

ASR-6000 Series

4.5/6/9/12/13.5/18/24/30/36 kVA High-Performance AC/DC Power Supply

FEATURES

- Adopts Third-generation Semiconductor Silicon Carbide (SiC) Technology to Create a 4 U 6 kVA High-performance AC/DC Power Source with High Power Density
- AC Input Supports Single-phase and Three-phase, Phase Voltage 200 V to 240 V±10% (Delta or Y Connection)*
- 10 output Modes: Including External Input Signal Frequency and Mains Synchronization(SYNC), External Voltage Controlled Internal Amplifier Output (VCA)
- Multi-channel Output Function
- Supports AC 1P2W, 1P3W, 3P4W Output
 AC Maximum Output Phase Voltages 350 Virms Line Voltages
- AC Maximum Output Phase Voltage: 350 Vrms Line Voltage: 700 Vrms
- AC Balanced and Unbalanced Three-phase, Phase Failure Output Functions
- Programmable Output Impedance Adjustment*
- Dual-channel Voltage/Current Output Monitoring Function
- Voltage Output Rise Time Can be Adjusted in Three Ranges*
- Supports Sequence Editing and Emulation Output Mode
- Powerful Arbitrary Waveform Editing and Output Function, Built-in Over 253 Types of Arbitrary Waveform Outputs
- Advanced Web Server Control to Support Data Acquisition and Data Logger Both Functions
- 100th Order Harmonic Measurement Function
- Support Parallel Connection Type Up to 36 kVA Maximum
- Interfaces: RS-232C, USB, LAN; Opt: CAN BUS, DeviceNet, GPIB



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From the very moment Alpha Go defeated the human chess champion with its ultra-high-speed computing capability, artificial intelligence technology (AI) has developed rapidly around the world. Today, servers with advanced AI functions process tremendous amounts of data under the high-speed computing architecture of 2 CPUs + 8 GPUs. servers require a huge amount of power to maintain high-speed computing! In order to meet this demand, the power, density and efficiency of server power supplies have been greatly improved. High-power server power modules require high-efficiency conversion and saving of power consumption. AC single-phase input, HVDC 400 V input or increased DC voltage output designs can be utilized to achieve this purpose. In order to ensure power stability when high-power servers are operating, power modules with hot-swappable redundant power supply specifications (such as CRPS) have been widely applied in server racks. Power modules with redundant functions require testing of multiple power modules at a time to ensure that all modules can maintain normal operation during high power output. Due to the rapid changes in the development of server power supplies GW Instek developed the brand new flagship model ASR-6000 series to meet customer needs. ASR-6000 series series has two models - ASR-6450 AC/DC 4.5 kVA and ASR-6600 series AC/DC 6 kVA.

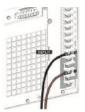
ASR-6000 series is the first stand-alone unit from GW Instek that supports AC single/three-phase input and output, and has rated DC power output. The series employs third-generation semiconductor silicon carbide (SiC) technology to create a 4U 6 kVA high power density and high-performance AC/DC power source ASR-6000 series has the ability to emulate more diverse power environment changes, such as balanced three-phase and unbalanced three-phase, phase failure, and features multi-channel output function in three-phase output mode, programmable output impedance adjustment, and up to tens of thousands of arbitrary waveform outputs. The invincible launch of GW Instek flagship model ASR-6000 series demonstrates that GW Instek can provide a complete test solution for high-power AC sources. ASR-6000 series is the MVP of GW Instek power sources.

PANEL INTRODUCTION



Model	ASR-6450	ASR-6600	ASR-6450-09	ASR-6450-13.5	ASR-6600-12	ASR-6600-18	ASR-6600-24	ASR-6600-30	ASR-6600-36
AC Input Voltage		Phase 200 Vac to ac ±10 %	200 Vac to 240 Vac ±10 % (Phase Voltage) / 380 to 415 Vac ± 10 % (Line Voltage)						
AC Output Voltage			•	Phase Voltage 0 V	/ to 350.0 V/Line Vol	tage 0 V to 700 V			
	1P2W 45 A/22.5 A	1P2W 60 A/30 A	1P2W 90 A/45 A	1P2W 135 A/67.5 A	1P2W 120 A/60 A	1P2W 180 A/90 A	1P2W 240 A/120 A	1P2W, 300 A/150 A	1P2W, 360 A/180 A
AC Output Current	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W	1P3W, 3P4W
	15 A/7.5 A	20 A/10 A	30 A/15 A	45 A/22.5 A	40 A/20 A	60 A/30 A	80 A/40 A	100 A/50 A	120 A/60 A
Output Frequency	2000 Hz	2000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	550 Hz	550 Hz	550 Hz
AC Output Capacity	4.5 kVA	6 kVA	9 kVA	13.5 kVA	12 kVA	18 kVA	24 kVA	30 kVA	36 kVA
DC Output Voltage				-250.0 V to	+250.0 V/-500.0 V to	+500.0 V			
DC Output Capacity	4.5 kW	6 kW	9 kW	13.5 kW	12 kW	18 kW	24 kW	30 kW	36 kW

SINGLE UNIT PROVIDES AC SINGLE/THREE-PHASE INPUT FUNCTION Α.



that supports AC single/three-phase input.

Advantages:

AC One-phase Input

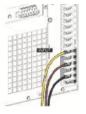
The ASR-6000 series is GW Instek's first programmable AC/DC power source

a. ASR-6000 can use mains in most countries around the world (ex. Mainland

China, Southeast. Asia, India, Europe...)AC single-phase 220 V input can help

test software development engineers work with the ASR-6000 on mains in the

AC three-phase input supports delta (Delta) and star (Y) wiring methods



AC Three-phase Input (Delta Connection)



AC Three-phase Input (Y Connection)

b. ASR-6000 can be used immediately in various regions around the world and is not affected by differences in power grids in different countries.

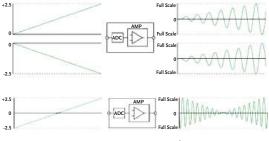
Note: 1. The AC input three-phase Y connection method must be connected to the N wire, otherwise the ASR-6000 cannot be turned on. 2. ASR-6000 AC voltage input range AC 200 V ~ AC 240 V.

Β. **10 OUTPUT MODES**



office. No additional three-phase power source is required.

ASR-6000 Has 10 Output Modes





Output Phase	Output Mode	-		Signal Source		
		INT .	D1	ADD	Sync.	VCA
10	AC+DC	AC+DC-INT	AC+DC-EXT	AC+DC-ADD	AC+DC-Sync.	N/A
	AC	AC-INT	AC-EXT	AC-ADD	AC-Sanc.	AC-VCA
	DC	DC-INT	PL/A	14/A	N/4	14/A
1P3W	AC+DC	AC+DC-INT	AC+DC-EXT	AC+DC-ADD	AC+DC-Symc.	AUA
	AC.	AC-INT	AC-EXT	AC-ADD	AC-Sync.	AC-VCA
	DC	DC-INT	PL/0	3478	NUS	RI/A
3P	AC+DC	AC+DC-INT	AC+DC-EXT	AC+DC-ADD	AC+DC-Sync.	PLÓA
	AC	AC-INT	AC-EXT	AC-ADD	AC-Sync.	AC-VCA
	DC	DC-INT	N/A	N/A	N/9	N/A

AC+DC-INT AC & DC Internal output

AC-INT AC Internal output

AC+DC-ADD AC & DC Additional output AC-ADD AC Additional output

- AC+DC-Sync AC & DC Synchronal output
 AC-Sync AC Synchronal output
- AC-VCA AC Voltage Control Amplifier output
- DC-INT DC Internal output
- AC+DC-EXT AC & DC External output
- AC-EXT AC External output
- A high-performance AC power source = amplifier + signal source It has: internal output + external input signal to control internal output + amplify external input signal. and output, and other diversified output functions.
- ASR-6000 has up to 10 output modes, including :

1.Internal output (INT)

2.External input controls internal output (EXT)

3.Sum output of external and internal signal sources (ADD)

4. Mains frequency synchronous output (SYNC)

5. External DC signal controls internal AC amplitude (VCA)

AC SINGLE/THREE-PHASE OUTPUT + MULTI-CHANNEL OUTPUT FUNCTION

			CON A.C.
350.0	350.0	350.0	MUL Kepter
4.29	4.29	4.29	16.7 10.000 E
1500	1500	1500	7.811
1.000	1.000	1.000	infakow
w 150.0	35D.0	390.0-	1 // 33 1 📇
*m: 2000.0 -	2000.d-i	2000.0 -	100

The ASR-6000 series has diverse output functions, including three modes: 1P2W, 1P3W and 3P4W. The maximum output for phase voltage is 350 Vrms and the maximum output for line voltage is 700 Vrms.

In AC three-phase output (3P4W) mode, each phase supports independent output settings. Taking ASR-6600 as an example, The maximum output of each phase reaches 2 kVA, supporting power supply testing of up to three DUTs to meet the needs of server power modules, Testing requirements for high-power AC power products such as electric vehicle chargers and uninterruptible power supply systems. independent output settings. Taking ASR-6600 as an example, The maximum output of each phase reaches 2 kVA, supporting power supply testing of up to three DUTs to meet the needs of server power modules, Testing requirements for high-power AC power products such as electric vehicle chargers and uninterruptible power supply systems.

AC BALANCED/UNBALANCED THREE-PHASE OUTPUT MODES D



AC Balanced Three-phase

The ASR-6000 series has unbalanced and balanced three-phase output modes. In the AC three-phase output mode, users can set the phase angles of L1, L2 and L3 for control.



Main applications: Three-phase input power supply products, when emulating unbalanced three-phase input and phase loss, the ability of three-phase power input products to restore balanced three-phase.

ASR-6000 has an output impedance adjustment function, which is mainly used to change the output inductance value and output impedance value of each phase to emulate the output voltage drop of each phase due to line loss. The adjustable range of the output impedance of ASR-6000 is as follows:

L1, L2, L3 Output Inductance	0.0 ~ 2000 μH
L1, L2, L3 Output Resistance	0.0 ~ 1 Ω

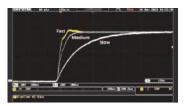
Note: This function only supports stand-alone applications. This function is automatically turned off in external parallel connection.

OUTPUT VOLTAGE RISE TIME IS ADJUSTABLE

VOLTAGE AND CURRENT OUTPUT MONITORING FUNCTIONS



ASR-6000 provides dual-channel voltage and current monitoring, allowing instant output of voltage and current signals of each phase to an oscilloscope for measurement.



In order to meet the test requirements of different DUT output voltages, it is necessary to adjust the rise time of different output voltages. The ASR-6000 offers users up to three adjustable settings: typical values are fast (50 microseconds), medium (100 microseconds) and slow (300 microseconds). ASR-6000 is initially set to medium speed. Note: When using 1P2W output, impedance adjustment or external parallel connection, the fast range setting will be automatically turned off. Application: It can output high-speed arbitrary waveforms to emulate various changes in the power system caused by transient high-speed rising voltage, etc.

ADVANCED WEB SERVER CONTROL FEATURES н.



ASR-6000 provides a full range of web control functions, including: * View system and information, and network configuration

DIVERSE WAVEFORM OUTPUT FUNCTION

- * Monitor measurements



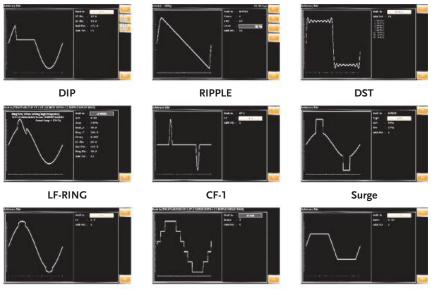


CLIP



* Set/Operate ASR-6000

- * Sequence Function/Simulate Function/Edit Waveform
- * Data logger function



STAIR

ASR-6000 provides more than 40 built-in waveforms, including: TRI, STAIR, CLIP, CF-1, CF-2, SURGE, DST01-22, RIPPLE, DIP, LF-RING. Each waveform also provides a change setting function, which can modulate thousands of combined waveforms and quickly emulate different AC output environments.

Users can adjust the required waveform type through the panel (the screen is displayed simultaneously), then load it into the ARB 1 to 16 waveform register through the access step, and return to the main menu output mode to perform ARB Waveform output. Users can also edit waveform through ASR-6000 software and then import it into ASR-6000 for execution.

