

ASR-3000 Series

Programmable AC/DC Power Source

FEATURES

- Output Rating: AC 0 \sim 400 Vrms, DC 0 \sim ± 570 V
- Output Frequency up to 999.9 Hz
- DC Output (100% of Rated Power)
- Measurement Items: Vrms, Vavg, Vpeak, Irms, IpkH, lavg, 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 (≦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/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.

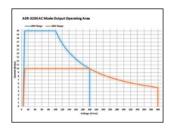
The ASR-3000 Series provides users with waveform output capabilities including 1) Sequence mode generates waveform fallings, surges, sags, changes and other abnormal power line conditions; 2) Arbitrary waveform function allows users to store/upload user-defined waveforms; and 3) Simulate mode simulates 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.

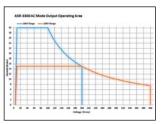
PANEL INTRODUCTION

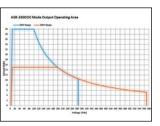


A. OPERATING AREA FOR ASR-3000 SERIES



A38-320 OC Mode Output Operating Area





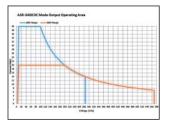
AC Output for ASR-3200

DC Output for ASR-3200

AC Output for ASR-3300

DC Output for ASR-3300

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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

AC Output for ASR-3400

DC Output for ASR-3400

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.

MEASUREMENT ITEMS FOR ASR-3000 SERIES







RMS Meas Display

AVG Meas Display

Peak Meas Display

ON	ON	ON	ON 945	6 200V SQU			
Harr	Harn	Harn	Harmoni	c Voltage Measure	THDv= 42	.2 %	Simple
31th	21th	11th	1st	179.9 Vrms	90	.7 %	[Harm]
32th	22th	12th	2nd	0.0 Vrms		1.0 %	
33th	23th	13th	3rd	59.8 Vrms	30	.2 %	[THDv]
34th	24th	14th	4th	0.0 Vrms		1.0 %	THDi
35th	25th	15th	5th	35.8 Vrms	18	.0%	
36th	26th	16th	6th	0.0 Vrms		.0 %	
37th	27th	17th	7th	25.5 Vrms	12	.9 %	
38th	28th	18th	8th	0.0 Vrms		.0%	
39th	29th	19th	9th	19.8 Vrms	10	.0 %	Page
40th	30th	20th	10th	0.0 Vrms		.0 %	Down

OI4	ON	ON	OIL	200V SQU		
Harr	Harn	Harn	Harmonic	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	5th	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

Voltage Harmonic

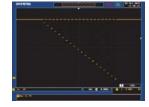
Current Harmonic

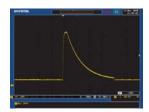
The ASR-3000 Series provides users with measurement capabilities including Vrms, Vavg, Vpeak, Irms, Iavg, Ipeak, IpkH, P, S, Q, PF, CF, 40th-order Voltage Harmonic and Current Harmonic. During the power output, the measurement

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

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







SEQ6: Momentary Drop in Supply Voltage

SEQ7: Reset Behavior at Voltage Drop with 12V System

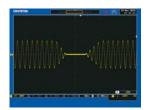
The sequence mode provides editable 10 sets of SEQ0~SEQ9, each set has 0~999 steps, each step time setting range is 0.0001~999.9999 seconds. Users can combine multiple sets of steps to generate the required waveforms, including waveform falling, surges, sags and other abnormal power line conditions to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

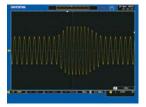
SEQ8: Starting Profile Waveform

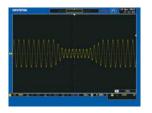
SEQ9: Load Dump with Tr_10ms, Td_40ms

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







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.

Power Outage

Voltage Rise

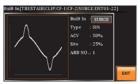
Voltage Fall

FUNCTION WAVEFORM (ARBITRARY EDIT) MODE











TRI Waveform

STAIR Waveform

CLIP Waveform

SURGE Waveform

Fourier Series Synthesized 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

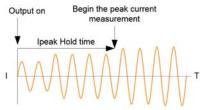
ARB Waveform Edit

The Waveform is Observed with DSO

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.

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.

