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estEquinmentDenot.cor



# **ASR-3000 Series**

Programmable AC/DC Power Source

# **FEATURES**

- Output Rating: AC 0 ~ 400 Vrms, DC 0 ~ ± 570 V
- Output Frequency up to 999.9 Hz
- DC Output (100% of Rated Power)
- Measurement Items: Vrms, Vavg, Vpeak, Irms, IpkH, Iavg, Ipeak, P, S, Q, PF, CF
- Voltage and Current Harmonic Analysis(THDv, THDi)
- Remote Sensing Capability
- OCP, OPP, OTP, AC Fail Detection and Fan Fail Alarm
- Support Arbitrary Waveform Function
- Output Capacity: 2kVA/ 3kVA/4kVA
- Customized Phase Angle for Output On/Off
- Sequence and Simulation Function(up to 10 sets)
- Interface(std): USB, LAN, RS-232, GPIB
- Built-in External Control I/O and External Signal Input
- Built-in Output Relay Control
- Memory Function (up to 10 sets)
- Built-in Web Server



The ASR-3000 Series is an AC+DC power source, featuring high-speed DC voltage rising and falling time ( $\leq$ 100us). There are three models of the series: ASR-3200(2kVA), ASR-3300(3kVA) and ASR-3400 (4kVA). The series can provide rated power output during AC output and DC output. Nine ASR-3000 Series output modes are available, including 1) AC power output mode (AC-INT Mode), 2) DC power output mode (DC-INT Mode), 3) AC/DC power output mode (AC+DC-INT Mode), 4) External AC signal source mode (AC-EXT Mode), 5) External AC/DC signal source mode (AC+DC-EXT Mode), 6) External AC signal superimposition mode (AC-ADD Mode), 7) External AC/DC signal superimposition mode (AC+DC-ADD Mode), 8) External AC signal synchronization mode (AC-SYNC Mode), 9) External AC/DC signal synchronization mode (AC+DC-SYNC Mode).

ASR-3000 Series is ideal for the development of On-board Chargers, Server Powers, LED modules, AC Motors, AC Fans, UPS and various electronic components, as well as for testing applications of automotive electrical equipment and home appliances.

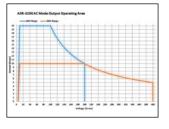
The ASR-3000 Series provides users with waveform output capabilities including 1) Sequence mode generates waveform fallings, surges, sags, changes and other abnormal power line conditions; 2) Arbitrary waveform function allows users to store/upload userdefined waveforms; and 3) Simulate mode simulates power outage, voltage rise, voltage fall, and frequency variations. When the ASR-3000 Series power source outputs, it can also measure Vrms, Vavg, Vpeak, Irms, Iavg, Ipeak, IpkH, P, S, Q, PF, CF, 40th-order Voltage Harmonic and Current Harmonic. In addition, the remote sensing function ensures accurate voltage output, and the Customized Phase Angle for Output On/Off function can set the start and end angles of the voltage output according to the test requirements. The protection limits of V-Limit, Ipeak-Limit and F-Limit can be set according to user requirements. Over voltage limit, OCP, OPP will protect the DUT during the output process. The Fan Fail Alarm function and the AC fail alarm function are also designed in the ASR-3000 Series.

The front panel of the ASR-3000 Series provides a universal socket or a European socket, which allows users to plug and use so as to save wiring time. Since the power socket specification has a maximum current of 15A, the rear panel of ASR-3000 Series is designed with a current circuit breaker. When the socket current is greater than 15A, it will automatically open the circuit to protect users. The ASR-3000 Series supports I/O interface and is standardly equipped with USB, LAN, External I/O, RS-232C and GPIB.

#### CE RS-232 USB GPIB LAN Ext I/O 1. Air Inlet 4000 2. LCD Screen 5.00 3. Display Mode Select key 4. Function Keys 5. Scroll Wheel 6. Output Key 7. Hardcopy Key 8. Lock/Unlock Button 9. USB Interface Connector(A Type) 10. Power Switch Button 11. Output Socket 12. External I/O Connector 13. GPIB Connector 14. Remote Sensing Input Terminal 15. Output Terminal 16. Line Input 17. External Signal Input/External Synchronized Signal Input 18. RS-232C Connector 19. LAN Connector 20. USB Interface Connector(B Type) 21. Circuit Breaker

#### PANEL INTRODUCTION

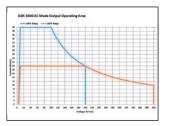
#### OPERATING AREA FOR ASR-3000 SERIES

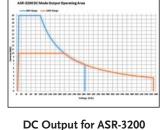


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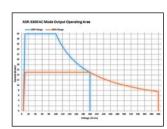
AC Output for ASR-3200

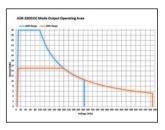




ALE MODE Charles Degran Operating Area

DC Output for ASR-3400





AC Output for ASR-3300

DC Output for ASR-3300

Model Name	Power Rating	Max. Output Current	Max. Output Voltage
ASR-3200	2k VA	20 / 10 A	400 Vrms / ±570 Vdc
ASR-3300	3k VA	30 / 15 A	400 Vrms / ±570 Vdc
ASR-3400	4k VA	40 / 20 A	400 Vrms / ±570 Vdc

The ASR-3000 series is an AC + DC power source that provides not only rated power output for AC output, but also rated power output for DC output.

## AC Output for ASR-3400

#### **MEASUREMENT ITEMS FOR ASR-3000 SERIES**

ON	% AUTOSIN			()	
v	350.0 Vrms	Р	0.0	w	[Simple] Harm
1	0.01 Arms	s	2.8	VA	[RMS]
		Q	+2.8	var	PEAK
		PF	0.000		
lpkH	+0.19 Apk	CF	0.00		[RUN] HOLD

**RMS Meas Display** 

AVG Meas Display

+0.19

+2.9

0.00

Vmax	+495.7	Vpk	р	0.0	w	[Simple] Harm
Vmin	-494.2	Vpk		2.9	VA	RMS
Imax	+0.03	Apk		+2.9	var	[PEAK]
lmin	-0.03	Apk		0.000		
lpkH	+0.19	Apk	CF	0.00		[RUN]

Peak Meas Display

ON	ON	ON	ON 94	% 200V SQU		1
Harr	Harn	Harn	Harmon	ic Current Measure	THDi = 42.2 %	Simple
31th	21th	11th	1st	4.31 Arms	90.7 %	[Harm]
32th	22th	12th	2nd	0.00 Arms	0.0 %	
33th	23th	13th	3rd	1.44 Arms	30.2 %	THDV
34th	24th	14th	4th	0.00 Arms	0.0 %	[THDi]
35th	25th	15th	Sth	0.86 Arms	18.0 %	
36th	26th	16th	6th	0.00 Arms	0.0 %	
37th	27th	17th	7th	0.61 Arms	12.8 %	
38th	28th	18th	8th	0.00 Arms	0.0 %	
39th	29th	19th	9th	0.47 Arms	9.9%	Page
40th	30th	20th	10th	0.00 Arms	0.0%	Down

**Current Harmonic** 

parameters including Vrms/Irms, Vavg/Iavg and Vmax/Vmin/ Imax/ Imin can be switched by users at any time to display the instantaneous calculation reading.