Model			ASR-6	5450	۵۵	R-6600		
nput Ratings			A31-1	J-J-J-U				
ower type			Single-phase ; Three-phase, Delta	or Y connection selectable				
oltage range ^{*1}			200 Vac to 240 Vac ±10 % phase v					
requency range			47 Hz to 63 Hz					
ower factor ^{*2}			0.95 or higher (typ.)					
fficiency ^{*2}			80 % or higher					
laximum power consi	umption		6 kVA or lower		8 kVA or lower			
C Output								
Multi-phase output	t		Single-phase output	Polyphase output	Single-phase output	Polyphase output		
Output capacity			4.5 kVA	1P3W: 3 kVA ; 3P4W: 4.5 kVA	6 kVA	1P3W: 4 kVA ; 3P4W: 6 kVA		
1ode			1P2W	1P3W ; 3P4W (Y-connection)	1P2W	1P3W ; 3P4W (Y-connection		
tting mode ^{°3}		Independ, Balanced Independ, Balance						
Phase voltage Phase voltage Accuracy ^{°5} Line voltage setting range ^{°6}		0.00 V to 175.0 V / 0.0 V to 350.0 V (sine and square wave), Setting Resolution: 0.01 V / 0.1 V 0.00 Vpp to 500.0 Vpp / 0.00 Vpp to 1000 Vpp (triangle and arbitrary wave), Setting Resolution: 0.01 Vpp / 0.1 Vpp / 1 Vpp						
		±(0.3 % of set + 0.5 V / 1 V)	to 1000 vpp (thangle and arbitrary w	ave), setting resolution. 0.01 vpp	/ 0.1 vpp / 1 vpp			
			1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V		1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V			
laximum current ^{*7}			45 A / 22.5 A	15 A / 7.5 A	60 A / 30 A	20 A / 10 A		
laximum peak curren	1t ^{*8}		Four times of the maximum RMS		,	,		
pad power factor ^{*9}			0 to 1 (leading phase or lagging p					
	Setti	ing range	AC Mode: 15.00 Hz to 2000.0 Hz,	AC+DC Mode: 1.00 Hz to 2000.0 Hz	, Setting resolution: 0.01 Hz / 0.1	Hz		
requency		uracy	± 0.01% of set					
		pility ^{*10}	± 0.005%					
utput on phase settin				electable), 0.1° (1 Hz to 500 Hz), 1°				
output off phase settin	ng range ''		0.0° to 359.9° variable (Free / Fix s	electable), 0.1° (1 Hz to 500 Hz), 1°	(300 HZ to 2000 HZ)	2007/10/10/10/10		
etting range of the ph	nase angle ^{*12}			3P4W: L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		3P4W: L2 phase: 0° to 359.9 L3 phase: 0° to 359.9 Setting Resolution: 0.		
hase angle accuracy ^{*1}	13			45 Hz to 65 Hz: ±1.0°		45 Hz to 65 Hz: ±1.0°		
C offset ^{*14}			± 20 mV (typ.)	15 Hz to 2000 Hz: ±2.0°		15 Hz to 2000 Hz: ±2.0°		
			± 20 mV (typ.)					
	ngle Phase Output)					* 1.111		
Output capacity			4.5			6 kW		
lode		ing Dours	Floating output, the N terminal ca	n be grounded -500.0 V, Setting Resolution: 0.01 V /	01V			
oltage		ing Range uracy ^{*15}	±(0.3 % of set + 0.3 V / 0.6 V)	-300.0 v, Setting Resolution: 0.01 V /	V.1 V			
Aaximum current ^{*16}	Αccι	uracy	45 A / 22.5 A		60 A / 30 A			
laximum peak curren	۱t ^{*17}		Four times of the maximum curre	nt				
		. Output Vo	Itage Rising Time and Ripple Nois					
ine regulation		., Carpar vo	±0.1% or less (Phase voltage)					
regulation				phase output)				
oad regulation ^{*18}			±0.1 V / ±0.2 V, @DC (only single-phase output) ±0.1 V / ±0.2 V, @45 Hz to 65 Hz (phase voltage, 0 to 100%, via output terminal)					
U			±0.1 V / ±0.2 V, @45 Hz to 65 Hz (phase voltage, 0 to 100%, via output terminal) ±0.5 V / ±1.0 V, @all other frequencies (phase voltage, 0 to 100%, via output terminal)					
	9		±0.3 % @1Hz to 100Hz, <0.5 % @100.1 Hz to 500 Hz, <1 % @500.1 Hz to 2000 Hz					
Distortion of Output ^{*19}			Fast: 50 µs (typ.) ; Middle: 100 µs (typ.) ; Slow: 300 µs (typ.)					
Output voltage respons	000			(typ.) ; Slow: 300 µs (typ.)				
butput voltage respon- ipple noise ^{°21} ^{*1} Y connection is three-p ^{*2} . In the case of AC-INT ^{*3} . Can be only set in 3P4 ^{*4} . For phase voltage set ^{*5} . For an output voltage ^{*6} . Line voltage only can b ^{*7} . If the output voltage	use time ^{*20} phase, five-wire, Delta connecti mode, the rate output voltage, W7 mode. ting in polyphase output. In bal of 10 V to 175 V / 20 V to 350 be set in balance mode. 5 bicher than rated value. this i	, resistance loac lance mode all µ V, sine wave, an is limited to sati	0.5 Vrms / 1 Vrms (TYP) se, four-wire. 1 at maximum output current, 45 Hz to 65 Hz phase are collectively set and in unbalance m output frequency of 45 Hz to 65 Hz, no load isfv the power canacity. If there is the DC sumo	and sine wave output only. ode each phases are individually set. . DC voltage setting 0V (AC+DC mode) and rimmonsition the active current of AC+DC				
butput voltage respons ipple noise ⁽²¹⁾ ^{A1} Y connection is three-p ^{A2} . In the case of AC-INT ^{A3} . Can be only set in 3P4 ^{A4} . For phase voltage set ^{A5} . Cine voltage only can the ^{A6} . Line voltage only can the ^{A7} . If the output voltage is ^{A8} . With respect to the ca ^{A9} . External power injectic ^{A1} . 10. For 45 Hz to 65 Hz, the ^{A1} . 10. For 45 Hz to 65 Hz, the ^{A1} . Can be set only with ^{A1} . Cor an output voltage ^{A1} . In the case of the AC ^{A1} . In the case of the AC ^{A1} . In the case of the AC ^{A1} . In the case of the AC	se time "20 phase, five-wire, Delta connecti mode, the rate output voltage, 4W mode. ting in polyphase output. In bai of 10 V to 175 V / 20 V to 350 be set in balance mode. Is higher than rated value, this is und that the ambient temperatu ind that the ambient temperatu the rated output voltage, no lo: can be set independ at indepen independ mode in polyphase c e of 50V or higher, sine wave, s mode and output voltage sett e of -250 V to -10 V, +10 V to -4. is higher than rated value, this	, resistance load lance mode all p V, sine wave, an is limited to sati ure is 40 degree ad and the resis ad and the resis ad and the resis ad and the resis ad and the resis as and load and v ting to 0 V, 23°C 250 V / -500 V t is is limited to sa	0.5 Vrms / 1 Vrms (TYP) se, four-wire. 1 at maximum output current, 45 Hz to 65 Hz phase are collectively set and in unbalance mu- output frequency of 45 Hz to 65 Hz, no load isfy the power capacity. If there is the DC sup or higher, the maximum current may decreas aximum current. power flow capacity is not available. tance load for the maximum current, and the polyphase output. oltage condition for all phase. : ± 5°C 0 - 20 V, +20 V to +500 V, no load, AC voltage:	and sine wave output only. ode each phases are individually set. DC voltage setting 0V (AC+DC mode) and rrimmposition, the active current of AC+DC e. operating temperature range. set to 0V (AC+DC mode) and 23°C ± 5°C	satisfies the maximum current. In the a			
butput voltage respons ipple noise ¹²¹ ²¹ Y connection is three.p ²² . In the case of AC-INT ²³ . Can be only set in 3P4 ⁴⁴ . For phase voltage sett ⁴⁵ . For an output voltage ⁴⁶ . Line voltage only can t ⁴⁷ . If the output voltage ⁴⁸ . With respect to the ca ⁴⁹ . External power injectic ⁴⁹ . External power injectic ⁴¹ . Lo for 45 Lz to 65 Hz, ⁴¹ . Lo for 45 Lz to 65 Hz, ⁴¹ . Can be set only with ⁴³ . For an output voltage ⁴¹ . In the case of the AC ⁴⁵ . For an output voltage ⁴¹ . In the case of the AC ⁴⁵ . For an output voltage ⁴¹ . In the case of the AC ⁴⁵ . For of the ambient tern ⁴⁷ . Instantaneous eithin ⁴⁸ . For an output voltage ⁴⁹ . 50% or higher of the ⁴² .0. For an output voltage ⁴² .0. For an output voltage	set time "20 phase, five-wire, Delta connecti mode, the rate output voltage, 4W mode. ting in polyphase output. In bal of 10 V to 175 V / 20 V to 350 be set in balance mode. s higher than rated value, this i und that the ambient temperatu pacitor-input voltage, no lo can be set independ at indepen independ mode in polyphase c e of 50V or higher, sine wave. S mode and output voltage sett e of -250 V to -10 V, +10 V to +7 is higher than rated value, this is fumer than the maximum perature is 40 degree or higher 3 ms, limited by the maximum e of 75 V to 175 V / 150 V to 33 e rated output voltage, the max cof 100 V (200 V, a load powe components in DC mode using	, resistance load lance mode all J V, sine wave, an is limited to sati ure is 40 degree ad and the resis and mode in the output. same load and v ling to 0V, 23°C 250 V / 500 V t is is limited to sa v r, the maximum n current a o V, a load pow cimum current c or factor of 1, wit, the output term	0.5 Vrms / 1 Vrms (TYP) se, four-wire. 1 at maximum output current, 45 Hz to 65 Hz phase are collectively set and in unbalance mi output frequency of 45 Hz to 65 Hz, no load isfy the power capacity. If there is the DC sup- or higher, the maximum current may decreas aximum current. power flow capacity is not available. tance load for the maximum current, and the polyphase output. oltage condition for all phase. :± 5°C o 20 v, +20 V to +500 V, no load, AC voltage : tisfy the power capacity. If there is the AC sup- current may decrease. d output voltage. er factor of 1, stepwise change from an output nor lower, AC and AC+DC modes, THD-N. For th respect to stepwise change from an output ninal on the rear panel.	and sine wave output only. and sine wave output only. DC voltage setting 0V (AC+DC mode) and erimmposition, the active current of AC+DC e. operating temperature range. Set to 0V (AC+DC mode) and 23°C ± 5°C erimmposition, the active current of AC+D it current of 0 A to maximum current (or current of 0 A to the current of 0 A to the maximum current (or current of 0 A to the current of 0 A	C satisfies the maximum current. In the of C satisfies the maximum current.	case of 40 Hz or lower		
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In bal of 10 V to 175 V / 20 V to 350 be set in balance mode. s higher than rated value, this i not fragmention which is ow the rated output voltage, no lo on or regeneration which is ow the rated output voltage, no lo on or tegeneration which is ow the rated output voltage, no lo can be set in depend at indepe independ mode in polyphase code and output voltage, the max e of 500 vn h0 V, +10 V to 37. 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If there is the DC sup or higher, the maximum current may decreas aximum current. power flow capacity is not available. tance load for the maximum current, and the polyphase output. oltage condition for all phase. $\pm 5^{\circ}C$ ~ 20 , V, 20 V to +500 V, no load, AC voltage - $\pm 5^{\circ}C$ ~ 20 , V, 20 V to +500 V, no load, AC voltage - tis for the maximum current, and the polyphase output. Is the power capacity. If there is the AC sup α current may decrease. 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SPECIFICATIONS								
Model			ASR-6450		ASR-6600			
		Range	0.000 to 1.000					
Power factor		Resolution	0.001					
		Range	Up to 100th order of the fundamental wa	ave				
Harmonic voltage Effecti	ve	Full Scale	200 V / 400 V, 100%					
(AC-INT and 50/60 Hz only)*11 Resolu		Resolution	0.01 V /0.1 V, 0.1%					
		Accuracy ^{*12}	0.01 V /0.1 V, 0.1% Up to 20th: ±(0.2 % of rdg + 0.5 V / 1 V) ; 20th to 100th: ±(0.3 % of rdg + 0.5 V / 1 V)					
		Range	Up to 100th order of the fundamental wave					
Harmonic current		63 A / 31.5 A, 100% 21 A / 10.5 A, 100%						
Effective value (rms)		0.01 A / 0.1 A, 0.1%						
Percent (%)		Up to 20th: ±(1 % of rdg + 1.5 A / 0.75 A	Up to 20th: ±(1 % of rdg + 0.5 A / 0.25 A)					
(AC-INT and 50/60 Hz or	nly)^''	Accuracy ^{*13}	20th to 100th: $\pm(1.5 \% \text{ of rdg} + 1.5 \text{ A} / 0.73 \text{ A})$		20th to 100th: \pm (1.5 % of rdg + 0.5 Å / 0.25 Å)			
*2. Accuracy values are in t *3. The accuracy is for outp *4. Accuracy values are in t *5. The accuracy is for outp *6. In the polyphase output *7. For an output voltage of DC or an output frequen	he case that the output out waveform DC or si he case that the output out waveform DC or si c, these are the specifi f 50 V or greater, an o	ut voltage is within vol ine wave only. ut current is 5% to 100 ine wave only. cations for each phase utput current in the ra	tage setting range. % of the maximum current.	*9. For the load with the power fac *10. For the load with the power fa *11. The measurement does not co *12. For an output voltage of 10 V	ctor 0.5 or lower. onform to the IEC or other standard. Phase Voltage and Phase Current.			
Others								
Protections			UVP, OVP, OCP, OTP, OPP, Fan Fail, Pe	ak and RMS Current Limit				
Parallel function			Up to 4 units					
Display			TFT-LCD, 7 inch					
Memory function			Store and recall settings, Basic settings:	10				
	Number of mem	nories	253 (nonvolatile)					
Arbitrary Wave	Waveform lengt	h	4096 words					
	Amplitude resol	ution	16 bits					
General Specifications	5							
		USB	Type A: Host, Type B: Slave, Speed: 1.1/2.0, USB-CDC / USB-TMC					
		LAN	MAC Address, DNS IP Address, User Pa	,	Instrument IP Address. Subnet Mask			
	Standard	External		, ,				
Interface		RS-232C	External Signal Input ; External Control I/O ; V/I Monitor Output Complies with the EIA-RS-232 specifications					
	Optional 1	GPIB	Compiles with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface					
	Optional 2	CAN Bus	Complies with CAN 2.0A or 2.0B based protocol					
	Optional 3	DeviceNet	Complies with CAN 2.0A or 2.0B based p	orotocol				
Insulation resistance	Between input an and chassis, input		DC 500 V, 30 MΩ or more					
Withstand voltage	Between input an and chassis, input		AC 1500 V or DC 2130 V , 1 minute					
and chassis, input and output			EN 61326-1 (Class A) EN 61326-2-1/-2-2 (Class A) EN 61000-3-2/-3-12 (Class A, Group 1) EN 61000-3-3/-3-11 (Class A, Group 1) EN 61000-4-2/-4-3/-4-1/-4-5/-4-6/-4-8/-4-11/-4-34 (Class A, Group 1) EN 55011 (Class A, Group1)					
Safety			EN 61010-1					
Vibration, Shock and Tra		•	ISTA 2A Test Procedure					
Environment	Operating envir		Indoor use, Overvoltage Category II					
	Operating temp		0 °C to 40 °C					
	Storage tempera	ature range	-10 °C to 70 °C					
	Operating humi		20 %rh to 80 % RH (no condensation)					
	Storage humidit	y range	90 % RH or less (no condensation)					
	Altitude		Up to 2000 m					
Dimensions (mm)			430(W)×176(H)×590(D) (not including p	protrusions)				
Weight			Approx. 40 kg					
			However, an accuracy noted as reference value show lue (shown as typ.). Product specifications are subjec		nce when the product is used, and is not under the guarantee.			

