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

Motor

EEC Benefits





Standard

USB/RS-232 Interface

Options

GPIB Interface Ethernet Interface











INPUT			430XAC	460XAC	
Phase	ase		1Ø	1Ø or 3Ø	
Voltage			200 - 240 VAC	1Ø : 200~240 VAC ± 10% 3Ø3W : 200~240 VAC ± 10% 3Ø4W : 346~416 VAC ± 10%	
Frequency			47	- 63 Hz	
AC OUTPUT					
	1Ø2W		3000 VA	6000 VA	
	1	Ø3W	Total 2000 VA (1000 VA per phase)	Total 4000 VA (2000 VA per phase)	
Power Rating	3Ø4W		Total 3000 VA (1000 VA per phase)	Total 6000 VA (2000 VA per phase)	
	DC		3000 VA	6000 VA	
Max. Current	10011	5- 150 V	27.6 A @ ≤110 V	55.2 A @ ≤110 V	
	1Ø2W	5 - 300 V	13.8 A @ ≤220 V	27.6 A @ ≤220 V	
		5 - 150 V	9.2 A @ \leq 110 V for per phase	18.4 A @ ≤110 V for per phase	
(RMS)	1Ø3W	5 - 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase	
	3Ø4W	5 - 150 V	9.2 A @ ≤110 V for per phase	18.4 A @ ≤110 V for per phase	
	30400	5 - 300 V	4.6 A @ ≤220 V for per phase	9.2 A @ ≤220 V for per phase	
	1Ø2W	5 - 150 V	110.4 A	220.8 A	
	10200	5 - 300 V	55.2 A	110.4 A	
Inrush Current	1Ø3W	5 - 150 V	36.8 A for per phase	73.6 A for per phase	
(peak)	10377	5 - 300 V	18.4 A for per phase	36.8 A for per phase	
	3Ø4W	5 - 150 V	36.8 A for per phase	73.6 A for per phase	
	0.0477	5 - 300 V	18.4 A for per phase	36.8 A for per phase	
Phase			1Ø2W, 1Ø3W, 3Ø	Ø4W, provided option	
THD (Total Harmonic Distortion)		on)	<0.5% (Resistive Load) at 40.0~70.0 Hz and output voltage within the 80~140 VAC at Low Range or the 160~280 VAC at High Range. <1% (Resistive Load) at 70.1~1000 Hz and output voltage within the 80~140 VAC at Low Range or the 160~280 VAC at High Range.		
Crest Factor				≥3	
Line Regulation			±	= 0.1 V	
Load Regula	ation (Haro	dware)	± (1% of output +1 V) at Resis	stive Load, <400 μS response time	
Load Regula				stive Load, <400 μS response time S response time	
Load Regul			± 0.2 V, <1		
	ation (Soft (3Ø4W)	:ware)	± 0.2 V, <1	S response time	
Load Regul DC offset Poly-phase mode (for per phase outp	ation (Soft (3Ø4W)	:ware)	± 0.2 V, <1 ≤ 430XAC	S response time ± 5 mV	
Load Regul DC offset Poly-phase mode (for per phase outp	ation (Soft (3Ø4W) out setting	ware)	± 0.2 V, <1 ≤ 430XAC 5.0~300 VAC (phase), 8.6~520	S response time ± 5 mV 460XAC	
Load Regul DC offset Poly-phase mode for per phase outp Voltage	ation (Soft (3Ø4W) but setting Range	ware)	± 0.2 V, <1 < 430XAC 5.0~300 VAC (phase), 8.6~520 ± (0.2% of se	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range	
Load Regul DC offset Poly-phase mode for per phase outp Voltage	ation (Soft (3Ø4W) put setting Range Accuracy	ware)	± 0.2 V, <1 430XAC 5.0~300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts)	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending	ation (Soft (3Ø4W) put setting Range Accuracy Range	ware)	± 0.2 V, <1 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range atting + 3 counts) Full Range Adjust	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency	(3Ø4W) (3Ø4W) put setting Range Accuracy Range Accuracy	ware)	± 0.2 V, <1 430XAC 5.0~300 VAC (phase), 8.6~520 ± (0.2% of se 40~1000 Hz ± 0.035 0	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending	(3Ø4W) (3Ø4W) Dut setting Accuracy Range Accuracy Range	ware)	± 0.2 V, <1 430XAC 5.0~300 VAC (phase), 8.6~520 ± (0.2% of se 40~1000 Hz ± 0.035 0	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359°	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle	ation (Soft (3Ø4W) put setting Accuracy