# ON ON ON 94 % 200V SOUL Image: Constraint of the state of the stat

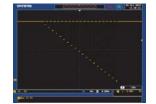
**Voltage Harmonic** 

The ASR-3000 Series provides users with measurement capabilities including Vrms, Vavg, Vpeak, Irms, Iavg, Ipeak, IpkH, P, S, Q, PF, CF, 40th-order Voltage Harmonic and Current Harmonic. During the power output, the measurement

#### SEQUENCE MODE AND BUILT-IN ISO-16750-2 WAVEFORMS

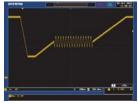


SEQ6: Momentary Drop in Supply Voltage

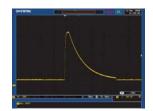


SEQ7: Reset Behavior at Voltage Drop with 12V System

The sequence mode provides editable 10 sets of SEQ0~SEQ9, each set has 0~999 steps, each step time setting range is 0.0001~999.9999 seconds. Users can combine multiple sets of steps to generate the required waveforms, including waveform falling, surges, sags and other abnormal power line conditions to meet the needs of the test applications.



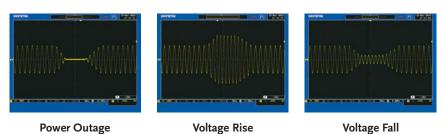
SEQ8: Starting Profile Waveform



SEQ9: Load Dump with Tr\_10ms, Td\_40ms

In addition, ASR-3000 Series also built in common ISO-16750-2 test waveforms in the Sequence Mode preset waveforms, including Momentary Drop in Supply Voltage built in at SEQ6, Reset Behavior at Voltage Drop with 12V system built in at SEQ7, Starting Profile Waveform built in at SEQ8 and Load Dump with Tr\_10ms, and Td\_40ms built in at SEQ9.

#### SIMULATE MODE D



Simulate Mode can quickly simulate different transient waveforms, such as power outage, voltage rise, voltage fall, etc., for engineers to evaluate the impact of transient phenomena on the DUT. Ex: Capacitance durability test.

FUNCTION WAVEFORM (ARBITRARY EDIT) MODE STAL CUP APP NO **TRI Waveform** Fourier Series Synthesized Waveform **STAIR Waveform CLIP** Waveform SURGE Waveform

in seven categories, allowing users to quickly simulate different AC voltage waveforms. Adjust the desired waveform type directly through the panel (displayed synchronously on the screen),

ASR-3000 Series provides more than 20,000 waveform combinations then the waveform is loaded into the ARB 1~16 waveform register through the access procedures, and return to the main menu output mode to perform ARB Waveform output.

### **PC SOFTWARE**



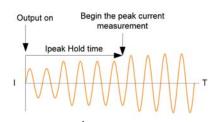
**Basic Controller** 



Sequence Mode

The ASR-3000 Series software includes basic settings, the Simulate Mode, the Sequence Mode, Data Log and the arbitrary waveform editing function. Users can directly set output voltage, frequency, start/stop phase on ASR-3000 Series through the software. The Simulate Mode can quickly simulate different transient waveforms such as power outage, voltage rise, voltage fall... etc.

#### T, IPK HOLD & IPK, HOLD FUNCTIONS



T, Ipk Measurement

T, Ipk Hold is used to set the delay time after the output (1ms  $\sim$ 60,000ms) to capture the Ipeak value and keep the maximum value. The update only functions when the measurement value is greater than the original value. The T, Ipk Hold delay time setting can be used to measure surge current at the power on process of the DUT.

Ipk Hold can be used to measure the transient surge current of the DUT at power on without using an oscilloscope and a current probe.

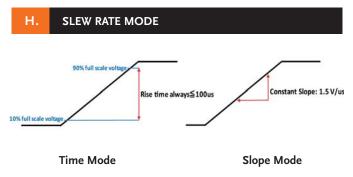




**ARB Waveform Edit** 

The Waveform is Observed with DSO

The Sequence Mode can edit the editing parameters read back from ASR-3000 Series, or directly edit the parameters and control ASR-3000 Series to output waveforms according to the set sequence. The arbitrary waveform editing function not only combines various waveforms, including sine waves, square waves, triangle waves, and noise waveforms, but also allows uses to draw arbitrary waveforms and output them.



The ASR-3000 Series can set the Slew Rate Mode to determine the rise time of the voltage according to the test requirements of the DUT. Slew Rate Mode provides "Time" and "Slope" modes. When setting "Time" mode, ASR-3000 Series can increase output to 10~90% of the set voltage within 100 $\mu s;$  and when selecting "Slope" mode, ASR-3000 Series increases output voltage by a fixed rising slope of 1.5V/µs until reaching the set voltage value.

In addition, if users decide to self-define the rise time of the output voltage, users can flexibly set the rise time of the ASR-3000 Series voltage by editing the Sequence mode.