T, IPK HOLD & IPK, HOLD FUNCTIONS

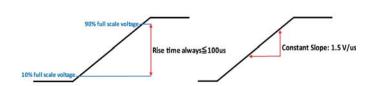


T, Ipk Measurement

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.

Н. **SLEW RATE MODE**



Time Mode

Slope Mode

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 μs ; 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				
INDUT DATING (A.C.		ASR-3200	ASR-3300	ASR-3400
INPUT RATING (AC)		200 Vac to 240 Vac	200 Vac to 240 Vac	200 Vac to 240 Vac
NORMINAL INPUT VOLTAGE INPUT VOLTAGE RANGE		200 Vac to 240 Vac 180 Vac to 264 Vac	200 Vac to 240 Vac 180 Vac to 264 Vac	200 Vac to 240 Vac 180 Vac to 264 Vac
PHASE		Single phase, Two-wire	Single phase, Two-wire	Single phase, Two-wire
NORMINAL INPUT FREQUEN	ICY	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
MAX. POWER CONSUMPTION		2500 VA or less	3750 VA or less	5000 VA or less
POWER FACTOR®	200Vac	0.95 (TYP)	0.95 (TYP)	0.95 (TYP)
MAX. INPUT CURRENT *1. For an output voltage of 100 V/20	200Vac 0 V (100V/200V range) m	aximum current, and a load power factor of 1.	22.5 A	30 A
AC MODE OUTPUT RATINGS		aximum current, and a load power factor of 1.		
VOLTAGE	Setting Range ^{*1}	0.0 V to 200.0 V / 0.0 V to 400.0 V		
	Setting Resolution	0.1 V		
	Accuracy*2	±(1 % of set + 1 V / 2 V)		
OUTPUT PHASE		Single phase, Two-wire	1	
MAXIMUM CURRENT"	100 V	20 A 10 A	30 A 15 A	40 A 20 A
MAXIMUM PEAK CURRENT*4	200 V 100 V	10 A 120 A	15 A 180 A	20 A 240 A
MAXIMUM PEAK CURRENT	200 V	60 A	90 A	120 A
LOAD POWER FACTOR		0 to 1 (leading phase or lagging phase)	0 to 1 (leading phase or lagging phase)	0 to 1 (leading phase or lagging phase)
POWER CAPACITY		2000 VA	3000 VA	4000 VA
FREQUENCY	Setting Range	AC Mode: 40.00 Hz to 999.9 Hz, AC+DC M	ode: 1.00 Hz to 999.9 Hz	
	Setting Resolution	0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to	999.9 Hz)	
	Accuracy	0.02% of set (23 °C ± 5 °C)		
OUTPUT ON PHASE	Stability*5	± 0.005% 0° to 359° variable (setting resolution 1°)		
DC OFFSET		Within ± 20 mV (TYP)		
*1. 100 V / 200 V range *2. For an o	utput voltage of 20 V to 20	00 V / 40 V to 400 V, an output frequency of 45 Hz to 65	Hz, no load, and 23 °C ± 5 °C	
*3. For an output voltage of 1 V to 100) V / 2 V to 200 V. Limited	by the power capacity when the output voltage is 100 V power rating temperature, the maximum current will be	to 200 V / 200 V to 400 V. If there is the DC superim	position, the current of AC+DC mode satisfies the
*4. With respect to the capacitor-inpu	t rectifying load. Limited b	by the maximum current.		
*5. For 45 Hz to 65 Hz, the rated outp	ut voltage, no load and th	resistance load for the maximum current, and the ope	rating temperature. *6. In the case of the AC mode a	and 23°C ± 5°C.
OUTPUT RATING FOR DC MC		205.77 205.77 570.77 570.77		
VOLTAGE	Setting Range ^{*1} Setting Resolution	-285 V to + 285 V / -570 V to +570 V 0.1 V		
	Accuracy*2	±(1 % of set + 1 V / 2 V)		
MAXIMUM CURRENT*3	100 V	20 A	30 A	40 A
WAXIWOW CORRENT	200 V	10 A	15 A	20 A
MAXIMUM PEAK CURRENT*4	100 V	120 A	180 A	240 A
POWER CAPACITY	200 V	60 A 2000 W	90 A 3000 W	120 A 4000 W
	output voltage of -285 V t	o -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to +		4000 W
*3. For an output voltage of 1.4 V to 1	00 V / 2.8 V to 200 V. Lim	ited by the power capacity when the output voltage is 10	00 V to 250 V / 200 V to 500 V. *4. Limited by the ma	ximum current.
OUTPUT VOLTAGE STABILITY		I		
LINE REGULATION*1		±0.2% or less		
			Is.	
LOAD REGULATION*2		0.5% or less (0 to 100%, via output termina	l)	
RIPPLE NOISE*3	V 220 V or 240 V no load	0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP)	•	se change from an output current of 0.4 to
RIPPLE NOISE*3 *1. Power source input voltage is 200		0.5% or less (0 to 100%, via output termina	0 V / 200 V to 400 V, a load power factor of 1, stepwis	
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse),	using the output terminal	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	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	
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO	using the output terminal M DISTORTION RAT N(THD)*1	0.5% or less (0 to 100%, via output termina 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 TIO, OUTPUT VOLTAGE RESPONSE TIME, EF	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	
RIPPLE NOISE ^{*3} *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS	using the output terminal M DISTORTION RAT N(THD)*1	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $ \le 0.2\% \ @50/60 \text{Hz}, \le 0.3\% \ @<500 \text{Hz}, \le 0.5 \ 100 \ \text{us} \ (TYP) $	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	
RIPPLE NOISE ^{*3} *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY ^{*3}	using the output terminal M DISTORTION RAT N(THD)*1 E TIME*2	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $ \le 0.2\% \otimes 50/60 \text{Hz}, \le 0.3\% \otimes <500 \text{Hz}, \le 0.5 \\ 100 \text{ us (TYP)} \\ 80\% \text{ or more} $	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	el.
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY'3 *1. At an output voltage of 50 V to 200	using the output terminal M DISTORTION RAT N(THD) ^{*1} E TIME ^{*2} OV / 100 V to 400 V, a load	0.5% or less (0 to 100%, via output termina 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 the total voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the total voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the total voltage of 100 V to 20 on the total voltage of 100 V to 20 on the voltage of 100 V to 20 on	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	el.