GRA-451-J Rack Mount Kit (JIS) GRA-451-E Rack Mount Kit (EIA)

SPECIFICATIONS									
Model		ASR-6450-09 ASR-6600-12							
Input Ratings			4						
Power type		Three-phase Three-wire Del	Ita connection, Three-phase Four-wire Y con	nection					
Voltage range ^{°1}			Voltage), 380 Vac to 460 Vac (Line Voltage)						
Frequency range		47 Hz to 63 Hz	47 Hz to 63 Hz 0.95 or higher (typ.)						
Power factor ^{*2} Efficiency ^{*2}		80 % or higher							
Maximum power consumption	n	12 kVA or lower							
AC output			ł						
Multi-phase output		Single-phase output	Polyphase output	Single-phase output	Polyphase output				
Output capacity		9 kVA	1P3W: 6 kVA	12 kVA	1P3W: 8 kVA 3P4W: 12 kVA				
Mode		1P2W 1P3W		1P2W	1P3W				
Setting mode ^{*3}			3P4W (Y-connection) Unbalance, Balanced		3P4W (Y-connection) Unbalance, Balanced				
betting mode		4 0.00 V to 175.0 V / 0.0 V to	350.0 V (sine and square wave), Setting Res	olution: 0.01 V / 0.1 V	0.104.11.000, 04.11.000				
Phase voltage	-		0.00 Vpp to 500.0 Vpp / 0.00 Vpp to 1000 Vpp (triangle and arbitrary wave), Setting Resolution: 0.01 Vpp / 0.1 Vpp / 1 Vpp						
Line voltage setting range ^{*6}	Accuracy ^{°5}	±(0.3 % of set + 0.5 V / 1 V) 1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only)		1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only)				
			Setting Resolution: 0.01 V / 0.1 V		Setting Resolution: 0.01 V / 0.1 V				
Maximum current ^{*7}		90 A / 45 A	30 A / 15 A	120 A / 60 A	40 A / 20 A				
Maximum peak current ^{*8}		Four times of the maximum							
Load power factor ⁹	Setting range	0 to 1 (leading phase or lag AC Mode: 15.00 Hz to 1000	ging phase, 45 Hz to 65Hz) 0.0 Hz, AC+DC Mode: 1.00 Hz to 1000.0 Hz,	Setting resolution: 0.01 Hz / (0.1 Hz				
Frequency	Accuracy	± 0.01% of set		seeing resolution. 0.01 HZ / C	5 · · · · · · · · · · ·				
	Stability ^{*10}	± 0.005%							
Output on phase setting range			e / Fix selectable), 0.1° (1 Hz to 500 Hz), 1° (
Output off phase setting range	;	0.0° to 359.9° variable (Free	e / Fix selectable), 0.1° (1 Hz to 500 Hz), 1° (500 Hz to 1000 Hz)					
Setting range of the phase ang	;le ^{*12}		3P4W: L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		3P4W: L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°				
Phase angle accuracy ^{*13}			45 Hz to 65 Hz: ±1.0° 15 Hz to 1000 Hz: ±2.0°		45 Hz to 65 Hz: ±1.0° 15 Hz to 1000 Hz: ±2.0°				
DC offset ^{*14}		± 20 mV (typ.)							
DC output (only single phase	se output)								
Output capacity			9 kW		12 kW				
Mode	Cottine Dourse	Floating output, the N term		0.1.V					
Voltage	Setting Range Accuracy ^{*15}	±(0.3 % of set + 0.3 V / 0.0	0 V to +500.0 V, Setting Resolution: 0.01 V /	0.1 V					
Maximum current ^{*16}	Accuracy	90 A / 45 A	.,	120 A / 60 A					
Maximum peak current ^{*17}		Four times of the maximum	n current						
Output Stability, Total Harmor	nic Distortion, Output voltage								
Line regulation Load regulation ^{*18}		±0.1% or less (Phase voltag	ge) age, 0 to 100%, via output terminal)						
Distortion of Output ^{°19}			0.5 % @100.1 Hz to 500 Hz, <1 % @500.1 H	Iz to 1000 Hz					
Output voltage response time*	20								
Ripple noise ^{*21}		0.5 Vrms / 1 Vrms (TYP)	Middle: 100 µs (typ.); Slow: 300 µs (typ.) 0.5 Vrms / 1 Vrms (TYP)						
 *2. In the case of AC-INT mode, *3. Can be only set in 3P4W mode, *4. For phase voltage setting in 1 *5. For an output voltage of 10 V *6. Line voltage only can be set i *7. If the output voltage is higher or 400 Hz or higher, and that *8. With respect to the capacitor *9. External power injection or re *10. For 45 Hz to 65 Hz, the rate *11. Cl. L2 and L3 phase can be *12. Can be set only with indepe *13. For an output voltage of 52 *16. If the output voltage of 52 *16. If the output voltage of 55 *17. Instantaneous eithin 3 ms, *18. For an output voltage of 75 *19. 50 % or higher of the rated *20. For 5 Hz to 1 MHz compton Measured Value Display (Algorithm) 	de. polyphase output. In balance modd, vol 175 V / 20 V to 350 V, sine wav in balance mode. er than rated value, this is limited th t the ambient temperature is 40 de rinput rectifying load. Limited by th generation which is over short rev ed output voltage, no load and the set independ at independ mode in end mode in polyphase output. V or higher, sine wave, same load a und uutput voltage setting to 0 V, 50 V to 10V, +10V to +250 V / -50 ter than rated value, this is limited wite is 40 degree or higher, the maxi limited by the maximum current al V to 175 V / 150 V to 350 V, a load output voltage, the maximum curred 0 V / 200 V, a load power factor of nents in DC mode using the output	Food at maximum output current, 45 Hz to e all phase are collectively set and in unbala re, an output frequency of 45 Hz to 65 Hz, it o satisfy the power capacity. If there is the I gree or higher, the maximum current may on he maximum current. Werse power flow capacity is not available. resistance load for the maximum current, it the polyphase output. and voltage condition for all phase. 23°C ± 5°C 0 V to -20 V, +20 V to +500 V, no load, AC v to satisfy the power capacity. If there is the mum current may decrease. It rated output voltage. I power factor of 1, stepwise change from a ent or lower, AC and AC+DC modes, THD-1, with respect to stepwise change from a t terminal on the rear panel. ment function is indicated for 23 °C Single 0.01 V / 0.1 V 45 Hz to 65 Hz and DC: ± (1000 1000 1000 1000 1000 1000 1000 10	ance mode each phases are individually set. no load, DC voltage setting 0V (AC+DC mode) and DC superimmposition, the active current of AC+DU decrease. and the operating temperature range. voltage set to 0V (AC+DC mode) and 23°C ± 5°C .AC superimmposition, the active current of AC+D n output current of 0 A to maximum current (or it +N. For the polyphase output, it is a specification f i output current of 0 A to the maximum current (or C±5 °C.) e-phase output (0.5 % of rdg + 0.5 V / 1 V)	C satisfies the maximum current. I C satisfies the maximum current. s reverse), using the output termir or phase voltage setting. its reverse). 10% ~ 90% of outpu Pol 45 Hz to 65 Hz: ± (0.5 %	nal on the rear panel. It voltage. Iyphase output ^{%6} 6 of rdg + 0.5 V / 1 V)				
Voltage		15 Hz to 1000 Hz: ± (0.7 %		15 Hz to 1000 Hz: ± (0.7					
	C value economican	DC + (10.5% of rdg] + 0.5	4 / 1 \ 0	DC: ± (0.5 % of rdg + 0	0.5 V / 1 V)				
	VG value accuracy			1 01	of under 1 1/ / 210				
PE	EAK value accuracy ^{°3}	DC: ± (0.5 % of rdg + 0.5 V / 1 V) 45 Hz to 65 Hz and DC: ±(2 % of rdg + 1 V / 2 V) 0.01 A / 0.1 A		45 Hz to 65 Hz: ±(2 %	of rdg + 1 V / 2 V)				
PE Re Current ^{°4}	EAK value accuracy ^{®3} esolution MS value accuracy	45 Hz to 65 Hz and DC: ±(0.01 A / 0.1 A 45 Hz to 65 Hz and DC: ±(15 Hz to 1000 Hz: ±(0.7 %	2 % of rdg + 1 V / 2 V) 0.5 % of rdg + 0.2 A / 0.1 A) of rdg + 0.4 A / 0.2 A)	45 Hz to 65 Hz: ±(2 % d 45 Hz to 65 Hz: ±(0.5 % 15 Hz to 1000 Hz: ±(0.7	5 of rdg + 0.1 A / 0.05 A) '% of rdg + 0.2 A / 0.1 A)				
Current ^{*4}	EAK value accuracy ^{°3} esolution	45 Hz to 65 Hz and DC: ±(0.01 A / 0.1 A 45 Hz to 65 Hz and DC: ±(2 % of rdg + 1 V / 2 V) 0.5 % of rdg + 0.2 A / 0.1 A) of rdg + 0.4 A / 0.2 A) A / 0.2 A)	45 Hz to 65 Hz: ±(2 % 4 45 Hz to 65 Hz: ±(0.5 %	5 of rdg + 0.1 A / 0.05 A) '% of rdg + 0.2 A / 0.1 A) 0.2 A / 0.1 A)				