SPECIFICATIONS		ASR-3200	ASR-3300	ASR-3400			
INPUT RATING (AC)		A3N-3200		A31(-3400			
NORMINAL INPUT VOLTAGE		200 Vac to 240 Vac	200 Vac to 240 Vac	200 Vac to 240 Vac			
INPUT VOLTAGE RANGE		180 Vac to 264 Vac	180 Vac to 264 Vac	180 Vac to 264 Vac			
PHASE		Single phase, Two-wire	Single phase, Two-wire	Single phase, Two-wire			
NORMINAL INPUT FREQUENCY		50 Hz to 60 Hz	50 Hz to 60 Hz	50 Hz to 60 Hz			
INPUT FREQUENCY RANGE		47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz			
		2500 VA or less	3750 VA or less	5000 VA or less			
POWER FACTOR <sup>®</sup> 200Vac		0.95 (TYP)	0.95 (TYP)	0.95 (TYP)			
MAX. INPUT CURRENT *1 For an output voltage of 100 V/200	200Vac	15 A aximum current, and a load power factor of 1.	22.5 A	30 A			
AC MODE OUTPUT RATINGS							
VOLTAGE	Setting Range <sup>*1</sup>	0.0 V to 200.0 V / 0.0 V to 400.0 V					
	Setting Resolution	0.1 V					
	Accuracy <sup>*2</sup>	±(1 % of set + 1 V / 2 V)					
OUTPUT PHASE		Single phase, Two-wire					
MAXIMUM CURRENT <sup>*3</sup>	100 V	20 A	30 A	40 A			
	200 V	10 A	15 A	20 A			
MAXIMUM PEAK CURRENT <sup>**</sup>	100 V	120 A	180 A	240 A			
	200 V	60 A	90 A	120 A			
OAD POWER FACTOR		0 to 1 (leading phase or lagging phase) 2000 VA	0 to 1 (leading phase or lagging phase) 3000 VA	0 to 1 (leading phase or lagging phase) 4000 VA			
	6 P			4000 VA			
REQUENCY	Setting Range	AC Mode: 40.00 Hz to 999.9 Hz, AC+DC M					
	Setting Resolution Accuracy	0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to 999.9 Hz) 0.02% of set (23 °C ± 5 °C)					
	Stability <sup>*5</sup>	± 0.005%					
OUTPUT ON PHASE	Stability	0° to 359° variable (setting resolution 1°)					
OC OFFSET		Within ± 20 mV (TYP)					
		00 V / 40 V to 400 V, an output frequency of 45 Hz to 65					
		by the power capacity when the output voltage is 100 V power rating temperature, the maximum current will be		position, the current of AC+DC mode satisfies th			
4. With respect to the capacitor-input	t rectifying load. Limited b	by the maximum current.					
5. For 45 Hz to 65 Hz, the rated outp OUTPUT RATING FOR DC MC		ne resistance load for the maximum current, and the ope	rating temperature. ×6. In the case of the AC mode a	Ind 25°C ± 5°C.			
	47	285 )/ 45 + 285 )/ / 570 )/ 45 + 570 )/					
VOLTAGE	Setting Range	-285 V to + 285 V / -570 V to +570 V 0.1 V					
	Accuracy <sup>2</sup>	$\pm (1 \% \text{ of set} + 1 \text{ V} / 2 \text{ V})$					
MAXIMUM CURRENT*3	100 V	20 A	30 A	40 A			
	200 V	10 A	15 A	20 A			
AXIMUM PEAK CURRENT**	100 V	120 A	180 A	240 A			
	200 V		90 A	120 A			
	200 V	60 A					
		2000 W	3000 W	4000 W			
*1. 100 V / 200 V range *2. For an	output voltage of -285 V t		3000 W 570 V, no load, and 23 °C±5 °C	4000 W			
*1. 100 V / 200 V range	output voltage of -285 V t	2000 W :o -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to +	3000 W 570 V, no load, and 23 °C±5 °C	4000 W			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY	output voltage of -285 V t	2000 W :o -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to +	3000 W 570 V, no load, and 23 °C±5 °C	4000 W			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION* <sup>1</sup> LOAD REGULATION <sup>*2</sup>	output voltage of -285 V t	2000 W io -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + iited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output termina	3000 W 570 V, no load, and 23 C± 5 C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma	4000 W			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 1 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup>	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + hited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP)	3000 W 570 V, no load, and 23 °C±5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma	4000 W ximum current.			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + iited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20	3000 W 570 V, no load, and 23 °C ± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma I) 0 V / 200 V to 400 V, a load power factor of 1, stepwis	4000 W ximum current.			
<ul> <li>*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10</li> <li>OUTPUT VOLTAGE STABILITY</li> <li>LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), u</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + wited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in	3000 W 570 V, no load, and 23 °C ± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma I) 0 V / 200 V to 400 V, a load power factor of 1, stepwis 1 DC mode using the output terminal on the rear pan	4000 W ximum current.			
<ul> <li>1.100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10</li> <li>OUTPUT VOLTAGE STABILITY</li> <li>LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), i</li> <li>OUTPUT VOLTAGE WAVEFOR</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + wited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b>	3000 W 570 V, no load, and 23 C± 5 C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis n DC mode using the output terminal on the rear pan FICIENCY	4000 W ximum current.			
<ol> <li>1.00 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 10</li> <li>DUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>1. Power source input voltage is 200 maximum current(or its reverse), i</li> <li>DUTPUT VOLTAGE WAVEFOR</li> <li>TOTAL HARMONIC DISTORTION</li> </ol>	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal M DISTORTION RAT N(THD)	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + hited by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\%$ @50/66Hz, $\leq 0.3\%$ @<500Hz, $\leq 0.5\%$	3000 W 570 V, no load, and 23 C± 5 C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis n DC mode using the output terminal on the rear pan FICIENCY	4000 W ximum current.			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> RIPPLE NOISE <sup>*3</sup> 1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR OUTPUT VOLTAGE RESPONS	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal M DISTORTION RAT N(THD)	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + wited by the power capacity when the output voltage is 10 ±0.2% or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b>	3000 W 570 V, no load, and 23 C± 5 C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis n DC mode using the output terminal on the rear pan FICIENCY	4000 W ximum current.			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 1 <b>DUTPUT VOLTAGE STABILITY</b> LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 <b>DUTPUT VOLTAGE WAVEFOR</b> TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> <b>E TIME</b> <sup>*2</sup> OV / 100 V to 400 V, a load	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + hited by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) d, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO. OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\%$ @50/60Hz, $\leq 0.3\%$ @<500Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with	4000 W ximum current.			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> 1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOD OUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> 1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> <b>E TIME</b> <sup>*2</sup> OV / 100 V to 400 V, a load	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) , rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO</b> , <b>OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5\%$ 100 us (TYP) 80 % or more	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with	4000 W ximum current.			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 1 <b>OUTPUT VOLTAGE STABILITY</b> LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> <sup>*1</sup> . Power source input voltage is 200 maximum current(or its reverse), i <b>OUTPUT VOLTAGE WAVEFOR</b> TOTAL HARMONIC DISTORTIOD OUTPUT VOLTAGE RESPONSI <b>EFFICIENCY<sup>*3</sup></b> <sup>*1</sup> . At an output voltage of 50 V to 200 current of 0 A to the maximum cur <b>MEASURED VALUE DISPLAY</b>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> "1 <b>E TIME</b> *2 V / 100 V to 400 V, a load rent (or its reverse). *3.	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\%$ @50/60Hz, $\leq 0.3\%$ @<500Hz, $\leq 0.5^{\circ}$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum <b>I</b>	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with	4000 W ximum current.			
<ul> <li>1.100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup> RIPPLE NOISE<sup>*3</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), i OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY<sup>*3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> </ul>	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>41</sup> <b>E TIME</b> <sup>42</sup> 0 V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + hited by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum 0.1 V	3000 W 570 V, no load, and 23 °C± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis 1 DC mode using the output terminal on the rear pan FICIENCY % @500.1Hz-999.9Hz voltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.	4000 W ximum current.			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 DUTPUT VOLTAGE STABILITY LINE REGULATION" LINE REGULATION" RIPPLE NOISE" 1. Power source input voltage is 200 maximum current(or its reverse), I DUTPUT VOLTAGE WAVEFOR DUTPUT VOLTAGE RESPONS EFFICIENCY" 1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur VIEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value"	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> <b>E TIME</b> <sup>*2</sup> IV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy</b> <sup>*2</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5^{\circ}$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of reac	3000 W 570 V, no load, and 23 °C± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis 1 DC mode using the output terminal on the rear pan FICIENCY % @500.1Hz-999.9Hz voltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.	4000 W ximum current.			