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY'3 *1. At an output voltage of 50 V to 200	using the output terminal M DISTORTION RAT N(THD) ^{*1} E TIME ^{*2} OV / 100 V to 400 V, a load	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $ \le 0.2\% \otimes 50/60 \text{Hz}, \le 0.3\% \otimes <500 \text{Hz}, \le 0.5 \\ 100 \text{ us (TYP)} \\ 80\% \text{ or more} $	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	el.
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu	using the output terminal M DISTORTION RAT N(THD) "1 E TIME"2 DV / 100 V to 400 V, a load reent (or its reverse). *3. Resolution	0.5% or less (0 to 100%, via output termina 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 the total voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the total voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the total voltage of 100 V to 20 on the total voltage of 100 V to 20 on the voltage of 100 V to 20 on	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	el.
RIPPLE NOISE ^{*3} *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY ^{*3} *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value ^{*1}	using the output terminal M DISTORTION RAT N(THD)*1 E TIME*2 DV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy*2	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60Hz, ≤ 0.3% @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 power factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, ma 0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of reac	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 6 © 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.	el. h respect to stepwise change from an output
*1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² O V / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ⁷² Resolution	0.5% or less (0 to 100%, via output termina 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 is TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\% \otimes 50/60$ Hz, $\le 0.3\% \otimes <500$ Hz, ≤ 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: $\pm (0.5\% \text{ of reac})$ 0.1 V	0 V / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY % @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.	el. h respect to stepwise change from an output
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² O V / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ²² Resolution Accuracy	0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP) , rated output. *Z. For an output voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\%$ @50/60Hz, $\le 0.3\%$ @<500Hz, ≤ 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, ma: 0.1 V 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 (12 % of read)	0 V / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: angl + 1 V / 2 V)	th respect to stepwise change from an output $\pm (0.7\% \text{ of reading} + 1 \text{ V / 2 V})$
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RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁴² OV / 100 V to 400 V, a load reent (or its reverse). *3. Resolution Accuracy ⁴² Resolution Accuracy Resolution	0.5% or less (0 to 100%, via output termina 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 TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\% \otimes 50/60$ Hz, $\le 0.3\% \otimes <500$ Hz, ≤ 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: $\pm (0.5\% \text{ of read})$ 0.1 V For 45 Hz to 65 Hz and DC: $\pm (0.5\% \text{ of read})$ 0.01 A	0 V / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: ang + 1 V / 2 V) 0.01 A	th 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
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁴² OV / 100 V to 400 V, a load reent (or its reverse). *3. Resolution Accuracy ⁴² Resolution Accuracy Resolution	0.5% or less (0 to 100%, via output termina 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 TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\% \otimes 50/60$ Hz, $\leq 0.3\% \otimes <500$ Hz, ≤ 0.5 100 us (TYP) 80% or more depower 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: $\pm (0.5\% \text{ of read} 0.1 \text{ V})$ For 45 Hz to 65 Hz and DC: $\pm (0.5\% \text{ of read} 0.01 \text{ A})$ 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	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 voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. 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:±(0.7 % of reading+0.3 A/0.15 A) 0.1 A	th 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
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy Resolution Accuracy Resolution Accuracy ³	0.5% or less (0 to 100%, via output termina 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 is TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\%$ @50/60 Hz, $\le 0.3\%$ @<500 Hz, ≤ 0.5 100 us (TYP) 80% or more all 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 read 0.1 V For 45 Hz to 65 Hz and DC: \pm (12% of reading+0.1 A/0.05 A); For all other frequencies: \pm (0.7% of reading+0.2 A/0.1 A) For 45 Hz to 65 Hz and DC: \pm (12% of reading+0.1 A/0.05 A); For all other frequencies: \pm (0.7% of reading+0.2 A/0.1 A) For 45 Hz to 65 Hz and DC: \pm (12% of	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 voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. ding + 0.5 V/1 V); For all other frequencies: angl + 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 For 45 Hz to 65 Hz and DC:±(12 % of	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 For 45 Hz to 65 Hz and DC:±(2 % of
