
ПРОГРАММИРУЕМЫЕ ИСТОЧНИКИ ПИТАНИЯ ПЕРЕМЕННОГО ТОКА

6404, 6408, 6415, 6420, 6430, 6460, 6463, 6490, 61501,
61502, 61503, 61504, 61505, 6512, 6520, 6530, 6560,
6590, 61601, 61602, 61603, 61604, 61605, 61701, 61702,
61703, 61704, 61705, 61830, 61845, 61860

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Programmable AC Source

Model No.

6400 Series



- Self-test at power-on
- User-definable power-on state
- Easy use graphic user interface: softpanel (Option)

Programmable AC Source Model 6400 Series 375~9000VA

KEY FEATURES

- Output distortion less than 0.3%, and peak repetitive current over 2.5 times of the rms current
- High accuracy measurement of RMS voltage, RMS current, true power, frequency, power factor, and current crest factor
- Built-in power factor correction circuit provides input power factor of over 0.98 to meet IEC regulations
- Programmable current limit
- Built-in output isolation relays
- EEPROM storage of user defined voltage & frequency combination for instant recall at anytime
- Optional GPIB, RS-232, Analog Programming interface.
- Over-voltage, under-voltage, over-power, over-current, over-temperature, and short circuit protection
- Temperature controlled fan speed

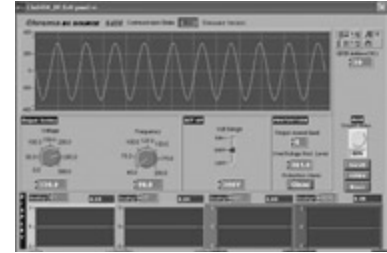
The 6400 series Programmable AC Power Source uses state of the art PWM technology to deliver pure, instrument grade AC power at very low cost never achieved before. The 6400 AC power source offers maximum rated power for any output voltage from 0 to 300VAC, at any frequency from 45 to 1K Hz. It is not only suitable for commercial applications(47-63Hz), but also for avionics, marine, military applications at 400Hz.

All models generate very clean output with typical distortion less than 0.3%! Incorporating power factor correction circuit, the 6400 AC power source yields higher efficiency and delivers more output power than competitive instruments. Furthermore, it is capable of high peak repetitive current needed to drive most electronic products with high crest factor input design.

The 6400 AC power source uses advanced circuit to offer precision and high speed measurement of true RMS voltage, true RMS current, true power, frequency, power factor, and current crest factor.

The 6400 AC power source is very easy to operate from the front panel keypad, or from the remote controller via IEEE-488, RS-232 or APG (Analog Programming) interface. The optional interface is designed as a plug-in card to change the unit in seconds into a computer controlled system power source.

Designed with self diagnostic routine and protected against over-voltage, under-voltage, over-power, over-current, over-temperature and fan fail, the instrument offers quality and reliability for even the most demanding applications in production testing, R&D design characterization, and QA verification.



Softpanel of 6400 Series

SPECIFICATIONS - 1				
Model	6404	6408	6415	6420
Output / Phase	1	1	1	1
Output Ratings				
Power / Phase	375VA	800VA	1500VA	2000VA
Voltage				
Range / Phase	150V/300V/Auto			
Accuracy	0.2% F.S. for freq. ≤ 200Hz, 0.4% F.S. for freq. > 200Hz		0.2% + 0.2% of F.S.	
Resolution	0.1V	0.1V	0.1V	0.1V
Distortion	typical. 0.3% for freq. ≤ 200Hz, 0.8% for freq. > 200Hz		0.5% for (45-500Hz), 1% for (>500-1KHz)	
Line Regulation	0.1%	0.1%	0.1%	0.1%
Load Regulation	0.1%	0.1%	0.1%	0.1%
Temp. Coefficient	0.02% per °C			
Max. current	-rms	2.5A/1.25A	5.33A/2.67A	15A/7.5A
	-peak	7A/3.5A ≤ 100Hz 5.5A/12.75A > 100Hz	14.92A/7.47A ≤ 100Hz 7.47A/5.87A > 100Hz	45A/22.5A ≤ 100Hz (45-100Hz) 37.5A/18.75A (>100-1KHz)
Frequency				
Range	45-500Hz	45-500Hz	45-1000Hz	45-1000Hz
Accuracy	0.1%	0.1%	0.1%	0.1%
Resolution	0.1Hz	0.1Hz	0.1Hz	0.1Hz
Input Ratings				
Voltage Range	90-132V / 180-250V	90-132V (6408-1), 180-250V (6408-2)	190-250V, 1Ø	190-250V, 1Ø
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current	7.5A max.	12A max. (6408-1), 6A max. (6408-2)	12A max.	15A max.
Power Factor	0.8 typical.	0.98 min.	0.95 min.	0.97 min.
Measurement				
Voltage / Phase				
Range	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V
Accuracy (rms)	0.1% + 0.1% F.S.		0.25% + 0.1% F.S.	
Resolution	0.1V	0.1V	0.1V	0.1V
Current / Phase				
Range (peak)	0-2A/2-10A	0-4A/4-20A	0-70A	0-100A
Accuracy (rms)	0.5% + 0.2% F.S.	0.5% + 0.2% F.S.	0.4% + 0.2% F.S.	0.4% + 0.15% F.S.
Resolution	0.01A	0.01A	0.01A	0.01A
Power / Phase				
Range	0-375W	0-800W	0-1500W	0-2000W
Accuracy	0.5% F.S.	0.5% F.S.	1% F.S. (CF<6)	1% F.S. (CF<6)
Resolution	0.1 W	0.1 W	0.1 W for P<1000W, 1W for P>1000W	
Frequency				
Range	45-500Hz	45-500Hz	45-1000Hz	45-1000Hz
Accuracy	0.02%	0.02%	0.02%	0.02%
Resolution	0.1Hz	0.1Hz	0.1Hz	0.1Hz
Others				
Efficiency	75% typical	80% typical	80% typical	80% typical
Protection	UVP, OVP, OCP, OPP, OTP, Short			
Safety & EMC	CE (Include LVD and EMC Requirement)			
Dimension (H x W x D)	133.35 x 482.6 x 471.4 mm / 5.25 x 19 x 18.56 inch		221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	
Weight	18 kg / 39.65 lbs	23 kg / 50.66 lbs	23 kg / 50.66 lbs	27 kg / 59.47 lbs

Programmable AC Source

Model No.