Range Accuracy Range Accuracy	ware)	$\pm 0.2 \text{ V, <1}$ \leq 430XAC 5.0~300 VAC (phase), 8.6~52C $\pm (0.2\% \text{ of se}$ 40~1000 Hz $\pm 0.03^{\circ}$ 0 $\pm 1^{\circ}(4$	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 1-359° 15~65 HZ)	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle	(304W) (304W) (a setting Range Accuracy Range Accuracy Range Accuracy SV-150 V	ware)	$\pm 0.2 \text{ V}, <11$ \leq 430XAC 5.0~300 VAC (phase), 8.6~520 $\pm (0.2\% \text{ of se}$ 40-1000 Hz ± 0.039 0 $\pm 1°(4)$ 0.01~9.20 A 0.01~4.60 A	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit	(3Ø4W) put setting Range Accuracy Range Accuracy Range Accuracy 5V-150 \ 5V-300 \ Accuracy	ware)	$\pm 0.2 \text{ V, <1}$ $\leq 1.2 \text{ V, <1}$ $\leq 1.2 \text{ V, <1}$ $= 1.2 \text{ V, <1}$	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp	(3Ø4W) put setting Range Accuracy Range Accuracy Range Accuracy 5V-150 \ 5V-300 \ Accuracy	ware)	± 0.2 V, <1 430XAC 5.0~300 VAC (phase), 8.6~520 ± (0.2% of se 40~1000 Hz ± 0.039 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of se	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts)	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up	ation (Soff (3Ø4W) put setting Range Accuracy Range Accuracy SV~150 \ 5V~300 \ 5V~300 \ Accuracy	ware)	± 0.2 V, <1 430XAC 5.0~300 VAC (phase), 8.6~520 ± (0.2% of se 40~1000 Hz ± 0.035 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of se 0.01~4.60 A	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down	ation (Soff (3Ø4W) out setting Range Accuracy Range Accuracy Range Accuracy 5V~150 \ 5V~300 \ Accuracy 5V~300 \ Accuracy sonse Time Range	ware)	± 0.2 V, <1 1 430XAC 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of sec 40-1000 Hz ± 0.035 0 ± 10°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of sec 0.01 ± (2.0% of sec 0.01 ± (0.1%)	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 1-359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s ~999.9 s	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending Phase Angle Current Hi Limit OC Fold Back Resp Ramp-Up Timer (second) Ramp-Down	ation (Soff (304W) out setting Range Accuracy Range Accuracy Range Accuracy SV-150 V 5V-300 V Accuracy SV-300 V Accuracy Range Range	ware)	± 0.2 V, <1 1 430XAC 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of se 0.01 ± (2.0% of se 0.01 ± (0.1% 0.01	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s ~999.9 s 5 + 0.05 sec)	
Load Regul DC offset Poly-phase mode (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)	ation (Soff (304W) ut setting Range Accuracy Range Accuracy Range SV-150 V 5V-300 Accuracy Accuracy Range Range Accuracy Range	ware)	$\pm 0.2 V, <11$ ≤ 1 430XAC 5.0~300 VAC (phase), 8.6~52C $\pm (0.2\% \text{ of se}), 8.6~52C$ $\pm (0.3\% \text{ of se}), 10.0\% \text{ of se}$ $\pm (2.0\% \text{ of se}), 10.0\% \text{ of se}), 10.0\%$	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s ~999.9 s 5 + 0.05 sec) ~999.9 s	
Load Regul DC offset Poly-phase mode (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)	(304W) (304W) setting Range Accuracy Range Accuracy Range Accuracy SV-150 V 5V-300 V Accuracy Range Accuracy Range	ware)	± 0.2 V, <1 1 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035 0 ± 0.037 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of se 0.01~4.60 A ± (2.0% of se 0.01~2.00 ± (0.1%) 0.01~2.00 ± (0.1%) 0.01	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s 999.9 s 5 + 0.05 sec) 999.9 s 5 + 0.05 sec) 999.9 s	