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value* PEAK Value CURRENT RMS, AVG Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁴² DV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ⁴² Resolution Accuracy Resolution Accuracy ⁴³ Resolution Accuracy ⁴⁴	0.5% or less (0 to 100%, via output termina 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 is TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\%$ @50/60Hz, $\le 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 3 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 read 0.1 V For 45 Hz to 65 Hz and DC: \pm (12 % 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+0.1 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)	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. 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:±(1.2 % of reading+0.8 Hz to 65 Hz and DC:±(1.2 % of reading+0.8 A/0.4 A)	el. th 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 For 45 Hz to 65 Hz and DC:±(2 % of reading +1 A/0.5 A)
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁴² DV / 100 V to 400 V, a load reent (or its reverse). *3. Resolution Accuracy ⁴² Resolution Accuracy Resolution	0.5% or less (0 to 100%, via output termina 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 is TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\%$ @50/60Hz, $\leq 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 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 read 0.1 V For 45 Hz to 65 Hz and DC: \pm (12 % 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+0.1 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	0 V / 200 V to 400 V, a load power factor of 1, stepwis in DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. 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:±(2 % of reading+0.48 A/0.44 A) 1 W	el. th 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 For 45 Hz to 65 Hz and DC:±(2 % of reading + 1 A/0.5 A) 1 W
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value **PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value PEAK Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy Resolution Accuracy ³ Resolution Accuracy ³ Resolution Accuracy ³ Resolution Accuracy ³	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\%$ @50/60Hz, $\leq 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more Jower factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 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 (12 % 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+0.1 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)	ov / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY @ 600.1 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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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+0.15 A)(0.16 A) 1 A For 45 Hz to 65 Hz and DC:±(2 % of reading + 0.8 A)(0.4 A) 1 W ±(2 % of reading + 3 W)	th 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 For 45 Hz to 65 Hz and DC:±(2 % of reading + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W)
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTION OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value* PEAK Value CURRENT RMS, AVG Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁴² DV / 100 V to 400 V, a load reent (or its reverse). *3. Resolution Accuracy ⁴² Resolution Accuracy Resolution	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF \le 0.2% @50/60Hz, \le 0.3% @<500Hz, \le 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 of the voltage of 100 V / 200 V, and the voltage	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 % @500.1 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. ding + 0.5 V/1 V); For all other frequencies: angl + 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:±(2 % of reading + 0.8 A)(0.4 A) I W ±(2 % of reading + 3 W) 1 VA	el. th 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 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
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value **PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value PEAK Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² DV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy ³ Resolution Accuracy ⁴ Resolution Accuracy ⁵ Resolution Accuracy ⁶ Resolution Accuracy ⁷ Resolution	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\%$ @50/60Hz, $\leq 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more Jower factor of 1, and in AC mode. *2. For an output For AC mode, at an output voltage of 100 V / 200 V, max 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 (12 % 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+0.1 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)	ov / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY @ 600.1 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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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+0.15 A)(0.16 A) 1 A For 45 Hz to 65 Hz and DC:±(2 % of reading + 0.8 A)(0.4 A) 1 W ±(2 % of reading + 3 W)	th 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 For 45 Hz to 65 Hz and DC:±(2 % of reading + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W)