6400 Series

SPECIFICATIONS -2				
Model	6430	6460	6463	6490
Output / Phase	1	1 (parallel or series)	1 or 3 selectable	1 or 3 selectable
Output Ratings				
Power / Phase	3000VA	6000VA	2000VA	3000VA
Voltage				
Range / Phase	150V/300V/Auto	150V/300V(parallel), 300V/500V(series)	150V/300V	150V/300V
Accuracy	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.
Resolution	0.1V	0.1V	0.1V	0.1V
Distortion	0.5% for (45-500Hz), 1% for (> 500-1KHz)	1%	1%	1%
Line Regulation	0.1%	0.1%	0.1%	0.1%
Load Regulation	0.1%	0.2%(series), 0.8% (parallel)	0.2%(3 phases), 0.8% (1 phase)	0.2%(3 phases), 0.8% (1 phase)
Temp. Coefficient	0.02% per °C	0.02% per °C	0.02% per °C	0.02% per °C
Max. current -rms / Phase	30A/15A	60A/30A/15A (150V/300V/500V)	20A/10A (150V/300V)	30A/15A (150V/300V)
Peak Current/phase-crest-factor	3(45-100Hz), 2.5(>100-1KHz)	180A/90A/45A (45-100Hz), 150A/75A/38A (>100-1KHz)	60A/30A (45-100Hz), 50A/25A (>100-1KHz)	90A/45A (45-100Hz), 75A/38A (>100-1KHz)
Frequency				
Range	45-1000Hz	45-1000Hz	45-1000Hz	45-1000Hz
Accuracy	0.1%	0.15%	0.15%	0.15%
Resolution	0.1Hz		0.01Hz (45-99.9Hz), 0.1Hz (100-999.9Hz)	
Input Ratings				
Voltage Range	190-250V, 1Ø	190-250V, 3Ø	190-250V, 3Ø	190-250V, 3Ø
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current	23A max.	23A max./phase	15A max./phase	23A max./phase
Power Factor	0.98 min.	0.98 min. under full load	0.97 min. under full load	0.98 min. under full load
Measurement				
Voltage / Phase				
Range	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V
Accuracy (rms)	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.
Resolution	0.1V	0.1V	0.1V	0.1V
Current / Phase				
Range (peak)	0-140A	0-280A	0-100A	0-140A
Accuracy (rms)	0.4% + 0.1% F.S.	0.4% + 0.1% F.S.	0.4% + 0.15% F.S.	0.4% + 0.1% F.S.
Resolution	0.01A	0.01A	0.01A	0.01A
Power / Phase				
Range	0-3000W	0-3000W	0-2000W	0-3000W
Accuracy	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)
Resolution	0.1 W for P<1000W, 1W for P>1000W	0.01 W	0.01 W	0.01 W
Frequency				
Range	45-1000Hz	45-1000Hz	45-1000Hz	45-1000Hz
Accuracy	0.02%	0.01%+2 count	0.01%+2 count	0.01%+2 count
Resolution	0.1Hz	0.01Hz	0.01Hz	0.01Hz
Others				
Efficiency	80% typical	80% typical	80% typical	80% typical
Protection	UVP, OVP, OCP, OPP, OTP, Short		OPP, OLP, OTP, FAN Fail	
Safety & EMC	CE (Include LVD and EMC Requirement)			
Dimension (H x W x D)	221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	765.94 x 546 x 700 mm / 30.16 x 21.5 x 27.56 inch	990 x 546 x 700 mm / 38.98 x 21.5 x 27.56 inch	990 x 546 x 700 mm / 38.98 x 21.5 x 27.56 inch
Weight	27 kg / 59.47 lbs	107 kg / 235.68 lbs	156 kg / 343.61 lbs	156 kg / 343.61 lbs

6400 Series Programmable AC Source Family



Programmable AC Power Source

MODEL 61500 SERIES

Key Features:

- Output Rating :
Power : 500VA (61501), 1000VA (61502)
1500VA (61503), 2000VA (61504)
4000VA (61505)
Voltage range: 0-150V/0-300V/Auto
- Compact size and weight attributable to advance PWM technology
- AC+DC output mode for voltage DC offset simulation
- Programmable slew rate setting for changing voltage and frequency
- Low output impedance for testing IEC 61000-3-2 (61505)
- Programmable output impedance for testing IEC 61000-3-3
- LIST, PULSE, STEP mode function for testing power line disturbance (PLD) simulation capability
- IEC 61000-4-11 voltage dips, short and variation simulation
- Harmonics, inter-harmonics waveform synthesizer for testing IEC 61000-4-13
- Programmable voltage, current limit
- Comprehensive measurement capability, including current harmonics
- High output current crest factor, ideal for inrush current testing
- Turn on, turn off phase angle control
- TTL signal which indicates output transient
- Analog programmable interface
- 3 units combined to 3-phase power output
- Easy-use software for operation and IEC regulation test
- Optional GPIB and RS-232 interface

PROGRAMMABLE AC POWER SOURCE MODEL 61500 SERIES

AC power source 61500 series sets up the new standard for high performance AC power source. It equips with all powerful features such as power line disturbance (PLD) simulation, programmable output impedance, comprehensive measurement functions, wave-shape synthesis and regulation test software. These features make the 61500 series ideal for commercial, power electronics, avionics, military and regulation test applications from bench-top testing to mass production.

Line up from 500VA to 4000VA with one phase output, the 61500 series give users the maximum choices from R/D design verification, quality assurance, to production test.