			ASR-6450-09	ASR-6600-12			
				ASIL-0000-12			
	Active (W)	Resolution	0.1 W / 1 W / 10 W				
		Accuracy ³⁹	$\pm (2 \% \text{ of } \text{rdg} + 6 \text{ W})$	±(2 % of rdg + 2 W)			
Power ^{*7*8}	Apparent (VA)	Resolution	0.1 VA / 1 VA / 10VA				
		Accuracy	±(2 % of rdg + 9 VA)	±(2 % of rdg + 3 VA)			
	Reactive (VAR)	Resolution	0.1 VAR / 1 VAR / 10VAR				
		Accuracy ^{*10}	±(2 % of rdg + 9 VAR) ±(2 % of rdg + 3 VAR)				
Power factor		Range	0.000 to 1.000				
ower factor		Resolution	0.001				
		Range	Up to 100th order of the fundamental wave				
farmonic voltage		Full Scale	200 V / 400 V, 100%				
Effective value (rms)		Resolution	0.01 / 10.1 / 0.1%				
Percent (%)	· .*11	*12	Up to 20th: ±(0.2 % of rdg + 0.5 V / 1 V)				
AC-INT and 50/60 Hz o	only)	Accuracy ^{*12}	21th to 100th: $\pm (0.3 \% \text{ of } \text{rdg} + 0.5 \text{ V} / 1 \text{ V})$				
		Range	Up to 100th order of the fundamental wave				
Harmonic current		Full Scale	126 A / 63 A, 100%	42 A / 21 A, 100%			
Effective value (rms)			0.01 A / 0.1 A, 0.1%	42 A / 21 A, 100 /8			
Percent (%)		Resolution					
AC-INT and 50/60 Hz o	only) ^{*11}	Accuracy ^{*13}	Up to 20th: $\pm (1 \% \text{ of } \text{rdg} + 3 \text{ A} / 1.5 \text{ A})$	Up to 20th: ±(1 % of rdg + 1 A / 0.5 A)			
1	"	, local ac)	21th to 100th: ±(1.5 % of rdg + 3 A / 1.5 A)	21th to 100th: ±(1.5 % of rdg + 1 A / 0.5 A)			
*12. For an output voltag	power factor 0.5 or high e power factor 0.5 or low does not conform to the ge of 10 V to 175 V / 20 V	er. er. IEC or other standard.	Phase Voltage and Phase Current.				
±12 An output current in	a the range of 5 % to 100	% of the maximum cu	irront				
	n the range of 5 % to 100) % of the maximum cu	urrent.				
Others	n the range of 5 % to 100) % of the maximum cu					
Others	n the range of 5 % to 100) % of the maximum cu	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li	nit			
Others Protections	n the range of 5 % to 100) % of the maximum cu		nit			
Others Protections Display	n the range of 5 % to 100) % of the maximum cu	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li	nit			
Others Protections Display	n the range of 5 % to 100		UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch	nit			
Others Protections Display Memory function		pries	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10	nit			
Others Protections Display Memory function	Number of memo Waveform length	pries	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile)	nit			
Others Protections Display Memory function Arbitrary wave	Number of memor Waveform length Amplitude resolu	pries	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words	nit			
Others Protections Display Memory function Arbitrary wave	Number of memor Waveform length Amplitude resolu	pries	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits	nit			
Others Protections Display Memory function Arbitrary wave	Number of memor Waveform length Amplitude resolu	bries tion	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lis TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC				
Others Protections Display Aemory function Inditrary wave	Number of memor Waveform length Amplitude resolu	ories tion USB LAN	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add				
Others Protections Display Memory function Arbitrary wave General Specification	Number of memo Waveform length Amplitude resolu S	tion USB LAN External	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output				
Others Protections Display Memory function Arbitrary wave General Specification	Number of memo Waveform length Amplitude resolu S Standard	USB LAN External RS-232C	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications				
Others Protections Display Memory function Arbitrary wave General Specification	Number of memo Waveform length Amplitude resolut S Standard Optional 1	USB LAN External RS-232C GPIB	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface				
Others Protections Display Memory function Arbitrary wave General Specification	Number of mem Waveform length Amplitude resolu s Standard Optional 1 Optional 2	ories tion USB LAN External RS-232C CPIB CAN Bus	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/Q; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol				
Others Protections Display Memory function Aurbitrary wave General Specification Interface	Number of mem Waveform length Amplitude resolu s Standard Optional 1 Optional 2 Optional 3	USB LAN External RS-232C GPIB CAN Bus Device Net	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface				
Others Protections Display Memory function Arbitrary wave General Specification nterface	Number of memo Waveform length Amplitude resolut s Standard Optional 1 Optional 2 Optional 3 Between input an	USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/Q; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol				
*13. An output current in Others Protections Display Memory function Arbitrary wave General Specification Interface Insulation resistance Withstand voltage	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an	bries tion USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output d chassis, output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol				
Others Protections Display Memory function Arbitrary wave General Specification Interface	Number of memo Waveform length Amplitude resolut S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu	bries tion USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output d chassis, output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 7.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1)				
Others Protections Display Aemory function Arbitrary wave General Specification Interface Insulation resistance Vithstand voltage	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an	bries tion USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output d chassis, output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/Q; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Comples with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61000-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1)				
Others rotections Display Aemory function Irbitrary wave General Specification Interface Insulation resistance Withstand voltage MC	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an	vries tion USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 7.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1)				
Others rotections Display Aemory function Irbitrary wave General Specification Interface Insulation resistance Withstand voltage MC	Number of memo Waveform length Amplitude resolu s Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu	USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output t and output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-21/-22 (Class A) EN 61326-21/-22 (Class A, Group 1) EN 61000-4-2/-43/-44/-4-5/-4-6/-4-8/-4-11 (Class A, Group 1) EN 61000-4-2/-A3/-44/-4-5/-4-6/-4-8/-4-11 (Class A, Group 1) EN 61010-1				
Others Protections Display Aemory function wbitrary wave General Specification Interface Insulation resistance Withstand voltage	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu	USB LAN External RS-232C CPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-42/-43/-4-4/-45/-4-6/-4-8/-4-11 (Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II				
Others Protections Display Aemory function wbitrary wave General Specification Interface Insulation resistance Withstand voltage	Number of memo Waveform length Amplitude resolut S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu	USB LAN LAN External RS-232C CAN Bus Device Net d chassis, output t and output d chassis, output t and output and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/Q: V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-2.1/-2-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-42/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11 (Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II 0° C to 40°C -10°C to 70°C				
Others rotections Display Aemory function Irbitrary wave General Specification Interface Insulation resistance Withstand voltage MC	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu	vries tion USB LAN External RS-232C GPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lin TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-21/-2.2 (Class A) EN 61326-21 (Class A, Group 1) EN 61326-3 (Class A, Group 1) EN 61000-3.2 (Class A, Group 1) EN 61000-4.2/-4.3/-4.4/-4.5/-4.6/-4.8/-4-11 (Class A, Group 1) EN 61000-4.2/-4.3/-4.4/-4.5/-4.6/-4.8/-4-11 (Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II 0 °C to 70 °C 20 %rh to 80 % RH (no condensation)				
Others Protections Display Aemory function wbitrary wave General Specification Interface Insulation resistance Withstand voltage	Number of memo Waveform length Amplitude resolu s Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu detween input an and chassis, inpu	vries tion USB LAN External RS-232C GPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-21, (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-42, (Lass A, Group 1) EN 61000-42, (Class A, Group 1) EN 61000-3-1 (Class A, Group 1) EN 61000-42, Class A, Group 1) EN 61000-42, Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II 0 °C to 40 °C -10 °C to 70 °C 20%rht to 80% RH (no condensation) 90 % RH or less (no condensation) <td></td>				
Dthers Protections Protections Display Memory function Arbitrary wave General Specification Interface Insulation resistance Withstand voltage EMC Eafety Environment	Number of memo Waveform length Amplitude resolu S Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu	vries tion USB LAN External RS-232C GPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-21 (Class A) EN 61326-22 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-4:2/-4:3/-4:4/-4:5/-4:6/-4:8/-4-11 (Class A, Group 1) EN 61000-3:3 (Class A, Group 1) EN 61000-1 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) 90 % RH or less (no condensation) 0 °C to 200 m				
Others Protections Display Aemory function wbitrary wave General Specification Interface Insulation resistance Withstand voltage	Number of memo Waveform length Amplitude resolu s Standard Optional 1 Optional 2 Optional 3 Between input an and chassis, inpu Between input an and chassis, inpu detween input an and chassis, inpu	vries tion USB LAN External RS-232C GPIB CAN Bus Device Net d chassis, output t and output d chassis, output t and output	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Lit TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Add External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-21, (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-42, (Lass A, Group 1) EN 61000-42, (Class A, Group 1) EN 61000-3-1 (Class A, Group 1) EN 61000-42, Class A, Group 1) EN 61000-42, Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II 0 °C to 40 °C -10 °C to 70 °C 20%rht to 80% RH (no condensation) 90 % RH or less (no condensation) <td></td>				

Product specifications are subject to change without notice.