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value* PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value	using the output terminal M DISTORTION RAT N(THD)** E TIME**2 OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy** Resolution Accuracy Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy**	0.5% or less (0 to 100%, via output termina 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 TO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\%$ @50/60 Hz, $\leq 0.3\%$ @<500 Hz, ≤ 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 read 0.1 V For 45 Hz to 65 Hz and DC: \pm (12 % 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+0.1 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) 1 VA \pm (2 % of reading+2 VA)	0 V / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FIFCIENCY % @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. 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:±(0.7 % of reading+0.3 A/0.15 A) 0.1 A For 45 Hz to 65 Hz and DC:±(2 % of reading + 0.8 A/0.4 A) 1 W ±(2 % of reading + 3 W) 1 VA ±(2 % of reading + 3 VA)	el. th 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 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 ±(2 % of reading + 4 VA)
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 200 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value* PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy Resolution Accuracy ³⁵ Resolution Accuracy ⁵⁶ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷⁷ Range	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60 Hz, ≤ 0.3% @<500 Hz, ≤ 0.5 100 us (TYP) 80 % or more Jower 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 read on 10 V / 200 V, max) 0.01 A For 45 Hz to 65 Hz and DC: \pm (12 % 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) 1 W \pm (2 % of reading + 2 W) 1 VA \pm (2 % of reading + 2 VA) 1 VAR \pm (2 % of reading + 2 VAR) 0.000 to 1.000	0 V / 200 V to 400 V, a load power factor of 1, stepwis a DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: and load power factor of 1. ding + 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:±(2 % 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	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR) 0.000 to 1.000
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value Apparent (VA) Reactive (VAR) LOAD POWER FACTOR	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy Resolution Accuracy ³ Resolution Accuracy ⁵⁴ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁷ Resolution	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\leq 0.2\%$ @50/60 Hz, $\leq 0.3\%$ @<500 Hz, ≤ 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 for A5 Hz to 65 Hz and DC: \pm (0.5 % of reading -0.1 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 (12 % 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 \pm (2 % of reading + 2 VAR) 0.000 to 1.000 0.001	0 V / 200 V to 400 V, a load power factor of 1, stepwis in DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: angl + 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:±(2 % 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	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR) 0.000 to 1.000 0.001
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value PEAK Value PEAK Value ROWER Active (W) Apparent (VA) Reactive (VAR)	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy ³ Resolution Accuracy ⁴ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸⁹⁶ Resolution Accuracy ⁵⁸⁹⁷ Resolution Accuracy ⁵⁸⁹⁷ Range Resolution Range	0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP). 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 the part of the voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the part of 100 V of 20 OLS 100 Us (TYP) 80 % or more deposed factor of 1, and in AC mode. *2. For an output for AC mode, at an output voltage of 100 V / 200 V, maximum of 10.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of read of 10.1 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) 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 VAR ±(2 % of reading + 2 VAR) 0.000 to 1.000 0.001 0.00 to 50.00	0 V / 200 V to 400 V, a load power factor of 1, stepwis in DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: angl + 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:±(2 % of reading + 0.8 A/0.4 A) 1 VA ±(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	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR) 0.000 to 1.000 0.001 0.00 to 50.00
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD CREST FACTOR	using the output terminal M DISTORTION RAT N(THD)** E TIME**2 OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy**	0.5% or less (0 to 100%, via output termina 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 is 100, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60Hz, ≤ 0.3% @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 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 10.1 V 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 (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 VA) 1 VAR \pm (2 % of reading + 2 VAR) 0.000 to 1.000 0.001 0.000 to 50.00 0.01	0 V / 200 V to 400 V, a load power factor of 1, stepwis in DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: and in the standard power factor of 1. ding + 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:±(2 % 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	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 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 ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR) 0.000 to 1.000 0.001 0.00 to 50.00 0.01
