

## Rated Values

### Output

|  |   |  |
|--|---|--|
| Maximum output power capacities                  | AC  | 750VA (When the input is from AC100V to AC180V)<br>1,000VA (When the input is from AC180V to AC250V)       |
|  | DC  | 750W (When the input is from AC100V to AC180V)<br>1,000W (When the input is from AC180V to AC250V)         |
| Output modes                                     | Eight modes in total (combination of operation mode and signal source mode)<br>AC-INT (AC-Internal signal source), AC-EXT (AC-External signal source),<br>AC-ADD (AC-Internal and external signal source),<br>AC-SYNC (AC-External synchronization)<br>AC+DC-INT (DC-Internal signal source),<br>AC+DC-EXT (DC-External signal source)<br>AC+DC-ADD (DC-Internal and external signal source),<br>AC+DC-SYNC (DC-External synchronization) |  |
| Output voltages <sup>*1,2</sup>                  | AC  | 100V range : 0.0V to 135.0V (resolution : 0.1V)<br>200V range : 0.0V to 270.0V (resolution : 0.1V)         |
|  | DC  | 100V range : -190.0V to +190.0V (resolution : 0.1V)<br>200V range : -380.0V to +380.0V (resolution : 0.1V) |
| Maximum output currents <sup>*3,4</sup>          | AC  | 100V range : 10 A, 200V range : 5 A  |
|  | DC  | 100V range : 10 A, 200V range : 5 A  |
| Maximum output peak currents <sup>*3,4,5,6</sup> | 100V range : 40 Apk, 200V range : 20 Apk  |  |
| Frequency setting range <sup>*7</sup>            | 1.0Hz to 550.0Hz (resolution : 0.1Hz) Setting accuracy : ±100ppm  |  |
| Phase when output is on <sup>*7</sup>            | Setting range : 0.0deg. to 359.9deg. (resolution : 0.1deg.)   |  |
| Output voltage waveform <sup>*7</sup>            | Sine wave, square wave, arbitrary wave (Up to 16 types can be saved.)   |  |
| Output voltage distortion rate                   | 0.5% max. (50Hz/60Hz)   |  |
| Load regulation                                  | 0.5% max. (at output terminal under no load and rated resistance load)  |  |
| Line regulation                                  | 0.2% max. (power input voltage : 100V/120V/230V, no load, rated output)   |  |

### Measurement Functions

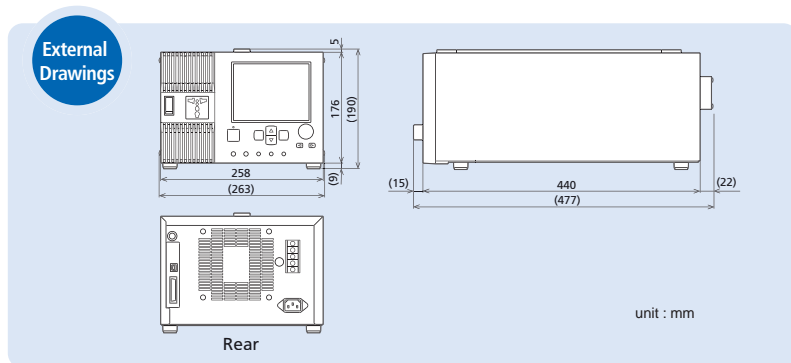
|   |   |
|---|---|
| Output voltage measurements                     | DC Average value, effective value, and peak value   |
| Output current measurements                     | DC Average value, effective value, peak value, and peak value hold                              |
| Output power measurements                       | Active power, apparent power, and reactive power  |
| Load power factor measurements                  | Measurement range : 0.00 to 1.00  |
| Load crest factor measurements                  | Measurement range : 0.00 to 50.00   |
| Output harmonic current measurements            | Measurement range : up to 40th-order (AC internal oscillation mode, fundamental wave : 50/60Hz) |
| External synchronization frequency measurements | Measurement range : 38.0 to 525.0Hz (external synchronization mode)                             |

### Sequence Functions (The signal source mode is internal only.)

|                        |  |
|------------------------|--|
| Number of sequences    | One sequence per AC/DC mode at both 100V and 200V range.                           |
| Number of steps        | 1 to 255 (within one sequence)   |
| Step time              | 0.1ms to 999.9999s (resolution : 0.1ms)  |
| Operations within step | Constant, held, or linear sweep  |
| Parameters             | DC voltage, AC voltage, frequency, waveform, step synchronization output of 2 bits |
| Number of jumps        | 1 to 999 or continuous   |
| Sequence controls      | Start, stop, hold and branch   |

\*The rated values assume the following conditions unless otherwise specified.

