

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

Standard

USB/RS-232 Interface

Options

- GPIB Interface
- Ethernet Interface



Applicable Industries









APT Benefits





INPUT			430XAC	460XAC	
Phase			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		Ø2W	3000 VA	6000 VA	
Power Rating	1Ø3W		Total 2000 VA (1000 VA per phase)	Total 4000 VA (2000 VA per phase)	
	3Ø4W		Total 3000 VA (1000 VA per phase)	Total 6000 VA (2000 VA per phase)	
	[DC	3000 VA	6000 VA	
	1Ø2W	5- 150 V 5 - 300 V	27.6 A @ ≤110 V 13.8 A @ ≤220 V	55.2 A @ ≤110 V 27.6 A @ ≤220 V	
Max. Current		5 - 150 V	9.2 A @ ≤110 V for per phase	27.0 A @ ≤220 V 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	
		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	
	103314	5 - 150 V	110.4 A	220.8 A	
	1Ø2W	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)		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	
Di		5 - 300 V	18.4 A for per phase	36.8 A for per phase	
Phase THD (Total Harm	onic Dist	tortion)	1Ø2W, 1Ø3W, 3Ø4W, provided option <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 Regulat	ion (Hard	dware)	± (1% of output +1 V) at Resistive Load, <400 μS response time		
Load Regulat	tion (Soft	ware)	± 0.2 V, <1 S response time		
DC offset				≤±5 mV	
Poly-phase mo for per phase o			430XAC	460XAC	
Voltage	Range		5.0~300 VAC (phase), 8.6~520 VAC (line), 150/300 V Auto Range		
	Accuracy		± (0.2% of setting + 3 counts)		
Frequency	Range	v.		Iz Full Range Adjust	
Starting &	Range	y	± 0.03% of setting 0~359°		
Ending	Accurac	у	±1°(45~65 HZ)		
Phase Angle	5V~150 \		0.01, 0.20 A	0.01 10.40 A	
Current Hi	5V~150		0.01~9.20 A 0.01~4.60 A	0.01~18.40 A 0.01~9.20 A	
Limit	Accurac		0.01~4.60 A 0.01~9.20 A ± (2.0% of setting + 2 counts)		
OC Fold Back Res			= (2.0% of setting + 2 counts) <1.4 s		
Ramp-Up	Range		0.0~999.9 s		
Timer (second)	Accurac	y	± (0.1% + 0.05 sec)		
Ramp-Down	Range		0.0~999.9 s		
Timer (second)	Accurac	y	± (0.1% + 0.05 sec)		
Delay Timer	Range		1 s~999.9 s 0.1 m~999.9 min 0.1 h~999.9 h		
	Accurac	у	± (0.1% + 0.1 sec)		
Dwell Timer	Range		0, 1s~999.9 h (0=continuous)		
Accuracy			± (0.1% + 0.1 sec)		
Poly-phase mea			430XAC	460XAC	
Frequency	Range		0	.0-1000 Hz	
	Resolution		0.1 Hz		
	Accurac	y	± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)		
Voltage	Range			.0-420.0 V	
	Resolution		0.1 V		
	Resoluti	on		0.1 V	