Load Regul DC offset Poly-phase mode (for per phase outp /oltage Frequency Starting & Ending Phase Angle Current Hi Limit DC Fold Back Resp Ramp-Up Timer (second) Ramp-Down Timer (second) Delay Timer	(304W) (304W) setting Range Accuracy Range Accuracy Range Accuracy SV-150 V 5V-300 V Accuracy SV-300 V Accuracy Range	ware)	$\pm 0.2 V, <11$ \leq 430XAC 5.0-300 VAC (phase), 8.6-520 $\pm (0.2\% of set 40-1000 Hz \pm 0.035\pm 0.035$	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s ~999.9 s 5 + 0.05 sec) ~999.9 s ~999.9 h % + 0.1 sec)	
Load Regul DC offset Poly-phase mode (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	(304W) (304W)	ware)	± 0.2 V, <1 1 430XAC 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of set 40-1000 Hz ± 0.037 ± 0.037 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of set 0.01 ± (2.0% of set 0.01 ± (0.1% 0.01 ± (0.1% 0.1 h ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range atting + 3 counts) Full Range Adjust % of setting 1-359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.05 sec) -999.9 s	
Load Regul DC offset Poly-phase mode (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	ation (Soff (304W) ut setting Range Accuracy Range Accuracy Range Accuracy SV~150 \\ 5V~150 \\ 5V~300 Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range	ware)	$\pm 0.2 V, <11$ \leq 430XAC 5.0-300 VAC (phase), 8.6-520 $\pm (0.2\% \text{ of se}), 8.6-520$ $\pm (0.2\% \text{ of se}), 8.6-520$ $\pm (0.2\% \text{ of se}), 8.6-520$ $\pm (0.3\% \text{ of se}), 8.6-520$ $\pm (0.00 \text{ Hz}), 9.20 \text{ A}$ 0.01-9.20 A 0.01-9.20 A 0.01-9.20 A $\pm (2.0\% \text{ of se}), 1 \text{ (c) 1\%}$ $\pm (0.1\% \text{ (c) 1\%}), 1 \text{ (c) 1\%}$ 0.01 (c) 1%, 1 (c) 1% 0.1 (c) 1% $\pm (0.1\% \text{ (c) 1\%}), 1 \text{ (c) 1\%}$ $\pm (0.1\% \text{ (c) 1\%}), 1 \text{ (c) 1\%}), 1 \text{ (c) 1\%}$ $\pm (0.1\% \text{ (c) 1\%}), 1 $	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range atting + 3 counts) Full Range Adjust % of setting 1-359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.15 sec) -999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
Load Regul DC offset Poly-phase mode (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 Dwell Timer	ation (Soff (304W) ut setting Range Accuracy Range Accuracy Range Accuracy SV~150 \\ 5V~150 \\ 5V~300 Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range	ware)	± 0.2 V, <1 1 430XAC 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of set 40-1000 Hz ± 0.037 ± 0.037 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of set 0.01 ± (2.0% of set 0.01 ± (0.1% 0.01 ± (0.1% 0.1 h ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19 ± (0.19	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s 999.9 s 5 + 0.05 sec) 999.9 s 5 + 0.05 sec) 999.9 min 999.9 h % + 0.1 sec) h (0=continuous)	
Load Regul DC offset Poly-phase mode (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 Dwell Timer Poly-phase mode (measurement	ation (Soff (304W) ut setting Range Accuracy Range Accuracy Range Accuracy SV~150 \\ 5V~150 \\ 5V~300 Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range	ware)	± 0.2 V, <11 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.039 0 ±1°(4 0.01-9.20 A 0.01-9.20 A 0.01-4.60 A ± (2.0% of se 40.1% 0.00 ± (0.1% 0.00 ± (0.1% 0.1%	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range atting + 3 counts) Full Range Adjust % of setting 1-359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.15 sec) -999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
