400XAC

3 Phase AC Power Sources

With a unique feature set and competitive price point, our 400XAC Series provides 3Ø AC power in a single box. Our exclusive SmartCONFIG feature allows you to switch from 1Ø to 3Ø or DC output with the push of a button. This maximizes your investment while giving you the AC power that your application needs. The 400XAC Series consists of two models: the 430XAC is a 3 kVA AC power source and the 460XAC is a 6 kVA AC power source.



Features

- Exclusive SmartCONFIG feature allows for push button switch of 1Ø, 3Ø, or DC output.
- Single phase input power requirements.
- 50 built-in memory locations with 9 test steps.
- Built-in power factor correction (PFC).
- Advanced metering circuits monitor voltage, current, peak current, power, apparent power, reactive power, power factor, and crest factor.
- External voltage sensing for accurate metering.
- Transient feature simulates voltage variations, brownouts, and transient voltage conditions.
- Programmable starting and ending angle of the output sine wave.
- Rack mount handle kit included.







Applicable Industries





Aerospace

Appliance





Laboratory

EEC Benefits





Standard

USB/RS-232 Interface

Options

GPIB Interface

Ethernet Interface





			430XAC	460XAC	
Phase			1Ø	1Ø or 3Ø	
Voltage			200 - 240 VAC	1Ø : 200~240 VAC ± 10% 3Ø3W : 200~240 VAC ± 10%	
Frequency			3Ø4W : 346~416 VAC ± 10% 47 - 63 Hz		
AC OUTPUT			7/	-03112	
	1	COM	3000 VA	6000 VA	
	1Ø2W 1Ø3W			Total 4000 VA (2000 VA per phase)	
Power Rating			Total 2000 VA (1000 VA per phase) Total 3000 VA (1000 VA per phase)	Total 6000 VA (2000 VA per phase)	
	3Ø4W DC		3000 VA	6000 VA	
		5- 150 V	27.6 A @ ≤110 V	55.2 A @ ≤110 V	
	1Ø2W 1Ø3W	5 - 300 V	13.8 A @ ≤220 V	27.6 A @ ≤220 V	
		5 - 150 V	9.2 A @ ≤110 V for per phase	18.4 A @ ≤110 V for per phase	
Max. Current (RMS)		5 - 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase	
		5 - 150 V	9.2 A @ ≤110 V for per phase	18.4 A @ ≤110 V for per phase	
	3Ø4W	5 - 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase	
		5 - 150 V	110.4 A	220.8 A	
	1Ø2W	5 - 300 V	55.2 A	110.4 A	
Inrush Current		5 - 150 V	36.8 A for per phase	73.6 A for per phase	
(peak)	1Ø3W	5 - 300 V	18.4 A for per phase	36.8 A for per phase	
		5 - 150 V	36.8 A for per phase	73.6 A for per phase	
	3Ø4W	5 - 300 V	18.4 A for per phase	36.8 A for per phase	
Phase			1Ø2W, 1Ø3W, 3	Ø4W, provided option	
				z and output voltage within the 80~140 VAC	
THD (Total Harmon	nic Distorti	on)	at Low Range or the 1	60~280 VAC at High Range.	
Crest Factor			<1% (Resistive Load) at 70.1~1000 Hz and output voltage withi	n the 80~140 VAC at Low Range or the 160~280 VAC at High Range. ≥3	
Line Regulation Load Regula	ation (Haro	huara)	\pm 0.1 V \pm (1% of output +1 V) at Resistive Load, <400 μ S response time		
			<u> </u>	S response time	
Load Regul DC offset	1411011 (3011	.ware)		± 5 mV	
DC Offset				± 3 mV	
	1205 41411				
			430XAC	460XAC	
	put setting	ı			
			5.0~300 VAC (phase), 8.6~52	460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts)	
for per phase outp	Range		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s	0 VAC (line), 150/300 V Auto Range	
	Range Accuracy	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz	0 VAC (line), 150/300 V Auto Range etting + 3 counts)	
for per phase outp	Range Accuracy Range	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust	
for per phase outp Voltage Frequency	Range Accuracy Range Accuracy	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting	
for per phase output Voltage Frequency Starting & Ending	Range Accuracy Range Accuracy Range Accuracy Range Accuracy	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust (% of setting)-359° 45~65 HZ)	
Frequency Starting & Ending Phase Angle	Range Accuracy Range Accuracy Range Accuracy SV~150 \	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A	
for per phase output Voltage Frequency Starting & Ending	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300	,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(, 0.01~9.20 A 0.01~4.60 A	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01-18.40 A 0.01-9.20 A	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy	, , , , , , , , , , , , , , , , , , ,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(- 0.01~9.20 A 0.01~4.60 A ± (2.0% of s	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0~359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts)	
Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy	, , , , , , , , , , , , , , , , , , ,	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01-18.40 A 0.01-9.20 A	
Frequency Starting & Ending Phase Angle Current Hi Limit	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy Range Range		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust (% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s	
Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy Range Accuracy Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust (% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second)	Range Accuracy Range Accuracy Range Accuracy SV-300 Accuracy Coonse Time Range Accuracy Range		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0~999.9 s 6+ 0.05 sec) 0~999.9 s	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second)	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy Range Accuracy Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (0 ±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 1 s 0.1 m	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) 1-999.9 s % - 7999.9 min	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second)	Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 1 s 0.1 m 0.1	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust 1% of setting 10-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 10-999.9 s 16 + 0.05 sec) 10-999.9 s 16 + 0.05 sec) 16-999.9 s 16 + 0.05 sec) 16-999.9 min 16-999.9 h	
for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer	Range Accuracy Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (11°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 1	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting)-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s)-999.9 s % + 0.05 sec))-999.9 s % + 0.05 sec) s-999.9 min h-999.9 h % + 0.1 sec)	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300' Accuracy Range		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 1 s 0.1 m 0.1 m 0.1 s 9, 1s~999.9	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s 6+0.05 sec) 0-999.9 s 6+0.05 sec) 1-999.9 min h-999.9 h % + 0.1 sec) h (0=continuous)	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (1) ±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.1 1 s 0.1 m 0.1 ± (0.1° 0, 1s~999.9 ± (0.1°	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) 1-999.9 min 1-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 1 s 0.1 m 0.1 m 0.1 s 9, 1s~999.9	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s 6+0.05 sec) 0-999.9 s 6+0.05 sec) 1-999.9 min h-999.9 h % + 0.1 sec) h (0=continuous)	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer Dwell Timer	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy		5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 1 s 0.1 m 0.1 s~999.9 ± (0.1)	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) 1-999.9 min 1-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer Dwell Timer Poly-phase mode (measurement)	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy	/ / / / / / / / / / / / / / r per phase	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 1 s 0.1 m 0.1 ± (0.11 0.1 s 0.1	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01-18.40 A 0.01-9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) 1-999.9 min h-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer Dwell Timer Poly-phase mode (measurement)	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range	/ / / / / / / / / / / r per phase	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (1) ±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.1 1s 0.1 m 0.1 ± (0.1' 0, 1s~999.9 ± (0.1') 430XAC	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 0-359° 45-65 HZ) 0.01-18.40 A 0.01-9.20 A setting + 2 counts) <1.4 s 0-999.9 s 6 + 0.05 sec) 0-999.9 s 6 + 0.05 sec) 1-999.9 min 1-999.9 min 1-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec) 460XAC	
Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer Dwell Timer Poly-phase mode measurement	Range Accuracy Range Accuracy Range Accuracy SV-150 \ SV-300 \ Accuracy Range Accuracy	/ / / / / / / / / / / r per phase	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (1) ±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 0.1 m 0.1 ± (0.1 430XAC	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) 1-999.9 min 1-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec) 460XAC	
for per phase output Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer Dwell Timer Poly-phase mode (measurement) Frequency	Range Accuracy Range Accuracy SV-150 \ 5V-300 \ Accuracy Range Accuracy	/ / / / / / / / / / r per phase	5.0~300 VAC (phase), 8.6~52 ± (0.2% of s 40~1000 Hz ± 0.03 (1 ±1°(0.01~9.20 A 0.01~4.60 A ± (2.0% of s 0.0 ± (0.19 0.0 ± (0.19 0.1 1 s 0.1 m 0.1 ± (0.1 430XAC	0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust '% of setting 0-359° 45~65 HZ) 0.01~18.40 A 0.01~9.20 A setting + 2 counts) <1.4 s 0-999.9 s % + 0.05 sec) 0-999.9 s % + 0.05 sec) s-999.9 min h-999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec) 1-1000 Hz 0.1 Hz 0 Hz Accuracy ± 0.2 Hz)	

