

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. Ten 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), 10) External DC voltage control of AC output mode(AC-VCA).

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.

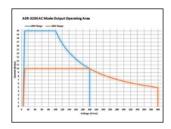
The ASR-3000 Series provides users with waveform output capabilities including 1) Sequence mode generates waveform fallings, surges, sags, changes and other abnormal power line conditions; 2) Arbitrary waveform function allows users to store/upload user-defined waveforms; and 3) Simulate mode simulates 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, 100th-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.

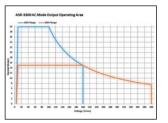
The front panel of the ASR-3000 Series provides a universal socket or a European socket, which allows users to plug and use so as to save wiring time. Since the power socket specification has a maximum current of 15A, the rear panel of ASR-3000 Series is designed with a current circuit breaker. When 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.

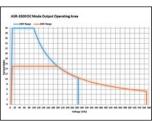
PANEL INTRODUCTION



OPERATING AREA FOR ASR-3000 SERIES







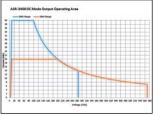
AC Output for ASR-3200

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 ON 94 % 200V SQU				
Harr	Harn	Harn	Harm	onic Voltage Measure	THDv = 42.2 %	Simple	
31th	21th	11th	1st	179.9 Vrms	90.7 %	[Harm]	
32th	22th	12th	2nd	0.0 Vrms	0.0%		
33th	23th	13th	3rd	59.8 Vrm:	30.2 %	[THDv]	
34th	24th	14th	4th	0.0 Vrms	0.0 %	THDI	
35th	25th	15th	5th	35.8 Vrms	18.0 %		
36th	26th	16th	6th	0.0 Vrms	0.0%		
37th	27th	17th	7th	25.5 Vrms	12.9 %		
38th	28th	18th	8th	0.0 Vrms	0.0 %		
39th	29th	19th	9th	19.8 Vrms	10.0 %	Page	
40th	30th	20th	10th	0.0 Vrms	0.0 %	Down	



Voltage Harmonic

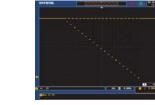
Current Harmonic

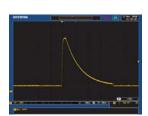
The ASR-3000 Series provides users with measurement capabilities including Vrms, Vavg, Vpeak, Irms, Iavg, Ipeak, IpkH, P, S, Q, PF, CF, 100th-order Voltage Harmonic and Current Harmonic. During the power output, the measurement

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.

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







SEQ6: Momentary Drop in **Supply Voltage**

SEQ7: Reset Behavior at Voltage Drop with 12V System

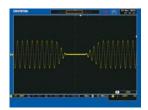
SEQ8: Starting Profile Waveform

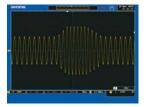
SEQ9: Load Dump with Tr_10ms, Td_40ms

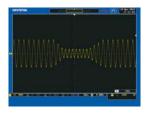
The sequence mode provides editable 10 sets of SEQ0~SEQ9, each set has 0~999 steps, each step time setting range is 0.0001~999.9999 seconds. Users can combine multiple sets of steps to generate the required waveforms, including waveform falling, surges, sags and other abnormal power line conditions to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

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

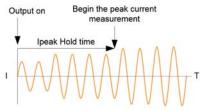
ARB Waveform Edit

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

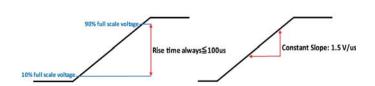


T, Ipk Measurement

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.