Load Regul DC offset Poly-phase mode (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 Dwell Timer Poly-phase mode (measurement	ation (Soft (30/4W) ation (Soft (30/4W) ation (Soft Accuracy Range Accuracy Range Accuracy SV-150 V SV-300 V Accuracy Range	ware)	± 0.2 V, <11 ± 0.2 V, <1 (430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.039 0 ± 1°(4 0.01-9.20 A 0.01-9.20 A 0.01-4.60 A ± (2.0% of se 0.00 ± (0.1% 0.00 ± (0.1% 0.01 ± (0.1% 0.01 ± (0.1% 0.1 m 0.1 m	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting ~359° 15~65 HZ) 0.01~18.40 A 0.01~9.20 A etting + 2 counts) <1.4 s ~999.9 s 5 + 0.05 sec) ~999.9 s 5 + 0.05 sec) ~999.9 s 5 + 0.05 sec) ~999.9 s 5 + 0.15 sec) ~999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec)	
Load Regul DC offset Poly-phase mode (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 Dwell Timer Poly-phase mode (measurement	ation (Soff (304W)) ut setting Range Accuracy Range Accuracy 5V-150 5V-300 Accuracy Accuracy Range Accuracy Range Accuracy Range Accuracy Range Accuracy Range (304W) for (304W) for	ware)	± 0.2 V, <1 1 5 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035 0 ± 1°(4 0.01~9.20 A 0.01~4.60 A ± (2.0% of se 2.0% of se 0.01~4.60 A ± (2.0% of se 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A 0.01~4.60 A ± (0.1% 0.01~4.60 A ± (0.1% 0.01~4.60 A 1 s= 0.1 m= 0.1 m= 0.1 m= 0.1 m=	S response time ± 5 mV 460XAC 0VAC (line), 150/300 V Auto Range etting + 3 counts) Full Range Adjust % of setting 359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s 999.9 s 5 + 0.05 sec) 999.9 s 5 + 0.05 sec) 999.9 min 999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec) 1000 Hz	
Load Regul DC offset Poly-phase mode (for per phase outp Voltage Frequency Starting & Ending	(304W) (304W)	ware)	± 0.2 V, <11 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035 0 ± 0.01-9.20 A 0.01-9.20 A 0.01-4.60 A ± (2.0% of se 0.00 ± (0.1% 0.00 ± (0.1% 0.01 ± (0.1% 0.01 ± (0.1% 0.1 m 0.1 m	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range atting + 3 counts) Full Range Adjust % of setting 1-359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.05 sec) -999.9 s 5 + 0.15 sec) -999.9 h % + 0.1 sec) h (0=continuous) % + 0.1 sec) 1000 Hz 1000 Hz 11 Hz	
Load Regul DC offset Poly-phase mode (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 Dwell Timer Poly-phase mode (measurement	(304W) (304W)	ware)	± 0.2 V, <1 1 430XAC 5.0-300 VAC (phase), 8.6-520 ± (0.2% of se 40-1000 Hz ± 0.035 0 ± 0.01-9.20 A 0.01-9.20 A 0.01-4.60 A ± (2.0% of se 0.02 ± (0.1% 0.01 ± (0.1% 0.01 ± (0.1% 0.1 m- 0.1 m- 0.0	S response time ± 5 mV 460XAC 0 VAC (line), 150/300 V Auto Range setting + 3 counts) Full Range Adjust % of setting 359° 15-65 HZ) 0.01-18.40 A 0.01-9.20 A etting + 2 counts) <1.4 s 999.9 s 	



	(3Ø4W) for p		430XAC	460XAC	
	Range	L	0.005 A~1.200 A	0.005 A~2.400 A	
		H	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	
Current (RMS)	Accuracy	L	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤3.6 A	± (1% of reading +5 counts) at 40.0-500 Hz ± (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	
			± (1% of reading + 5 counts) at 40.0-70.0 Hz		
Current (peak)	Accuracy		± (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	
	Range	Н	100 W~1300 W		
Power	Accuracy	L	± (2% of reading +15 counts) at 40.		