<ul> <li>1.100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup> RIPPLE NOISE<sup>*3</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), i OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY<sup>*3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> <b>E TIME</b> <sup>*2</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy</b> <sup>*2</sup> <b>Resolution</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) , rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5\%$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of read 0.1 V	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         10 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.         ding + 0.5 V/1 V); For all other frequencies: and the state of	4000 W ximum current.			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value	viput voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load sing the output terminal <b>M DISTORTION RAT</b> <b>V / 100 V to 400 V, a load rent (or its reverse).</b> *3. Resolution Accuracy*2 Resolution Accuracy	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of read 0.1 V For 45 Hz to 65 Hz and DC: ±(12 % of readi	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1.         ling + 0.5 V/1 V); For all other frequencies: =         ng  + 1 V / 2 V)	4000 W ximum current. se change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V)			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> <b>E TIME</b> <sup>12</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy<sup>12</sup></b> <b>Resolution</b> <b>Accuracy</b> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output, *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% \ (50/60 \text{Hz}, \leq 0.3\% \ (0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.2\% \ (0.1 \text{VP})$ 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of readors) 0.1 V For 45 Hz to 65 Hz and DC: ±(12 % of readors) 0.01 A	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with drimum current, and load power factor of 1.         ding + 0.5 V/1 V); For all other frequencies: and the second provide the second provide the second provide the second provided to th	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value	viput voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load sing the output terminal <b>M DISTORTION RAT</b> <b>V / 100 V to 400 V, a load rent (or its reverse).</b> *3. Resolution Accuracy*2 Resolution Accuracy	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of readi 0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1.         timm current, and load power factor of 1.         timg + 0.5 V/1 V); For all other frequencies: and load power factor of 1.         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> <b>E TIME</b> <sup>12</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy<sup>12</sup></b> <b>Resolution</b> <b>Accuracy</b> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output, *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% \ (50/60 \text{Hz}, \leq 0.3\% \ (0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.5\% \text{OHz}, \leq 0.2\% \ (0.1 \text{VP})$ 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of readors) 0.1 V For 45 Hz to 65 Hz and DC: ±(12 % of readors) 0.01 A	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with drimum current, and load power factor of 1.         ding + 0.5 V/1 V); For all other frequencies: and the second provide the second provide the second provide the second provided to th	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A			
*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LOAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> E TIME <sup>12</sup> V / 100 V to 400 V, a loac rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) 1, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO. OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of reading) 0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1.         with the state of 100 V / 200 V, a load power factor of 1.         with the state of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 A 0.1 A			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 DUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> ILINE REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> <sup>11</sup> . Power source input voltage is 200 maximum current(or its reverse), i DUTPUT VOLTAGE WAVEFOR DUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> <sup>12</sup> . At an output voltage of 50 V to 200 current of 0 A to the maximum cut MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*3</sup> PEAK Value CURRENT RMS, AVG Value	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> <b>E TIME</b> <sup>(*2)</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy</b> <sup>*2</sup> <b>Resolution</b> <b>Accuracy</b> <b>Resolution</b> <b>Accuracy</b> <b>Resolution</b> <b>Accuracy</b> <sup>*3</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5'$ 100 us (TYP) $\otimes 0\%$ or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of readid 0.01 A For 45 Hz to 65 Hz and DC: ±(12 % of readid 0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         ding + 0.5 V/1 V); For all other frequencies: :         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         frequencies::±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(0.2 % of reading+0.15 A/0.08 A); For all other frequencies:	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of			
<ol> <li>100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup> RIPPLE NOISE<sup>*3</sup></li> <li>Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY<sup>*3</sup></li> <li>At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>*1</sup> PEAK Value</li> <li>PEAK Value</li> </ol>	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> <b>E TIME</b> <sup>*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>*2</sup> <b>Resolution</b> Accuracy <b>Resolution</b> Accuracy <sup>*3</sup> <b>Resolution</b> Accuracy <sup>*4</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) $\otimes 0\%$ or more d power factor of 1, and in AC mode. *2. For an output For AS mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of readi 0.01 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.01 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.01 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.01 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.01 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.1 A) For 45 Hz to 65 Hz and DC: $\pm (12\%$ of readii 0.	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         dinum current, and load power factor of 1.         windtage of 100 V / 200 V, a load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies: :         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         no.1 A         For 45 Hz to 65 Hz and DC:±(0.2 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading+0.3 A/0.4 A)	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±( 2 % of reading  + 1 A/0.5 A)			
<ol> <li>100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup> RIPPLE NOISE<sup>*3</sup></li> <li>Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY<sup>*3</sup></li> <li>At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>*1</sup> PEAK Value</li> <li>PEAK Value</li> </ol>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>41</sup> <b>E TIME</b> <sup>42</sup> 200 V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>42</sup> <b>Resolution</b> Accuracy <sup>43</sup> <b>Resolution</b> Accuracy <sup>44</sup> <b>Resolution</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) $\pm 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) $\pm 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 Us (TYP) $\pm 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 V (200 V, mark) = 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\% \text{ of readi})$ = 0.1 V For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readi})$ = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.1 A = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.5 Hz  to 65 Hz and DC:  (12%  of readi) = 0.5 A/0.25 A = 0.5 A/0.25 A = 0.5 A/0.25 A = 0.5 A/0.25 A	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         1 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         woltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies: :         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W	4000 W ximum current. te change from an output current of 0 A to el. h respect to stepwise change from an output ±(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±( 2 % of reading  + 1 A/0.5 A) 1 W			
100 V / 200 V range *2. For an     3. For an output voltage of 1.4 V to 11     DUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LINE REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> <sup>*1</sup> . Power source input voltage is 200     maximum current(or its reverse), 1 DUTPUT VOLTAGE WAVEFOR DUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> <sup>*1</sup> . At an output voltage of 50 V to 200     current of 0 A to the maximum cut MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value PEAK Value PEAK Value POWER Active (W)	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>41</sup> <b>E TIME</b> <sup>42</sup> OV / 100 V to 400 V, a loac rent (or its reverse). *3. <b>Resolution</b> <b>Accuracy</b> <sup>42</sup> <b>Resolution</b> <b>Accuracy</b> <sup>43</sup> <b>Resolution</b> <b>Accuracy</b> <sup>44</sup> <b>Resolution</b> <b>Accuracy</b> <sup>55</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of readi 0.1 N For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of reading+0.1 A/0.05 A); For all other frequencies: $\pm (0.7\%$ of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of reading + 0.5 A/0.25 A) 1 W $\pm (2\%$ of reading + 2 W)	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1 Hz−999.9 Hz         Ming + 0.5 V/1 V); For all other frequencies: :         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±( 2 % of reading  + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W)			
