations

RoHS Regulations

3-year warranty

SNDPF1000

SNDPF 1000



- ① Series name
- ② Output wattage
1000 : 1000W (AC 100V)
1500 : 1500W (AC 200V)

* For connection of loads except the series SNDHS/SNDBS, please contact Cosel development department.

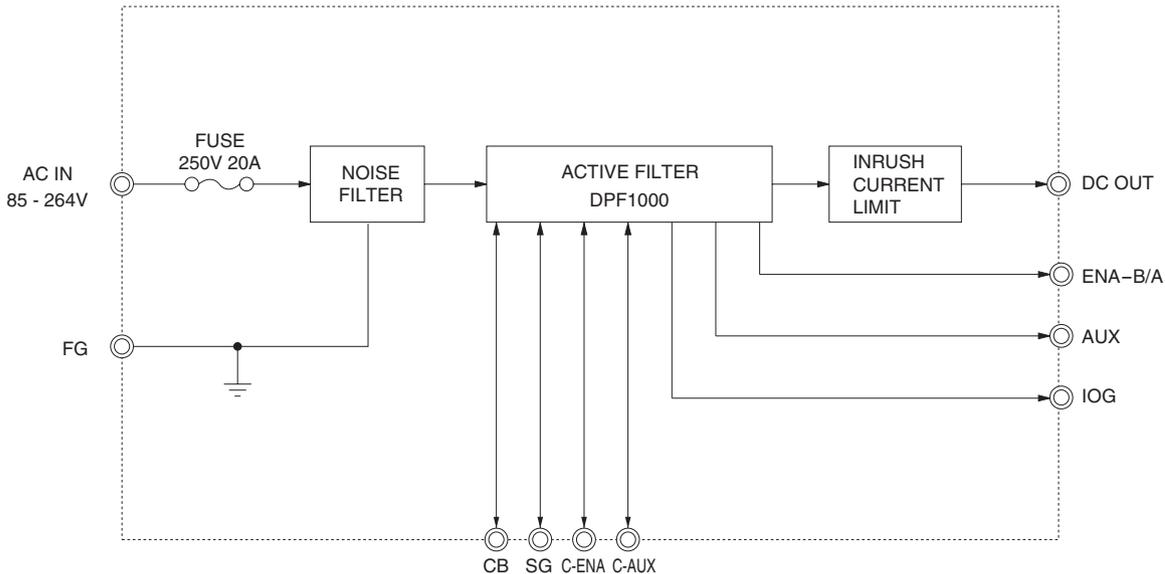
| | | |
|-----------------------|------------|-------------|
| MODEL | SNDPF1000 | |
| AC INPUT[V] | AC85 - 264 | AC170 - 264 |
| MAX OUTPUT WATTAGE[W] | *1 1000 | 1500 |
| DC OUTPUT VOLTAGE[V] | *2 360 | |