			± (2% of reading +30 counts) at 501-1000 Hz and PF ≥0.5		
		н	± (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 Factor	Range		0 - 1.000		
	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)		Н	100 VA~1300 VA	200 VA 240.0 VA	
	Accuracy		V×A, Calculated v		
2	-	L			
Power Reactive (Q)	Range		0.0 VAR ~ ± 120.0 VAR	0.0 VAR ~ ± 240.0 VAR	
		Н	0 VAR ~ ± 1300 VAR	0 VAR ~ ± 2600 VAR	
	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	(3Ø4W) for Σ	measurement	430XAC	460XAC	
Frequency	Range		0.0-1000.0 Hz	:	
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
Voltage	Range		0.0-727.5 V		
			(A+B+C)/√3, Calculated and displayed to one significant digits		
	Calculated Fo	ormula	(A+B+C)/√3, Calculated and displayed		
Current (RMS)	Calculated Fo	rmula L	(A+B+C)/√3, Calculated and displayed 0.005A~1.200A	0.005A~2.400A	
Current (RMS)					
Current (RMS)		L	0.005A~1.200A 1.00A~13.00A	0.005A~2.400A	
Current (RMS)	Range	L	0.005A~1.200A	0.005A~2.400A	
	Range Calculated	L H L	0.005A~1.200A 1.00A~13.00A	0.005A~2.400A	
	Range Calculated Formula	L H L H	$\frac{0.005A^{-}1.200A}{1.00A^{-}13.00A}$ $\frac{\Sigma VA}{\Sigma V}/\sqrt{3}$	0.005A~2.400A 2.00A~26.00A	
	Range Calculated Formula Range	L H L H L	$\frac{0.005A^{-}1.200A}{1.00A^{-}13.00A}$ $\frac{\sum VA}{\sum V} / \sqrt{3}$ 0.0W~360.0W 300W~3900W	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W	
	Range Calculated Formula	L H L H L H L L	$\frac{0.005A^{-}1.200A}{1.00A^{-}13.00A}$ $\frac{\Sigma VA}{\Sigma V} / \sqrt{3}$ $0.0W^{-}360.0W$	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W	
Power	Range Calculated Formula Range Accuracy	L H L H L H	$\frac{0.005 \text{A} - 1.200 \text{A}}{1.00 \text{A} - 13.00 \text{A}}$ $\frac{\sum VA}{\sum V} / \sqrt{3}$ $0.0 \text{W} - 360.0 \text{W}$ $300 \text{W} - 3900 \text{W}$ $\frac{\sum^{P}}{\sum^{PA}} \qquad \text{A Power + B Power + C Power,}$	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W	
Power	Range Calculated Formula Range Accuracy Range	L H L H L H L L	$ \begin{array}{c} 0.005A^{-1.200A} \\ 1.00A^{-13.00A} \\ \hline \frac{\sum VA}{\sum V} / \sqrt{3} \\ 0.0W^{-360.0W} \\ \hline 300W^{-3900W} \\ \hline \frac{\sum^{P}}{\sum^{VA}} \\ A \text{ Power + B Power + C Power,} \\ 0 - 1.000 \end{array} $	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W	
Power	Range Calculated Formula Range Accuracy	L H L H L H L L	$\frac{0.005 \text{A} - 1.200 \text{A}}{1.00 \text{A} - 13.00 \text{A}}$ $\frac{\sum VA}{\sum V} / \sqrt{3}$ $0.0 \text{W} - 360.0 \text{W}$ $300 \text{W} - 3900 \text{W}$ $\frac{\sum^{P}}{\sum^{PA}} \qquad \text{A Power + B Power + C Power,}$	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W Calculated value	
Power Power Factor	Range Calculated Formula Range Accuracy Range Resolution Accuracy	L H L H L H L H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma VA}{\Sigma V} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{124}} & \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline Calculated and displayed to taken and the set of the set$	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W Calculated value	
Power Power Factor	Range Calculated Formula Range Accuracy Range Resolution	L H L H L L H L H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\sum VA}{\sum V} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\sum^{p}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA	
Power Power Factor	Range Calculated Formula Range Accuracy Range Resolution Accuracy Range	L H L H L H L H H L H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{VA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 \sim 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to t} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value	