	ode (3Ø4W) asurement	for	430XAC	460XAC
	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
Current (RMS)		L	± (1% of reading +5 counts) at 501-1000 Hz,	± (1% of reading +5 counts) at 501-1000 Hz,
		_	CF <1.5 and Current (peak) ≤3.6 A	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,	\pm (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
Current (peak)	Range		0.0 A~38.0 A	0.0 A~76.0 A
	Accuracy		\pm (1% of reading + 5 counts) at 40.0-70.0 Hz	
			± (1.5% of reading + 10 counts) at 70.1 - 500 Hz	
			\pm (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
)aau	Accuracy	L	± (2% of reading +15 count	ts) at 40.0-500 Hz and PF ≥0.2
Power		L	± (2% of reading +30 count	ts) at 501-1000 Hz and PF ≥0.5
			\pm (2% of reading +5 count	s) at 40.0-500 Hz and PF ≥0.2
		Н	± (2% of reading +15 count	ts) 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	Range	L	0.0 VA~120.0 VA	0.0 VA~240.0 VA
Apparent (VA)		Н	100 VA~1300 VA	200 VA~2600 VA
	Accuracy			ulated value
Power	Range	L	0.0 VAR ~ ± 120.0 VAR	0.0 VAR ~ ± 240.0 VAR
Reactive (Q)		Н	0 VAR ~ ± 1300 VAR	0 VAR ~ ± 2600 VAR
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$, Calculated value	
Crest Factor	Range		0 - 10.00	
	Accuracy		Ap / A, Calculated and displayed to two significant digits	
Poly-phase m		for	430XAC	460XAC
E measureme				
	Range			200.011
Frequency				000.0 Hz
. ,	Accuracy		± 0.1 Hz (501-1000	Hz Accuracy ±0.2 Hz)
	Accuracy Range	ormula	± 0.1 Hz (501-1000 0.0-	Hz Accuracy ±0.2 Hz) 727.5 V
/oltage	Accuracy Range Calculated Fo		± 0.1 Hz (501-1000 0.0- (A+B+C)/√3, Calculated and d	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits
/oltage	Accuracy Range	L	± 0.1 Hz (501-1000 0.0-i (A+B+C)/√3, Calculated and d 0.005A~1.200A	Hz Accuracy ±0.2 Hz) 727.5 V Iisplayed to one significant digits 0.005A~2.400A
/oltage	Accuracy Range Calculated Fo	L H	± 0.1 Hz (501-1000 0.0-3 (A+B+C)/√3, Calculated and d 0.005A~1.200A 1.00A~13.00A	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A
Voltage	Accuracy Range Calculated Fo	L H L	± 0.1 Hz (501-1000 0.0-3 (A+B+C)/√3, Calculated and d 0.005A~1.200A 1.00A~13.00A	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A
Voltage Current (RMS)	Accuracy Range Calculated Formula	L H L	\pm 0.1 Hz (501-1000 0.0-: (A+B+C)/ $\sqrt{3}$, Calculated and d 0.005A \sim 1.200A 1.00A \sim 13.00A $\frac{\sum VA}{\sum V}$	Hz Accuracy ± 0.2 Hz) 727.5 V lisplayed to one significant digits $0.005A \sim 2.400A$ $2.00A \sim 26.00A$ $/\sqrt{3}$
Voltage Current (RMS)	Accuracy Range Calculated Fc Range Calculated	L H L H	\pm 0.1 Hz (501-1000 0.0-201	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W
/oltage Current (RMS)	Accuracy Range Calculated For Range Calculated Formula Range	L H L H	\pm 0.1 Hz (501-1000 0.0-: (A+B+C)/ $\sqrt{3}$, Calculated and d 0.005A \sim 1.200A 1.00A \sim 13.00A $\frac{\sum VA}{\sum V}$	Hz Accuracy ± 0.2 Hz) 727.5 V lisplayed to one significant digits $0.005A \sim 2.400A$ $2.00A \sim 26.00A$ $/\sqrt{3}$
/oltage Current (RMS)	Accuracy Range Calculated Formula	L H L H L	± 0.1 Hz (501-1000 0.0-1 (A+B+C)/√3, Calculated and d 0.005A~1.200A 1.00A~13.00A	Hz Accuracy ± 0.2 Hz) 727.5 V isplayed to one significant digits $0.005A \sim 2.400A$ $2.00A \sim 26.00A$ $/\sqrt{3}$ $0.0W \sim 720.0W$
Voltage Current (RMS) Power	Accuracy Range Calculated For Range Calculated Formula Range Accuracy	L H L H	$\pm 0.1 \text{ Hz } (501\text{-}1000)$ 0.0- $(A+B+C)/\sqrt{3}, \text{ Calculated and d}$ $0.005A\sim1.200A$ $1.00A\sim13.00A$ $\frac{\sum VA}{\sum V}$ $0.0W\sim360.0W$ $300W\sim3900W$ A Power + B Power + C	Hz Accuracy ±0.2 Hz) 727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W
Voltage Current (RMS)	Accuracy Range Calculated For Range Calculated Formula Range	L H L H L	± 0.1 Hz (501-1000 0.0-3 (A+B+C)/√3, Calculated and d 0.005A~1.200A 1.00A~13.00A	Hz Accuracy ±0.2 Hz) 727.5 V lisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W
Voltage Current (RMS)	Accuracy Range Calculated Formula Range Accuracy Range	L H L H L	± 0.1 Hz (501-1000 0.0-3 (A+B+C)/√3, Calculated and d 0.005A~1.200A 1.00A~13.00A	Hz Accuracy ±0.2 Hz) 7727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W E Power, Calculated value 1.000