100 V / 200 V range *2. For an     3. For an output voltage of 1.4 V to 11     OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> CAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> 1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> 1. At no utput voltage of 50 V to 200 CUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> 1. At no utput voltage of 50 V to 200 CUTPUT VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value  CURRENT RMS, AVG Value	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> E TIME <sup>12</sup> V / 100 V to 400 V, a loac rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less 0.5% or less 0.5% or less 0.5% or or less 0.5% or less 0.5% or less 0.100%, via output terminal 1 Vrms / 2 Vrms (TYP) 3. For 5 Hz to 1 MHz components in <b>FIO. OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\%  (50/60 \text{Hz}, \leq 0.3\%  (0.5\%) \text{ of read}$ $= 0.2\%  (0.5\%)  (60 \text{Hz}, \leq 0.3\%  (0.5\%)  (0.5\%)  (0.5\%)  (0.5\%)  (0.1 \text{ V})$ For 45 Hz to 65 Hz and DC: $\pm (0.5\%  \text{of read})$ 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%  \text{of reading}+0.1 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.5 \text{ Hz}  \text{ and DC}: \pm (0.5\%  \text{of reading}+0.1 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.1 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.5\%  \text{A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.5\%  \text{of reading}+0.2 \text{ A})  (0.1 \text{ A})  (0.5\%  \text{A})  (0.5\%$	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         nDC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         uoltage of 100 V / 200 V, a load power factor of 1.         with grant and load power factor of 1.         imum current, and load power factor of 1.         und the state of the state	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±([2 % of reading] + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W) 1 VA			
All 100 V / 200 V range *2. For an A. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION' <sup>12</sup> RIPPLE NOISE' <sup>3</sup> All POLE NOISE' <sup>3</sup> All POLE NOISE COMPANY ALL 100 MEASURED VALUE OF SO V to 200 Current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value PEAK Value     POWER Active (W)	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> E TIME <sup>12</sup> V / 100 V to 400 V, a loac rent (or its reverse). *3. Resolution Accuracy <sup>12</sup> Resolution Accuracy <sup>13</sup> Resolution Accuracy <sup>15</sup> Resolution Accuracy <sup>15</sup> Resolution Accuracy <sup>15</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, maximum 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of readi 0.1 N For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of reading+0.1 A/0.05 A); For all other frequencies: $\pm (0.7\%$ of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\%$ of reading + 0.5 A/0.25 A) 1 W $\pm (2\%$ of reading + 2 W)	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1 Hz−999.9 Hz         Ming + 0.5 V/1 V); For all other frequencies: :         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the contract of the co			
1. 100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION' <sup>2</sup> RIPPLE NOISE <sup>31</sup> 1. Power source input voltage is 200 maximum current(or its reverse), 1 0UTPUT VOLTAGE WAVEFORI 0UTPUT VOLTAGE RESPONS EFFICIENCY <sup>3</sup> 1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>31</sup> PEAK Value PEAK Value PEAK Value PEAK Value PEAK Value POWER Active (W) Apparent (VA)	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> E TIME <sup>12</sup> V / 100 V to 400 V, a loac rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of read 0.1 V For 45 Hz to 65 Hz and DC: $\pm ( 2\% of reading+0.1 A/0.05 A)$ ; For all other frequencies: $\pm (0.7\% of reading+0.2 A/0.1 A)$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% of reading+0.1 A/0.05 A)$ ; For all other frequencies: $\pm (0.7\% of reading+0.2 A/0.1 A)$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% of reading+0.5 A/0.25 A)$ 1 W $\pm (2\% of reading + 2 W)$ 1 VA $\pm (2\% of reading + 2 VA)$ 1 VAR	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies: :         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)         1 VA         ±(2 % of reading + 3 VA)	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the con			
<ul> <li>1.100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR OUTPUT VOLTAGE RESPONS EFFICIENCY<sup>*3</sup></li> <li>At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>*1</sup> PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> </ul>	viput voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> E TIME <sup>(*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>(*2)</sup> <b>Resolution</b> Accuracy <sup>(*3)</sup> <b>Resolution</b> Accuracy <sup>(*4)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO. OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60 Hz, \leq 0.3\% @<500 Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of reading 0.1 V For 45 Hz to 65 Hz and DC: ±(12 % of reading 0.01 A For 45 Hz to 65 Hz and DC: ±(12 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.5 A/0.25 A) 1 W ±(2 % of reading + 2 W) 1 VA ±(2 % of reading + 2 VA)	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1.         timg + 0.5 V/1 V); For all other frequencies: :         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te (0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W) 1 VA ±(2 % of reading + 4 VA)			
1. 100 V / 200 V range *2. For an     3. For an output voltage of 1.4 V to 11     DUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> LINE REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> 1. Power source input voltage is 200     maximum current(or its reverse), 1     DUTPUT VOLTAGE WAVEFOR DOTAL HARMONIC DISTORTIOI DUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> 1. At an output voltage of 50 V to 200     Current of 0 A to the maximum current WOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value CURRENT RMS, AVG Value PEAK Value POWER Active (W) Apparent (VA) Reactive (VAR)	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> <b>E TIME</b> <sup>(*2)</sup> OV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>(*2)</sup> <b>Resolution</b> Accuracy <sup>(*3)</sup> <b>Resolution</b> Accuracy <sup>(*4)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(5)</sup> <b>Resolution</b> Accuracy <sup>(5)</sup> <b>Resolution</b> Accuracy <sup>(5)</sup>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + titted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) $\otimes 0\%$ or more d power factor of 1, and in AC mode. *2. For an output For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of readi 0.1 V For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readiing}+0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading}+0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of readiing}+0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading}+0.2 \text{ A}/0.1 \text{ A})$ 0.1 W $\pm (2\% \text{ of reading} + 2 \text{ W})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         1 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         woltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies: :         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading+0.15 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)         1 VA         ±(2 % of reading + 3 VA)	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the contract of the co			
<ul> <li>1.100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup></li> <li>1.4 Voltage Stability LINE REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>*1. Power source input voltage is 200 maximum current(for its reverse), i</li> <li>OUTPUT VOLTAGE WAVEFOR</li> <li>OUTPUT VOLTAGE WAVEFOR</li> <li>OUTPUT VOLTAGE RESPONS</li> <li>EFFICIENCY<sup>*3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur</li> <li>MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>*3</sup></li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>POWER Active (W)</li> <li>Apparent (VA)</li> <li>Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>41</sup> <b>E TIME</b> <sup>42</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>72</sup> <b>Resolution</b> Accuracy <sup>73</sup> <b>Resolution</b> Accuracy <sup>44</sup> <b>Resolution</b> Accuracy <sup>557</sup> <b>Resolution</b> Accuracy <sup>557</sup> <b>Range</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + witted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) 4, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\% \text{ of reading}+0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading}+0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of reading}+0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading}+0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of reading}+0.5 \text{ A}/0.25 \text{ A})$ 1 W $\pm (2\% \text{ of reading} + 2 \text{ VA})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$ 0.000 to 1.000	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         woltage of 100 V / 200 V, a load power factor of 1. with imum current, and load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies: :         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)         1 VA         ±(2 % of reading + 3 VAR)         0.000 to 1.000	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the control of the co			