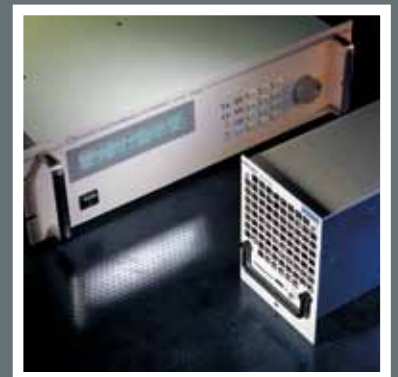
Using the state-of-the art PWM technology, the 61500 series is capable of delivering up to 6 times of peak current compared to its maximum rated current that makes it ideal for inrush current test.

The AC+DC modes extend the applications not only pure AC voltage but also DC component for testing DC offset in laboratory. Applying the advanced DSP technology, the 61500 series is able to provide precision and transient voltage

waveform as well as measurements such as RMS voltage, RMS current, true power, power factor, current crest factor and up to 40 orders of current harmonic components.

The 61500 series allows users to compose different harmonic components to synthesize their own harmonic distorted wave-shapes. To simulate the natural waveform, the 61500 series also provides an external analog input to amplify the analog signal from arbitrary signal generator. Thus, it is capable of simulating the unique waveform observed in the field.

With the versatile programmable voltage functions and easy-use operation software, the 61500 series enables users to perform the pre-compliance tests against IEC 61000-4-11 and compliance test against IEC 61000-4-13/-4-14/-4-28 immunity test regulations. With low impedance and low voltage harmonic character, model 61505 can be a standard source for 230V/16A IEC 61000-3-2 testing. With programmable output impedance function, 61500 series provide a solution for testing IEC 61000-3-3 regulations by incorporating a flicker meter.



SPECIFICATIONS

Model	61501	61502	61503	61504	61505
Output Phase	1	1	1	1	1
Output Rating - AC					
Power	500VA	1000VA	1500VA	2000VA	4000VA
Voltage					
Range/Phase	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Distortion*1	0.3% @ 50/60Hz 1% @ 15-1kHz (Typical)	0.3% @ 50/60Hz 1% @ 15-1kHz (Typical)	0.3% @ 50/60Hz 1% @ 15-1kHz (Typical)	0.3% @ 50/60Hz 1% @ 15-1kHz (Typical)	0.3% @ 50/60Hz 1% @ 15-1kHz (Typical)
Line Regulation	0.1%	0.1%	0.1%	0.1%	0.1%
Load Regulation*2	0.2%	0.2%	0.2%	0.2%	0.2%
Max. Current					
R.m.s.	4A/2A (150V/300V)	8A/4A (150V/300V)	12A/6A (150V/300V)	16A/8A (150V/300V)	32A/20A (150V/300V)
Peak	24A/12A (150V/300V)	48A/24A (150V/300V)	72A/36A (150V/300V)	96A/48A (150V/300V)	192A/96A (150V/300V)
Frequency					
Range	DC, 15 ~ 1kHz	DC, 15 ~ 1kHz	DC, 15 ~ 1kHz	DC, 15 ~ 1kHz	DC, 15 ~ 1kHz
Accuracy	0.15%	0.15%	0.15%	0.15%	0.15%
Output Rating-DC					
Power	250W	500W	750W	1000W	2000W
Voltage	212V/424V	212V/424V	212V/424V	212V/424V	212V/424V
Current	2A/1A (212V/424V)	4A/2A (212V/424V)	6A/3A (212V/424V)	8A/4A (212V/424V)	16A/8A (212V/424V)
Programmable Output Impedance					
Range	0Ω +200μH ~ 1Ω +1mH				
Harmonics & Inter-harmonics Simulation					
Bandwidth	2400Hz	2400Hz	2400Hz	2400Hz	2400Hz
Input Rating					
Voltage Range	90~250V, 1Ø	90~250V, 1Ø	90~250V, 1Ø	90~250V, 1Ø	190~250V, 3Ø*3
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Current (per phase)	10A Max. @ 90V	18A Max. @ 90V	22A Max. @ 90V	28A Max. @ 90V	14A Max. @ 190V
Power Factor*4	0.97 Min.	0.97 Min.	0.98 Min.	0.98 Min.	0.98 Min.
Measurement					
Voltage					
Range	150V/300V	150V/300V	150V/300V	150V/300V	150V/300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Current					
Range (peak)	24A	48A	72A	96A	192A
Accuracy (r.m.s.)	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.
Accuracy (peak)	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.
Power					
Accuracy	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.
Resolution	0.1W	0.1W	0.1W	0.1W	0.1W
Harmonics					
Range	2~40 orders	2~40 orders	2~40 orders	2~40 orders	2~40 orders
Others					
Interface	GPIB, RS-232 (Optional)				
Temperature					
Operating	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C
Storage	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C
Safety & EMC					
	CE (include EMC & LVD)				
Dimensions (HxWxD)	133.35 x 482.6 x 569.5 mm / 5.25 x 19 x 22.42 inch	133.35 x 482.6 x 569.5 mm / 5.25 x 19 x 22.42 inch	133.35 x 482.6 x 569.5 mm / 5.25 x 19 x 22.42 inch	133.35 x 482.6 x 569.5 mm / 5.25 x 19 x 22.42 inch	266.7 x 482.6 x 569.5 mm / 10.5 x 19 x 22.42 inch
Weight	20 kg / 44.05 lbs	20 kg / 44.05 lbs	20 kg / 44.05 lbs	20 kg / 44.05 lbs	41 kg / 90.31 lbs

Note*1 : Maximum distortion is tested on output 125VAC (150V RANGE) and 250VAC (300V RANGE) with maximum current to linear load.

Note*2 : Load regulation is tested with sine wave and remote sense.

Note*3 : Model 61505 can also use single-phase connecting method of input AC power, the maximum input current is 28A @ 190V.

Note*4 : Input power factor is tested on input 220V, full load condition.