Current (RMS) Power Power Factor	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Accuracy	L H L H L H	$ \pm 0.1 \ \text{Hz} \ (501\text{-}1000) $ $ 0.0\text{-}1 $ $ (A+B+C)/\sqrt{3}, \text{ Calculated and d} $ $ 0.005A\sim1.200A $ $ 1.00A\sim13.00A $ $ \frac{\sum VA}{\sum V} $ $ 0.0W\sim360.0W $ $ 300W\sim3900W $ $ A \ \text{Power} + \text{B Power} + \text{C} $ $ 0 \ \text{-} $ $ 0 \ \text{-} $ $ 0 \ \text{-} $ $ \frac{\sum P}{\sum V^4} \ \text{Calculated and display} $	Hz Accuracy ±0.2 Hz) 727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W E Power, Calculated value 1.000 .001 nyed to three significant digits
Voltage Current (RMS) Power Power Factor	Accuracy Range Calculated Formula Range Calculated Formula Range Accuracy Range Resolution	L H L H L H	$ \pm 0.1 \ \text{Hz} \ (501\text{-}1000) $ $ 0.0\text{-}1000 $ $ (A+B+C)/\sqrt{3}, \ \text{Calculated and d} $ $ 0.005A\sim1.200A $ $ 1.00A\sim13.00A $ $ \frac{\sum VA}{\sum V} $ $ 0.0W\sim360.0W $ $ 300W\sim3900W $ $ A \ \text{Power} + B \ \text{Power} + C $ $ 0 \ \text{-} \frac{\sum P}{\sum VA} $ $ \text{Calculated and display} $ $ 0.0VA\sim360.0VA $	Hz Accuracy ±0.2 Hz) 727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W E Power, Calculated value 1.000 .001 syed to three significant digits 0.0VA~720.0VA
Current (RMS) Power Power Factor	Accuracy Range Calculated Formula Range Calculated Formula Range Accuracy Range Resolution Accuracy Range	L H L H L H	$\pm 0.1 \ Hz \ (501-1000)$ $0.0-1000$ $(A+B+C)/\sqrt{3}, \ Calculated \ and \ d$ $0.005A\sim1.200A$ $1.00A\sim13.00A$ $\frac{\sum VA}{\sum V}$ $0.0W\sim360.0W$ $300W\sim3900W$ $A \ Power + B \ Power + C$ $0-$ 0 $\frac{\sum P}{\sum VA} \ Calculated \ and \ display$ $0.0VA\sim360.0VA$ $300VA\sim3900VA$	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /\sqrt{3} 0.0W~720.0W 600W~7800W 2.000 1.000 1.000 1.000 1.001 1.000 1.001 1.0000 1.0000 1.0
Current (RMS) Power Power Factor	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Accuracy	L H L H L H	$ \pm 0.1 \ \text{Hz} \ (501\text{-}1000) $ $ 0.0\text{-}1000 $ $ (A+B+C)/\sqrt{3}, \ \text{Calculated and d} $ $ 0.005A\sim1.200A $ $ 1.00A\sim13.00A $ $ \frac{\sum VA}{\sum V} $ $ 0.0W\sim360.0W $ $ 300W\sim3900W $ $ A \ \text{Power} + B \ \text{Power} + C $ $ 0 \ \text{-} \frac{\sum P}{\sum VA} $ $ \text{Calculated and display} $ $ 0.0VA\sim360.0VA $	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /\sqrt{3} 0.0W~720.0W 600W~7800W 2.000 1.000 1.000 1.000 1.001 1.000 1.001 1.0000 1.0000 1.0
Current (RMS) Cower Cower Factor Cower Apparent (VA)	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated Formula	L H L H L H	$\pm 0.1 \ \text{Hz} \ (501\text{-}1000)$ 0.0- $(A+B+C)/\sqrt{3}, \text{ Calculated and d}$ $0.005A\sim1.200A$ $1.00A\sim13.00A$ $\frac{\sum VA}{\sum V}$ $0.0W\sim360.0W$ $300W\sim3900W$ $A \ \text{Power} + B \ \text{Power} + C$ $0 \ \text{-}$ $0 \ \frac{\sum P}{\sum V} \ \text{Calculated and display}$ $0.0VA\sim360.0VA$ $300VA\sim3900VA$ $\sqrt{(\sum V)^2} + C$	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /\sqrt{3} 0.0W~720.0W 600W~7800W E Power, Calculated value 1.000 .001 nyed to three significant digits 0.0VA~720.0VA 600VA~7800VA
Cover Factor Cover Factor Cover Factor Cover Factor Cover Factor	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated	L H L H L H L H L H L L H L L H L L H L L H L L H L L H L L H L	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \hline \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ \hline A \ Power + B \ Power + C \\ \hline 0 - \\ \hline 0 \\ \hline \frac{\sum^P}{\sum^{VA}} \ Calculated \ and \ displa \\ 0.0VA\sim360.0VA \\ 300VA\sim3900VA \\ \hline \hline \sqrt{(\sum^W)^2} + \\ 0.0VAR\sim360.0VAR \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W 2.Power, Calculated value 1.000 .001 nyed to three significant digits 0.0VA~720.0VA 600VA~7800VA