Power Power Factor	Range Calculated Formula Range Accuracy Range Resolution Accuracy	L H L H L H L H H L L H L H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\sum VA}{\sum V} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\sum^{p}}{\sum^{VA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA	
Power Power Factor Power Apparent (VA)	Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Calculated Formula	L H L H L H L H H L H L H H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{PA}} & \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \\ \hline \sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA	
Power Power Factor Power Apparent (VA)	Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Calculated	L H L H L H L H H L L H L H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{VA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 \sim 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to t} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA	
Power Power Factor Power Apparent (VA)	Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Calculated Formula	L H L H L H L H H L H L H H	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{PA}} & \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \\ \hline \sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}} \end{array}$	0.005A~2.400A 2.00A~26.00A 0.0W~720.0W 600W~7800W Calculated value three significant digits 0.0VA~720.0VA 600VA~7800VA	
Power Power Factor Power Apparent (VA)	Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Calculated Formula	L H C H H C H C H C C H C C H C C H C	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{PA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 \sim 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \\ \hline \sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}} \\ \hline 0.0 \text{VAR} \sim 360.0 \text{VAR} \\ \hline 300 \text{VAR} \sim 3900 \text{VAR} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA 0.0VAR-720.0VAR 600VAR-7800VAR	
Power Power Factor Power Apparent (VA) Power	RangeCalculated FormulaRangeRangeAccuracyRangeResolutionAccuracyRangeCalculated FormulaRange	L H C H C H C H C C H C C C C C C C C C	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{PA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 - 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to f} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \\ \hline \sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}} \\ \hline 0.0 \text{VAR} \sim 360.0 \text{VAR} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA 0.0VAR-720.0VAR 600VAR-7800VAR	
Power Power Factor Power Apparent (VA) Power Reactive (Q)	RangeCalculated FormulaRangeAccuracyRangeResolutionAccuracyRangeCalculated FormulaRangeAccuracy	L H C H C C H C C C C C C C C C C C C C	$\begin{array}{c} 0.005 \text{A} \sim 1.200 \text{A} \\ \hline 1.00 \text{A} \sim 13.00 \text{A} \\ \hline \frac{\Sigma}{\Sigma} \frac{VA}{\Sigma} / \sqrt{3} \\ \hline 0.0 \text{W} \sim 360.0 \text{W} \\ \hline 300 \text{W} \sim 3900 \text{W} \\ \hline \frac{\Sigma^{P}}{\Sigma^{PA}} \qquad \text{A Power + B Power + C Power,} \\ \hline 0 \sim 1.000 \\ \hline 0.001 \\ \hline \text{Calculated and displayed to 1} \\ \hline 0.0 \text{VA} \sim 360.0 \text{VA} \\ \hline 300 \text{VA} \sim 3900 \text{VA} \\ \hline \sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}} \\ \hline 0.0 \text{VAR} \sim 360.0 \text{VAR} \\ \hline 300 \text{VAR} \sim 3900 \text{VAR} \end{array}$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA 0.0VAR-720.0VAR 600VAR-7800VAR	