Programmable AC Power Source

MODEL 6500 SERIES

Key Features:

- Output Rating :
 - Power : 1200VA, 1 ϕ (6512)
 - 2000VA, 1 ϕ (6520)
 - 3000VA, 1 ϕ (6530)
 - 6000VA, 1 ϕ (6560)
 - 9000VA, 1 ϕ or 3 ϕ (6590)
 - Voltage : 0-150V / 0-300V / Auto (6512,6520, 6530)
 - 0-150V /0-300V(parallel)(6560)
 - 0-300V / 0-500V (series)(6560)
 - 0-150V / 0-300V (6590)
- Direct Digital Synthesis (DDS) waveform generation.
- Programmable Sine, Square, or Clipped Sine waveform output
- Programmable voltage, current limit, frequency, phase, and distortion
- Power line disturbances simulation capability
- 30 factory-installed harmonic waveforms in the waveform library
- User programmable harmonic waveforms
- User programmable sequential output waveforms for auto-execution
- Powerful measurement of Vrms, Irms, Ipk+, Ipk-, power, frequency, crest factor, power factor, inrush current, VA, VAR, etc.
- Built-in power factor correction circuit provides input power factor over 0.98 to meet the IEC regulations
- Advanced PWM technology delivers high power output in a light and compact rack-mountable package
- Built-in output isolation relays
- User-definable power-on state
- TTL output to any signal output transition for ATE application
- Analog Programming Interface for external amplitude control
- Option GPIB and RS-232 bus interface
- LIST mode, transient power line disturbances simulation, Voltage Dip & Variation, for precompliance test IEC 61000-4-11
- Easy use graphic user interface : softpanel (Option)

PROGRAMMABLE AC POWER SOURCE MODEL 6500 SERIES

The global AC power testing requirements demand more sophisticated AC Power Source that is capable of simulating a wide variety of AC line conditions, harmonic waveforms, accurate power measurements and analysis. 6500 Series Programmable AC Power Source delivers the right solution to simulate all kinds of normal/abnormal input conditions and measure the critical characteristics of the products under test. It can be utilized in R&D design, production test, and QA verification for commercial, industrial, and aerospace electronic products.

6500 Series AC Power Source delivers the maximum rated power for the output voltage up to 300 Vac, and the frequency between 15Hz to 2000Hz. It is suitable for commercial applications (47-63Hz) such as avionics, marine, and military applications at 400Hz or higher frequency ; or for electrical motor, airc onditioner test applications at 20Hz. All models generate very clean sine or square waveforms output with typical distortion less than 0.5%.

6500 Series has built in Direct Digital Synthesis (DDS) Waveform Generator to provide user programmable high precision waveform. For the product tests under AC line distortion conditions, clipped sine wave can be generated

with 0% to 43% distortion and amplitude from 0% to 100%. It also can simulate all kinds of power line disturbances such as cycle dropout, transient spike, brown out, phase angle, voltage and frequency ramp up (ramp down), etc. Up to 30 harmonic waveforms are factory-installed, and testing for compliance to AC line harmonic immunity standards can be easily achieved in the field.

The 6500 Series has built in 16-bit precision measurement circuit to offer precision and highspeed measurements for Vrms, Irms, Ipk+, Ipk-, power, frequency, crest factor, power factor, inrush current, VA, and VAR, etc.

The 6500 Series provides easy operation through the front panel keypad, or remote controller via GPIB, RS-232C bus or APG (Analog Programming) interface. Instrument drivers are available to integrate the AC source into the ATE application operations under Labview control.

Designed with self-diagnostic routine and protections against overload, overpower, over temperature, over current and fan fail, the 6500 Series instrument has the qualities and reliability that can suit for the most demanding production line applications.