Cover Factor Cover Apparent (VA)	Accuracy Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Resolution Accuracy Range Range	L H L H L H L H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H H L H H H H L H H H L H H H H L H H H L H H H L H H H L H H H L H H H L H H H L H H H L H H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H H H L H H L H H L H H L H H L H H L H H L H H L H H L H H L H L H H L	$\pm 0.1 \ \text{Hz} \ (501\text{-}1000)$ 0.0- $(A+B+C)/\sqrt{3}, \text{ Calculated and d}$ $0.005A\sim1.200A$ $1.00A\sim13.00A$ $\frac{\sum VA}{\sum V}$ $0.0W\sim360.0W$ $300W\sim3900W$ $A \ \text{Power} + B \ \text{Power} + C$ $0 \ \text{-}$ $0 \ \frac{\sum P}{\sum V} \ \text{Calculated and display}$ $0.0VA\sim360.0VA$ $300VA\sim3900VA$ $\sqrt{(\sum V)^2} + C$	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /\sqrt{3} 0.0W~720.0W 600W~7800W E Power, Calculated value 1.000 .001 nyed to three significant digits 0.0VA~720.0VA 600VA~7800VA
Current (RMS) Power Power Factor Power Apparent (VA)	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated Formula	L H L H L H L H L H L L H L L H L L H L L H L L H L L H L L H L	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ A \ Power + B \ Power + C \\ 0-\\ \frac{\sum P}{\sum VA} \ Calculated \ and \ displated \ and \ an$	Hz Accuracy ±0.2 Hz) 727.5 V isplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W 2.Power, Calculated value 1.000 .001 nyed to three significant digits 0.0VA~720.0VA 600VA~7800VA
Current (RMS) Power Power Factor Power Apparent (VA)	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Calculated Formula Range Accuracy	L H L H L H L H L H L H L H L H	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ A \ Power + B \ Power + C \\ 0- \\ 0 \\ \frac{\sum P}{\sum VA} \ Calculated \ and \ displated \ and \ and$	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W 2.Power, Calculated value 1.000 .001 ayed to three significant digits 0.0VA~720.0VA 600VA~7800VA -(∑Q)² 0.0VAR~720.0VAR 600VAR~7800VAR
Coltage Current (RMS) Cower Cower Factor Cower (VA) Cower Reactive (Q)	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Calculated Formula Range Accuracy	L H L H L H L H L H L H L H L H	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ A \ Power + B \ Power + C \\ 0-\\ \frac{\sum P}{\sum VA} \ Calculated \ and \ displated \ and \ an$	Hz Accuracy ±0.2 Hz) 7727.5 V lisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W Power, Calculated value 1.000 .001 syed to three significant digits 0.0VA~720.0VA 600VA~7800VA (∑Q)² 0.0VAR~720.0VAR 600VAR~720.0VAR 600VAR~720.0VAR
Coltage Current (RMS) Cower Cower Factor Cower (VA) Cower Reactive (Q) Compared (VA)	Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Accuracy Range Accuracy Range Calculated Formula Range Accuracy	L H L H L H L H L H L H L H L H	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \hline \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ \hline A \ Power + B \ Power + C \\ \hline 0 \\ \hline \frac{\sum P}{\sum VA} \ Calculated \ and \ displa \\ 0.0VA\sim360.0VA \\ 300VA\sim3900VA \\ \hline \sqrt{(\sum W)^2} + \\ 0.0VAR\sim360.0VAR \\ 300VAR\sim3900VAR \\ \hline A \ VAR + B \ VAR + C \\ \hline 430XAC \\ \hline$	Hz Accuracy ±0.2 Hz) 7727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W 2.Power, Calculated value 1.000 .001 byed to three significant digits 0.0VA~720.0VA 600VA~7800VA 600VA~7800VA
Cover Factor Cover Apparent (VA)	Range Calculated Formula Range Calculated Formula Range Accuracy Range Resolution Accuracy Range Calculated Formula Range Resolution Accuracy Range Calculated Formula Range Accuracy	L H L H L H L H L H L H L H L H	$\pm 0.1 \ Hz (501-1000 \\ 0.0-1000 \\ (A+B+C)/\sqrt{3}, \ Calculated \ and \ d \\ 0.005A\sim1.200A \\ 1.00A\sim13.00A \\ \frac{\sum VA}{\sum V} \\ 0.0W\sim360.0W \\ 300W\sim3900W \\ A \ Power + B \ Power + C \\ 0-\\ \frac{\sum P}{\sum VA} \ Calculated \ and \ displated \ and \ an$	Hz Accuracy ±0.2 Hz) 727.5 V iisplayed to one significant digits 0.005A~2.400A 2.00A~26.00A /√3 0.0W~720.0W 600W~7800W Power, Calculated value 1.000 .001 syed to three significant digits 0.0VA~720.0VA 600VA~7800VA (∑♥)² 0.0VAR~720.0VAR 600VAR~7800VAR 4600VAR~7800VAR