	(3Ø4W) for p	er phase measurement	430XAC	460XAC	
Current (RMS)	Range	L	0.005 A~1.200 A	0.005 A~2.400 A	
		Н	1.00 A~13.00 A	2.00 A~26.00 A	
	Accuracy		± (1% of reading +5 counts) at 40.0-500 Hz	± (1% of reading +5 counts) at 40.0-500 Hz	
		L	\pm (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) \leq 3.6 A	± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤7.2 A	
			± (1% of reading +5 counts) at 40.0-500 Hz	± (1% of reading +5 counts) at 40.0-500 Hz	
		Н	± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤27.6 A	± (1% of reading +5 counts) at 501-1000 Hz, CF < 1.5 and Current (peak) ≤55.2 A	
	Range		0.0 A~38.0 A	0.0 A~76.0 A	
	Accuracy		± (1% of reading + 5 counts) at 40.0-70.0 Hz		
Current (peak)			± (1.5% of reading + 10 counts) at 70.1 - 500 Hz		
			± (1.5% of reading + 10 counts) at 501 - 1000 Hz and CF <1.5		
	Range	L	0.0 W~120.0 W	0.0 W~240.0 W	
		Н	100 W~1300 W	200 W~2600 W	
	Accuracy				
ower	. toodi dey	L	± (2% of reading +15 counts) at 40.0-500 Hz and PF ≥0.2 ± (2% of reading +30 counts) at 501-1000 Hz and PF ≥0.5		
			± (2% of reading +5 counts) at 40.0-500 Hz and PF ≥0.2		
		Н	± (2% of reading +3 counts) at 40.0-300 Hz and FF ≥0.2 ± (2% of reading +15 counts) at 501-1000 Hz and PF ≥0.5		
ower Factor	Range		0 - 1,000		
2.10 40.01	Accuracy		W / VA, Calculated and displayed to	three significant digits	
Power Apparent	Range	L	0.0 VA~120.0 VA	0.0 VA~240.0 VA	
VA)	Kange	Н	100 VA~1300 VA	200 VA~2600 VA	
	Accuracy	П			
Power	-	L	0.0 VAR ~ ± 120.0 VAR	V×A, Calculated value	
Power Reactive (Q)	Range			0.0 VAR ~ ± 240.0 VAR	
	Δ	Н	0 VAR ~ ± 1300 VAR	0 VAR ~ ± 2600 VAR	
Supply Front	Accuracy		√(VA)² - (W)², Calculated value		
Crest Factor	Range		0 - 10.00		
	Accuracy		Ap / A, Calculated and displayed to two significant digits		
Poly-phase mode		measurement	430XAC	460XAC	
requency	Range		0.0-1000.0 Hz		
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
'oltage	Range		0.0-727.5 V		
	Calculated Fo	ormula	(A+B+C)/√3, Calculated and displayed		
Current (RMS)	Range	L	0.005A~1.200A	0.005A~2.400A	
Jurrent (KIVIS)		_	4.004.42.004	2.00A~26.00A	
current (KIVIS)		Н	1.00A~13.00A	Z.00A~20.00A	
current (KIVIS)	Calculated			Z.00A~20.00A	
Current (KIVIS)	Calculated Formula	Н	$\frac{\sum VA}{\sum V} / \sqrt{3}$	Z.00A~20.00A	
		H L		0.0W~720.0W	
	Formula	H L H	$\frac{\sum VA}{\sum V} / \sqrt{3}$		
	Formula	H L H	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W	0.0W~720.0W 600W~7800W	
	Formula Range	H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W	0.0W~720.0W 600W~7800W	
lower	Formula Range	H L H L H	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W	0.0W~720.0W 600W~7800W	
Power	Range Accuracy	H L H L H	$\frac{\sum VA}{\sum V} \Big/ \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}}$ A Power + B Power + C Power.	0.0W~720.0W 600W~7800W	
Power	Range Accuracy Range	H L H L H	$\frac{\sum VA}{\sum V} / \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}}$ A Power + B Power + C Power. $0 \sim 1.000$	0.0W~720.0W 600W~7800W Calculated value	
Yower Yower Factor	Range Accuracy Range Resolution Accuracy	H L H L H	$\frac{\sum VA}{\sum V} / \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}}$ A Power + B Power + C Power, $0 - 1.000$ 0.001 Calculated and displayed to	0.0W~720.0W 600W~7800W Calculated value three significant digits	
l'ower Ower Factor	Range Accuracy Range Resolution	H L H L H	$\frac{\sum VA}{\sum V} \Big/ \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}}$ A Power + B Power + C Power, $0 - 1.000$ 0.001 Calculated and displayed to $0.0VA \sim 360.0VA$	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA	