Power Power Factor Power Apparent (VA) Power Reactive (Q) Single-phase mod	RangeCalculated FormulaRangeAccuracyRangeResolutionAccuracyRangeCalculated FormulaRangeAccuracy	L H C H C C H C C C C C C C C C C C C C	$0.005A^{-1.200A}$ $1.00A^{-1.200A}$ $\frac{\sum VA}{\sum V} / \sqrt{3}$ $0.0W^{-360.0W}$ $300W^{-3900W}$ $\frac{\sum^{P}}{\sum^{PA}} \qquad A \text{ Power + B Power + C Power,}$ $0 - 1.000$ 0.001 $Calculated and displayed to 1$ $0.0VA^{-360.0VA}$ $300VA^{-360.0VA}$ $\sqrt{(\Sigma^{W})^{2} + (\Sigma^{Q})^{2}}$ $0.0VAR^{-360.0VAR}$ $300VAR^{-3900VAR}$ $A VAR + B VAR + C VAR, Calculated and Cal$	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA 600VA-7800VAR 600VAR-7800VAR	
Current (RMS) Power Power Factor Power Apparent (VA) Power Reactive (Q) Single-phase mod Voltage	RangeCalculated FormulaRangeRangeAccuracyRangeResolutionAccuracyRangeCalculated FormulaRangeAccuracyRange(alternal)Calculated FormulaCalculated FormulaCalcuracyCalculated FormulaCalculated FormulaCalculated FormulaCalcuracy<	L H C H C C H C C C C C C C C C C C C C	$\frac{0.005A^{-1.200A}}{1.00A^{-13.00A}}$ $\frac{\sum \frac{VA}{\sum V} / \sqrt{3}}{\frac{1}{\sum V} / \sqrt{3}}$ $\frac{0.0W^{-360.0W}}{300W^{-3900W}}$ $\frac{\sum^{P}}{\sum^{VA}} A \text{ Power + B Power + C Power,}$ $\frac{0^{-1.000}}{0.001}$ Calculated and displayed to the comparison of the c	0.005A-2.400A 2.00A-26.00A 0.0W-720.0W 600W-7800W Calculated value three significant digits 0.0VA-720.0VA 600VA-7800VA 600VA-7800VA 600VAR-720.0VAR 600VAR-7800VAR	



Single-phase mo	de (102W)	Satting	120/10		
		Joetting	430XAC 460XAC 460XAC		
Frequency	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 Phase Angle	Range		0~359°		
T hase Angle	Resolution		1°		
	Accuracy		± 1°(45~65 HZ)		
	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	onse Time		< 1.4 s		
	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		
5	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	
	. locaracy		± (1% of reading +5 counts) at 40.0-300 Hz ± (1% of reading +5 counts) at 501~1000 Hz, CF <1.5 and Current (peak) ≤82.8 A	± (1% of reading +5 counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501~1000 Hz, 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 501-1000 Hz and CF<1.5		
Power	Range		0 W~3900 W	0 W~7800 W	
	Accuracy		± (2% of reading +5 counts) at 40.0 ± (2% of reading +15 counts) at 501~	at 40.0~500 Hz and PF ≥0.2	
Power Factor	Range		0 - 1.000		
	Accuracy		W / VA, Calculated and displayed to	three significant digits	
Power Apparent	Range		0 VA~3900 VA	0 VA~7800 VA	
			V×A, Calculated va		
	Accuracy				
Power Reactive (Q)	Range		0 VAR~3900 VAR	0 VAR~7800 VAR	
	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 mod setting	le (1Ø3W) fo		430XAC	460XAC	
Voltage	Range		5.0~300 VAC (phase), 10.0~600 VAC (line), 150/300 V Auto Range		
	Accuracy		± (0.2% of setting + 3 counts)		
Frequency	Range		40~1000 Hz Full Range Adjust		
	Accuracy		± 0.03% of setting		
Starting & Ending	Range		0~359°		
Phase Angle	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	onse Time		<1.4 s		
Poly-phase mod ment	le (1Ø3W) fo		430XAC	460XAC	
F	Range		0.0-1000 Hz		
Frequency	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
	Range		0.0-420.0 V		
Voltage	Accuracy		± (0.2% of reading + 3	counts)	
	L		0.005 A~1.200 A	0.005 A~2.400 A	
	Range	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 40.0-300 Hz ± (1% of reading +5 counts) at 501-1000 Hz, CF <1.5 and Current (peak) ≤3.6 A	± (1% of reading +5 counts) at 40.0-500 Hz ± (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	



Poly-phase mode (1Ø3W) 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		L		nts) at 40.0-500 Hz and PF ≥0.2 nts) at 501-1000 Hz and PF ≥0.5	
	Accuracy H		\pm (2% of reading +5 counts) at 40.0-500 Hz and PF ≥0.2 \pm (2% of reading +15 counts) at 501-1000 Hz and PF ≥0.5		
Power Factor	Range		0 - 1.000		
	Accuracy		W / VA, Calculated and displayed to three significant digits		
Power Apparent (VA)	Range	H	0.0 VA~120.0 VA 100 VA~1300 VA	0.0 VA-240.0 VA 200 VA-2600 VA	
Apparent (VA)	Accuracy		VxA, Cal	Iculated value	
		L	0.0 VAR~120.0 VAR	0.0 VAR~240.0 VAR	