<ul> <li>1.100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION'1 LOAD REGULATION'2 RIPPLE NOISE'3</li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), to OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOD OUTPUT VOLTAGE RESPONS EFFICIENCY'3</li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum current current of 0 A to the maximum current Current of 0 A to the maximum current PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> <li>LOAD CREST FACTOR</li> </ul>	output voltage of -285 V t 00 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> <b>E TIME</b> <sup>*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>*2</sup> <b>Resolution</b> Accuracy <sup>*3</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + witted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) 4, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of reading - 0.1 V For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading} + 0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.5 \text{ A}/0.25 \text{ A})$ 1 W $\pm (2\% \text{ of reading} + 2 \text{ W})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$ 0.000 to 1.000 0.001 0.00 to 50.00 0.01	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         1 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         dinum current, and load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         fing + 0.5 V/1 V); For all other frequencies::         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading+0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 WA)         1 VA         ±(2 % of reading + 3 VA)         1 VA         ±(2 % of reading + 3 VAR)         0.000 to 1.000         0.001         0.001         0.001	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the co			
100 V / 200 V range *2. For an     3. For an output voltage of 1.4 V to 11     DUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> COAD REGULATION <sup>*2</sup> RIPPLE NOISE <sup>*3</sup> 1. Power source input voltage is 200 maximum current(or its reverse), 1 DUTPUT VOLTAGE WAVEFOR DUTPUT VOLTAGE RESPONS EFFICIENCY <sup>*3</sup> 1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value ************************************	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> E TIME <sup>*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>*2</sup> <b>Resolution</b> Accuracy <sup>*3</sup> <b>Resolution</b> Accuracy <sup>*4</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + witted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) 4, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\% \text{ of reading}+0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading}+0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of reading} +0.5 \text{ A}/0.25 \text{ A})$ 1 W $\pm (2\% \text{ of reading} + 2 \text{ VA})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$ 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave	3000 W         570 V, no load, and 23 °C± 5 °C         10 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         Implement terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         Implement terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         Implement terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         Implement terminal on the rear pan         Implement terminal on t	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the co			
1. 100 V / 200 V range *2. For an     3. For an output voltage of 1.4 V to 11     DUTPUT VOLTAGE STABILITY     INE REGULATION*     OAD REGULATION*     COAD REGULATION*     ROMENTIAL ARMONIC VOLTAGE WAVEFOR     TOTAL HARMONIC VOLTAGE RESPONS     EFFICIENCY* 1. At an output voltage of 50 V to 200     Current of 0 A to the maximum cur     MEASURED VALUE DISPLAY     //OLTAGE RMS, AVG Value*      PEAK Value  CURRENT RMS, AVG Value  PEAK Value  CURRENT RMS, AVG Value  PEAK Value  COWER Active (W)     Apparent (VA)     Reactive (VAR)  COAD POWER FACTOR  OAD CREST FACTOR HARMONIC VOLTAGE	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> <b>E TIME</b> <sup>12</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Full Scale</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less 0.5% or less 0.5% or less 0.5% or less 0.0% or more (TWP) 80% or more a construction of 1, and in AC mode. *2. For an output for AC mode, at an output voltage of 100 V to 20 on the rear panel. 3. For 5H z to 1 MHz components in <b>FIO. OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @<500Hz, \leq 0.5^{\circ}$ 100 us (TYP) 80% or more d power factor of 1, and in AC mode. *2. For an output for AC mode, at an output voltage of 100 V / 200 V, max <b>0.1</b> V For 45 Hz to 65 Hz and DC: ±(0.5% of reading) 0.01 A For 45 Hz to 65 Hz and DC: ±(0.5% of reading+0.1 A/0.05 A); For all other frequencis:±(0.7% of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC: ±(12% of reading + 0.5 A/0.25 A) 1 W ±(2% of reading + 2 W) 1 VA ±(2% of reading + 2 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100%	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1.         sing + 0.5 V/1 V); For all other frequencies::         ng] + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)         1 VAR         ±(2 % of reading + 3 VA)         1 VAR         ±(2 % of reading + 3 VA)         1 VAR         ±(2 % of reading + 3 VAR)         0.000         0.01         0.020 to 50.00         0.01         Up to 40th order of the fundamental wave         200 V / 400 V, 100%	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading] + 1 A/0.5 A) 1 W te(2 % of reading + 4 W) 1 VA te(2 % of reading + 4 VA) 1 VAR te(2 % of reading + 4 VA) 1 VAR			
<ul> <li>100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 10 OUTPUT VOLTAGE STABILITY LINE REGULATION'<sup>12</sup> RIPPLE NOISE'<sup>3</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY'<sup>3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>3</sup></li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value<sup>3</sup></li> <li>PEAK Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> <li>LOAD CREST FACTOR</li> <li>HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%)</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> E TIME <sup>12</sup> V / 100 V to 400 V, a loac rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>15</sup> <b>Resolution</b> Accuracy <sup>15</sup> <b>Resolution</b> Accuracy <sup>1576</sup> <b>Resolution</b> Accuracy <sup>1577</sup> <b>Resolution</b> Accuracy <sup>1576</sup> <b>Resolution</b> Accuracy <sup>1577</sup> <b>Resolution</b> Accuracy <sup>1577</sup> <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Reso</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 H z to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60 Hz, \leq 0.3\% @<500 Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max <b>0.1</b> V For 45 Hz to 65 Hz and DC: ±(0.5 % of read 0.1 V For 45 Hz to 65 Hz and DC: ±(12 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading) + 0.5 A/0.25 A) 1 W ±(2 % of reading + 2 W) 1 VA ±(2 % of reading + 2 VA) 1 VAR ±(2 % of reading + 2 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1%	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te (0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 A 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading  + 1 A/0.5 A) 1 W te (2 % of reading + 4 W) 1 VA te (2 % of reading + 4 VA) 1 VAR te (2 % of reading + 4 VA) 1 VAR te (2 % of reading + 4 VA) 1 VAR te (2 % of reading + 4 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental way 200 V / 400 V, 100% 0.1 V, 0.1%			
<ul> <li>1.100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION'<sup>2</sup> RIPPLE NOISE<sup>33</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), 1</li> <li>OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONS EFFICIENCY<sup>3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum current(of 0 A to the maximum PEAK Value</li> <li>VOLTAGE RMS, AVG Value<sup>31</sup> PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>PEAK Value</li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>CURRENT RMS, AVG Value</li> <li>CURRENT RAS, AVG Value</li> <li>CURRENT RAS, AVG Value</li> <li>CURRENT RAS, AVG Value</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>17</sup> <b>E TIME</b> <sup>12</sup> V / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>12</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Accuracy <sup>13</sup> <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Full Scale</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60$ Hz, $\leq 0.3\% @<500$ Hz, $\leq 0.5'$ 100 us (TYP) 80% or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of readid 0.01 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 V For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 A For 45 G Hz and DC: $\pm ( 2\% \text{ of readid})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm ( 2\% \text{ of readid})$ 1 W $\pm (2\% \text{ of reading} + 2 W)$ 1 VA $\pm (2\% \text{ of reading} + 2 VA)$ 1 VA $\pm (2\% \text{ of reading} + 2 VAR)$ 0.000 to 1.000 0.001 0.001 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V( 0.1\% Up to 20th $\pm (0.2\% \text{ of reading} + 0.5 V/1 V);$	3000 W         570 V, no load, and 23 °C± 5 °C         00 V to 250 V / 200 V to 500 V. *4. Limited by the ma         II)         0 V / 200 V to 400 V, a load power factor of 1, stepwis         n DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         ding + 0.5 V/1 V); For all other frequencies::         ng  + 1 V / 2 V)         0.01 A         For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies::         frequencies:±(0.7 % of reading+0.3 A/0.15 A)         0.1 A         For 45 Hz to 65 Hz and DC:±(12 % of reading  + 0.8 A/0.4 A)         1 W         ±(2 % of reading + 3 W)         1 VA         ±(2 % of reading + 3 VA)         1 VA         ±(2 % of reading + 3 VAR)         0.00 to 1.000         0.001         0.01 W         1 Up to 40th order of the fundamental wave         200 V / 400 V, 100%         0.1 V(0.1%	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the			