ower Factor	Range Accuracy Range Resolution Accuracy	H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 Calculated and displayed to 0.0VA~360.0VA 300VA~3900VA	0.0W~720.0W 600W~7800W Calculated value three significant digits	
ower Factor	Range Accuracy Range Resolution Accuracy	H L H L H L	$\frac{\sum VA}{\sum V} \Big/ \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}}$ A Power + B Power + C Power, $0 - 1.000$ 0.001 Calculated and displayed to $0.0VA \sim 360.0VA$	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA	
ower Factor	Range Accuracy Range Resolution Accuracy Range Calculated Formula	H L H L H L H L	$\frac{\sum VA}{\sum V} \Big/ \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ $0 \sim 1.000$ 0.001 $\text{Calculated and displayed to}$ $0.0VA \sim 360.0VA$ $300VA \sim 3900VA$	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
ower Factor ower pparent (VA)	Range Accuracy Range Resolution Accuracy Range Calculated	H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 Calculated and displayed to 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
ower Factor ower pparent (VA)	Range Accuracy Range Resolution Accuracy Range Calculated Formula	H L H L H L H L	$\frac{\sum VA}{\sum V} \Big/ \sqrt{3}$ $0.0W \sim 360.0W$ $300W \sim 3900W$ $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ $0 \sim 1.000$ 0.001 $\text{Calculated and displayed to}$ $0.0VA \sim 360.0VA$ $300VA \sim 3900VA$	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
Power Factor Power Factor Power (VA)	Range Accuracy Range Resolution Accuracy Range Calculated Formula	H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 $\text{Calculated and displayed to}$ 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR 300VAR~3900VAR	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
Power Factor Power Factor Apparent (VA)	Range Accuracy Range Resolution Accuracy Range Calculated Formula Range	H L H L H L H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 Calculated and displayed to 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
Power Factor Power Factor Power Apparent (VA)	Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy	H L H L H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 $\text{Calculated and displayed to}$ 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR 300VAR~3900VAR	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
Power Factor Power Factor Power Apparent (VA) Power Reactive (Q)	Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy	H L H L H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 Calculated and displayed to 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR 300VAR~3900VAR	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA 0.0VAR~720.0VAR 600VAR~7800VAR	
Power Factor Power Factor Power Apparent (VA) Power Reactive (Q)	Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy	H L H L H L H L H L H L	$\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W $\frac{\sum^{P}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power}$ 0 - 1.000 0.001 Calculated and displayed to 0.0VA~360.0VA 300VA~3900VA $\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$ 0.0VAR~360.0VAR 300VAR~3900VAR 4VAR + B VAR + C VAR, Calculated Advance of the control of t	0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA 0.0VAR~720.0VAR 600VAR~7800VAR	