		· ·		-					
Model		ASR-6450-13.5 ASR-6600-18							
nput Ratings		Three-phase Three-wire Delta connection, Three-phase Four-wire Y connection							
ower type				nection					
oltage range ^{*1} requency range		47 Hz to 63 Hz	tage), 380 Vac to 460 Vac (Line Voltage)						
ower factor ^{*2}		0.95 or higher (typ.)							
fficiency ^{*2}		80 % or higher							
laximum power consumption		18 kVA or lower		24 kVA or lower					
C Output									
Iulti-phase output		Single-phase output Polyphase output 1P3W: 9 kVA 1P3W: 9 kVA		Single-phase output Polyphase output					
Output capacity		13.5 kVA	13.5 kVA 3P4W: 13.5 kVA		1P3W: 12 kVA 3P4W: 18 kVA				
Mode		1P2W	1P3W 3P4W (Y-connection)	1P2W	1P3W 3P4W (Y-connection)				
Setting mode ^{*3}		 0.00 \/ to 175 0 \/ / 0.0 \/ to 25/	Unbalance, Balanced Unbalance, Balanced Unbalance, Balance 0.00 V to 175.0 V / 0.0 V to 350.0 V (sine and square wave), Setting Resolution: 0.01 V / 0.1 V						
Phase voltage Setting Range*4			/pp to 1000 Vpp (triangle and arbitrary wa		(pp / 0.1 Vpp / 1 Vpp				
Ū	Accuracy ^{*5}	±(0.3 % of set + 0.5 V / 1 V)		,. U	,,				
ine voltage setting range ^{*6}			1 P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3 P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V		1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V				
Maximum current ^{*7}		135 A / 67.5 A	45 A / 22.5 A	180 A / 90 A	60 A / 30 A				
Naximum peak current ^{*8}		Four times of the maximum R							
oad power factor ^{°9}	Cotting up	0 to 1 (leading phase or laggin	g phase, 45 Hz to 65Hz) Hz, AC+DC Mode: 1.00 Hz to 1000.0 Hz,	Setting resolution: 0.01 U- / 0	11 Hz				
requency	Setting range Accuracy	± 0.01% of set	. 12, NETDE MOUE. 1.00 HZ 10 1000.0 HZ,		5 T T 16				
· ·	Stability ^{*10}	± 0.005%							
Dutput on phase setting range	11	()	Fix selectable), 0.1° (1 Hz to 500 Hz), 1° (· ,					
Dutput off phase setting range [®]		0.0° to 359.9° variable (Free / I	Fix selectable), 0.1° (1 Hz to 500 Hz), 1° (200 Hz to 1000 Hz)					
Setting range of the phase angle	e ^{°12}		3P4W: L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		3P4W: L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°				
Phase angle accuracy ^{*13}			45 Hz to 65 Hz: ±1.0° 15 Hz to 1000 Hz: ±2.0°		45 Hz to 65 Hz: ±1.0° 15 Hz to 1000 Hz: ±2.0°				
DC Offset ^{*14}		± 20 mV (typ.)							
DC output (only single phas	e output)								
Output Capacity			.5 kW		18 kW				
Mode	Catting Dance		Floating output, the N terminal can be grounded						
/oltage	Setting Range Accuracy ^{*15}	±(0.3 % of set + 0.3 V / 0.6 V	-250.0 V to +250.0 V / -500.0 V to +500.0 V, Setting Resolution: 0.01 V / 0.1 V +(0.3 % of set] + 0.3 V / 0.6 V)						
Maximum current ^{°16}	Accuracy	135 A / 67.5 A	, 	180 A / 90 A					
Maximum peak current ^{*17}		Four times of the maximum cu	urrent						
	nonic Distortion, Output vo	Itage rising time and Ripple noise							
Output Stability, Total Harm	, , ,	±0.1% or less (Phase voltage)							
Output Stability, Total Harm ine regulation	···· , · · ·	÷,	±0.5 V / ±1.0 V (phase voltage, 0 to 100%, via output terminal) <0.3 % @1Hz to 100Hz, <0.5 % @100.1 Hz to 500 Hz, <1 % @500.1 Hz to 1000 Hz						
Output Stability, Total Harm ine regulation .oad regulation ^{°18}		±0.5 V / ±1.0 V (phase voltage		Hz to 1000 Hz					
Output Stability, Total Harm Line regulation Load regulation ^{°18} Distortion of Output ^{*19}	· ·	±0.5 V / ±1.0 V (phase voltage	% @100.1 Hz to 500 Hz, <1 % @500.1 H	Hz to 1000 Hz					
Output Stability, Total Harm Line regulation Load regulation ⁷¹⁸ Distortion of Output ⁵¹⁹ Output voltage response time ⁷² Ripple noise ⁵²¹	20	±0.5 V / ±1.0 V (phase voltage <0.3 % @1Hz to 100Hz, <0.5 Middle: 100 μs (typ.); Slow: 30 0.5 Vrms / 1 Vrms (TYP)	% @100.1 Hz to 500 Hz, <1 % @500.1 H	Hz to 1000 Hz					
Output Stability, Total Harm Line regulation Distortion of Output ^{*19} Output voltage response time ^{*2} Ripple noise ^{*21} *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, t *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10 V *6. Line voltage only can be set in *7. If the output voltage of 10 V *6. Line voltage only can be set in *7. With respect to the capacitor- of 400 Hz or higher, and that *8. With respect to the capacitor- *9. External power injection or re *10. For 45 Hz to 65 Hz, the rated *11. L1, L2 and L3 phase can be s *12. Can be set only with indepen *13. For an output voltage of -250 *16. If the output voltage of -250 *16. If the output voltage is higher And the ambient temperatur *17. Instantaneous eithin 3 ms, li *18. For an output voltage of 750 *19. 50% or higher of the rated of *20. For an output voltage of 100	ive-wire, Delta connection is three- the rate output voltage, resistance le. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by th generation which is over short rev d output voltage, no load and the is est independ at independ mode in and mode in polyhase output. 'or higher, sine wave, same load a nd tupt voltage, stell gto 0 V, 3 0 V to -10 V, +10 V to +250 V / 500 er than rated value, this is limited t v to 175 V / 150 V to 350 V, a load V to 175 V / 150 V to 350 V, a load vutput voltage, the maximum current at v to 175 V / 150 V to 350 V, a load	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5	% @100.1 Hz to 500 Hz, <1 % @500.1 H 10 µs (typ.) 5 Hz and sine wave output only. 5 mode each phases are individually set. load, DC voltage setting OV (AC+DC mode) an superimmposition, the active current of AC+D rease.	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. ts reverse), using the output termir for phase voltage setting.	n the case of 40 Hz or lower				
Dutput Stability, Total Harm ine regulation .oad regulation ¹¹⁸ Distortion of Output ¹¹⁹ Distortion of Output ¹¹⁹ Distortion of Output ¹¹⁹ Dutput voltage response time ²² typle noise ²¹ *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, t *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10 V *6. Line voltage only can be set in *7. If the output voltage is higher or 400 Hz or higher, and that: *8. With respect to the capacitor- *9. External power injection or re *10. For 45 Hz to 65 Hz, the ratex *11. L1, L2 and L3 phase can be s *12. Can be set only with indepen *13. For an output voltage of 252 *16. If the output voltage of .252 *16. If the output voltage of .252 *16. For an output voltage of .252 *16. For an output voltage of .252 *19. 50 % or higher of the rated a *20. For an output voltage of 100 *21. For 5 Hz to 1 MHz compone	ive-wire, Delta connection is three- the rate output voltage, resistance le. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by th generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a do utput voltage, setting to 0 V, and output voltage setting to 0 V, 0 V to -10 V, +10 V to +250 V / 500 er than rated value, this is limited to to 15 V / 150 V to 350 V, a load voluptut voltage, the maximum currer V / 200 V, a load power factor of 1 ents in DC mode using the output	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5 Middle: 100 µs (typ.); Slow: 30 0.5 Vrms / 1 Vrms (TYP) phase, four-wire. load at maximum output current, 45 Hz to 62 all phase are collectively set and in unbalance, an output frequency of 45 Hz to 65 Hz, nol satisfy the power capacity. If there is the DC ree or higher, the maximum current may dee maximum current. rese power flow capacity is not available. esistance load for the maximum current, and the polyphase output. dividage condition for all phase. 13°C ± 5°C V to -20 V + 20 V to +500 V, no load, AC volto so satisfy the power capacity. If there is the AC num current may decrease. rated output voltage. sower factor of 1, stepwise change from an o tor lower, AC and AC+DC modes, THD+N, with respect to stepwise change from an ou terminal on the rear panel.	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output only. 6 mode each phases are individually set. 10 ad, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. age set to 0V (AC+DC mode) and 23°C ± 5°C superimmposition, the active current of AC+D rease. 1 the operating temperature range. age set to 0V (AC+DC mode) and 23°C ± 5°C superimmposition, the active current of AC+D For the polyphase output, it is a specification tput current of 0 A to the maximum current (or tput current of 0 A to the maximum current (or	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. s reverse), using the output termir for phase voltage setting. r its reverse). 10% – 90% of outpu	n the case of 40 Hz or lower al on the rear panel. t voltage.				
Dutput Stability, Total Harr ine regulation ¹⁸ Distortion of Output ¹⁹ Distortion of Output ¹⁹ Distortion of Output ¹⁹ Distortion of Output ¹⁹ Dutput voltage response time ²² Ripple noise ²¹ ^{±1} 1 connection is three-phase, fi ^{±2} . In the case of AC-INT mode, the ^{±3} . Can be only set in 3P4W mod ^{±4} . For phase voltage setting in p ^{±5} . For an output voltage of 10V ^{±6} . Line voltage only can be set in ^{±7} . If the output voltage is higher or 400 Hz or higher, and that ^{±8} . With respect to the capacitor- ^{±9} . External power injection or re- ^{±10} . For 4F zto 165 Hz, the rates ^{±11} . Can be set only with indepen- ^{±13} . For an output voltage of 50V ^{±14} . In the case of the AC mode a: ^{±15} . For an output voltage of 51V ^{±16} . If the output voltage of 100 ^{±21} . For an output voltage of 100 ^{±21} . For S Hz to 1 MHz componen Measured Value Display (All	ive-wire, Delta connection is three- the rate output voltage, resistance le. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by th generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a do utput voltage, setting to 0 V, and output voltage setting to 0 V, 0 V to -10 V, +10 V to +250 V / 500 er than rated value, this is limited to to 15 V / 150 V to 350 V, a load voluptut voltage, the maximum currer V / 200 V, a load power factor of 1 ents in DC mode using the output	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5 Middle: 100 µs (typ.); Slow: 30 0.5 Vrms / 1 Vrms (TYP) phase, four-wire. load at maximum output current, 45 Hz to 62 all phase are collectively set and in unbalance, an output frequency of 45 Hz to 65 Hz, nol satisfy the power capacity. If there is the DC ree or higher, the maximum current may dee maximum current. rese power flow capacity is not available. esistance load for the maximum current, and the polyphase output. dividage condition for all phase. 13°C ± 5°C V to -20 V + 20 V to +500 V, no load, AC volto so satisfy the power capacity. If there is the AC num current may decrease. rated output voltage. sower factor of 1, stepwise change from an o tor lower, AC and AC+DC modes, THD+N, with respect to stepwise change from an ou terminal on the rear panel.	 % @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 mode each phases are individually set. 10 ad, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. age set to 0V (AC+DC mode) and 23°C ± 5°C superimmposition, the active current of AC+E age set to 0V (AC+DC mode) and 23°C ± 5°C superimmposition, the active current of AC+E the operating temperature range. 	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. s reverse), using the output termir for phase voltage setting. r its reverse). 10% – 90% of outpu	n the case of 40 Hz or lower				
Dutput Stability, Total Harm ine regulation ine regulation ¹¹⁸ Distortion of Output ¹¹⁹ Distortion of Output ¹¹⁹ Dutput voltage response time ²² tipple noise ²¹ *1 Y connection is three-phase, fi *2. In the case of AC.INT mode, t *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10V *6. Line voltage only can be set in *7. If the output voltage is higher or 400 Hz or higher, and that *8. With respect to the capacitor- *9. External power injection or rep *10. For 45 Hz to 65 Hz, the rate *11. L1, L2 and L3 phase can be s *12. Can be set only with indepen *13. For an output voltage is higher And the ambient temperatur *14. In the case of the AC mode a *15. For an output voltage of 525 *16. If the output voltage of 735 *18. For an output voltage of 100 *21. For 5 Hz to 1 MHz compone Measured Value Display (All	We-wire, Delta connection is three- the rate output voltage, resistance le. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by the generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage setting to 0V, 0V to -10V, +10V to +250V / -500 er than rated value, this is limited to to 5V / 150V to 350V, a load voluptut voltage, the maximum currer V / 200V, a load power factor of 1 ents in DC mode using the output laccuracy of the measurem solution	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output only. 6 Hz and sine wave output only. 6 Hz and sine wave output only. 7 Hz and sine wave output only. 8 emode each phases are individually set. 10 ad, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. 2 of the operating temperature range. 2 of of rdg + 0.5 V / 1 V)	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. So catisfies the maximum current. To phase voltage setting. In the reverse), using the output termin for phase voltage setting. In the reverse voltage setting. Pol 45 Hz to 65 Hz: ± (0.5 %	al on the rear panel. t voltage. yphase output ^{%6} 5 of rdg + 0.5 V / 1 V)				
Dutput Stability, Total Harm ad regulation ¹¹⁸ Distortion of Output ³¹⁹ Distortion of Output ³¹⁹ Distortion of Output ³¹⁹ Distortion of Output ³¹⁹ Dutput voltage response time ²² stipple noise ²³¹ *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, t *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10V *6. Line voltage only can be set in *7. If the output voltage is higher or 400 Hz or higher, and that *8. With respect to the capacitor *9. External power injection or re *11. Cn of 45 Hz to 65 Hz, the rated *12. Can be set only with indeper *13. For an output voltage is higher And the ambient temperatur *14. In the case of the AC mode a *15. For an output voltage of 50C *16. If the output voltage of 100 *21. For 5 Hz to 1 MHz compone Weasured Value Display (All Kes Kottage ³¹⁺²	ive-wire, Delta connection is three- the rate output voltage, resistance le. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave n balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by the generation which is over short rev d output voltage, no load and the is est independ at independ mode in nd mode in polyhase output. 'or higher, sine wave, same load a nd output voltage setting to 0 V, 0 V to -10 V, +10 V to +250 V / 500 er than rated value, this is limited to is 40 degree on higher, the maximi mited by the maximum current at V to 175 V / 150 V to 350 V, a load volupt voltage, the maximum current V / 200 V, a load power factor of 1 ents in DC mode using the output laccuracy of the measurem solution 15 value accuracy	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output only. 6 Hz and sine wave output only. 7 Hz and sine wave output only. 8 erode each phases are individually set. 10 add, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. 2 of the polyphase output, it is a specification trut current of 0 A to the maximum current (of 5 °C.) hase output 7 % of rdg + 0.5 V / 1 V) rdg + 1 V / 2 V)	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. ts reverse), using the output termir for phase voltage setting. r its reverse). 10% – 90% of output Pol 45 Hz to 65 Hz: ± (0.5 % 15 Hz to 1000 Hz: ± (0.7	al on the rear panel. t voltage. yphase output ^{%6} 5 of rdg + 0.5 V / 1 V) '% of rdg + 1 V / 2 V)				
Dutput Stability, Total Harm .oad regulation .oad regulation .oad regulation Distortion of Output ⁷¹⁹ Distortion of Output ⁷¹⁹ Dutput voltage response time ⁷² Ripple noise ⁷²¹ *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, t *3. Can be only set in 3P4W mode *4. For phase voltage setting in p *5. For an output voltage is higher *1. Fito houtput voltage is higher *7. If the output voltage is higher *8. With respect to the capacitor *9. External power injection or re *12. Can be set only with indepen *13. For an output voltage of 202 *14. In the case of the AC mode a *15. For an output voltage of 202 *16. In the case of the AC mode a *15. For an output voltage of 100 *14. In the case of the AC mode a *15. For an output voltage of 510 *14. In the case of the AC mode a *15. For an output voltage of 100 *14. In the case of the AC mode a *15. For an output voltage of 100 *15. So % on higher of the rated a *10. Fo	We-wire, Delta connection is three- the rate output voltage, resistance le. volvphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by the generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage setting to 0V, 0V to -10V, +10V to +250V / -500 er than rated value, this is limited to to 5V / 150V to 350V, a load vuptut voltage, the maximum currer to 125 V / 150V to 350V, a load uptut voltage, the maximum current to 125 V / 150V to 350V, a load power factor of 1 ents in DC mode using the output Laccuracy of the measurem solution IS value accuracy of value accuracy	$ \begin{array}{c} \pm 0.5 \ V / \pm 1.0 \ V (phase voltage \\ <0.3 \ \% \ @) Hz to 100 Hz, <0.5 \\ Middle: 100 \ \mus (typ.); Slow: 30 \\ 0.5 \ Vrms / 1 \ Vrms (TYP) \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output only. 6 mode each phases are individually set. 10 ad, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. 1 the operating temperature range. 1 the operating temperature range. 2 superimmposition, the active current of AC+D rease. 1 the operating temperature range. 5 *C.) hase output 6 *C.) hase output 1 V) 1 V)	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. Is reverse), using the output termir for phase voltage setting. r its reverse). 10% ~ 90% of outpu Pol 45 Hz to 65 Hz: ± (0.5 15 Hz to 1000 Hz: ± (0.7 DC: ± ([0.5 % of rdg] + 0	al on the rear panel. t voltage. yphase output ^{∞_6} 5 of rdg + 0.5 V / 1 V) (% of rdg + 1 V / 2 V) 5 V / 1 V)				
Dutput Stability, Total Harr ine regulation coad regulation ⁷¹⁸ Distortion of Output ⁷¹⁹ Distortion of Output ⁷¹⁹ Dutput voltage response time ⁷² Ripple noise ⁷¹ *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, I *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10V *6. Line voltage only can be set in *7. If the output voltage of 10V *6. Line voltage only can be set in *7. If the output voltage is higher or 400 Hz or higher, and that *8. With respect to the capacitor- *9. External power injection or rep *10. For 45 Hz to 65 Hz, the ratee *11. Un L2 and L3 phase can be set *12. Can be set only with indepene *13. For an output voltage of 50V *14. In the case of the AC mode a *15. For an output voltage of 75 V *16. If the output voltage of 75 V *19. 50 % or higher of the rated of *20. For an output voltage of 15 V *12. For 5 Hz to 1 MHz componer Veasured Value Display (All Kess /oltage ⁹¹⁺²	ive-wire, Delta connection is three- the rate output voltage, resistance e. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave n balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by th generation which is over short rew d output voltage, no load and the - input rectifying load. Limited by d output voltage, no load and the - the sti independ availed by d output voltage setting to 0 V, or higher, sine wave, same load a nd mode in polyphase output. ' or higher, sine wave, same load a nd output voltage setting to 0 V, o V to -10 V, +10 V to +250 V / -500 V to 10 V, +10 V to +250 V / -500 V to 175 V / 150 V 150 V 50 V, a load output voltage, the maximum currer to 15 in DC mode using the output laccuracy of the measurem solution Its value accuracy G value accuracy AK value accuracy ⁷³	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output only. 6 mode each phases are individually set. 10 ad, DC voltage setting 0V (AC+DC mode) and superimmposition, the active current of AC+D rease. 1 the operating temperature range. 1 the operating temperature range. 1 the operating temperature range. 2 superimmposition, the active current of AC+D rease. 1 the operating temperature range. 5 *C.) hase output 6 *C.) hase output 1 V) 1 V)	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. ts reverse), using the output termir for phase voltage setting. r its reverse). 10% – 90% of output Pol 45 Hz to 65 Hz: ± (0.5 % 15 Hz to 1000 Hz: ± (0.7	al on the rear panel. t voltage. yphase output ^{∞_6} 5 of rdg + 0.5 V / 1 V) (% of rdg + 1 V / 2 V) 5 V / 1 V)				
Dutput Stability, Total Harm .ine regulation .oad regulation Distortion of Output ¹⁹ Distortion of Output ¹⁹ Dutput voltage response time ²² Ripple noise ²¹ *1 Y connection is three-phase, fi *2. In the case of AC-INT mode, t *3. Can be only set in 3P4W mod *4. For phase voltage setting in p *5. For an output voltage of 10V *6. Line voltage only can be set in *7. If the output voltage is higher or 400 Hz or higher, and that *0. For 45 Hz to 55 Hz, the ratee *10. For 45 Hz to 55 Hz, the ratee *11. L1, L2 and L3 phase can be s *13. For an output voltage of 50V *14. In the case of the AC mode s *15. For an output voltage of 510 *16. If the output voltage of 510 *17. For an output voltage of 520 *18. For an output voltage of 510 *14. In the case of the AC mode s *15. For an output voltage of 100 *20. For an output voltage for 100 </td <td>We-wire, Delta connection is three- the rate output voltage, resistance le. volvphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by the generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage setting to 0V, 0V to -10V, +10V to +250V / -500 er than rated value, this is limited to to 5V / 150V to 350V, a load vuptut voltage, the maximum currer to 125 V / 150V to 350V, a load uptut voltage, the maximum current to 125 V / 150V to 350V, a load power factor of 1 ents in DC mode using the output Laccuracy of the measurem solution IS value accuracy of value accuracy</td> <td>$\begin{array}{c} \pm 0.5 \ V / \pm 1.0 \ V (phase voltage \\ <0.3 \ \% \ @) Hz to 100 Hz, <0.5 \\ Middle: 100 \ \mus (typ.); Slow: 30 \\ 0.5 \ Vrms / 1 \ Vrms (TYP) \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$</td> <td>% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output, it is a specification the utive current of 0 A to the maximum current (or it for the polyphase output, it is a specification the utive current of 0 A to the maximum current (or it is a specification the utive current of 0 A to the maximum current (or it is a hyperification the utive current of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or 0 A to the maximu</td> <td>d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. Soc satisfies the maximum current. Soc satisfies the maximum current. To phase voltage setting. If the reverse), using the output termin for phase voltage setting. If the reverse), 10% – 90% of output Pol 45 Hz to 65 Hz: ± (0.5 % 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (0.5 %</td> <td>the case of 40 Hz or lower all on the rear panel. t voltage. yphase output⁶⁶ 5 of rdg + 0.5 V / 1 V) % of rdg + 1 V / 2 V) .5 V / 1 V) of rdg + 1 V / 2 V)</td>	We-wire, Delta connection is three- the rate output voltage, resistance le. volvphase output. In balance mode to 175 V / 20 V to 350 V, sine wave balance mode. Than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by the generation which is over short rev d output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage, no load and the is set independ at independ mode in d mode in polyphase output. / or higher, sine wave, same load a and output voltage setting to 0V, 0V to -10V, +10V to +250V / -500 er than rated value, this is limited to to 5V / 150V to 350V, a load vuptut voltage, the maximum currer to 125 V / 150V to 350V, a load uptut voltage, the maximum current to 125 V / 150V to 350V, a load power factor of 1 ents in DC mode using the output Laccuracy of the measurem solution IS value accuracy of value accuracy	$ \begin{array}{c} \pm 0.5 \ V / \pm 1.0 \ V (phase voltage \\ <0.3 \ \% \ @) Hz to 100 Hz, <0.5 \\ Middle: 100 \ \mus (typ.); Slow: 30 \\ 0.5 \ Vrms / 1 \ Vrms (TYP) \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	% @100.1 Hz to 500 Hz, <1 % @500.1 Hz 10 µs (typ.) 5 Hz and sine wave output only. 6 Hz and sine wave output, it is a specification the utive current of 0 A to the maximum current (or it for the polyphase output, it is a specification the utive current of 0 A to the maximum current (or it is a specification the utive current of 0 A to the maximum current (or it is a hyperification the utive current of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or it is a hyperification the utility of 0 A to the maximum current (or 0 A to the maximu	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. Soc satisfies the maximum current. Soc satisfies the maximum current. To phase voltage setting. If the reverse), using the output termin for phase voltage setting. If the reverse), 10% – 90% of output Pol 45 Hz to 65 Hz: ± (0.5 % 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (0.5 %	the case of 40 Hz or lower all on the rear panel. t voltage. yphase output ⁶⁶ 5 of rdg + 0.5 V / 1 V) % of rdg + 1 V / 2 V) .5 V / 1 V) of rdg + 1 V / 2 V)				
Dutput Stability, Total Harr	ive-wire, Delta connection is three- the rate output voltage, resistance e. e. obyphase output. In balance mode to 175 V / 20 V to 350 V, sine wave n balance mode than rated value, this is limited to the ambient temperature is 40 deg input rectifying load. Limited by th generation which is over short reve d output voltage, no load and the i- input rectifying load. Limited by d output voltage, no load and the i- d output voltage, no load and the i- tr han rate duale, this is limited to d output voltage setting to 0 V, 20 to -10 V, +10 V to +250 V / 500 V to -10 V, +10 V to +250 V / 500 V to -10 V, +10 V to +250 V / 500 V to 15 V J / 50 V to 350 V, a load output voltage, the maximum currer to 15 in DC mode using the output 1 accuracy of the measurem solution 15 value accuracy G value accuracy 6 value accuracy 6 value accuracy	±0.5 V / ±1.0 V (phase voltage <0.3 % @)Hz to 100Hz, <0.5	% @ 100.1 Hz to 500 Hz, <1 % @ 500.1 Hz	d 23°C ± 5°C. For phase voltage set C satisfies the maximum current. I DC satisfies the maximum current. Soc satisfies the maximum current. Soc satisfies the maximum current. To phase voltage setting. If the reverse), using the output termin for phase voltage setting. If the reverse), 10% – 90% of output Pol 45 Hz to 65 Hz: ± (0.5 % 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (12 % of 45 Hz to 65 Hz: ± (0.5 %	hal on the rear panel. t voltage. yphase output ^{66} 5 of rdg + 0.5 V / 1 V) ^(*) of rdg + 1 V / 2 V) 5 f rdg + 0.15 A / 0.08 A) ^(*) of rdg + 0.3 A / 0.15 A) 3 A / 0.15 A)				

