

ASR-3000系列



ASR-3000 Series具有高速的電壓上升及電壓下降時間(≤100us)；是一款AC+DC電源供應器，包含三款機型，分別是ASR-3200(2kVA), ASR-3300(3kVA), ASR-3400(4kVA)。不僅在交流輸出時提供額定功率輸出，也可以在直流輸出時提供額定功率輸出。ASR-3000輸出模式有10種模式可以選擇包含1.交流電源輸出模式(AC-INT Mode), 2.直流電源輸出模式(DC-INT Mode), 3.交直流電源輸出模式(AC+DC-INT Mode), 4.外部交流信號源模式(AC-EXT Mode), 5.外部交直流訊號源模式(AC+DC-EXT Mode), 6.外部交流信號疊加模式(AC-ADD Mode), 7.外部交直流信號疊加模式(AC+DC-ADD Mode), 8.外部交流信號同步模式(AC-SYNC Mode), 9.外部交直流信號同步模式(AC+DC-SYNC Mode), 10.外部直流電壓控制交流輸出模式(AC-VCA)。ASR-3000適用於On-board Charger, Server Power, LED modules, AC Motors, AC Fans, UPS 和不同的電子零組件開發、車用電裝品和家用電器的測試應用。

ASR-3000 Series提供使用者波形輸出功能，包括1.Sequence mode可以產生波形下降，浪湧，凹陷，變化和其他異常電力線條件，2.Arbitrary waveform function可供使用者儲存/載入使用者自訂的波形，3.Simulate mode模擬電源中斷、電壓增加、減少及頻率變動。ASR-3000 Series電源輸出時，同時也可以量測待測物的Vrms, Vavg, Vpeak, Irms, Iavg, Ipeak, IpkH, P, S, Q, PF, CF, 100 階 Voltage Harmonic 和 Current Harmonic。除此之外，Remote sensing 功能確保準確的電壓輸出，Customized Phase Angle for Output On/Off功能可以依據測試需求，設定電壓輸出的起始角度與結束角度。V-Limit, Ipeak-Limit, F-Limit, 可依據使用者需求設定保護幅度；Over voltage limit, OCP, OPP將在輸出過程中，保護待測物。Fan Fail Alarm功能及交流輸入電壓過低偵測功能也設計在ASR-3000 Series產品之中。

ASR-3000 Series前面板提供萬用端子或歐規端子，可供使用者隨插即可設定使用，節省配線時間，由於電源插座規格為最大電流15A，ASR-3000之後背板設計電流斷路器，當插座電流大於15A時會自動開路，保護使用者使用安全。ASR-3000 Series支援I/O界面，標準配備USB, LAN, External I/O, RS-232C及GPIB。

機種	ASR-3200	ASR-3300	ASR-3400
輸出電壓	0~400Vrms/0~±570Vdc	0~400Vrms/0~±570Vdc	0~400Vrms/0~±570Vdc
輸出電流	20/10A	30/15A	40/20A
額定功率	2000VA	3000VA	4000VA
輸出頻率	1.00Hz ~ 999.9Hz	1.00Hz ~ 999.9Hz	1.00Hz ~ 999.9Hz

特點

- * 量測項目: Vrms, Vavg, Vpeak, Irms, IpkH, Iavg, Ipeak, P, S, Q, PF, CF, THDv, THDi
- * 10組序列編程和10組模擬功能
- * 自定電源輸出/截止相位角
- * 電壓線路補償功能
- * 支援任意波功能
- * 過電流保護, 過功率保護, 過溫度保護, 電源失效保護和風扇故障警示
- * 標準介面 : USB/LAN/RS-232/GPIB



正面



背面

應用範圍

- 電子成品/電子零組件開發測試
- 車用電裝品模擬測試
- 家用電器應用測試
- On-board Charger, Server Power
- LED modules, AC Motors, AC Fans, UPS