- The unit for AC voltage/current is the "effective value" (rms).
- Power input : AC 200V, 50Hz
- Output mode : AC-INT (AC internal signal source) mode
- Output frequency : 50Hz
- Output voltage : 100Vrms (200Vrms for 200V range)
- Output waveform : sine wave
- Load : resistance of 10Ω (40Ω for the 200V range)
- Output terminal : rear panel terminal block



### Other Functions

|                                    |   |
|------------------------------------|---|
| Limiters                           | Output peak current limiter, output average current limiter   |
| Setting range limits <sup>*7</sup> | Voltage setting limits (lower limit ≤ upper limit)<br>Frequency setting limits (lower limit ≤ upper limit)                                      |
| External signal inputs             | Gain : 100V range : 0.0 to 200.0 times<br>200V range : 0.0 to 400.0 times<br>Input voltage : -2.2V to +2.2V<br>Frequency range : DC to 550Hz    |
| External synchronization           | External synchronization signal/line, frequency range : 40Hz to 500Hz   |
| Arbitrary waveform memory          | Number of memories : 16 (writing via USB interface)   |
| Protection functions               | Protection against output, power unit, internal control, and internal temperature abnormalities   |
| Miscellaneous functions            | Memory setting (30 patterns), beep, key lock, output setting at power activation, reset function, self diagnosis function, external control I/O |

### Power Input

|                                |  |
|--------------------------------|--|
| Input voltage range            | AC 100V to AC 230V ±10% (250V max.)<br>50Hz/60Hz ±2Hz (single phase) |
| Power consumption/power factor | 1.4kVA max./0.95min. (AC 100V), 0.9min. (AC 200V)                    |

### General Information

|  |  |
|--|--|
| Interface  | USB interface (USBTMC)   |
| Withstand voltages/insulation resistance         | AC 1500V/30MΩ min., DC 500V (between power supply input and output/chassis in block, between power supply input/chassis in block and output) |
| Operation guarantee temperature /humidity ranges | 0 to +40°C, 5 to 85% RH (Absolute humidity must be within 1 to 25g/m <sup>3</sup> , no condensation)   |
| Dimensions                                       | 258(W)×176(H)×440(D) (not including protrusions)   |
| Weight   | Approx. 9.5kg  |
| Accessories                                      | Operation manual x1, control software x1, power cord set x2  |

### Control Software

|                       |                                  |  |
|-----------------------|----------------------------------|--|
| Functions             | Remote controls                  | Sets, saves, reads, and otherwise handles each parameter.  |
|                       | Logging                          | Imports and saves measurement values.  |
|                       | Arbitrary waveform data creation | Generates, edits, transfers, and displays waveforms and handles waveform files.  |
|                       | Sequence editing                 | Creates, edits, saves, transfers, and previews sequence data, controls execution, and displays data on the monitor during execution. |
| Operating environment | CPU                              | Celeron 300MHz or higher   |
|                       | Memory                           | 256MB or more  |
|                       | Hard disk                        | 20GB or more (Free space of at least 10GB is required for installation.)   |
|                       | OS                               | Windows 2000/XP  |
|                       | Disk drive                       | CD-ROM drive   |
| Interface             | USB 1.1 or higher                |  |

- \*1 Signal source modes: internal mode or internal/external mode, within the voltage setting limit.
- \*2 When 100V power supply is used for input, the maximum output range is limited to 130V AC (± 183V for DC) and 260V AC (± 366V for DC) in the 100V range and 200V range, respectively.
- \*3 When the voltage exceeds the rated output voltage (100V, 200V), the maximum output current and the maximum output peak current are limited due to the maximum output power capacities.
- \*4 If the output frequency is less than 40Hz or more than 400Hz, the maximum output current is limited.
- \*5 This is the value for the capacitor input rectifier circuit of which crest factor is less than or equal to 4.
- \*6 The peak value for AC and DC is less than or equal to the maximum output peak current.
- \*7 Only when the signal source mode is internal or internal/external. Only voltage setting limits when the signal source mode is external synchronization.

- The information contained in this catalog is current as of November 1, 2006.
- Product specifications and appearances are subject to change without notice.
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