ASR-3200	SPECIFICATIONS							
NOMERANDE ADDRESS			ASR-3200	ASR-3300	ASR-3400			
INDITION CERNACE	INPUT RATING (AC)							
### PRASE Solid prints Solid pr	NORMINAL INPUT VOLTAGE							
NORMINAL NEUT FREQUENCY 50 file to 60 file 10 file 10 file to 60 file 10 file to 60 file 10 file to 60								
MAX. POWER CONSUMPTION	NORMINAL INPUT FREQUENCY			0 1				
## 2000/FE ACTION* ## 200	INPUT FREQUENCY RANGE							
MAX. MAY. CURRENT 2000/00 100								
ACM MODE OUTPUT ENTRINES (Ac mes)	MAX. INPUT CURRENT		,					
VOLTAGE Setting Reages			aximum current, and a load power factor of 1.					
Comparison Com			0.07/1-200.07/10.07/1-400.07/					
Column	VOLIAGE		'					
MAXIMUM CURRENT* 10 V 10 A 15 A 20 A 2								
MAXIMULIA PEAR CUERENT* 200 V 120 A 120 A	OUTPUT PHASE		• .					
MAINTAINUM PEAK CURRENT* 100 V 200 A 20 A	MAXIMUM CURRENT*3							
OAD POWER FACTOR OBA	MAXIMUM PEAK CURRENT*4			1 -				
200 VA		200 V						
Setting Range	LOAD POWER FACTOR							
Setting Resolution O.O. 14°C (0.0 to 99.99 Hz.) O.H. (10.0 to 99.99 Hz.)					4000 VA			
DOUBTET CAN PHASE Stability 0.003% of set [23 * C * s * C * c	FREQUENCY							
## 0.000% ## 0.0								
No. 15 15 15 15 15 15 15 1		Stability*5						
11. 100 to 7 and 12 modes (%) 11. 100 to 7 and 12 modes (%) 12 modes (
**S. For an output voltage of 1 Vin 10 VV ; 2 V to 20 VV ; 2 V to 40 VV ; 1 V to 40 VV ; 2 V to 40 VV ; 1 V to 40 VV ; 1 V to 40 VV ; 1 V to 40 VV ; 2 V V to 40 VV ; 2 V t	*1. 100 V / 200 V range *2. For an or	utput voltage of 20 V to 20	00 V / 40 V to 400 V, an output frequency of 45 Hz to 65 Hz	Hz, no load, and 23 °C ± 5 °C				
***MINITED TO CHARGE CONTROL ACCURAGE** **SETTING BRIDGE** **OUTSTATE STRING FOR CHARGE** **SETTING BRIDGE** **TO V	*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	to 200 V / 200 V to 400 V. If there is the DC superim	position, the current of AC+DC mode satisfies the			
VOLTACE Setting Ranger Setting Resolution Accuracy	*4. With respect to the capacitor-input	t rectifying load. Limited b	y the maximum current.		Lange - Fee			
285 V to - 285 V / 570 V to -570 V 510 V	<u></u>		e resistance load for the maximum current, and the oper	rating temperature. *6. In the case of the AC mode a	ind 23°C ± 5°C.			
Setting Resolution	VOLTAGE		-285 V to + 285 V / -570 V to +570 V					
MAXIMUM PEAK CURRENT		Setting Resolution	_					
MAXIMUM PEAK CUBRENT* 100 V 10 A 15 A 20 A 120 A 240 A		•	, ,					
MAXIMUM PEAK CURRENT 100 200 200 200 300 200	MAXIMUM CURRENT ^{*3}		T	1 1				
	MAXIMUM PEAK CURRENT*4			-				
10 0 / 20	POWER CAPACITY	200 V		1 2 2				
10.01 FeeDut Not Note 10.02 10.0	*1. 100 V / 200 V range	output voltage of -285 V t	o -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to +5	570 V, no load, and 23 °C ± 5 °C				
LINE RECULATION			ited by the power capacity when the output voltage is 10	0 V to 250 V / 200 V to 500 V. *4. Limited by the ma	ximum current.			
LOAD RECULATION"			+0.2% or less					
12 Power source input voltage is 20 V. 20 V, or 20 V, no load, neted output. *2 For an output voltage of 100 V to 200 V, 200 V to 800 V, a load power factor of 1, stepswise change from an output current of 0 A to maximum current (reference) is completed by the complete in the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 For *3 Methods of the care panel. *3 For *3 Fo	LOAD REGULATION*2			l)				
DITPUT YOLTACE WAYEFORM DISTORTION RATIO, OUTPUT VOLTACE RESPONSE TIME, EFFICIENCY	RIPPLE NOISE*3		, ,					
TOTAL HARMONIC DISTORTION (THD)								
10 us (TYP) 20 vs (TYP)			· · · · · · · · · · · · · · · · · · ·					
