# General Specifications

<table>
<thead>
<tr>
<th>Power Input</th>
<th>DP060LM</th>
<th>DP120LM</th>
<th>DP180LM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>60 V to 220 V (3P3W), 100 V to 300 V (3P4W), 150 V to 300 V (3P5W)</td>
<td>60 V to 220 V (3P3W), 100 V to 300 V (3P4W), 150 V to 300 V (3P5W)</td>
<td>60 V to 220 V (3P3W), 100 V to 300 V (3P4W), 150 V to 300 V (3P5W)</td>
</tr>
<tr>
<td>Power factor</td>
<td>0.5 or higher</td>
<td>0.5 or higher</td>
<td>0.5 or higher</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz or 60 Hz ±2 Hz</td>
<td>50 Hz or 60 Hz ±2 Hz</td>
<td>50 Hz or 60 Hz ±2 Hz</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>30 MΩ or higher (DC 500 V)</td>
<td>30 MΩ or higher (DC 500 V)</td>
<td>30 MΩ or higher (DC 500 V)</td>
</tr>
<tr>
<td>Withstand voltage</td>
<td>AC 1500 V or DC 2130 V 1 minute</td>
<td>AC 1500 V or DC 2130 V 1 minute</td>
<td>AC 1500 V or DC 2130 V 1 minute</td>
</tr>
<tr>
<td>Accessories</td>
<td>GPIB, LAN (IEEE 802.3, LXI 1.4 Core 2011) (Specify either GPIB or LAN when ordering)</td>
<td>GPIB, LAN (IEEE 802.3, LXI 1.4 Core 2011) (Specify either GPIB or LAN when ordering)</td>
<td>GPIB, LAN (IEEE 802.3, LXI 1.4 Core 2011) (Specify either GPIB or LAN when ordering)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 125 kg</td>
<td>Approx. 156 kg</td>
<td>Approx. 350 kg</td>
</tr>
<tr>
<td>Dimensions (mm)</td>
<td>455(W)×1408(H)×803(D) (not including protrusions)</td>
<td>455(W)×1408(H)×803(D) (not including protrusions)</td>
<td>910(W)×1580(H)×803(D) (not including protrusions)</td>
</tr>
<tr>
<td>Insulation</td>
<td>Class 200 ( divor. power factor 0.5 or higher)</td>
<td>Class 200 ( divor. power factor 0.5 or higher)</td>
<td>Class 200 ( divor. power factor 0.5 or higher)</td>
</tr>
</tbody>
</table>

# DC Output (only single-phase output)

<table>
<thead>
<tr>
<th>Power capacity</th>
<th>DP060LM</th>
<th>DP120LM</th>
<th>DP180LM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>6 kW</td>
<td>12 kW</td>
<td>18 kW</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz ±2 Hz or 60 Hz ±2 Hz</td>
<td>50 Hz ±2 Hz or 60 Hz ±2 Hz</td>
<td>50 Hz ±2 Hz or 60 Hz ±2 Hz</td>
</tr>
<tr>
<td>Distortion of Output Voltage</td>
<td>3% or less</td>
<td>3% or less</td>
<td>3% or less</td>
</tr>
<tr>
<td>Output Voltage Stability</td>
<td>± (</td>
<td>0.5 % of set</td>
<td>+ 0.6 V / 1.2 V)</td>
</tr>
<tr>
<td>Output Voltage Setting</td>
<td>0 V to 23 °C±5 °C. For phase voltage setting in the polyphase output. In balanced mode all phases are collectively set and in unbalanced mode each phase is individually set.</td>
<td>0 V to 23 °C±5 °C. For phase voltage setting in the polyphase output. In balanced mode all phases are collectively set and in unbalanced mode each phase is individually set.</td>
<td>0 V to 23 °C±5 °C. For phase voltage setting in the polyphase output. In balanced mode all phases are collectively set and in unbalanced mode each phase is individually set.</td>
</tr>
<tr>
<td>Maximum instantaneous current</td>
<td>10 V to 150 V/20 V to 300 V, sine wave, no load, 45 Hz to 65 Hz, DC voltage (only single-phase output) or 45 Hz to 65 Hz. Transition state immediately after a change of the input voltage is not allowed.</td>
<td>10 V to 150 V/20 V to 300 V, sine wave, no load, 45 Hz to 65 Hz, DC voltage (only single-phase output) or 45 Hz to 65 Hz. Transition state immediately after a change of the input voltage is not allowed.</td>
<td>10 V to 150 V/20 V to 300 V, sine wave, no load, 45 Hz to 65 Hz, DC voltage (only single-phase output) or 45 Hz to 65 Hz. Transition state immediately after a change of the input voltage is not allowed.</td>
</tr>
<tr>
<td>Maximum peak value</td>
<td>3P3W: M6 screw</td>
<td>3P3W: M6 screw</td>
<td>3P3W: M6 screw</td>
</tr>
</tbody>
</table>