Single-phase mo	ode (1Ø2W	/) Setting	430XAC	460XAC	
requency	Range		40~1000 Hz Full Range Adjust		
	Resolution		0.1 Hz at 40.0~99.9 Hz , 1 Hz at 100~1000 Hz		
	Accuracy		± 0.03% of setting		
Starting & Ending			0~359°		
Phase Angle	Resolution		1°		
			± 1°(45~65 HZ)		
	Accuracy				
C	5V~150V		0.01~27.60 A	0.01~55.20 A	
Current Hi Limit	5V~300V		0.01~13.80 A	0.01~27.60 A	
Accuracy			± (2.0% of setting + 2	counts)	
OC Fold Back Resp			< 1.4 s		
Single-phase m	ode (1Ø2W		430XAC	460XAC	
Frequency	Range		0.0~1000 Hz		
	Accuracy		± 0.1 Hz (501~1000 Hz Accu	racy ±0.2 Hz)	
Voltage	Range		0.0~420.0 V		
	Accuracy		± (0.2% of reading + 3 counts)		
Current (RMS)	Range		0.05 A~39.00 A	0.05 A~78.00	
	Accuracy		± (1% of reading +5 counts) at 40.0~500 Hz	± (1% of reading +5 counts) at 40.0~500 Hz	
			± (1% of reading +5 counts) at 501~1000 Hz,	± (1% of reading +5 counts) at 501~1000 Hz,	
			CF <1.5 and Current (peak) ≤82.8 A	CF <1.5 and Current (peak) ≤165.6 A	
Current (peak)	Range		0.0 A~114.0 A	0.0 A~228.0 A	
	Accuracy		± (1% of reading + 5 counts) at 40.0~70.0 Hz ± (1.5% of reading + 10 counts) at 70.1~500 Hz		
			± (1.5% of reading + 10 counts) at 50		
Power	Range		0 W~3900 W	0 W~7800 W	
	Accuracy		± (2% of reading +5 counts) at 40.0~500 Hz and PF ≥0.2 ± (2% of reading +15 counts) at 501~1000 Hz and PF ≥0.5		
Power Footor	Banga		0 - 1.000	1000 112 and 11 20.3	
Power Factor	Range				
	Accuracy		W / VA, Calculated and displayed to		
Power Apparent	Range		0 VA~3900 VA	0 VA~7800 VA	
	Accuracy		V×A, Calculated v	alue	
Power	Range		0 VAR~3900 VAR	0 VAR~7800 VAR	
Reactive (Q)	Accuracy		√(VA)² - (W)², Calculate	ed value	
Crest Factor	Range		0 - 10.00		
	Accuracy		Ap / A, Calculated and displayed to	two significant digits	
Poly-phase mod setting	le (1Ø3W) f		430XAC	460XAC	
Voltage	Range		5.0~300 VAC (phase), 10.0~600 VAC (line), 150/300 V Auto Range		
ronago	Range		· · · · · · · · · · · · · · · · · · ·		
Eroquoneu	Accuracy		± (0.2% of setting + 3 counts)		
Frequency	Range		40~1000 Hz Full Range Adjust		
2 0.5 !	Accuracy		± 0.03% of setting		
Starting & Ending Phase Angle	Range		0~359°		
J .	Accuracy		± 1°(45~65 HZ		
	5V~150V		0.01~9.20 A	0.01~18.40 A	
Current RI Limit	5V~300V		0.01~4.60 A	0.01~9.20 A	
	Accuracy		± (2.0% of setting + 2 counts)		
OC Fold Back Resp	Fold Back Response Time		<1.4s		
Poly-phase mod			430XAC	460XAC	
	Por				
Frequency	Range		0.0-1000 Hz		
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
/oltage	Range		0.0-420.0 V		
	Accuracy		± (0.2% of reading + 3	counts)	
	Range	L	0.005 A~1.200 A	0.005 A~2.400 A	
	Kange	Н	1.00 A~13.00 A	2.00 A~26.00 A	
			± (1% of reading +5 counts) at 40.0-500 Hz	± (1% of reading +5 counts) at 40.0-500 Hz	
Current (RMS)		L	± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤3.6 A	± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤7.2 A	
	Accuracy		± (1% of reading + 5counts) at 40.0-500 Hz	± (1% of reading +5 counts) at 40.0-500 Hz	
		Н	± (1% of reading +5 counts) at 501-1000 Hz,	± (1% of reading +5 counts) at 501-1000 Hz,	
			CF <1.5 and Current (peak) ≤27.6 A	CF <1.5 and Current (peak) ≤55.2 A	