## EFFICIENCY** ## At an output voltage of 100 V to 200 V, 100 V to 400 V, a load power factor of 1, and in AC mode. *2. For an output voltage of 100 V / 200 V, a load power factor of 1, with respect to stepwise change from an output concent of 0 A to the maximum current, and load power factor of 1. ### MEASURED VALUE DISPLAY* VOLTACE RMS, AVG Value **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **PEAK Value** **Resolution** **Accuracy** **POWER** **Accuracy** **Apparent (VA)** **Reactive (W)** **Resolution** **Accuracy*** **Apparent (VA)** **Resolution** **Accuracy*** **Accuracy*** **Apparent (VA)** **Reactive (VAR)** **Resolution** **Accuracy*** *		\ / _{1.2}		% @500.1Hz~999.9Hz				
**************************************		E TIME ^{*2}						
MEASURED VALUE DISPLAY WASSUMED (1) MEASURED VALUE		V / 100 V to 400 V a load						
VOLTAGE RMS, AVG Value	current of 0 A to the maximum cur	rrent (or its reverse). *3.	For AC mode, at an output voltage of 100 V / 200 V, max	imum current, and load power factor of 1.				
PEAK Value Resolution Accuracy" For 45 Hz to 65 Hz and DC: ±(0.5 % of reading + 0.5 V/1 V); For all other frequencies: ±(0.7 % of reading + 1 V / 2 V)	62	Decelution	011/					
PEAK Value	VOLIAGE RMS, AVG Value							
CURRENT RMS, AVG Value Resolution Accuracy** PEAK Value Resolution Accuracy** PEAK Value Resolution Accuracy** PEAK Value Resolution Accuracy** PEAK Value Resolution Accuracy** POWER Active (W) Resolution Accuracy** Apparent (VA) Resolution Accuracy** Apparent (VAR) Resolution Accuracy** Accuracy** Accuracy** Apparent (VAR) Resolution Accuracy** Accuracy* Accuracy** Accuracy* Accurac	PEAK Value	•			_(/ / /			
PEAK Value		Accuracy	For 45 Hz to 65 Hz and DC: \pm (2 % of reading	ng + 1 V / 2 V)				
PEAK Value Resolution Accuracy** POWER Active (W) Resolution Accuracy** Apparent (VA) Resolution Accuracy** Reactive (VAR) Resolution Accuracy** Double (2 % of reading + 2 VAR) 1 VAR LOAD POWER FACTOR Range Resolution Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) Full Scale FEFECTIVE VALUE (RMS) Full Scale PEFECTIVE VALUE (RMS) Full Scale FEFECTIVE VALUE (RMS) Full Scale Ference Freeding+0.5 V/1 V) Tub to 20th±(2.0 % of reading+0.5 V/1 V) Tub to 20th±(0.2 % of	CURRENT RMS, AVG Value							
PEAK Value Resolution Accuracy* PEAK Value Resolution Accuracy* POWER Active (W) Resolution Accuracy* Apparent (VA) Resolution Accuracy* Reactive (VAR) Resolution Accuracy* Reactive (VAR) Resolution Accuracy** Resolution Divide (Part Accuracy**) Accuracy** LOAD POWER FACTOR Range Resolution Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) PERCENT (%) Resolution (AC-INT and 50/60 Hz only) Accuracy* Resolution Accuracy** LOAD CREST FACTOR Range EFFECTIVE VALUE (RMS) Full Scale PERCENT (%) Resolution (AC-INT and 50/60 Hz only) Accuracy* REROR (AC-INT and 50/60 Hz only) Accuracy* Resolution (AC-INT and 50/60 Hz only) Accuracy* Re		Accuracy			reading+0.2 A/0.1 A); For all other			
POWER Active (W) Resolution Accuracy Every Active (W) Resolution Accuracy Every Ev	BEAUL!	Parador!	frequencies:±(0.7 % of reading+0.2 A/0.1 A)	frequencies:±(0.7 % of reading+0.3 A/0.15 A)	, , ,			
POWER Active (W) Resolution 1 W 1 W 2 (2 % of reading + 1 A/0.5 A) 1 W 2 (2 % of reading + 3 W) 1 VA	PEAK Value		,	,	,			
Accuracy**3 Apparent (VA) Resolution Accuracy**5 Reactive (VAR) Resolution Accuracy**5 Reactive (VAR) Resolution Accuracy**5 Resolution Accuracy**5 Accuracy**5 Resolution Accuracy**5 Accuracy**5 E/2 % of reading + 2 VA) 1 VAR 1								
Apparent (VA)	POWER Active (W)		1 W	1 W				
## Accuracy****	A 0.143	. *	,	,	,			
TVAR	Apparent (VA)							
LOAD POWER FACTOR Range Resolution	Reactive (VAR)	•						
Resolution Companies Com		•	,	, ,	,			