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD CREST FACTOR HARMONIC VOLTAGE	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ²² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy ² Resolution Accuracy ³ Resolution Accuracy ⁴ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸ Resolution Accuracy ⁵⁸⁹⁶ Resolution Accuracy ⁵⁸⁹⁷ Resolution Accuracy ⁵⁸⁹⁷ Range Resolution Range	0.5% or less (0 to 100%, via output termina 1 Vrms / 2 Vrms (TYP). 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 the part of the voltage of 100 V to 20 on the rear panel. 3. For 5 Hz to 1 MHz components in the part of 100 V of 20 OLS 100 Us (TYP) 80 % or more deposed factor of 1, and in AC mode. *2. For an output for AC mode, at an output voltage of 100 V / 200 V, maximum of 10.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of read of 10.1 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) 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 VAR ±(2 % of reading + 2 VAR) 0.000 to 1.000 0.001 0.00 to 50.00	0 V / 200 V to 400 V, a load power factor of 1, stepwis in DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: angl + 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:±(2 % of reading + 0.8 A/0.4 A) 1 VA ±(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	el. h respect to stepwise change from an output \(\begin{align*}
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD CREST FACTOR	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy Resolution Accuracy Resolution Accuracy ⁵³ Resolution Accuracy ⁵⁴ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷⁷ Resolution Accuracy ⁵⁷⁷ Resolution Resolution Range Resolution Range Resolution Range	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\%$ @50/60Hz, $\le 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 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 of the control	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 % @ 500.1 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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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:±(2 % 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	el. th respect to stepwise change from an output t(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 ±(2 % of reading + 4 W) 1 VA ±(2 % of reading + 4 VA) 1 VAR ±(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 wave
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current(or its reverse), OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD POWER FACTOR LOAD CREST FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS)	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy Resolution Accuracy Resolution Accuracy Resolution Accuracy ⁷⁵ Resolution Accuracy ⁷⁶ Resolution Accuracy ⁷⁶ Resolution Accuracy ⁷⁷ Resolution Accuracy ⁷⁸ Resolution Accuracy ⁷⁹ Resolution Range Resolution Range Resolution Range Full Scale	0.5% or less (0 to 100%, via output termina 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 the properties of the properti	ov / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @ 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. ding + 0.5 V/1 V); For all other frequencies: and the standard power factor of 1. ding + 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:±(2 % 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 20th±(0.2 % of reading+0.5 V/1 V);	el. th 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 For 45 Hz to 65 Hz and DC:±(2 % of reading + 1 A/0.5 A) 1 W ±(2 % of reading + 4 W) 1 VAR ±(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 wave 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th±(0.2 % of reading+0.5 V/1 V); Up to 20th±(0.2 % of reading+0.5 V/1 V);
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse). OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD CREST FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only)	using the output terminal M DISTORTION RAT N(THD)** E TIME**2 OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy**	0.5% or less (0 to 100%, via output termina 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 is incomposed to the rear panel. 3. For 5 Hz to 1 MHz components is incomposed to the rear panel. 3. For 5 Hz to 1 MHz components is incomposed to the rear panel. 3. For 5 Hz to 1 MHz components is incomposed to the property incomposed to the proper	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: and the foreign state of 1. ding + 0.5 V/1 V); For all other frequencies: 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:±(2 % 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 20th±(0.2 % of reading+0.5 V/1 V); 20th to 40th(0.2 % of reading+0.5 V/1 V)	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR) 0.000 to 1.000 0.001 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);
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse). OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD CREST FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only) HARMONIC CURRENT	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy Resolution Accuracy Resolution Accuracy ⁵⁴ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷⁷ Resolution Accuracy ⁵⁷⁸ Resolution Accuracy ⁵⁷⁷ Range Resolution	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF $\le 0.2\%$ @50/60Hz, $\le 0.3\%$ @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 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 of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, max of the voltage of 100 V / 200 V, 100 V, 100 V, 0.1 V, 0.1% of the voltage of 100 V / 200 V, voltage of	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: and load power factor of 1. ding + 0.5 V/1 V); For all other frequencies: and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. ding + 0.5 V/1 V); For all other frequencies: and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1, with dimum current, and load power factor of 1. voltage of 100 V / 200 V, a load power factor of 1, with dimum current, and load power factor of 1, with dimum curre	el. th respect to stepwise change from an output t(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 ±(2 % of reading + 4 W) 1 VA ±(2 % of reading + 4 VA) 1 VAR ±(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 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) Up to 40th order of the fundamental wave