Poly-phase mode (103W) for per phase measurement			430XAC	460XAC	
	Range		0.0 A~38.0 A	0.0 A~76.0 A	
Current (peak)	Accuracy		± (1% of reading + 5 counts) at 40.0-70.0 Hz ± (1.5% of reading + 10 counts) at 70.1-500 Hz ± (1.5% of reading + 10 counts) at 501-1000 Hz and CF <1.5		
	_	L	0.0 W~120.0 W	0.0 W~240.0 W	
	Range	Н	100 W~1300 W	200 W~2600 W	
Power	A	L	\pm (2% of reading +15 counts) at 40.0-500 Hz and PF ≥0.2 \pm (2% of reading +30 counts) at 501-1000 Hz and PF ≥0.5		
	Accuracy H		\pm (2% of reading +5 counts) at 40.0-500 Hz and PF \geq 0.2 \pm (2% of reading +15 counts) at 501-1000 Hz and PF \geq 0.5		
Power Factor	Range		0 - 1.000		
	Accuracy		W / VA, Calculated and displayed to three significant digits		
	Range	L	0.0 VA~120.0 VA		
Power Apparent (VA)	Range	Н	100 VA~1300 VA	200 VA~2600 VA	
	Accuracy		VxA, Ca	lculated value	
	5	L	0.0 VAR~120.0 VAR	0.0 VAR~240.0 VAR	
Power Reactive (Q)	Range	Н	0 VAR~1300 VAR	0 VAR~2600 VAR	
	Accuracy		√(VA)² - (W)²	z, Calculated value	
Crest Factor	Range		0-10.00		
	Accuracy		Ap / A, Calculated and displayed to two significant digits		
Poly-phase mode measurement		or L1-L2	430XAC	460XAC	
Frequency	Range		0.0-	1000.0 Hz	
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)		
	Range			0-840.0V	
	Accuracy			ed and displayed to one significant digits	
	Range	L	0.005A~1.200A	0.005A~2.400A	
Current (RIVIS)	Range				
		Н	1.00A~13.00A	2.00~26.00A	
	Calculated Formula	Н	$\frac{\Sigma}{\Sigma}$	<u>у</u>	
Power	Range	L	0.0W~240.0W	0.0W~480.0W	
		Н	200W~2600W	400W~5200W	
	Accuracy	H	L1 Power + L2 Power, Calculated value		
Power Factor	Range		0	- 1.000	
	Calculated Formula		(L1 P + L2 P) / (L1 VA + L2 VA), Calculated and displayed to three significant digits		
Power Apparent	Range	L	0.0W~240.0VA	0.0W~480.0VA	
(VA)		Н	200W~2600VA	± 400W~5200VA	
	Calculated L				
	Formula	Н	$\sqrt{(\sum^{W})^{2} + (\sum^{Q})^{2}}$		
Power Reactive (Q)	Range	L	0.0VAR ~ ± 240.0VAR	0.0VAR ~ ± 480.0VAR	
		Н	± 200VAR ~ ± 2600VAR	± 400VAR ~ ± 5200VAR	
	Calculated L Formula H		L1 VAR + L2 VAR, Calculated value		
DC OUTPUT					
Max. Power			3000 W	6000 W	
Max. Current	0-210 V		14.4 A	28.8 A	
	0-420 V		7.2 A	14.4 A	
Ripple and Noise (RN					
ppic and reoise (Kil	5,		Range: 5-210 V <700 mV Range: 5-420 V <1100 mV		
Ripple and Noise (p-	Pinnle and Naise (*)		<4.0 Vp-p		
	P/				
DC SETTINGS					
Voltage	Range		5-210 V / 5-	420 V Selectable	
	Accuracy		± (0.2% of s	etting + 3 counts)	
	5 V-210 V		14.40 A	0.10 - 28.80 A	
Current Hi Limit	5 V-420 V		7.20 A	0.10 - 14.40 A	
	Accuracy		± (2.0% of setting + 2 counts)		
OC Fold Back Response Time			<1.4 s		