LOAD CREST FACTOR Range Resolution HARMONIC VOLTAGE Range EFFECTIVE VALUE (RMS) PERCENT (%) HARMONIC CURRENT HARMONIC CURRENT HARMONIC CURRENT Range Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) PERCENT (%) HARMONIC CURRENT HARMONIC CURRENT Range Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) Full Scale 200 V / 400 V, 100% 0.1 V, 0.1% Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.5 V/1 V) Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) PERCENT (%) Resolution Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) PERCENT (%) Resolution Up to 20th±(0.2 % of reading+0.5 V/1 V) Up to 100th order of the fundamental wave Up to 100th order of the fundamental wave EFFECTIVE VALUE (RMS) PERCENT (%) Resolution (AC-INT and 50/60 Hz only) Accuracy³ Up to 20th±(1% of reading+0.4A/0.2A); Up to 20th±(1% of reading+0.8A/0.4A);	LOAD POWER FACTOR	•						
0.01 Up to 100th order of the fundamental wave 200 V / 400 V, 100% 200 V / 400 V	LOAD CREST FACTOR							
EFFECTIVE VALUE (RMS) Full Scale Resolution 200 V / 400 V, 100% 0.1 V, 0.1% 200 V / 400 V, 100% 0.1 V, 0.1% 0.1 V, 0.1% 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); Up to 20th±(0.2 % of reading+0.5 V/1 V) Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.5 V/1 V) Up to 100th order of the fundamental wave 40 A / 20 A, 100% 40 A / 20 A, 100% 0.01 A, 0.1 A, 0.1% 0.01 A, 0.1 A, 0.1% Up to 20th±(1% of reading+0.6A/0.3A); Up to 20th±(1% of reading+0.6A/0.3A); Up to 20th±(1% of reading+0.6A/0.3A); Up to 20th±(1% of reading+0.8A/0.4A);		Resolution	0.01	0.01	0.01			
PERCENT (%) Resolution 0.1 V, 0.1% 0.1 V, 0.1 V, 0.1%			•					
Accuracy Accuracy Accuracy Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.								
HARMONIC CURRENT Range Up to 100th order of the fundamental wave Up to 100th order o	` '		Up to 20th±(0.2 % of reading+0.5 V/1 V);	Up to 20th±(0.2 % of reading+0.5 V/1 V);	Up to 20th±(0.2 % of reading+0.5 V/1 V);			
EFFECTIVE VALUE (RMS) Full Scale 20 A / 10 A, 100% 30 A / 15 A, 100% 40 A / 20 A, 100% PERCENT (%) Resolution 0.01 A, 0.1 A, 0.1 W 0.01 A, 0.1 A, 0.1 W 0.01 A, 0.1 A, 0.1 W (AC-INT and 50/60 Hz only) Accuracy³ Up to 20th±(1% of reading+0.4A/0.2A); Up to 20th±(1% of reading+0.6A/0.3A); Up to 20th±(1% of reading+0.6A/0.3A);	HARMONIC CURETUR	D		, , ,	20th to 100th±(0.3 % of reading+0.5 V/1 V)			
PERCENT (%) Resolution (AC-INT and 50/60 Hz only) 0.01 Å, 0.1 Å, 0.1 Å, 0.1 Å 0.01 Å					·			
(AC-INT and 50/60 Hz only) Accuracy Up to 20th±(1% of reading+0.4A/0.2A); Up to 20th±(1% of reading+0.6A/0.3A); Up to 20th±(1% of reading+0.8A/0.4A);	` ,		i i	,	· ·			
	` '	42						
		•	20th to 100th±(1.5% of reading+0.4A/0.2A)	20th to 100th±(1.5% of reading+0.6A/0.3A)	20th to 100th±(1.5% of reading+0.8A/0.4A)			

SPECIFICATIONS **ASR-3200** 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**

INSULATION RESISTANCE

it and chassis, input and outpu WITHSTAND VOLTAGE

vOLT/ Between input and chassi EMC s, output and chassis, input and output

Safety

Operating Environment Environment

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

GPIB

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)×530(D)mm (not including protrusions); Approx. 25 kg

Specifications subject to change without notice. ASR-3000CD1DH

GPW-005 Power Cord, 3m, 105°C, UL/CSA Type GPW-006 Power Cord, 3m, 105℃, 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)

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

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











NOTE: Functions of ASR-Series are limited when ASR-Series applied to ASR-002

No DC Output(100% of Rated Power)
 Measurement Items:only current(A),power(W)and PF for each phase
 No voltage and current Harmonic Analysis(THDv, THDi)

4. No Remote Sensing Capability 5. No Arbitrary Waveform Function

No Sequence and Simulation Function (up to 10 sets)
 Interface: only support USB
 Not supported Built-in External Control I/O

9. No memory Function (up to 10 sets) 10. No LAN port (Built-in Web Server)

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