Single-phase mode (1Ø2W) Setting		200)	430XAC	460XAC	
requency	Range		40~1000 Hz Fi	ull Range Adjust	
,	Resolution		0.1 Hz at 40.0~99.9 Hz , 1 Hz at 100~1000 Hz		
	Accuracy			of setting	
tarting &	Range			359°	
Starting & Ending Phase Angle	_		1º		
	Resolution		· · · · · · · · · · · · · · · · · · ·		
	Accuracy		± 1°(45~65 HZ)		
Current Hi	5V~150V		0.01~27.60 A	0.01~55.20 A	
imit	5V~300V		0.01~13.80 A	0.01~27.60 A	
	Accuracy		± (2.0% of setting + 2 counts)		
OC Fold Back Res	sponse Tim	e	<	1.4 s	
Single-phase r neasurement		2W)	430XAC	460XAC	
requency	Range		0.0~1000 Hz		
	Accuracy		± 0.1 Hz (501~1000 Hz Accuracy ±0.2 Hz)		
oltage	Range		0.0~420.0 V		
	Accuracy			ding + 3 counts)	
Current (RMS)	Range		0.05 A~39.00 A	0.05 A~78.00	
.urreiit (NIVIS)	_		± (1% of reading +5 counts) at 40.0~500 Hz	± (1% of reading +5 counts) at 40.0~500 Hz	
	Accuracy		± (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) ≤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	
(J. 2001)	Accuracy		\pm (1% of reading + 5 counts) at 40.0~70.0 Hz \pm (1.5% of reading + 10 counts) at 70.1~500 Hz \pm (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 40.0~500 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	Range		0 VA~3900 VA	0 VA~7800 VA	
pparent	Accuracy		V×A, Calculated value		
Power	Range		0 VAR~3900 VAR	0 VAR~7800 VAR	
Reactive (Q)				Calculated value	
Crest Factor	Accuracy		0 - 10.00		
Liest i actor	Range Accuracy		<u> </u>	****	
Doby plane		M) 60"	Ap / A, Calculated and displ	layed to two significant digits	
Poly-phase mo per phase out			430XAC	460XAC	
/oltage	Range		5.0~300 VAC (phase), 10.0~600	VAC (line), 150/300 V Auto Range	
	Accuracy		± (0.2% of setting + 3 counts)		
requency	Range		40~1000 Hz Full Range Adjust		
	Accuracy		± 0.03% of setting		
Starting &	Range		0~359°		
Ending Phase Angle	Accuracy		± 1°(45	5~65 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 Res	sponse Tim	e	<1.4s		
Poly-phase mode (1Ø3W) for per phase measurement		V) for	430XAC	460XAC	
	Range		0.0-1	000 Hz	
requency	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ±0.2 Hz)		
	Range		0.0-420.0 V		
oltage/	Accuracy		± (0.2% of reading + 3 counts)		
	Accuracy	1			
	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	
Current (RMS)		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	
	Accuracy	Н	± (1% of reading + 5counts) at 40.0-500 Hz ± (1% of reading +5 counts) at 501-1000 Hz,	± (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) ≤55.2 A	