<ul> <li>1.100 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>Power source input voltage is 200 maximum current(or its reverse), 1</li> <li>OUTPUT VOLTAGE WAVEGO OUTPUT VOLTAGE WAVEGO OUTPUT VOLTAGE RESPONS EFFICIENCY<sup>*3</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur</li> <li>MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value<sup>*1</sup></li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> <li>LOAD CREST FACTOR</li> <li>HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only)</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> E TIME <sup>*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>*2</sup> <b>Resolution</b> Accuracy <sup>*3</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Accuracy <sup>*5*</sup> <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>Resolution</b> <b>R</b>	2000 W is -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) i, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>FIO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @50/60Hz, \leq 0.3\% @ <500Hz, \leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For 45 Hz to 65 Hz and DC: ± (0.5 % of reading - 0.1 V For 45 Hz to 65 Hz and DC: ± (12 % of reading - 0.1 V For 45 Hz to 65 Hz and DC: ± (12 % of reading + 0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading) + 0.5 A/0.25 A) 1 W ± (2 % of reading + 2 W) 1 VA ± (2 % of reading + 2 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 40th±(0.3 % of reading+0.5 V/1 V); 20th to 40th±(0.3 % of reading+0.5 V/1 V)	3000 W 570 V, no load, and 23 °C± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma II) 0 V / 200 V to 400 V, a load power factor of 1, stepwis 1 DC mode using the output terminal on the rear pan FICIENCY % @ 500.1Hz-999.9Hz Voltage of 100 V / 200 V, a load power factor of 1, with imum current, and load power factor of 1. with the second	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te (0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 / 0.1 A For 45 Hz to 65 Hz and DC:±([2 % of reading] + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W) 1 VA te (2 % of reading + 4 VA) 1			
<ul> <li>1.00 V / 200 V range *2. For an 3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>*1</sup></li> <li>LOAD REGULATION<sup>*2</sup></li> <li>RIPPLE NOISE<sup>*3</sup></li> <li>Power source input voltage is 200 maximum current(or its reverse), 1</li> <li>OUTPUT VOLTAGE WAVEFOR OUTPUT VOLTAGE RESPONS EFFICIENCY<sup>*3</sup></li> <li>At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value</li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> <li>LOAD CREST FACTOR</li> <li>LOAD CREST FACTOR</li> <li>HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only)</li> <li>HARMONIC CURRENT</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> E TIME <sup>(*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>(*2)</sup> <b>Resolution</b> Accuracy <sup>(*3)</sup> <b>Resolution</b> Accuracy <sup>(*4)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For 4S Hz to 65 Hz and DC: $\pm (0.5\%$ of reading- 0.1 V For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading} + 0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading} + 0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.5 \text{ A}/0.25 \text{ A})$ 1 W $\pm (2\% \text{ of reading} + 2 \text{ VA})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$ 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th $\pm (0.2\% \text{ of reading} + 0.5 \text{ V/1 V});$ 20th to 40th order of the fundamental wave	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         11)         0 V / 200 V to 400 V, a load power factor of 1, stepwist         1 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         woltage of 100 V / 200 V, a load power factor of 1, with immum current, and load power factor of 1.         minum current, and load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the stepsile of th			
<ul> <li>*1. 100 V / 200 V range *2. For an *3. For an output voltage of 1.4 V to 11</li> <li>OUTPUT VOLTAGE STABILITY LINE REGULATION<sup>13</sup></li> <li>LOAD REGULATION<sup>12</sup></li> <li>RIPPLE NOISE<sup>13</sup></li> <li>*1. Power source input voltage is 200 maximum current(or its reverse), 1</li> <li>OUTPUT VOLTAGE WAVEFOR</li> <li>TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY<sup>23</sup></li> <li>*1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur</li> <li>MEASURED VALUE DISPLAY</li> <li>VOLTAGE RMS, AVG Value</li> <li>PEAK Value</li> <li>CURRENT RMS, AVG Value</li> <li>PEAK Value</li> <li>POWER Active (W) Apparent (VA) Reactive (VAR)</li> <li>LOAD POWER FACTOR</li> <li>LOAD POWER FACTOR</li> <li>LOAD CREST FACTOR</li> <li>HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only)</li> <li>HARMONIC CURRENT EFFECTIVE VALUE (RMS)</li> </ul>	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>*1</sup> E TIME <sup>*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>*2</sup> <b>Resolution</b> Accuracy <sup>*3</sup> <b>Resolution</b> Accuracy <sup>*4</sup> <b>Resolution</b> Accuracy <sup>*5</sup> <b>Resolution</b> Accuracy <sup>*5*6</sup> <b>Resolution</b> Accuracy <sup>*5*6</sup> <b>Resolution</b> Accuracy <sup>*5*7</sup> <b>Range</b> Full Scale <b>Full Scale</b> <b>Full Scale</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1  Vrms / 2  Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80% or more d power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max <b>O</b> .1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\%$ of reading+0.1 A/0.05 A); For all other frequencies: $\pm (0.7\%$ of reading+0.2 A/0.1 A) 0.1  A For 45 Hz to 65 Hz and DC: $\pm ( 2\%$ of reading) + 0.5 A/0.25 A) 1 W $\pm (2\%$ of reading + 2 W) 1  VA $\pm (2\%$ of reading + 2 VAR) 0.000 to 1.000 0.001 0.00  to 50.00 0.01 Up to 40th order of the fundamental wave 200  V / 400  V, 100% 0.1  V, 10%, 10  A, 100%	3000 W 570 V, no load, and 23 °C± 5 °C 10 V to 250 V / 200 V to 500 V. *4. Limited by the ma 11) 0 V / 200 V to 400 V, a load power factor of 1, stepwis h DC mode using the output terminal on the rear pan <b>FICIENCY</b> % @ 500.1 Hz-999.9 Hz voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. 11 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies:±(0.7 % of reading+0.3 A/0.15 A) 0.1 A For 45 Hz to 65 Hz and DC:±(12 % of reading + 0.8 A/0.4 A) 1 W ±(2 % of reading + 3 W) 1 VA ±(2 % of reading + 3 VA) 1 VAR ±(2 % of reading + 3 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 40th coder of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 40th order of the fundamental wave 30 A / 15 A, 100%	4000 W ximum current. te change from an output current of 0 A to el. th respect to stepwise change from an output te(0.7 % of reading + 1 V / 2 V) 0.01 A For 45 Hz to 65 Hz and DC:±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies:±(0.7 % of reading+0.4 A/0.2 A 0.1 A For 45 Hz to 65 Hz and DC:±([2 % of reading] + 1 A/0.5 A) 1 W te(2 % of reading + 4 W) 1 VA te(2 % of reading + 4 VA) 1 VA te(2 % of reading + 4 VA) 1 VA te(2 % of reading + 4 VA) 1 VA te(2 % of reading + 4 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wav 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th±(0.2 % of reading+0.5 V/1 V) 20th to 40th±(0.3 % of reading+0.5 V/1 V) Up to 40th order of the fundamental wav 40 A / 20 A, 100%			
*3. For an output voltage of 1.4 V to 11 OUTPUT VOLTAGE STABILITY LINE REGULATION <sup>*1</sup> RIPPLE NOISE <sup>*3</sup> *1. Power source input voltage is 200 maximum current(or its reverse), 1 OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIOI OUTPUT VOLTAGE RESPONSI EFFICIENCY <sup>*3</sup> *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cur MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value <sup>*1</sup> PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value POWER Active (W) Apparent (VA)	output voltage of -285 V t 200 V / 2.8 V to 200 V. Lim V, 220 V, or 240 V, no load using the output terminal <b>M DISTORTION RAT</b> <b>N(THD)</b> <sup>(*)</sup> E TIME <sup>(*2</sup> DV / 100 V to 400 V, a load rent (or its reverse). *3. <b>Resolution</b> Accuracy <sup>(*2)</sup> <b>Resolution</b> Accuracy <sup>(*3)</sup> <b>Resolution</b> Accuracy <sup>(*4)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Accuracy <sup>(*5)</sup> <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> Range <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b> <b>Resolution</b> <b>Range</b>	2000 W to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to + itted by the power capacity when the output voltage is 10 $\pm 0.2\%$ or less 0.5% or less (0 to 100%, via output terminal 1 Vrms / 2 Vrms (TYP) I, rated output. *2. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in <b>TO, OUTPUT VOLTAGE RESPONSE TIME, EF</b> $\leq 0.2\% @ 50/60$ Hz, $\leq 0.3\% @ <500$ Hz, $\leq 0.5'$ 100 us (TYP) 80 % or more d power factor of 1, and in AC mode. *2. For an output For 4S Hz to 65 Hz and DC: $\pm (0.5\%$ of reading- 0.1 V For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading} + 0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.1 \text{ A}/0.05 \text{ A})$ ; For all other frequencies: $\pm (0.7\% \text{ of reading} + 0.2 \text{ A}/0.1 \text{ A})$ 0.1 A For 45 Hz to 65 Hz and DC: $\pm (12\% \text{ of reading} + 0.5 \text{ A}/0.25 \text{ A})$ 1 W $\pm (2\% \text{ of reading} + 2 \text{ VA})$ 1 VA $\pm (2\% \text{ of reading} + 2 \text{ VAR})$ 0.000 to 1.000 0.001 0.00 to 50.00 0.01 Up to 40th order of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th $\pm (0.2\% \text{ of reading} + 0.5 \text{ V/1 V});$ 20th to 40th order of the fundamental wave	3000 W         570 V, no load, and 23 °C± 5 °C         100 V to 250 V / 200 V to 500 V. *4. Limited by the ma         11)         0 V / 200 V to 400 V, a load power factor of 1, stepwist         1 DC mode using the output terminal on the rear pan         FICIENCY         % @ 500.1Hz-999.9Hz         woltage of 100 V / 200 V, a load power factor of 1, with immum current, and load power factor of 1.         minum current, and load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.         woltage of 100 V / 200 V, a load power factor of 1.	4000 W ximum current. The change from an output current of 0 A to el. th respect to stepwise change from an output the construction of the fundamental wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th the (0.2 % of reading +0.5 V/1 V) 20th to 40th order of the fundamental wave 200 V /			