SPECIFICATIONS

Model	6512	6520	6530	6560	6590
Output Phase	1	1	1	1 (parallel or series)	1 or 3 selectable
Output Ratings					
Power	1200VA	2000VA	3000VA	6000VA	3000VA per phase, 9000VA total
Voltage					
Range/phase	150V / 300V / Auto	150V / 300V / Auto	150V / 300V / Auto	150V / 300V (parallel) 300V / 500V (series)	150V / 300V
Accuracy	0.2% +0.2% of F.S.	0.2% +0.2% of F.S.	0.2% +0.2% of F.S.	0.2% +0.2% of F.S.	0.2% +0.2% of F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Distortion *1	1% (15~45Hz) 0.5% (> 45~500Hz) 1% (> 500~1kHz) 2% (> 1K~2kHz)	1% (15~45Hz) 0.5% (> 45~500Hz) 1% (> 500~1kHz) 2% (> 1K~2kHz)	1% (15~45Hz) 0.5% (> 45~500Hz) 1% (> 500~1kHz) 2% (> 1K~2kHz)	1% (15~45Hz) 0.5% (> 45~500Hz) 1% (> 500~1kHz) 2% (> 1K~2kHz)	1% (45~1kHz)
Line Regulation	0.1%	0.1%	0.1%	0.1%	0.1%
Load Regulation *2	0.1%	0.1%	0.1%	0.2% (series), 0.8% (parallel)	0.2%
Temp. Coefficient	0.02% per °C	0.02% per °C	0.02% per °C	0.02% per °C	0.02% per °C
Max. Current/Phase					
RMS	12A/6A (150V / 300V)	20A/10A (150V / 300V)	30A/15A (150V / 300V)	60/30/15A (150/300/500V)	30A/15A (150V / 300V) 90A/45A total
peak	36A/18A (15~100Hz) 30A/15A (>100~1KHz) 24A/12A (>1K~2KHz)	60A/30A (15~100Hz) 50A/25A (>100~1KHz) 40A/20A (>1K~2KHz)	90A/45A (15~100Hz) 75A/38A (>100~1KHz) 60A/30A (>1K~2KHz)	180/90/45A (45~100Hz) 150/75/38A (>100~1KHz)	90A/45A (45~100Hz) 75A/38A (>100~1KHz)
Frequency					
Range	15 ~ 2kHz	15 ~ 2kHz	15 ~ 2kHz	45 ~ 1kHz	45 ~ 1kHz
Accuracy	0.15%	0.15%	0.15%	0.15%	0.15%
Resolution	0.01Hz (15 ~ 99.9Hz) 0.1Hz (100 ~ 999.9Hz) 0.2Hz (1k ~ 2kHz)	0.01Hz (15 ~ 99.9Hz) 0.1Hz (100 ~ 999.9Hz) 0.2Hz (1k ~ 2kHz)	0.01Hz (15 ~ 99.9Hz) 0.1Hz (100 ~ 999.9Hz) 0.2Hz (1k ~ 2kHz)	0.01Hz (45 ~ 99.9Hz) 0.1Hz (100 ~ 999.9Hz)	0.01Hz (45 ~ 99.9Hz) 0.1Hz (100 ~ 999.9Hz)
Input Ratings					
Voltage Operating Range	1Ø 200~240V ± 10%V _{LN}			3Ø 200~240V ± 10%V _{LN}	
Frequency Range	47 ~ 63Hz	47 ~ 63Hz	47 ~ 63Hz	47 ~ 63Hz	47 ~ 63Hz
Current	10A max.	15A max.	23A max.	23A max./phase	23A max./phase
Power Factor	0.95 min. under full load	0.97 min. under full load	0.98 min. under full load	0.98 min. under full load	0.98 min. under full load
Measurement					
Voltage/Phase					
Range	0 ~ 150V / 0 ~ 300V	0 ~ 150V / 0 ~ 300V	0 ~ 150V / 0 ~ 300V	0 ~ 150V / 0 ~ 300V	0 ~ 150V / 0 ~ 300V
Accuracy (RMS)	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Current/Phase					
Range (peak)	0 ~ 60A	0 ~ 100A	0 ~ 140A	0 ~ 280A	0 ~ 140A
Accuracy (RMS)	0.4% + 0.25%F.S.	0.4% + 0.15%F.S.	0.4% + 0.1%F.S.	0.4% + 0.1%F.S.	0.4% + 0.1%F.S.
Accuracy (peak)	0.4% + 0.5%F.S.	0.4% + 0.3% F.S.	0.4% + 0.2% F.S.	0.4% + 0.2% F.S.	0.4% + 0.2% F.S.
Resolution	0.01A	0.01A	0.01A	0.01A	0.01A
Power/Phase					
Accuracy	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)
Resolution	0.01W	0.01W	0.01W	0.01W	0.01W
Frequency					
Range	15 ~ 2kHz	15 ~ 2kHz	15 ~ 2kHz	45 ~1kHz	45 ~1kHz
Accuracy	0.01% +2 count	0.01% +2 count	0.01% +2 count	0.01% +2 count	0.01% +2 count
Resolution	0.01Hz	0.01Hz	0.01Hz	0.01Hz	0.01Hz
Others					
Efficiency	80% typical	80% typical	80% typical	80% typical	80% typical
Protection	OPP, OLP, OTP, FAN Fail				
Temperature					
Operating	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C
Storage	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C
Safety & EMC					
CE (Include LVD and EMC Requirement)					
Dimension (H x W x D)	221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	765.94 x 546 x 700 mm / 30.16 x 21.5 x 27.56 inch*3	888.5 x 546 x 700 mm / 34.98 x 21.5 x 27.56 inch*3
Weight	26.4 kg / 58.15 lbs	26.4 kg / 58.15 lbs	26.4 kg / 58.15 lbs	107 kg / 235.68 lbs	156 kg / 343.61 lbs

Note*1 : Test under output voltage from half to full range.

Note*2 : Test with sinewave & with remote sense.

Note*3 : For dimension including the wheel set, please add 80mm to overall height.

Programmable AC Power Source

MODEL 61600 SERIES

Key Features:

- Output Rating :
Power : 500VA (61601), 1000VA (61602)
1500VA (61603), 2000VA (61604)
4000VA (61605)
Voltage range : 0~150V/0-300V/Auto
- Frequency : 15Hz~1000Hz
- Compact size and weight attributable to advance PWM technology
- Built-in PFC, provide input power factor over 0.98 (full load)
- AC+DC output mode for voltage DC offset simulation
- Programmable slew rate setting for changing voltage and frequency
- Programmable voltage, current limit
- One-key recall for 9 different voltage and frequency
- Low output impedance for testing IEC 61000-3-2 (61605)
- Comprehensive measurement capability, V, Irms, Ipk, Inrush, P, Q, S, PF, CF of current and etc.
- High output current crest factor, ideal for inrush current testing
- Turn on, turn off phase angle control
- TTL signal which indicates ON/OFF
- 3 units combined to 3-phase power output
- Easy-use software for operation and ON/OFF test
- Optional analog programming interface
- Optional GPIB and RS-232 interface
- Full protection: OP, OC, OV and OT protection

PROGRAMMABLE AC POWER SOURCE MODEL 61600 SERIES

Programmable AC Power Source 61600 series delivers pure, instrument grade AC power at very low cost. The 61600 series supplies the output voltage from 0 to 300VAC, and frequency from 15 to 1000Hz. It is suitable for commercial, avionics, and military applications from bench-top testing to mass production.

The 61600 series generates very clean AC output with distortion less than 0.3% at 50/60Hz. With the state-of-the-art PWM technology and power factor correction circuit, the 61600 series yields higher efficiency and delivers more output power. The 61600 series is capable of delivering up to 6 times of peak current compared to its maximum rated current that makes it ideal for inrush current test.

The AC+DC modes extend the applications not only pure AC voltage but also DC component for testing DC offset in laboratory. Users also can use an optional DC noise filter to get low noise and good stability DC voltage for testing. Applying the advanced DSP technology, the 61600 series is able to provide precision and high speed measurements such as RMS voltage, RMS current, true power, frequency, power factor, and current crest factor.

The 61600 series also provides an external analog input to amplify the analog signal from arbitrary signal generator. Thus, it is capable of simulating the unique waveform which observed in the field. Users also can control the amplitude of output voltage by a DC level. It is suitable to integrate AC source 61600 series into users' system.

For convenience sake, the 61600 series offers versatile front panel operations with LCD display and rotary knob. Users may also control the 61600 series AC source remotely via GPIB, RS232 or APG (Analog Programming) interface. Users can find Labview driver in NI's web site for programming.