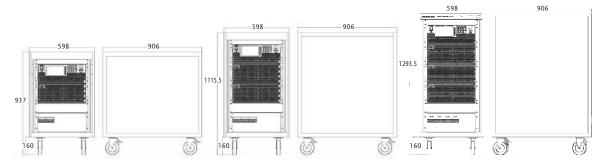
SPECIFICATION			ACD 6450 12 5	ASD 6600 19			
Model			ASR-6450-13.5	ASR-6600-18			
	Active (W)	Resolution	0.1 W / 1 W / 10 W				
		Accuracy ^{*9}	±(2 % of rdg + 6 W)	±(2 % of rdg + 2 W)			
Power ^{*7*8}	Apparent (VA)	Resolution	0.1 VA / 1 VA / 10VA				
		Accuracy	±(2 % of rdg + 9 VA)	±(2 % of rdg + 3 VA)			
Reactive (VA		Resolution	0.1 VAR / 1 VAR / 10VAR				
		Accuracy ^{*10}	±(2 % of rdg + 9 VAR) ±(2 % of rdg + 3 VAR)				
		Range	0.000 to 1.000				
		Resolution	0.001				
Iarmonic voltage		Range	Up to 100th order of the fundamental wave				
ffective value (rms)		Full Scale	200 V / 400 V, 100%				
Percent (%) Resolution		Resolution	0.01 V /0.1 V, 0.1%				
		Accuracy ^{*12}	Up to 20th: ±(0.2 % of rdg + 0.5 V / 1 V)				
,	"		21th to 100th: ±(0.3 % of rdg + 0.5 V / 1 V)				
armonic current		Range	Up to 100th order of the fundamental wave				
ffective value (rms)		Full Scale	189 A / 94.5 A, 100%	63 A / 31.5 A, 100%			
Percent (%)		Resolution	0.01 A / 0.1 A, 0.1%				
AC-INT and 50/60 Hz o	only) ^{*11}	Accuracy ^{*13}	Up to 20th: ±(1 % of rdg + 3 A / 1.5 A)	Up to 20th: ±(1 % of rdg + 1 A / 0.5 A)			
		Accuracy	21th to 100th: ±(1.5 % of rdg + 3 A / 1.5 A)	21th to 100th: ±(1.5 % of rdg + 1 A / 0.5 A)			
	power factor 0.5 or lo	ver. IEC or other standard. F	Phase Voltage and Phase Current.				
*13. An output current in		0 % of the maximum cu	rrent.an output current of 0 A to the maximum current (or its reverse). 10 % t	90 % of output voltage.			
	the range of 5 % to 10	0 % of the maximum cu		90 % of output voltage.			
*13. An output current in *21. For 5 Hz to 1 MHz co	the range of 5 % to 10	0 % of the maximum cu		90 % of output voltage.			
*13. An output current in *21. For 5 Hz to 1 MHz co Others	the range of 5 % to 10	0 % of the maximum cu	inal on the rear panel.				
*13. An output current in *21. For 5 Hz to 1 MHz co Others rotections	the range of 5 % to 10	0 % of the maximum cu					
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display	the range of 5 % to 10	0 % of the maximum cu	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li				
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display	the range of 5 % to 10	0 % of the maximum cu le using the output term	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch				
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function	the range of 5 % to 10 omponents in DC mod	0 % of the maximum cu le using the output term	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10				
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function	the range of 5 % to 10 omponents in DC mod	0 % of the maximum cu le using the output term hories h	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile)				
*13. An output current in *21. For 5 Hz to 1 MHz co Others rotections Display Memory function rbitrary wave	the range of 5 % to 10 omponents in DC moo	0 % of the maximum cu le using the output term hories h	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (norvolatile) 4096 words				
*13. An output current in *21. For 5 Hz to 1 MHz co Others rotections bisplay Memory function rbitrary wave	the range of 5 % to 10 omponents in DC moo	0 % of the maximum cu le using the output term nories h ution	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits				
*13. An output current in *21. For 5 Hz to 1 MHz co Others rotections bisplay Memory function rbitrary wave	Number of men Waveform lengt Amplitude resol	0 % of the maximum cu le using the output term hories h h ution USB	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others rotections Display Memory function rbitrary wave	the range of 5 % to 10 omponents in DC moo	0 % of the maximum cui le using the output term nories h ution USB LAN	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Ac	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function urbitrary wave General Specifications	Number of men Waveform lengt Amplitude resol	0 % of the maximum cui le using the output term hories h tution USB LAN External	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function urbitrary wave General Specifications	Number of men Waveform lengt Amplitude resol S Standard	0 % of the maximum cui le using the output term hories h Ltion USB LAN External RS-232C	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function urbitrary wave General Specifications	Number of men Waveform lengt Amplitude resol S Standard Optional 1	0 % of the maximum cu le using the output term hories h tution USB LAN External RS-232C GPIB	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function urbitrary wave General Specifications	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2	0 % of the maximum cui le using the output term hories h Ltion USB LAN External RS-232C	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 482. compliant interface Complies with CAN 2.0A or 2.0B based protocol	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function urbitrary wave General Specifications nterface	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3	0 % of the maximum cui le using the output term hories h USB LAN External RS-232C GPIB CAN Bus Device Net	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function Arbitrary wave General Specifications	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3	0 % of the maximum cu le using the output term le using the output term bories h tution USB LAN External RS-232C GPIB CAN Bus Device Net nd chassis, output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 482. compliant interface Complies with CAN 2.0A or 2.0B based protocol	nit			
*13. An output current in	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp	0 % of the maximum cu le using the output term nories h Ution USB LAN External RS-232C GPIB CAN Bus Devices Net nd chassis, output ut and output nd chassis, output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function Arbitrary wave General Specifications Interface Insulation resistance Withstand voltage	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a	0 % of the maximum cu le using the output term nories h Ution USB LAN External RS-232C GPIB CAN Bus Devices Net nd chassis, output ut and output nd chassis, output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (norvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Comples with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1)	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers interface General Specifications interface (Vithstand voltage MC	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a	0 % of the maximum cu le using the output term nories h LAN LAN External Rseral CAN Bus Device Net Device Net and chassis, output ut and output nd chassis, output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-2-1/-2-2 (Class A) EN 61300-3-3 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11 (Class A, Group 1) EN 61000-1	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers interface General Specifications interface (Vithstand voltage MC	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a and chassis, inp	0 % of the maximum cui le using the output term nories h Ution USB LAN External RS-232C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 233 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61010-1 Indoor use, Overvoltage Category II	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers Protections Display Aemory function Arbitrary wave General Specifications Interface Withstand voltage	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a	0 % of the maximum cu le using the output term h ution USB LAN External RS-232C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-21, -2-2 (Class A) EN 61000-3-2 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-1 Indoor use, Overvoltage Category II 0 °C to 40 °C	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers interface General Specifications interface (Vithstand voltage MC	he range of 5 % to 10 omponents in DC mod waveform lengt Amplitude resol s Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a and chassis, inp Storage temperation	0 % of the maximum cu le using the output term h brories h LAN External RS-232C GPIB CAN Bus CAN Bus CAN Bus CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (norvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 6100-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 6100-3-2 (Class A, Group 1) EN 6100-3-3	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers Protections Display Aemory function Arbitrary wave General Specifications Interface Withstand voltage	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a and chassis, inp Between input a chassis, inp	0 % of the maximum cu le using the output term h ution USB LAN External Rs-ra32C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output ment erature range dity range	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Cateway IP Ac External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-2-1/-2-2 (Class A) EN 61326-2-1/-2-2 (Class A) EN 61300-3-3 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 6100-3-3 (Class A, Group 1) EN	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Others Protections Display Memory function Arbitrary wave General Specifications Interface Insulation resistance Withstand voltage	Number of men Waveform lengt Amplitude resol s Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Betweesis, inp detexis, inp Betweesis, input and chassis, input Storage tempera	0 % of the maximum cu le using the output term h ution USB LAN External Rs-ra32C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output ment erature range dity range	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 233 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-4-2 (-4.3/-4.4/-4.5/-4.6/-4.8/-4.11 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61010-1 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)	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers Protections Display Aemory function wbitrary wave General Specifications Interface Senteral Specifications Interface Withstand voltage SMC	Number of men Waveform lengt Amplitude resol S Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Between input a and chassis, inp Between input a chassis, inp	0 % of the maximum cu le using the output term h ution USB LAN External Rs-232C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output ment erature range dity range	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 253 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Output Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61326-21, (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-3-3 (Class A, Group 1) EN 61000-3-1 (Class A, Group 1) EN 61000-1 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	nit			
*13. An output current in *21. For 5 Hz to 1 MHz co Dthers Protections Display Aemory function Arbitrary wave General Specifications Interface Withstand voltage	Number of men Waveform lengt Amplitude resol s Standard Optional 1 Optional 2 Optional 3 Between input a and chassis, inp Betweesis, inp detexis, inp Betweesis, input and chassis, input Storage tempera	0 % of the maximum cu le using the output term h ution USB LAN External Rs-232C GPIB CAN Bus Device Net nd chassis, output ut and output nd chassis, output ut and output ment erature range dity range	inal on the rear panel. UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current Li TFT-LCD, 7 inch Store and recall settings, Basic settings: 10 233 (nonvolatile) 4096 words 16 bits Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Ac External Signal Input; External Control I/O; V/I Monitor Outpu Complies with the EIA-RS-232 specifications SCPI-1993, IEEE 488.2 compliant interface Complies with CAN 2.0A or 2.0B based protocol Complies with CAN 2.0A or 2.0B based protocol DC 500 V, 30 MΩ or more AC 1500 V or DC 2130 V, 1 minute EN 61326-1 (Class A) EN 61300-3-2 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61000-4-2 (-4.3/-4.4/-4.5/-4.6/-4.8/-4.11 (Class A, Group 1) EN 61000-3-2 (Class A, Group 1) EN 61010-1 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)	nit			