SPECIFICATIONS

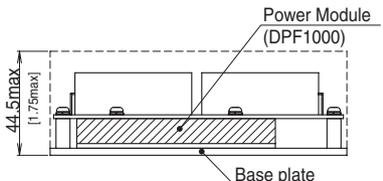
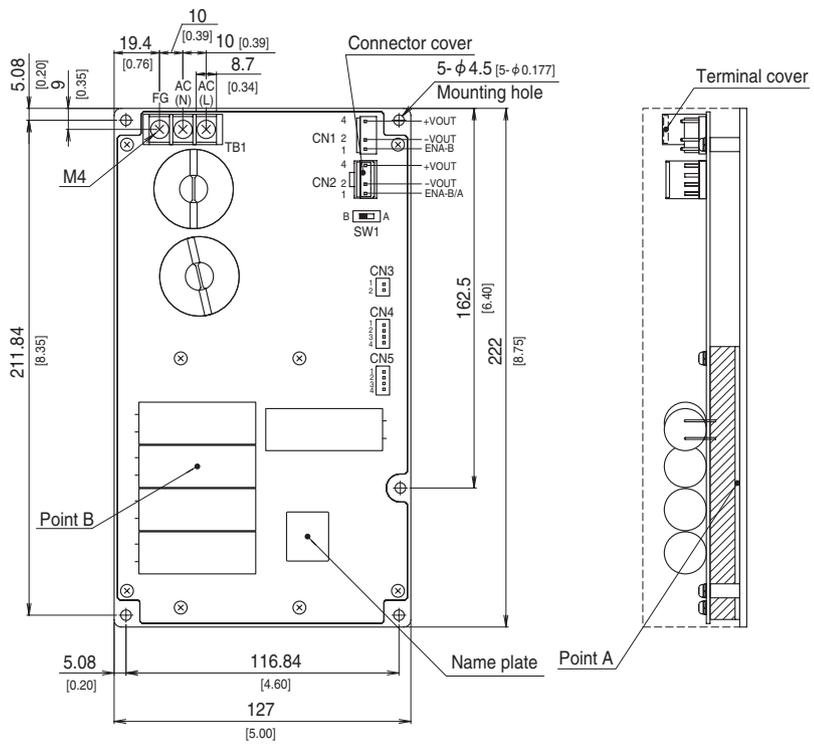
| | MODEL | SNDPF1000 | |
|-------------------------------|--------------------------------------|---|-----------|
| INPUT | VOLTAGE[V] | AC85 - 264 1 φ AC170 - 264 1 φ | |
| | POWER FACTOR CORRECTION RANGE[V] | AC85 - 255 1 φ | |
| | CURRENT[A] | 11.5typ (ACIN 100V) 8.5typ (ACIN 200V) | |
| | FREQUENCY[Hz] | 50/60 (47 - 63) | |
| | INRUSH CURRENT[A] | AC100V 20/20 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 10 sec. to re-start) *3 AC200V 40/20 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 10 sec. to re-start) | |
| | EFFICIENCY[%] | 90typ (ACIN 100V, Io=100%) 95typ (ACIN 200V, Io=100%) | |
| | POWER FACTOR | 0.98typ (ACIN 100V, Io=100%) 0.95typ (ACIN 200V, Io=100%) | |
| | LEAKAGE CURRENT[mA] | 0.75 max (ACIN 240V 60Hz, Io=100%, According to IEC62368-1, DENAN) | |
| | OUTPUT | WATTAGE[W] | 1000 1500 |
| | | VOLTAGE[V] | *2 360 |
| VOLTAGE ACCURACY[V] | | *4 ±20 | |
| PROTECTION CIRCUIT AND OTHERS | OVERVOLTAGE PROTECTION[V] | DC400-450V The power factor correction function stops | |
| | IOG | Inverter operation monitoring, Open-collector output, Maximum sink current 10mA, Maximum allowance voltage 35V | |
| | ENA | *5 Enable signal, Open-collector output, Maximum sink current 10mA, Maximum allowance voltage 35V | |
| | AUX | Auxiliary power supply for external signal Refer to Instruction Manual (4.6 AUX) | |
| | OTHERS | *6 Parallel operation possible (Current balancing function), Thermal protection | |
| ISOLATION | INPUT-OUTPUT | Non isolated | |
| | INPUT, OUTPUT-FG | AC3,000V 1minute Cutoff current = 10mA, DC500V, 50MΩ min (20±15°C) | |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -20 to +80°C (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE) 3,000m (10,000feet) max | |
| | STORAGE TEMP., HUMID. AND ALTITUDE | -20 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max | |
| | VIBRATION | 10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis | |
| | IMPACT | 196.1m/s ² (20G), 11ms, once each along X, Y and Z axis | |
| SAFETY | SAFETY AGENCY APPROVALS | UL60950-1, C-UL, EN62368-1, Complies with DEN-AN | |
| | CONDUCTED NOISE | Complies with FCC-A, VCCI-A, CISPR22-A, EN55011-A, EN55022-A | |
| | HARMONIC ATTENUATOR *7 | Complies with IEC61000-3-2 (Class A) (1000W output power exceeds the electrolytic capacitor is required for external) | |
| OTHERS | CASE SIZE/WEIGHT | 127 X 44.5 X 222mm [5.0 X 1.75 X 8.75inches] (W X H X D) / 920g max | |
| | COOLING METHOD | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink) | |

*1 Refer to input voltage derating.
 *2 When the input voltage is more than 255V, the power factor correction function stops, and the output voltage becomes rectified AC input voltage.
 *3 The current of input surge to a built-in EMI/EMC filter (0.2ms or less) is excluded.
 *4 The value included the output setting and the line regulation, the load regulation and the temperature regulation.
 However, the input voltage is in the power factor correction range.
 *5 Refer to manual.
 *6 The power factor correction function and ENA stop when thermal protection function works.
 *7 Please contact us about Harmonic attenuator class C.

Block diagram



External view



- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 920g max
- ※ Dimensions in mm, []=inches
- ※ PCB material/thickness : FR-4 / 1.6mm [0.06]
- ※ Screw tightening torque : 1.6N · m (16.9kgf · cm) max
- ※ Component positions and sizes are for your reference if they have no dimensions.
- ※ Please connect safety ground to the base plate in $\phi 4.5$ [$\phi 0.177$] hole.
- ※ The following parts are attached at shipping from factory
CN2 : Housing for protection
- ※ Keep drawing current per pin below 7A for CN1/CN2.

Basic Characteristics Data

| Model | Circuit method | Switching frequency [kHz] | Input current [A] | Rated input fuse | Inrush current protection circuit | PCB/Pattern | | | Series/Parallel operation availability | |
|-----------|----------------|---------------------------|-------------------|------------------|-----------------------------------|-------------|--------------|--------------|--|--------------------|
| | | | | | | Material | Single sided | Double sided | Series operation | Parallel operation |
| SNDPF1000 | Active filter | 130 | 11.5 *1 | 250V 20A | SCR | FR-4 | | Yes | No | Yes *3 |
| | | | 8.5 *2 | | | | | | | |

*1 The value of input current is at AC100V and 1000W load.

*2 The value of input current is at AC200V and 1500W load.

*3 Refer to Instruction Manual 5 Series and Parallel Operation.