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse). OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD POWER FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only) HARMONIC CURRENT EFFECTIVE VALUE (RMS)	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy Resolution Accuracy Resolution Accuracy ⁵⁴ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷⁷ Range Resolution Range Resolution Range Resolution Range Full Scale Resolution Accuracy ⁸⁸	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60Hz, ≤ 0.3% @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 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: ±(2 % 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:±(2 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 1 W ±(2 % of reading + 2 W) 1 VA ±(2 % of reading + 2 VA) 1 VA ±(2 % of reading + 2 VA) 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% 20th to 40th±(0.3 % of reading+0.5 V/1 V); 20th to 40th order of the fundamental wave 20 A / 10 A, 100%	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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:±(2 % 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 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 wave 30 A / 15 A, 100%	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR £(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 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 order of the fundamental wave 40 A / 20 A, 100%
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse). OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20t current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value* PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER Active (W) Apparent (VA) Reactive (VAR) LOAD POWER FACTOR LOAD CREST FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only) HARMONIC CURRENT EFFECTIVE VALUE (RMS) PERCENT (%) PERCENT (%)	using the output terminal M DISTORTION RAT N(THD)** E TIME**2 DV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy* Resolution Accuracy* Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Accuracy** Resolution Range Resolution Range Full Scale Resolution Accuracy** Range Full Scale Resolution	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60Hz, ≤ 0.3% @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 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 of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, maximum of the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V, and the voltage of 100 V / 200 V / 200 V, and the voltage of 100 V / 200 V / 20	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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:±(2 % of reading+0.15 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 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 wave 30 A / 15 A, 100% 0.01 A, 0.1%	el. th respect to stepwise change from an output 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 ±(2 % of reading + 4 W) 1 VA ±(2 % of reading + 4 VA) 1 VAR ±(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 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 order of the fundamental wave 40 A / 20 A, 100% 0.01 A, 0.1%
RIPPLE NOISE*3 *1. Power source input voltage is 200 maximum current (or its reverse). OUTPUT VOLTAGE WAVEFOR TOTAL HARMONIC DISTORTIO OUTPUT VOLTAGE RESPONS EFFICIENCY*3 *1. At an output voltage of 50 V to 20 current of 0 A to the maximum cu MEASURED VALUE DISPLAY VOLTAGE RMS, AVG Value*1 PEAK Value CURRENT RMS, AVG Value PEAK Value PEAK Value PEAK Value LOAD POWER FACTOR LOAD POWER FACTOR HARMONIC VOLTAGE EFFECTIVE VALUE (RMS) PERCENT (%) (AC-INT and 50/60 Hz only) HARMONIC CURRENT EFFECTIVE VALUE (RMS)	using the output terminal M DISTORTION RAT N(THD) ⁴⁷ E TIME ⁷² OV / 100 V to 400 V, a load rent (or its reverse). *3. Resolution Accuracy Resolution Accuracy Resolution Accuracy ⁵⁴ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁵ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷ Resolution Accuracy ⁵⁷⁷ Range Resolution Range Resolution Range Resolution Range Full Scale Resolution Accuracy ⁸⁸	0.5% or less (0 to 100%, via output termina 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 is TIO, OUTPUT VOLTAGE RESPONSE TIME, EF ≤ 0.2% @50/60Hz, ≤ 0.3% @<500Hz, ≤ 0.5 100 us (TYP) 80 % or more 2 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: ±(2 % 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:±(2 % of reading+0.1 A/0.05 A); For all other frequencies:±(0.7 % of reading+0.2 A/0.1 A) 1 W ±(2 % of reading + 2 W) 1 VA ±(2 % of reading + 2 VA) 1 VA ±(2 % of reading + 2 VA) 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% 20th to 40th±(0.3 % of reading+0.5 V/1 V); 20th to 40th order of the fundamental wave 20 A / 10 A, 100%	0 V / 200 V to 400 V, a load power factor of 1, stepwish DC mode using the output terminal on the rear pan FICIENCY % @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. ding + 0.5 V/1 V); For all other frequencies: and power factor of 1. ding + 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:±(2 % 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 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 wave 30 A / 15 A, 100%	el. th 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 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 ±(2 % of reading + 4 VA) 1 VAR ±(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 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 order of the fundamental wave 40 A / 20 A, 100%