規 格		ASR-3200	ASR-3300	ASR-3400
INPUT RATING (AC)				
NORMAL INPUT VOLTAGE	200 Vac to 240 Vac			
INPUT VOLTAGE RANGE	180 Vac to 264 Vac			
PHASE	Single phase, Two-wire	Single phase, Two-wire	Single phase, Two-wire	Single phase, Two-wire
NORMAL INPUT FREQUENCY	50 Hz to 60 Hz			
INPUT FREQUENCY RANGE	47 Hz to 63 Hz			
MAX. POWER CONSUMPTION	2500 VA or less	3750 VA or less	5000 VA or less	5000 VA or less
POWER FACTOR ¹	200Vac	0.95 (TYP)	0.95 (TYP)	0.95 (TYP)
MAX. INPUT CURRENT	200Vac	15 A	22.5 A	30 A

*1. For an output voltage of 100 V/200 V (100V/200V range), maximum current, and a load power factor of 1.

AC MODE OUTPUT RATINGS (AC rms)				
VOLTAGE	Setting Range ¹ Setting Resolution Accuracy ²	0.0 V to 200.0 V / 0.0 V to 400.0 V 0.1 V ±(1 % of set + 1 V / 2 V) Single phase, Two-wire		
OUTPUT PHASE				
MAXIMUM CURRENT ³	100 V 200 V	20 A 10 A	30 A 15 A	40 A 20 A
MAXIMUM PEAK CURRENT ⁴	100 V 200 V	120 A 60 A	180 A 90 A	240 A 120 A
LOAD POWER FACTOR		0 to 1 (leading phase or lagging phase)	0 to 1 (leading phase or lagging phase)	0 to 1 (leading phase or lagging phase)
POWER CAPACITY		2000 VA	3000 VA	4000 VA
FREQUENCY	Setting Range Setting Resolution Accuracy	AC Mode: 40.00 Hz to 999.9 Hz, AC+DC Mode: 1.00 Hz to 999.9 Hz 0.01 Hz (1.00 to 99.99 Hz), 0.1 Hz (100.0 to 999.9 Hz) 0.02% of set (23 °C ± 5 °C)		
OUTPUT ON PHASE	Stability ⁵	± 0.005%		
DC OFFSET ⁶		0° to 359° variable (setting resolution 1°) Within ± 20 mV (TYP)		

*1. 100 V / 200 V range *2. For an output voltage of 20 V to 200 V / 40 V to 400 V, an output frequency of 45 Hz to 65 Hz, no load, and 23 °C ± 5 °C
*3. For an output voltage of 1 V to 100 V / 2 V to 200 V. Limited by the power capacity when the output voltage is 100 V to 200 V / 200 V to 400 V. If there is the DC superimposition, the current of AC+DC mode satisfies the maximum current. In the case of lower than 40 Hz, and the power rating temperature, the maximum current will be decreased.
*4. With respect to the capacitor-input rectifying load. Limited by the maximum current.
*5. For 45 Hz to 65 Hz, the rated output voltage, no load and the resistance load for the maximum current, and the operating temperature. *6. In the case of the AC mode and 23 °C ± 5 °C.

OUTPUT RATING FOR DC MODE				
VOLTAGE	Setting Range ¹ Setting Resolution Accuracy ²	-285 V to +285 V / -570 V to +570 V 0.1 V ±(1 % of set + 1 V / 2 V)		
MAXIMUM CURRENT ³	100 V 200 V	20 A 10 A	30 A 15 A	40 A 20 A
MAXIMUM PEAK CURRENT ⁴	100 V 200 V	120 A 60 A	180 A 90 A	240 A 120 A
POWER CAPACITY		2000 W	3000 W	4000 W

*1. 100 V / 200 V range *2. For an output voltage of -285 V to -28.5 V, +28.5 V to +285 V / -570 V to -57 V, +57 V to +570 V, no load, and 23 °C ± 5 °C
*3. For an output voltage of 1.4 V to 100 V / 2.8 V to 200 V. Limited by the power capacity when the output voltage is 100 V to 250 V / 200 V to 500 V. *4. Limited by the maximum current.

OUTPUT VOLTAGE STABILITY				
LINE REGULATION ¹		±0.2% or less		
LOAD REGULATION ²		0.5% or less (0 to 100%, via output terminal)		
RISSLE NOISE ³		1 Vrms / 2 Vrms (TYP)		

*1. Power source input voltage is 200 V, 220 V, or 240 V, no load, rated output. *2. For an output voltage of 100 V to 200 V / 200 V to 400 V, a load power factor of 1, stepwise change from an output current of 0 A to maximum current (or its reverse), using the output terminal on the rear panel. *3. For 5 Hz to 1 MHz components in DC mode using the output terminal on the rear panel.