Product specifications are subject to change without notice.

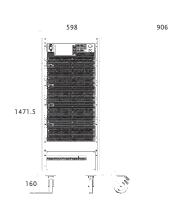
Model Input Ratings				ASR-6600-24		ASR-6600-30		ASR-6600-36		
			I							
Power type Voltage range ^{*1}				ree wire Delta connection, Three phase Four v ± 10 % (Phase Voltage), 380 to 415 Vac ± 10 %						
Frequency range			47 Hz to 63 Hz 0.95 or higher		,					
Power factor ^{*2} Efficiency ^{*2}	-		80 % or higher							
Maximum power con: AC Output	sumption		32 kVA or lowe	r	40 kVA or lowe	er	48 kVA or lowe	r		
Multi-phase output			Single-phase	Polyphase	Single-phase	Polyphase	Single-phase	Polyphase		
Output capacity			output 24 kVA	output 1P3W: 16 kVA	output 30 kVA	output 1P3W: 20 kVA	output 36 kVA	output 1P3W: 24 kVA		
				3P4W: 24 kVA 1P3W		3P4W: 30 kVA 1P3W		3P4W: 36 kVA 1P3W		
Mode			1P2W	3P4W (Y-connection) Unbalance, Balanced	1P2W	3P4W (Y-connection) Unbalance, Balanced	1P2W	3P4W (Y-connection)		
Setting mode ^{*3}		Setting Range ^{*4}		V / 0.0 V to 350.0 V (sine and square wave), S		D1 V / 0.1 V		Unbalance, Balanced		
Phase voltage		Accuracy ⁵	0.00 Vpp to 50 ±(0.3 % of set	0.0 Vpp / 0.00 Vpp to 1000 Vpp (triangle and a + 0.5 V / 1 V)	erbitrary wave), Settin	g Resolution: 0.01 Vpp / 0.1 Vpp / 1 Vpp				
Line voltage setting ra	ange ^{°6}			1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V		1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine wave only) Setting Resolution: 0.01 V / 0.1 V		1P3W: 0.00 V to 350.0 V / 0.00 V to 700.0 V 3P4W: 0.00 V to 303.1 V / 0.00 V to 606.2 V (sine and square wave) Setting Resolution: 0.01 V / 0.1 V		
Maximum current ^{°7}			240 A / 120 A	80 A / 40 A	300 A / 150 A	100 A / 50 A	360 A / 180 A	120 A / 60 A		
Maximum peak curre Load power factor*9	ent ^{*8}			he maximum RMS current phase or lagging phase, 45 Hz to 65Hz)	•	•		•		
		Setting range	AC Mode: 15.0	0 Hz to 550.0 Hz, AC+DC Mode: 1.00 Hz to 55	50.0 Hz, Setting resol	ution: 0.01 Hz / 0.1 Hz				
Frequency		Accuracy Stability ^{*10}	± 0.01 % of set ± 0.005 %							
Output on phase sett Output off phase sett				ariable (Free / Fix selectable), 0.1° (1 Hz to 50 ariable (Free / Fix selectable), 0.1° (1 Hz to 50						
output on phase set	андтанде			3P4W:		3P4W:		3P4W:		
Setting range of the p	hase angle ^{*12}			L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		L2 phase: 0° to 359.9° L3 phase: 0° to 359.9° Setting Resolution: 0.1°		
Phase angle accuracy	*13			45 Hz to 65 Hz: ±1.0° 15 Hz to 550 Hz: ±2.0°		45 Hz to 65 Hz: ±1.0° 15 Hz to 550 Hz: ±2.0°		45 Hz to 65 Hz: ±1.0° 15 Hz to 550 Hz: ±2.0°		
DC offset ^{°14} DC Output (only si	ngle phase output	1	± 20 mV (typ.)							
Output capacity	- ore primore output	,	_	24 kW		30 kW		36 kW		
Mode		Setting Range	-250.0 V to +25	t, the N terminal can be grounded 0.0 V / -500.0 V to +500.0 V, Setting Resolutio	n: 0.01 V / 0.1 V					
Voltage Maximum current ^{*16}		Accuracy ^{*15}	±(0.3 % of set 240 A / 120 A	+ 0.3 V / 0.6 V)	300 A / 150 A		360 A / 180 A			
Maximum peak curre			Four times of t	he maximum current	300 A / 130 A		500 A / 180 A			
Output Stability, To Line regulation	otal Harmonic Dis	tortion, Output Vo	+0.1 % or less							
Load regulation ^{*18}	10		±1 V (phase vo	±0.1 % or less (Phase voltage) ±1 V (phase voltage, 0 % to 100 %, via output terminal)						
Distortion of Output [®] Output voltage respo				 CO.3 % @1 Hz to 100 Hz, <0.5 % @100.1 Hz to 550 Hz Slow: 300 µs (typ.) 						
Ripple noise ^{*21} *1. Y connection is *2. In the case of <i>I</i> *3. Can be only set	s three-phase, five- AC-INT mode, the t in 3P4W mode.	rate output voltage	0.5 Vrms / 1 Vr tion is three-phase, f , resistance load at r	ms (TYP) our-wire. (Accessories will be provided) naximum output current, 45 Hz to 65 Hz a						
Ripple noise ²⁷¹ *1. Y connection in *2. In the case of <i>M</i> *3. Can be only set *4. For phase volt: *5. For an output Y *6. Line voltage or *7. If the output Y higher, and tha *8. With respect to *9. External power *10. For 45 Hz to (*11. Cl, 12 and 13 *12. Can be set on *13. For an output *14. In the case of *15. For an output *16. If the output And the ambi *17. Instantaneou: *18. For an output *18. For an output *19. So % or high	s three-phase, five- AC-INT mode, the it in 3P4W mode. age setting in polyf voltage of 10 V to 1 ly can be set in ba oltage is higher that at the ambient term the capacitor-inpi rinjection or regen 65 Hz, the rated ou phase can be set i hy with independ phase can be set i voltage of 50 V or t the AC mode and t voltage of -500 V voltage is higher th ient temperature is s e sithin 3 ms, limit t voltage of 75 V to er of the rated outp	rate output voltage chase output. In ba 175 V / 20 V to 350 lance mode. In rated value, this perature is 40 degr the rectifying load. L eration which is ov tiptu voltage, no lo independ at indepen node in polyphase higher, sine wave, output voltage set to -10 V, +10 V to + an rated value, thi 40 degree or high ed by the maximum 175 V / 150 V to 3	0.5 Vrms / 1 Vi tion is three-phase, f , resistance load at r lance mode all phas V, sine wave, an out is limited to satisfy t ee or higher, the maxim er short reverse pow ad and the resistanc nd mode in the poly output. same load and volta ting to 0 V, 23 °C ± 5 250 V / -500 V to -20 s is limited to satisfy r, the maximum cur n current at rated ou 50 V, a load power fa simum current or low	ms (TYP) our-wire. (Accessories will be provided) naximum output current, 45 Hz to 65 Hz a e are collectively set and in unbalance mod put frequency of 45 Hz to 65 Hz, no load, E he power capacity. If there is the DC superi imum current. and decrease. um current. e load for the maximum current, and the op phase output. ge condition for all phase. *C V, +20 V to +500 V, no load, AC voltage set the power capacity. If there is the AC super ent may decrease. tput voltage. ctor of 1, stepwise change from an output 1 ver, AC and AC+DC modes, THD-N. For th	e each phases are in C voltage setting 0' mmposition, the ac perating temperatur t to 0 V (AC+DC mo immposition, the ar current of 0 A to ma te polyphase output	ndividually set. V (AC+DC mode) and 23 °C ± 5 °C. For phase tive current of AC+DC satisfies the maximum re range. de) and 23 °C ± 5 °C tive current of AC+DC satisfies the maximum unimum current (or its reverse), using the ou , it is a specification for phase voltage setting the spec	m current. In the ca im current. itput terminal on th g.	se of 40 Hz or lower or 400 Hz or e rear panel.		
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Ripple noise ²¹ *1. Y connection is *2. In the case of A *3. Can be only set *4. For phase volts *5. For an output *6. Line voltage or *7. If the output v higher, and tha *8. With respect tc *9. External power *10. For 45 Hz to *11. L1, L2 and L3 *12. Can be set on *13. For an output *14. In the case of *15. For an output *14. In the case of *15. For an output *14. In the case of *15. For an output *14. So % or higher *20. For an output *21. For 5 Hz to 1 Measured Value Dis Voltage ^{*1*2} Current ^{*4} Power ^{*7*8} Power factor Harmonic voltage	s three-phase, five- s three-phase, five- tin 3P4W mode. age setting in polyu voltage of 10 V to 1 hly can be set in ba oltage is higher that the ambient tem b the capacitor-inpp injection or regen is better the ambient tem b the capacitor-inpp injection or regen to totage of 50 V or the AC mode and t voltage of 75 V to er of the rated outpy t voltage of 100 V / MHz components splay (All accuracy RMS value acc PEAK value acc PEAK value acc ACT ve (W) Apparent (VA) Reactive (VAR)	rate output voltage chase output. In ba 75 V / 20 V to 350 Innace mode. In rated value, this perature is 40 degr eration which is ov itput voltage, no lo independ at independe in polyphase higher, sine wave, output voltage set to -10 V +10 V to 4 an rated value, thi 40 degree or high ed by the maximum 200 V, a load pow in DC mode using of the measurem arracy arrac	0.5 Vrms / 1 Vi tion is three-phase, f , resistance load at r lance mode all phas v, sine wave, an out is limited to satisfy t ee or higher, the maxim er short reverse pow ad and the resistanc nd mode in the poly output. same load and volta ting to 0 V, 23 °C ± 5 250 V / 500 V to -20 s is limited to satisfy r, the maximum cur nd mode in the poly output. s is limited to satisfy r, the maximum cur factor of 1, with re t the output terminal ent function is indic 0.01 V / 0.1' 45 Hz to 65 0.01 V / 0.1' 45 Hz to 65 0.01 VA / 11' 45 Hz to 65 0.000 to 1.00' 0.001 U/ 0.1' 45 Hz to 65 0.0000 to 1.00' 0.001 Up to 100th 200 V / 400' 0.01 V/0.1'	ms (TYP) our-wire. (Accessories will be provided) naximum output current, 45 Hz to 65 Hz a e are collectively set and in unbalance mod put frequency of 45 Hz to 65 Hz, no load, D he power capacity. If there is the DC superi imum current. er flow capacity is not available. e load for the maximum current, and the op phase output. ge condition for all phase. *C V, +20 V to +500 V, no load, AC voltage set the power capacity. If there is the AC super erent may decrease. ty v+20 V to +500 V, no load, AC voltage set the power capacity. If there is the AC super erent may decrease. tput voltage. ctor of 1, stepwise change from an output t ver, AC and AC+DC modes, THD-N. For th spect to stepwise change from an output c on the rear panel. ated for 23 *C±5 *C.) Single-phase output V Hz and DC: $\pm (0.5\% \text{ of rdg} + 0.5 V / 1 V)$ Hz $\pm (0.5\% \text{ of rdg} + 0.5 V / 1 V)$ Hz $\pm (0.5\% \text{ of rdg} + 0.3 A / 0.15 A)$ Hz: $\pm (0.7\% \text{ of rdg} + 0.3 A / 0.15 A)$ Hz and DC: $\pm (12\% \text{ of rdg} + 1.3 A / 1.5 A)$ 710 W Hz and DC: $\pm (2\% \text{ of rdg} + 1.3 A / 1.5 A)$ 710 W Hz and DC: $\pm (2\% \text{ of rdg} + 1.8 VA)$ XAR (110XA Hz: $\pm (2\% \text{ of rdg} + 1.8 VA)$ XAR (10VAR Hz: $\pm (2\% \text{ of rdg} + 1.8 VAR)$ W (0.03% (0.03% (0.03% frdg + 0.5 V / 1 V) $\approx \pm (0.3\% \text{ of rdg} + 0.5 V / 1 V)$	e each phases are in C voltage setting 0 mmposition, the ac perating temperatur t to 0 V (AC+DC mo immposition, the ac current of 0 A to ma te polyphase output urrent of 0 A to the te	ndividually set. V (AC+DC mode) and 23 °C ± 5 °C. For phase tive current of AC+DC satisfies the maximum re range. de) and 23 °C ± 5 °C ctive current of AC+DC satisfies the maximum aximum current (or its reverse), using the ou, it is a specification for phase voltage settin maximum current (or its reverse). 10 % to 9 P 45 Hz to 65 Hz: ±(0.5 % of rdg + 0.11 15 Hz to 550 Hz: ±(0.7 % of rdg + 0.12) 15 Hz to 55 Hz: ±(0.7 % of rdg + 0.12) 15 Hz to 65 Hz: ±(0.5 % of rdg + 0.3 A / 0.135 45 Hz to 65 Hz and DC: ±(2 % of rdg 45 Hz to 65 Hz and DC: ±(2 % of rdg 45 Hz to 65 Hz and DC: ±(2 % of rdg + 6 VA)	m current. In the ca im current. itput terminal on th g. 0 % of output volta olyphase output () () () () () () () () () ()	se of 40 Hz or lower or 400 Hz or e rear panel. ge. *6		
Ripple noise ²¹ *1. Y connection is *2. In the case of A *3. Can be only sel *4. For phase volts *5. For an output *5. For an output *6. Line voltage or *7. If the output vo higher, and tha *8. With respect tt *9. External power *10. For 45 Hz to 1*11. L1, L2 and L3 *12. Can be set on *13. For an output *14. In the case of *15. For an output *16. If the output v *17. Instananeou *18. For an output *19. 50 % or highe *20. For an output *21. For 5 Hz to 1 Measured Value Di Voltage*1*2 Current*4 Power*7*8 Power factor Harmonic voltage Effective value (ms) Percent (%) (AC-INT and 50/60 H;	s three-phase, five- s three-phase, five- calc-INT mode, the t in 3P4W mode. age setting in polys voltage of 10 V to 1 hly can be set in ba oltage is higher that t the ambient tem o the capacitor-inpu i njection or regen 5 Hz, the rated out phase can be set i t voltage of 50 V or the AC mode and t voltage of 25 V to voltage of 100 V / MHz components splay (All accuracy PEAK value acc PEAK value acc PEAK value acc PEAK value acc PEAK value acc AC value acc	rate output voltage consecutive voltage consecutive voltage consecutive voltage person voltage, no lo rated value, this perature is 40 degre ration which is ov riput voltage, no lo riput voltage, no lo riput voltage set to -10 V, +10 V to 4 40 degree or high ed by the maximum 200 V, a lo da pow an rated value, thi 40 degree or high ed by the maximum 200 V, a lo da pow in DC mode using of the measurem accuracy ⁷⁵ macy racy racy racy racy racy racy racy Resolution Accuracy ⁷⁹ Resolution Range Resolution Range Resolution Accuracy ⁷² Resolution Accuracy ⁷² Resolution Accuracy ⁷² Resolution Accuracy ⁷² Resolution Accuracy ⁷² Resolution Range Resolution Accuracy ⁷² Resolution Range Resolution Accuracy ⁷² Resolution Range Resolution Accuracy ⁷² Resolution Accuracy ⁷² Resolution Range Resolution Accuracy ⁷² Resolution Range Resolution Accuracy ⁷² Resolution	0.5 Vrms / 1 Vi tion is three-phase, f , resistance load atr lance mode all phas w, sine wave, an outp is limited to satisfy t ee or higher, the maximited by the maxim er short reverse pow ad and the resistanc and mode in the poly output. same load and volta ting to 0 V, 23 °C ± 5 250 V / -500 V to -20 s is limited to satisfy er, the maximum cur n current at rated ou 50 V, a load power fa kimum current or low er factor of 1, with re the output terminal ent function is indice 0.01 V / 0.1 45 Hz to 65 0.01 V / 0.1 45 Hz to 65 0.01 V / 0.1 45 Hz to 65 0.01 V / 10 45 Hz to 65 0.0	ms (TYP) our-wire. (Accessories will be provided) naximum output current, 45 Hz to 65 Hz a e are collectively set and in unbalance mod put frequency of 45 Hz to 65 Hz, no load, D he power capacity. If there is the DC superi dimum current may decrease. um current. er flow capacity is not available. e load for the maximum current, and the op phase output. ge condition for all phase. "C V, +20 V to +500 V, no load, AC voltage set the power capacity. If there is the AC super erent may decrease. ty V, +20 V to +500 V, no load, AC voltage set the power capacity. If there is the AC super erent may decrease. ty voltage. ctor of 1, stepwise change from an output 1 ver, AC and AC+DC modes, THD-N. For th spect to stepwise change from an output c on the rear panel. cated for 23 "C±5" "C.) Single-phase output V Hz and DC: $\pm (0.5\% \text{ of rdg} + 0.5 V / 1 V)$ HZ: $\pm (0.7\% \text{ of rdg} + 1.0 A / 0.15 A)$ HZ: $\pm (0.7\% \text{ of rdg} + 0.3 A / 0.15 A)$ HZ: $\pm (0.7\% \text{ of rdg} + 0.3 A / 0.15 A)$ HZ: $\pm (2\% \text{ of rdg} + 1.8 VA)$ VAR HZ: $\pm (2\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.03\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.00\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.00\% \text{ of rdg} + 0.5 V / 1 V)$ $\approx 1.00\% $	e each phases are in C voltage setting 0 mmposition, the ac perating temperatur t to 0 V (AC+DC mo immposition, the ac current of 0 A to ma te polyphase output urrent of 0 A to the te	ndividually set. V (AC+DC mode) and 23 °C ± 5 °C. For phase tive current of AC+DC satisfies the maximum re range. de) and 23 °C ± 5 °C ctive current of AC+DC satisfies the maximum aximum current (or its reverse), using the ou it is a specification for phase voltage settin maximum current (or its reverse), 10 % to 9 P 45 Hz to 65 Hz: ±(0.5 % of rdg + 0.11 15 Hz to 550 Hz: ±(0.7 % of rdg + 0.12 15 Hz to 550 Hz: ±(0.7 % of rdg + 0.12 15 Hz to 65 Hz: ±(0.7 % of rdg + 0.12 15 Hz to 65 Hz: ±(0.7 % of rdg + 0.12 45 Hz to 65 Hz: ±(0.7 % of rdg + 0.14)	m current. In the ca im current. itput terminal on th g. 0 % of output volta olyphase output () () () () () () () () () ()	se of 40 Hz or lower or 400 Hz or e rear panel. ge. *6		