The power-on self-diagnosis routine along with the full protections against OPP, OCP, OVP and OTP ensure the quality and reliability for the most demanding engineering tests and ATS applications.



SPECIFICATIONS

Model	61601	61602	61603	61604	61605
Output phase	1	1	1	1	1
Output Rating - AC					
Power/Phase	500VA	1000VA	1500VA	2000VA	4000VA
Voltage					
Range/Phase	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Distortion (*1)	0.3% @ 50/60Hz 1% @ 15~1kHz	0.3% @ 50/60Hz 1% @ 15~1kHz	0.3% @ 50/60Hz 1% @ 15~1kHz	0.3% @ 50/60Hz 1% @ 15~1kHz	0.3% @ 50/60Hz 1% @ 15~1kHz
Line Regulation	0.1%	0.1%	0.1%	0.1%	0.1%
Load Regulation (*2)	0.2%	0.2%	0.2%	0.2%	0.2%
Max. Current/Phase					
r.m.s.	4A/2A (150V/300V)	8A/4A (150V/300V)	12A/6A (150V/300V)	16A/8A (150V/300V)	32A/20A (150V/300V)
peak	24A/12A (150V/300V)	48A/24A (150V/300V)	72A/36A (150V/300V)	96A/48A (150V/300V)	192A/96A (150V/300V)
Frequency					
Range	DC, 15~1kHz	DC, 15~1kHz	DC, 15~1kHz	DC, 15~1kHz	DC, 15~1kHz
Accuracy	0.15%	0.15%	0.15%	0.15%	0.15%
Resolution	0.01 Hz	0.01 Hz	0.01 Hz	0.01 Hz	0.01 Hz
Output Rating - DC					
Power	250W	500W	750W	1000W	2000W
Voltage	212V/424V	212V/424V	212V/424V	212V/424V	212V/424V
Current	2A/1A (212V/424V)	4A/2A (212V/424V)	6A/3A (212V/424V)	8A/4A (212V/424V)	16A/8A (212V/424V)
Input Rating					
Voltage Range	90~250V, 1 ϕ	90~250V, 1 ϕ	90~250V, 1 ϕ	90~250V, 1 ϕ	190~250V, 3 ϕ (*3)
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Current	10A Max. @ 90V	18A Max. @ 90V	22A Max. @ 90V	28A Max. @ 90V	14A Max. @ 190V
Power Factor (*4)	0.97 Min.	0.97 Min.	0.98 Min.	0.98 Min.	0.98 Min.
Measurement					
Voltage					
Range/Phase	150V/300V	150V/300V	150V/300V	150V/300V	150V/300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Current					
Range (peak)	24A	48A	72A	96A	192A
Accuracy (r.m.s.)	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.
Accuracy (peak)	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.
Power					
Accuracy	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.	0.4%+0.4%F.S.
Resolution	0.1W	0.1W	0.1W	0.1W	0.1W
Temperature					
Operating	0~40°C	0~40°C	0~40°C	0~40°C	0~40°C
Storage	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C
Safety & EMC					
CE (include EMC & LVD)					
Dimensions (H x W x D)	133.35 x 482.6 x 569.5 mm / 5.25 x 19 x 22.42 inch				266.7 x 482.6 x 569.5 mm / 10.5 x 19 x 22.42 inch
Weight	20 kg / 44.05 lbs				41 kg / 90.31 lbs

Note*1 : Maximum distortion is tested on output 125VAC (150V RANGE) and 250VAC (300V RANGE) with maximum current to linear load.

Note*2 : Load regulation is tested with sinewave and remote sense.

Note*3 : Model 61605 can also use single-phase connecting method of input AC power, the maximum input current is 28A @ 190V.

Note*4 : Input power factor is tested on input 220V, full load condition.

MODEL 61700 SERIES

Key Features:

- Power: 1500VA, 3 ϕ (61701)
3000VA, 3 ϕ (61702); 4500VA, 3 ϕ (61703)
6000VA, 3 ϕ (61704); 12000VA, 3 ϕ (61705)
- Voltage: 0~150V/0~300V
- Frequency: 15~1.2KHz
- Phase angle: 0~360°
- Built-in PFC, provides input power factor over 0.98
- Advanced PWM technology delivers high power density in a compact rack-mountable package
- Built-in output isolation relays
- AC+DC output mode
- Programmable slew rate setting for changing voltage
- Turn on, turn off phase angle control
- User-definable power-on status
- Optional function for power line disturbance (PLD) simulation capability
- Comprehensive measurement capability: V, Irms, Ipk, I inrush, P, PF, CF of current etc.
- Programmable r.m.s. current limit
- Full protection: OP, OC, OV and OT protection
- Optional GPIB and RS-232C interface
- Easy-use software for operation

PROGRAMMABLE AC POWER SOURCE MODEL 61700 SERIES

The Programmable AC source model 61700 series delivers pure, 5-wire, 3-phase AC power. Unlike the traditional 3-phase AC source, it includes low power rating models at very low cost. Users can program voltage and frequency, measure the critical characteristics of the output on its LCD display. It delivers the right solution to simulate all kinds of input condition of UUT to be utilized in R&D and QA. It is also suitable for commercial applications from laboratory testing to mass productions.

The 61700 series AC Source supplies the output voltage from 0 to 300VAC and it can be set individually for each phase. Users also can set the phase angle from 0° to 360°. These kinds of function make the 61700 series can simulate unbalance 3-phase power. Because of the wide output frequency from 15 to 1200Hz, it is suitable for avionics and military application. The AC+DC mode extends the output function to simulate abnormal situation when power line contains DC offset.

The 61700 series uses the state-of-the-art PWM technology and power factor correction circuit. So it is capable to generate very clean AC output with typical distortion less than 0.3%,

and it can yield higher efficiency and deliver more output power.

By using advanced DSP technology, the 61700 series offers precision and high speed measurements such as RMS voltage, RMS current, true power, power factor, and current crest factor, etc.