Power	Range	Н	0 VAR~1300 VAR	0 VAR~2600 VAR	
Reactive (Q)	Accuracy		(VA) ² - (W) ² , Calculated value		
Crest Factor	Range		0-10.00		
	Accuracy			splayed to two significant digits	
Poly-phase mod		or 11-12			
measurement	ie (10399) ie		430XAC	460XAC	
Frequency	Range		0.0-	1000.0 Hz	
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)		
Voltage	Range		0.0)-840.0V	
	Accuracy		L1 Voltage + L2 Voltage, Calculate	d and displayed to one significant digits	
Current (RMS)	Range	L	0.005A~1.200A	0.005A~2.400A	
		н	1.00A~13.00A	2.00~26.00A	
	Calculated L Formula H		$\frac{\sum^{I/A}}{\sum^{V}}$		
Power	Range	L	0.0W~240.0W	0.0W~480.0W	
		н	200W~2600W	400W~5200W	
	Accuracy	L	L1 Power + L2 Pc	bwer, Calculated value	
Power Factor	Range		0 - 1.000		
	Calculated F	ormula	(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)	Runge	Н	200W~2600VA	± 400W~5200VA	
	Calculated	L			
	Calculated Formula	Н	$\sqrt{(\sum^W)^2 + (\sum^Q)^2}$	Calculated value	
D	Danas	L	0.0VAR ~ ± 240.0VAR	0.0VAR ~ ± 480.0VAR	
Power Reactive (Q)	Range	Н	± 200VAR ~ ± 240.0VAR	± 400VAR ~ ± 5200VAR	
		L	± 2000AR ~ ± 2000VAR	± 400VAR ~ ± 5200VAR	
	Calculated Formula	H	L1 VAR + L2 VA	AR, Calculated value	
DC OUTPUT					
Max. Power			3000 W	6000 W	
Max. Current	0-210 V		14.4 A	28.8 A	
wax. Current	0-420 V		7.2 A	14.4 A	
Pipplo and Noice (1	
Ripple and Noise (RMS) Ripple and Noise (p-p)			Range: 5-210 V <700 mV Range: 5-420 V <1100 mV		
			<4.0 Vp-p		
				······································	
DC SETTINGS				420.1/ C-L-+	
Voltage	Range			420 V Selectable	
	Accuracy			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		\pm (2.0% of setting + 2 counts)		
	d Back Response Time		<1.4 s		



DC MEASUREMENT		430XAC	460XAC		
Voltage	Range	0.0-	420.0 V		
_	Accuracy	± (0.2% of se	tting + 5 counts)		
Current	Range	0.05 A~19.50 A	0.05 A~39.00 A		
	Accuracy	± (1% of rea	ding +5 counts)		
Power	Range	0 W~3900 W	0 W~7800 W		
	Accuracy	± (2% of rea	ding +5 counts)		
PROTECTION	N				
Software OCP		Over Current 110% of f	ull rated current >1 second		
Output Short S	ihut Down Speed	<1 second			
Software OPP		When over Power 105 ~ 1	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 < 100H	z, maximum voltage deviation + 5V		
	L		Hz, maximum voltage deviation + 15V		
			Hz, maximum voltage deviation + 20V		
			z, maximum voltage deviation + 10V		
	Н		Hz, maximum voltage deviation + 30V Hz, maximum voltage deviation + 40V		
Software LVP			<pre>ximum voltage deviation + 40v</pre> <pre>ximum voltage deviation - 5V > 0.5 second</pre>		
Software LVI			ximum voltage deviation -15V > 0.5 second		
		When output frequency 501-1000Hz, maximum voltage deviation -15V > 0.5 second When output frequency 501-1000Hz, maximum voltage deviation -20V > 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	nt Protection (RCP)	Ove	er 75W		
GENERAL					
Transient (only	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	5	Pass, Fail , Test-in Process			
	t Signal	Yes, Password Driven			
Key Lock Memory		50 memories, 9 steps/memory			
		START / END / BOTH / OFF in the Program mode, Output Signal 5 V, BNC type			
Ext Trigger Alarm Volume Setting		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			
Efficiency		≥78% (at Full load)			
,		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		CE Listed			
Dimensions (W	XHXD)	430 x 400.5 x 500 mm			
		16.93 x 15.77 x 19.69 in			
Net Weight		105.8 lbs (48 kg)	125.6 lbs (57 kg)		
Operation Environment		0-40%	20-80% RH		

Why We Use Counts

Specifications subject to change

EEC publishes some specifications using "counts" which allows us to provide a better indication of the power source's capabilities across measurement ranges. A count refers to the lowest resolution of the display for a given measurement range. For example, if the resolution for voltage is 1V then 2 counts = 2V.