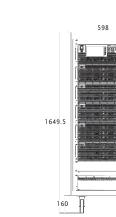
SPECIFICATIO	ONS						
Model			ASR-6600-24	ASR-6600-30	ASR-6600-36		
*2. Accuracy values *3. The accuracy is 1 *4. Accuracy use *5. The accuracy is 1 *6. In the polyphase *7. For an output vo *8. The apparent an *9. For the load with *10. For the load with *11. The measurem *12. For an output v	are in the case or output wave are in the case or output wave output, these a ltage of 50 V or d reactive power d the power fact the the power fact ent does not co oltage of 10 V t	that the output voltage form DC or sine wave form DC or sine wave are the specifications greater, an output ci or 0.5 or higher. tor 0.5 or lower. Inform to the IEC or or 0 175 V 20 V to 350	nt is 5 % to 100 % of the maximum current. e only. for each phase. urrent in the range of 10 % to 100 % of the maximum current. n the DC mode. uther standard. Phase Voltage and Phase Current.	đ.			
others							
rotections		1	UVP, OVP, OCP, OTP, OPP, Fan Fail, Peak and RMS Current	Limit			
Display			TFT-LCD, 7 inch				
Aemory function			Store and recall settings, Basic settings: 10				
·	Number of me	emories	253 (nonvolatile)				
rbitrary wave	Waveform len	gth	4096 words				
	Amplitude res	olution	16 bits				
eneral Specification	s						
•	1	USB	Type A: Host, Type B: Slave, Speed: 2.0, USB-CDC / USB-TMC				
		LAN	MAC Address, DNS IP Address, User Password, Gateway IP A				
			External Signal Input				
	Standard	External	External Control I/O				
nterface			V/I Monitor Output				
		RS-232C	Complies with the EIA-RS-232 specifications				
	Optional 1	GPIB	SCPI-1993, IEEE 488.2 compliant interface				
	Optional 2	CAN Bus	Complies with CAN 2.0A or 2.0B based protocol				
	Optional 3	Device Net	Complies with CAN 2.0A or 2.0B based protocol				
nsulation resistance	Between input	and chassis, output	DC 500 V, 30 MΩ or more				
	and chassis, ii	nput and output	DC 500 V, 50 W122 01 HI018				
Withstand voltage		and chassis, output	AC 1500 V or DC 2130 V . 1 minute				
	and chassis, ii	nput and output					
MC			EN 61326-1 (Class A)				
			EN 61326-2-1/-2-2 (Class A)				
			EN 61000-3-2 (Class A, Group 1)				
			EN 61000-3-3 (Class A, Group 1) EN 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11 (Class A, Group	1)			
			EN 55011 (Class A, Group1)	')			
afety			EN 61010-1				
nvironment	Operating env	ironment	Indoor use, Overvoltage Category II				
		perature range	0 °C to 40 °C				
	Storage tempe		-10 °C to 70 °C				
	Operating hur		20 %rh to 80 % RH (no condensation)				
	Storage humic		90 % RH or less (no condensation)				
	Altitude		Up to 2000 m				
imensions (mm) (not i	ncluding protrus	sions)	598(W)×1294(H)×906(D)	598(W)×1472(H)×906(D)	598(W)×1650(H)×906(D)		
/eight	0.		Approx. 250 kg	Approx. 305 kg	Approx. 370 kg		
	ntee. A value witho	ut the accuracy is the non	an accuracy noted as reference value shows the supplemental data for reference inal value or representative value (shown as typ.).	when the product is used,			

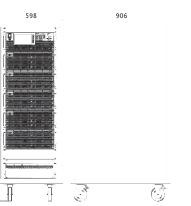
Dimensions(mm)



C.







ASR-6600-24 (Four units)



ORDERING INFORMATION

ASR-6450	4.5 kVA High-Performance AC/DC Power Supply
ASR-6450-09	9 kVA AC/DC Rack Type Power Source
ASR-6450-13.5	13.5 kVA AC/DC Rack Type Power Source
ASR-6600	6 kVA High-Performance AC/DC Power Supply
ASR-6600-12	12 kVA AC/DC Rack Type Power Source
ASR-6600-18	18 kVA AC/DC Rack Type Power Source
ASR-6600-24	24 kVA AC/DC Rack Type Power Source
ASR-6600-30	30 kVA AC/DC Rack Power Source
ASR-6600-36	36 kVA AC/DC Rack Power Source
ACCESSORIES	
Input terminal cover Output terminal cover	

Input terminal cover, Output terminal cover,

Copper plate for delta connection input(Mark 1), Copper plate for single phase and Y connection input(Mark 2), Copper plate for delta connection input(Mark 3),

Copper plate for 1P output (Mark 4),

GRA-451-E Rack mount adapter(EIA) (Stand-alone models only) GTL-246 USB cable (USB 2.0 Type A - Type B cable, approx. 1.2 M)

ASR-003 GPIB Interface Card ASR-004 DeviceNet Interface Card ASR-005 CAN BUS Interface Card ASR-C003 Modbus TCP feature GTL-232 RS-232C Cable, approx. 2 M GTL-248 GPIB Cable, approx. 2 M For ASR-6450/ASR-6600 use only : GET-006 Universal Extension ASR-006 External Parallel Cable GRA-451-E Rack mount adapter(EIA) GRA-451-J Rack mount adapter(JIS) GPW-008 6RV3 Power Cord; 10 AWG/3 C, 3 m Max Length, RV5-5*3P, RV5-5*3P UL Type GPW-012 6RVV5 VDE Power Cord; 2.5 mm 2/5 C, 3 m Max Length, RVS3-5*5P, RVS3-5*5P VDE Type GPW-013 6RVT5 PSE Power Cord; 2.0 mm 2/5 C, 3 m Max Length, RVS2-5*5P, RVS2-5*5P PSE Type

Specifications subject to change without notice.

ASR-6000ID2BH

GPW-014 6RV4 UL Power Cord; 10 AWG/4 C, 3 m, RV5-5*4P, RV5-5*4P UL TYPE GPW-015 6RVV4 VDE Power Cord; 2.5 mm 2/4 C, 3 m Max Length, RVS3-5*4P, RVS3-5*4P VDE Type



Ihr Ansprechpartner / Your Partner:

dataTec AG

E-Mail: info@datatec.eu >>> www.datatec.eu