The 61700 series offers an optional function to output transient voltage. The function includes LIST, PULSE, STEP and INTERHARMONICS mode. Users can easily program variant waveform for immunity test. The 61700 series can also be controlled by a powerful and user-friendly softpanel through GPIB or RS-232 interface. Besides that, the softpanel includes a waveform editor that can edit up to 40th order harmonic components. By this way, the 61700 series get the ability to output distorted waveform as users like.

The self-diagnosis routine and protections against over power, over current, over voltage, over temperature and fan fail, the 61700 series ensure the quality and reliability for even the most demanding engineering testing and production line application.



SPECIFICATIONS

Model	61701	61702	61703	61704	61705
AC Output Rating					
Max. Power	1500VA	3000 VA	4500 VA	6000 VA	12000 VA
Per Phase	500VA	1000 VA	1500 VA	2000 VA	4000 VA
Voltage					
Range	150V/ 300V	150V/ 300V	150V/ 300V	150V/ 300V	150V/ 300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Distortion*1	0.3%@50/60Hz 1.5% 15~1.2K Hz	0.3%@50/60Hz 1.5% 15~1.2K Hz	0.3%@50/60Hz 1.5% 15~1.2K Hz	0.3%@50/60Hz 1.5% 15~1.2K Hz	0.3%@50/60Hz 1.5% 15~1.2K Hz
Line Regulation*2	0.1%	0.1%	0.1%	0.1%	0.1%
Load Regulation	0.2%	0.2%	0.2%	0.2%	0.2%
Temp. Coefficient	0.02% per degree from 25°C				
Maximum Current (per phase)					
R.m.s.	4A/2A	8A/4A	12A/6A	16A/8A	32A/20A
Peak	24A/12A	48A/24A	72A/36A	96A/48A	192A/96A
Frequency					
Range	DC,15~1.2K Hz	DC,15~1.2K Hz	DC,15~1.2K Hz	DC,15~1.2K Hz	DC,15~1.2K Hz
Accuracy	0.15%	0.15%	0.15%	0.15%	0.15%
Phase Angle					
Range	0~360°				
Resolution	0.3				
Accuracy	< 0.8 50/60Hz	< 0.8 50/60Hz	< 0.8 50/60Hz	< 0.8 50/60Hz	< 0.8 50/60Hz
DC Output Rating (per phase)					
Power	250W	500W	750W	1000W	2000W
Voltage	212V/424V	212V/424V	212V/424V	212V/424V	212V/424V
Current	2A/1A	4A/2A	6A/3A	8A/4A	16A/8A
Input 3-Phase Power (per phase)					
Voltage Range	90~250V	90~250V	190~250V	190~250V	190~250V
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Current	9A Max.	16A Max.	10A Max.	14A Max.	28A Max.
Power Factor *3	0.97 Min.	0.98 Min.	0.98 Min.	0.98 Min.	0.98 Min.
Measurement					
Voltage (line-neutral)					
Range	150V/300V	150V/300V	150V/300V	150V/300V	150V/300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Current (per phase)					
Range (peak)	24A	48A	72A	96A	192A
Accuracy (r.m.s.)	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.
Accuracy (peak)	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.
Resolution	0.01A	0.01A	0.01A	0.01A	0.01A
Power (per phase)					
Accuracy	0.4%+0.4% F.S.	0.4%+0.4% F.S.	0.4%+0.4% F.S.	0.4%+0.4% F.S.	0.4%+0.4% F.S.
Resolution	0.1W	0.1W	0.1W	0.1W	0.1W
Others					
Efficiency *4	68 %	77 %	81 %	82%	82%
Size (WxHxD)	483x399x600mm	483x399x600mm	483x399x600mm	483x399x600mm	546x985x700 mm
Weight	71Kg	71Kg	71Kg	71Kg	163Kg
Protection	UVP, OCP, OPP, OTP, FAN				
Temperature Range					
Operation	0°C ~40°C				
Storage	-40°C ~85°C				
Humidity	30 %~90 %				
Safety & EMC	CE				

All specifications are subject to change without notice.

Remarks

*1 : Maximum distortion is tested on output 125VAC (150V RANGE) and 250VAC (300V RANGE) with maximum current to linear load.

*2 : Load regulation is tested with sinewave and remote sense.

*3 : Input power factor is tested on input 220V, full load condition.

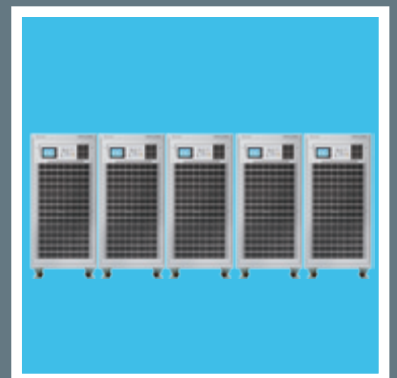
*4 : Efficiency is tested on input voltage 110V for 61701 and 61702, 220V for 61703, 61704 and 61705.

MODEL 61800 SERIES

Key Features

- Output power
61830 : 30kVA ; 61845 : 45kVA ; 61860 : 60kVA
- Output voltage: 0-300V, 400V (option)
- Output frequency: DC, 30Hz-100Hz
- User selectable single phase or three phase output
- Full 4 quadrant, fully regenerative up to 100% of output current rating
- Specifically designed for PV inverter, Smart Grid and EV related test applications
- Programmable slew rate settings for voltage and frequency
- Programmable voltage and current limits
- Turn on, turn off phase angle control
- LIST, PULSE, STEP mode functions for testing Power Line Disturbance (PLD) simulation
- Voltage dips, short interruption and voltage variation simulation
- Harmonics, inter-harmonics waveform synthesizer
- Comprehensive measurement capability, including current harmonics
- Analog programmable interfaces
- Remote interface: GPIB, RS-232, USB and Ethernet
- Parallel output for higher power applications (Three phase only)

60kVA x 5 = 300kVA



REGENERATIVE GRID SIMULATOR MODEL 61800 SERIES

Market demand for Distributed Resource (DR) products such as PV inverters and wind energy systems is steadily growing as the world strives for clean renewable energy sources. This demand has created a need for rigorous regulation testing to standards such as IEEE 1547 / IEC 61000-3-15 / IEC 62116 ensuring proper and safe operation of on-grid products. It has become critical to manufacturers to conduct these tests to prove compliance and to relieve product liability concerns. Chroma's new 61800 family of Grid Simulators has been designed to fulfill these test requirements by providing a full 4 quadrant, fully regenerative, grid simulator with advanced features for compliance, safety and product verification testing.