OUTPUT VOLTAGE WAVEFORM DISTORTION RATIO, OUTPUT VOLTAGE RESPONSE TIME, EFFICIENCY				
TOTAL HARMONIC DISTORTION (THD) ¹		≤ 0.2% @ 50/60Hz, ≤ 0.3% @ <500Hz, ≤ 0.5% @ 500.1Hz-999.9Hz		
OUTPUT VOLTAGE RESPONSE TIME ²		100 us (TYP)		
EFFICIENCY ³		80 % or more		

*1. At an output voltage of 50 V to 200 V / 100 V to 400 V, a load power factor of 1, and in AC mode. *2. For an output voltage of 100 V / 200 V, a load power factor of 1, with respect to stepwise change from an output current of 0 A to the maximum current (or its reverse). *3. For AC mode, at an output voltage of 100 V / 200 V, maximum current, and load power factor of 1.

MEASURED VALUE DISPLAY				
VOLTAGE RMS, AVG Value ¹	Resolution Accuracy ²	0.1 V For 45 Hz to 65 Hz and DC: ±(0.5 % of reading + 0.5 V/1 V); For all other frequencies: ±(0.7 % of reading + 1 V / 2 V)		
PEAK Value	Resolution Accuracy	0.1 V For 45 Hz to 65 Hz and DC: ±(2 % of reading) + 1 V / 2 V)		
CURRENT RMS, AVG Value	Resolution Accuracy ³	0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of reading+0.1 A/0.05 A); For all other frequencies: ±(0.7 % of reading+0.2 A/0.1 A)	0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of reading+0.15 A/0.08 A); For all other frequencies: ±(0.7 % of reading+0.3 A/0.15 A)	0.01 A For 45 Hz to 65 Hz and DC: ±(0.5 % of reading+0.2 A/0.1 A); For all other frequencies: ±(0.7 % of reading+0.4 A/0.2 A)
PEAK Value	Resolution Accuracy ⁴	0.01 A/0.1 A For 45 Hz to 65 Hz and DC: ±(2 % of reading) + 0.5 A/0.25 A)	0.01 A/0.1 A For 45 Hz to 65 Hz and DC: ±(2 % of reading) + 0.8 A/0.4 A)	0.01 A/0.1 A For 45 Hz to 65 Hz and DC: ±(2 % of reading) + 1 A/0.5 A)
POWER	Active (W) Apparent (VA) Reactive (VAR)	Resolution Accuracy ⁵ Resolution Accuracy ⁶ Resolution Accuracy ⁷	1 W ±(2 % of reading + 2 W) 1 VA ±(2 % of reading + 2 VA) 1 VAR ±(2 % of reading + 2 VAR)	1 W ±(2 % of reading + 3 W) 1 VA ±(2 % of reading + 3 VA) 1 VAR ±(2 % of reading + 3 VAR)
LOAD POWER FACTOR	Range	Range	0.000 to 1.000	1 W ±(2 % of reading + 4 W) 1 VA ±(2 % of reading + 4 VA) 1 VAR ±(2 % of reading + 4 VAR)
LOAD CREST FACTOR	Range	Range	0.001	0.000 to 1.000
HARMONIC VOLTAGE	Range	Range	0.01	0.001
EFFECTIVE VALUE (RMS)	Full Scale	Up to 100th order of the fundamental wave	Up to 100th order of the fundamental wave	Up to 100th order of the fundamental wave
PERCENT (%)	Resolution Accuracy ⁸	200 V / 400 V, 100%	200 V / 400 V, 100%	200 V / 400 V, 100%
(AC-INT and 50/60 Hz only)		0.1 V, 0.1%	0.1 V, 0.1%	0.1 V, 0.1%
HARMONIC CURRENT	Range	Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.5 V/1 V)	Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.5 V/1 V)	Up to 20th±(0.2 % of reading+0.5 V/1 V); 20th to 100th±(0.3 % of reading+0.5 V/1 V)
EFFECTIVE VALUE (RMS)	Full Scale	Up to 100th order of the fundamental wave	Up to 100th order of the fundamental wave	Up to 100th order of the fundamental wave
PERCENT (%)	Resolution Accuracy ⁹	20 A / 10 A, 100%	30 A / 15 A, 100%	40 A / 20 A, 100%
(AC-INT and 50/60 Hz only)		0.01 A, 0.1A, 0.1%	0.01 A, 0.1A, 0.1%	0.01 A, 0.1A, 0.1%