SPECIFICATIO	INS I I I I I I I I I I I I I I I I I I		la contra de la cont I			
		ASR-3200	ASR-3300	ASR-3400		
57 V to 570 V and *4. An output current The accuracy of th *5. For an output volt *6. The apparent and	$23 ^{\circ}C \pm 5 ^{\circ}C.$ *3. An output current in th t in the range of 5 % to 100 % of the maxir ne peak value is for a waveform of DC or si tage of 50 V or greater, an output current i	the range of 10 $\%$ to 100 $\%$ of the maximum current, I C mode. $\  \  \star 7.$ The reactive power is for the load with the	3 °C ± 5 °C. range of 5 % to 100 % of the maximum instantaneo DC or an output frequency of 45 Hz to 65 Hz, and 23	bus current in DC mode, and 23 °C $\pm$ 5 °C.		
OTHERS						
PROTECTIONS DISPLAY MEMORY FUNCT ARBITRARY WAV	TION E Number of Memories	UVP, OCP, OTP, OPP, FAN Fail TFT-LCD, 4.3 inch Store and recall settings, Basic settings: 10 16 (nonvolatile)	(0~9 numeric keys)			
INTERFACE	Waveform Length Standard USB LAN RS-232C EXT Control GPIB	4096 words Type A: Host, Type B: Slave, Speed: 1.1/2.0, MAC Address, DNS IP Address, User Passw Complies with the EIA-RS-323 specifications External Signal Input; External Control I/O SCPI-1993, IEEE 488.2 compliant interface	vord, Gateway IP Address, Instrument IP A	ddress, Subnet Mask		
INSULATION RESISTANCE Between input and chassis, output and chassis, input and output WITHSTAND VOLTAGE Between input and chassis, output and chassis, input and output EMC		1500 Vac, 1 minute				
Safety		EN 61010-1				
Environment	Operating Environment Operating Temperature Range Storage Temperature Range Operating Humidity Range Storage Humidity Range Altitude	Indoor use, Overvoltage Category II 0 °C to 40 °C -10 °C to 70 °C 20 % RH to 80 % RH (no condensation) 90 % RH or less (no condensation) Up to 2000 m				
DIMENSIONS &		430(W)×176(H)×550(D)mm (not including	protrusions): Approx 25 kg			
2				to change without notice. ASR-3000CD1[		
ORDERING	INFORMATION	OPTIC	ONAL ACCESSORIES			
ASR-3200 2 ASR-3300 3 ASR-3400 4 ACCESSORIE CD (User Manua	2kVA Programmable AC/DC 8kVA Programmable AC/DC 4kVA Programmable AC/DC 5 1/Programming Manual), Safety Gu rclude Remote Sensing, GRA-442-E	Power Source CPW-0 Power Source CPW-0 GRA-4 de, Input Terminal Cover, Output	<ul> <li>Power Cord, 3m, 105°C, UL/CSA Type</li> <li>Power Cord, 3m, 105°C, VDE Type</li> <li>Power Cord, 3m, 105°C, VDE Type</li> <li>Power Cord, 3m, 105°C, PSE Type</li> <li>Rack Mount Adapter (JIS)</li> <li>Output Power Wire (Load wire_ 10AWG: 50A, 600V/ Sense wire_ 16AWG: 20A, 600V)</li> </ul>	<ul> <li>CTL-232 RS232C cable, approx. 2m</li> <li>GTL-248 GPIB Cable, approx. 2m</li> <li>ASR-002 External Three Phase Control Unit</li> <li>APS-008 Air inlet filter</li> <li>* European Output Outlet (factory installe</li> </ul>		

ASR-002

APS-008

GPW-005

GRA-442-J

GTL-137