The 61800 regenerative grid simulator allows users to vary relevant parameters in order to simulate real world grid environments and conditions. Supported variations include frequency, phase angle, voltage amplitude, voltage drops in either single or three phase modes. Unbalanced three phase conditions can easily be simulated. And most importantly, the regenerative feature of the 61800 grid simulator provides an effective energy saving method since energy generated by unit under test is fed back to the grid instead of dissipated as heat during operation.

The 61800 grid simulator could also meet test requirements with smart grid and EV related test applications, such as Vehicle to Grid (V2G) and Energy Storage System (ESS) testing. The 61800 is also capable of meeting IEC regulatory standards' (such as IEC 61000-3-2/-3-3/-3-1/-3-12) requirement for AC supply.

The 61800 regenerative grid simulator is not only limited to product development during R&D. Its extensive features are also valuable during design and quality verification as well as throughout various production stages. Using state-of-the-art digital control technology the 61800 can deliver up to 300VAC at output frequencies ranging from 30Hz to 100Hz. The AC+DC feature allows for applications which require a DC offset bias.

The 61800 series is also able to provide precision measurements such as RMS voltage, RMS current, true power, power factor, current crest factor and many others. By applying advanced DSP technology, the 61800 can easily simulate power line disturbance (PLD) using LIST, PULSE and STEP modes. Additional features such as the waveform synthesis function allows users to program various distorted harmonic waveforms which are required by some regulatory standards. GPIB (IEEE488.2), RS-232, USB and Ethernet interface are available to control the 61800 grid simulator remotely.



SPECIFICATIONS

Model	61830	61845	61860
AC Output Rating			
Output Phase	1 or 3 selectable	1 or 3 selectable	1 or 3 selectable
Max. Power	30kVA	45kVA	60kVA
Per Phase	10kVA	15kVA	20kVA
Voltage			
Range	0~300V _{LN} /0~520V _{LL}	0~300V _{LN} /0~520V _{LL}	0~300V _{LN} /0~520V _{LL}
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V
Distortion *1	< 0.5% @ 50/60Hz < 0.8% @ 30Hz~100Hz	< 0.5% @ 50/60Hz < 0.8% @ 30Hz~100Hz	< 0.5% @ 50/60Hz < 0.8% @ 30Hz~100Hz
Line regulation	0.10%	0.10%	0.10%
Load regulation	0.20%	0.20%	0.20%
Max. Current (1-Phase Mode)			
RMS	150A	225A	300A
Peak	450A	675A	900A
Max. Current (each phase in 3-Phase Mode)			
RMS	50A	75A	100A
Peak	150A	225A	300A
Frequency			
Range	30Hz ~ 100Hz	30Hz ~ 100Hz	30Hz ~ 100Hz
Accuracy	0.01%	0.01%	0.01%
DC Output (1-Phase Mode) *2			
Power	15kW	22.5kW	30kW
Voltage	424V	424V	424V
Current	75A	112.5A	150A
DC Output (3-Phase Mode)			
Power	5kW	7.5kW	10kW
Voltage	424V	424V	424V
Current	25A	37.5A	50A
Harmonics Synthesis Function			
Harmonics range	up to 50 harmonics order @ 50/60Hz fundamental frequency		
Input Rating			
Voltage Operating Range *3	3Ø 200~220V ± 10%V _{LL} , 47~63Hz 3Ø 380~400V ± 10%V _{LL} , 47~63Hz 3Ø 440~480V ± 10%V _{LL} , 47~63Hz	3Ø 200~220V ± 10%V _{LL} , 47~63Hz 3Ø 380~400V ± 10%V _{LL} , 47~63Hz 3Ø 440~480V ± 10%V _{LL} , 47~63Hz	3Ø 200~220V ± 10%V _{LL} , 47~63Hz 3Ø 380~400V ± 10%V _{LL} , 47~63Hz 3Ø 440~480V ± 10%V _{LL} , 47~63Hz
Current	125A Max./Phase (3Ø 200~220V ± 10%V _{LL}) 65A Max./Phase (3Ø 380~400V ± 10%V _{LL}) 58A Max./Phase (3Ø 440~480V ± 10%V _{LL})	190A Max./Phase (3Ø 200~220V ± 10%V _{LL}) 100A Max./Phase (3Ø 380~400V ± 10%V _{LL}) 87A Max./Phase (3Ø 440~480V ± 10%V _{LL})	250A Max./Phase (3Ø 200~220V ± 10%V _{LL}) 130A Max./Phase (3Ø 380~400V ± 10%V _{LL}) 115A Max./Phase (3Ø 440~480V ± 10%V _{LL})
Power factor	0.99 (Typical)		
Measurement			
Voltage			
Range	0~300V	0~300V	0~300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Current			
Range (peak)	150A	225A	300A
Accuracy (RMS)	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.
Accuracy (peak)	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.
Power			
Accuracy	0.4%+0.4% F.S.	0.4%+0.4% F.S.	0.4%+0.4% F.S.
Others			
Efficiency	80% (Typical)		
Protection	OVP, OCP, OPP, OTP, FAN		
Safety & EMC	CE (include EMC & LVD)		
Dimension (H x W x D)	1740 x 780 x 1000 mm (include wheel set)	1740 x 780 x 1000 mm (include wheel set)	1740 x 780 x 1000 mm (include wheel set)
Weight	850kg	850kg	870kg

Note*1 : Maximum distortion is tested on output 250V with maximum current to linear load

Note*2 : The DC function is mainly intended as DC offset for AC+DC output voltage function

Note*3 : Must be specified at time of order. All inputs are L-L, 3Ø, 3 wire+GND

All specifications are subject to change without notice.

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