SPECIFICATIONS **ASR-3300**

*1. The voltage display is set to RMS in AC/AC+DC mode and AVG in DC mode. *2. AC mode: For an output voltage of 20 V to 200 V / 40 V to 400 V and 23 °C ± 5 °C. DC mode: For an output voltage of 28.5 V to 285 V / 57 V to 570 V and 23 °C ± 5 °C. *3. An output current in the range of 5 % to 100 % of the maximum current, and 23 °C ± 5 °C.

*4. An output current in the range of 5 % to 100 % of the maximum peak current in AC mode, an output current in the range of 5 % to 100 % of the maximum instantaneous current in DC mode, and 23 °C ± 5 °C.

The accuracy of the peak value is for a waveform of DC or sine wave

110c accuracy of the peak value is for a waveform of UC or sine wave *5. For an output voltage of 50 V or greater, an output current in the range of 10 % to 100 % of the maximum current, DC or an output frequency of 45 Hz to 65 Hz, and 23 °C ± 5 °C. *6. The apparent and reactive powers are not displayed in the DC mode. *7. The reactive power is for the load with the power factor 0.5 or lower. *8. An output voltage in the range of 20 V to 200 V / 40 V to 400 V and 23 °C ± 5 °C.

OTHERS

PROTECTIONS

DISPLAY

MEMORY FUNCTION **ARBITRARY WAVE Number of Memories**

Waveform Length

INTERFACE LISR Standard

LAN RS-232C

EXT Control GPIB INSULATION RESISTANCE

WITHSTAND VOLTAGE Between input and chassis, output and chassis, input and output EMC

Safety **Operating Environment** Environment

Operating Temperature Range Storage Temperature Range **Operating Humidity Range** Storage Humidity Range Altitude

it and chassis, input and outpu

DIMENSIONS & WEIGHT

UVP, OCP, OTP, OPP, FAN Fail

TFT-LCD 43 inch

Store and recall settings, Basic settings: 10 (0~9 numeric keys)

16 (nonvolatile) 4096 words

Type A: Host, Type B: Slave, Speed: 1.1/2.0, USB-CDC, USB-TMC

MAC Address, DNS IP Address, User Password, Gateway IP Address, Instrument IP Address, Subnet Mask

Complies with the EIA-RS-232 specifications External Signal Input; External Control I/O SCPI-1993, IEEE 488.2 compliant interface

500 Vdc, 30 M Ω or more

1500 Vac, 1 minute

EN 61326-1, EN 61326-2-1, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11/-4-34, EN 55011 (Class A), EN 55032

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

430(W)×176(H)×550(D)mm (not including protrusions); Approx. 25 kg

Specifications subject to change without notice. ASR-3000CD1DH

ORDERING INFORMATION

ASR-3200 2kVA Programmable AC/DC Power Source ASR-3300 3kVA Programmable AC/DC Power Source ASR-3400 4kVA Programmable AC/DC Power Source

CD (User Manual/Programming Manual), Safety Guide, Input Terminal Cover, Output Terminal Cover Include Remote Sensing, GRA-442-E Rack Mount Adapter(EIA), GTL-246 USB Cable

GPW-005 Power Cord, 3m, 105 $^{\circ}$ C, UL/CSA Type **GPW-006** Power Cord, 3m, 105°C, VDE Type GPW-007 Power Cord, 3m, 105℃, PSE Type GRA-442-J Rack Mount Adapter (JIS)

GTL-137 Output Power Wire (Load wire_ 10AWG: 50A, 600V/ Sense wire_ 16AWG: 20A, 600V) GTL-232 RS232C cable, approx. 2m GTL-248 GPIB Cable, approx. 2m

ASR-002 External Three Phase Control Unit APS-008 Air inlet filter

* European Output Outlet(factory installed)

ASR-002 APS-008 GPW-005 GRA-442-J GTL-137











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