*1. The voltage display is set to RMS in AC/AC+DC mode and AVG in DC mode. *2. AC mode: For an output voltage of 20 V to 200 V / 40 V to 400 V and 23 °C ± 5 °C. DC mode: For an output voltage of 28.5 V to 285 V / 57 V to 570 V and 23 °C ± 5 °C. *3. An output current in the range of 5 % to 100 % of the maximum peak current in AC mode, an output current in the range of 5 % to 100 % of the maximum instantaneous current in DC mode, and 23 °C ± 5 °C. The accuracy of the peak value is for a waveform of DC or sine wave. *4. For an output voltage of 50 V or greater, an output current in the range of 10 % to 100 % of the maximum current, DC or an output frequency of 45 Hz to 65 Hz, and 23 °C ± 5 °C. *5. The apparent and reactive powers are not displayed in the DC mode. *7. The reactive power is for the load with the power factor 0.5 or lower. *8. An output voltage in the range of 20 V to 200 V / 40 V to 400 V and 23 °C ± 5 °C.

OTHERS				
PROTECTIONS		UVP, OCP, OTP, OPP, FAN Fail		
DISPLAY		TFT-LCD, 4.3 inch		
MEMORY FUNCTION		Store and recall settings, Basic settings: 10 (0~9 numeric keys) 16 (nonvolatile) 4096 words		
ARBITRARY WAVE Number of Memories		Type A: Host, Type B: Slave, Speed: 1.1/2.0, USB-CDC, USB-TMC MAC Address, DNS IP Address, User Password, Gateway IP Address, Instrument IP Address, Subnet Mask Complies with the EIA-RS-232 specifications External Signal Input, External Control I/O SCPI-1993, IEEE 488.2 compliant interface		
INTERFACE	Standard USB LAN RS-232C EXT Control GPIB			
INSULATION RESISTANCE		500 Vdc, 30 MΩ or more		
Between input and chassis, output and chassis, input and output		1500 Vac, 1 minute		
WITHSTAND VOLTAGE		EN 61326-1, EN 61326-2-1, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 61000-4-2/-4/-4/-4/-4/-8/-4-11/-4-34, EN 55011 (Class A), EN 55032 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) Up to 2000 m		
EMC				
Safety Environment	Operating Environment	430(W)×176(H)×530(D)mm (not including protrusions); Approx. 25 kg		
DIMENSIONS & WEIGHT				

Specifications subject to change without notice. ASR-3000CD1DH

購 買 資 訊

- ASR-3200 2kVA可編程交直流電源供應器
- ASR-3300 3kVA可編程交直流電源供應器
- ASR-3400 4kVA可編程交直流電源供應器

標準 配件

光碟片(使用手冊、程序控制手冊)、Safety Guide, Input Terminal Cover, Output Terminal Cover, Include Remote Sensing, GRA-442-E Rack Mount Adapter(EIA), GBL-246 USB Cable

選 購 配 件

- GPW-005 Power Cord, 3m, 105°C, UL/CSA Type
 - GTI-232 RS232C cable, approx. 2m
 - GPW-006 Power Cord, 3m, 105°C, VDE Type
 - GPW-007 Power Cord, 3m, 105°C, PSE Type
 - ASR-002 External Three Phase Control Unit
 - GRA-442-J Rack Mount Adapter(JIS)
 - GTI-137 Output Power Wire(Load wire—10AWG: 50A, 600V/ Sense wire—16AWG: 20A, 600V)
 - APS-008 Air inlet filter
- * 關於 ASR-002：詳請請參閱手冊或網站
* European Output Outlet(工廠安裝)