DC MEASUREMENT		430XAC	460XAC	
Voltage Range		0.0-420.0 V		
	Accuracy	± (0.2% of setting + 5 counts)		
Current	Range	0.05 A~19.50 A	0.05 A~39.00 A	
	Accuracy	± (1% of read	ing +5 counts)	
Power	Range	0 W~3900 W	0 W~7800 W	
Accuracy		± (2% of reading +5 counts)		
PROTECTION				
Software OCP		Over Current 110% of fu	rated current >1 second	
Output Short Shut Down Speed		<1 second		
Software OPP		When over Power 105 ~ 110% of full power >5 second.		
		When over Power >110% of full power <1 second.		
Software OTP		Temperature over 95 degree C on the power amp and PFC heatsink	Temperature over 120 degree C on the power amp and PFC heatsink	
Software OVP		When output frequency < 100Hz, maximum voltage deviation + 5V		
	L		z, maximum voltage deviation + 15V	
			z, maximum voltage deviation + 20V	
			maximum voltage deviation + 10V	
	Н		z, maximum voltage deviation + 30V z, maximum voltage deviation + 40V	
Software LVP				
Software Lvi	L	When output frequency < 100Hz, maximum voltage deviation -5V > 0.5 second When output frequency 101-500Hz, maximum voltage deviation -15V > 0.5 second		
		When output frequency 501-1000Hz, maximum voltage deviation -15V > 0.5 second		
		When output frequency < 100Hz, maximum voltage deviation -10V > 0.5 second		
	Н	When output frequency 101-500Hz, maximum voltage deviation -30V > 0.5 second		
		When output frequency 501-1000Hz, maximum voltage deviation -40V > 0.5 second		
Reverse Curren	t Protection (RCP)	Over	r 75W	
GENERAL				
Transient (only f	for 40~70 Hz)	Trans-Volt 0.0-300.0 V Resolution 0.1 V		
		Trans-Site 0°~359° Resolution 1°		
		Trans-Time 0.5-999.9 mS Resolution 0.1 mS Trans-Cycle 0-9999, 0-Constant		
Operation Key	Feature	Soft key, Numeric key, Rotary Knob		
Remote Input S		Test, Reset, Interlock, Recall program memory 1 through 7		
Remote Output		Pass, Fail , Test-in Process		
Key Lock	· g · · a ·	Yes, Password Driven		
Memory		50 memories, 9 steps/memory		
Ext Trigger		START / END / BOTH / OFF in the Program mode, Output Signal 5 V, BNC type		
Alarm Volume S	Settina	Range: 0-9; 0 = OFF, 1 is softest volume, 9 is loudest volume.		
Graphic Display		240 x 64 dot resolution Monographic LCD/Contrast 9 Levels 1-9		
PFC		PF ≥0.97 at Full load		
		≥78% (at Full load)		
Efficiency Auto Loop cyclo		0 = Continuous, OFF, 2~9999		
Auto Loop cycle Over Current Fold Back		On/Off, Setting On when output current over setting Hi-A value it will fold back output voltage to keep constant output current is setting Hi-A value, Response time <1400ms		
Safety Agency				
Dimensions (W	v H v D)	CE Listed		
Dimensions (VV	X11 X D)	430 x 400.5 x 500 mm		
Niat Wainst		16.93 x 15.77 x 19.69 in 105.8 lbs (48 kg) 125.6 lbs (57 kg)		
Net Weight		105 Q lbc (/Q lca)		

Specifications subject to change