# Distortion of Output Voltage

- For power input 200 V (three-phase three-wire input) or 380 V (three-phase four-wire input), the resistance load at the maximum current, the rated output voltage, and 45 Hz to 65 Hz output.

# Multiple Outputs for Multiple Uses

- Switch between single-phase, single-phase three-wire, and three-phase.

---

**Note:** The contents of this catalog are current as of August 27, 2016. Product appearances and specifications are subject to change without notice. Before purchase, consult the latest specifications, price, and delivery date.

NF Corporation
Head Office
6-3-20, Tsunashima Higashi, Kohoku-ku, Yokohama 223-8508, Japan
http://www.nfcorp.co.jp/english/

NF Techno Commerce Co., Ltd. International Sales Division
6-3-14, Tsunashima Higashi, Kohoku-ku, Yokohama 223-0522, Japan
Phone: +81-45-777-7054  Fax: +81-45-777-7055
AC Power Source with Hybrid Power Control

The DP Series is the choice.

- **Highly robust, low distortion**: Hybrid power control provides highly robust operation. Stable driving for both capacitive and inductive loads without switching response characteristics. Low distortion output, too.

- **Output waveform when driving a 1000 µF capacitor load**: No resonance or distortion, even with a high-capacitance noise filter connected.

- **Low noise**: Low noise for both conduction and radiation. Suitable for use in CVCF for anechoic chambers or EMC testing.

### Specifications

- **AC Output**
  - Power output: DP060LM 6 kVA, DP120LM 12 kVA, DP180LM 18 kVA
  - Frequency range: 40 Hz to 550 Hz
  - Voltage accuracy: ±0.01 % of set (23 °C to 31 °C)

- **Frequency Accuracy**: ±0.01 % of set (23 °C to 31 °C)

- **Input Power**: AC 100 V, 50/60 Hz

- **Output**: Sine wave, arbitrary waveform, clipped sine wave

- **Controller Software**: Enables control of basic parameters via a PC, including data logging and creating/editing of sequence, simulation, and arbitrary waveforms.

### Various Functions

- **Measurement Functions**
  - Voltage, Current, Power, Harmonic current (up to 40th order)
  - Load power factor, Crest factor, Sync frequency
  - Current Limiter Function
  - Positive/negative peak current value and RMS current value
  - Remote Sensing, ASC (Automatic Gain Control)
  - Autocal (Output Voltage Compensation)
  - Sequence Function
  - AC Line Simulation
  - Clipped Sine Wave, Arbitrary Waveform

- **External Control I/O**
  - CONTROL I/O
  - Used to control Voltage Dip simulator and Reference impedance network

- **Interface**
  - RS-232, USB (equipped as standard)
  - GPIB or LAN (LXI) (Specify one when ordering)

- **Control Software (included by default)**

### Multi-Phase Model

Switch between 1P2W, 1P3W, and 3P4W

6 kW, 12 kW and 18 kW models added to multi-phase lineup that allows switching between 1P2W, 1P3W, and 3P4W outputs. Diverse testing can be done with a single unit that offers the full function and performance of the DP Series.

- **Reverse power flow 100%**: DP060LM, DP120LM and DP180LM multi-phase models can handle 100% reverse power flow (regeneration) of 20 ms or less. For example, when the load is an inverter that has an AC reactor for improving the power factor, etc., the reverse power flow that occurs when the inverter power supply is turned off can be absorbed.

- **Load protection**: Equipped with a variable limiter for the peak current and effective current. The limiter can be set to continuous operation or output off. The limiter for loads that have a high current inflow eliminates the need to introduce a high-capacity power supply to match the inrush current.

- **Single compact space-saving unit**: The DP060LM, DP120LM and DP180LM multi-phase models are single compact units that can be used for single phase, three wire single phase, and three-phase testing, saving space and reducing costs because separate units are not needed for each type of testing.

### Control Software

- Enables control of basic parameters for output via a PC, including data logging, and creating/editing of sequence, simulation, and arbitrary waveforms.