Poly-phase me per phase mea			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	
	D	L	0.0 W~120.0 W	0.0 W~240.0 W
Power	Range	Н	100 W~1300 W	200 W~2600 W
		L	\pm (2% of reading +15 counts) at 40.0-500 Hz and PF \geq 0.2 \pm (2% of reading +30 counts) at 501-1000 Hz and PF \geq 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	
\ F 4	Range		0 - 1.000	
Power Factor	Accuracy		W / VA, Calculated and displayed to three significant digits	
Power		L	0.0 VA~120.0 VA	0.0 VA~240.0 VA
	Range	Н	100 VA~1300 VA	200 VA~2600 VA
Apparent (VA)			VxA, Calc	culated value
		L	0.0 VAR~120.0 VAR	0.0 VAR~240.0 VAR
ower	Range	Н	0.5 VAR ~1300 VAR	0 VAR~2600 VAR
eactive (Q)	Λος:::::	П	1 111	
	Accuracy		$\sqrt{(VA)^2 - (W)^2}$, Calculated value	
rest Factor	Range		0-10.00	
	Accuracy		Ap / A, Calculated and displayed to two significant digits	
Poly-phase mo .1-L2 measure	ode (1Ø3W ement) for	430XAC	460XAC
requency	Range		0.0-1000.0 Hz	
	Accuracy		± 0.1 Hz (501-1000 Hz Accuracy ± 0.2 Hz)	
oltage	Range		0.0-	-840.0V
	Accuracy		L1 Voltage + L2 Voltage, Calculated	and displayed to one significant digits
Current (RMS)	Range	L	0.005A~1.200A	0.005A~2.400A
urrent (Rivis)	Marige	Н	1.00A~13.00A	2.00~26.00A
	Calculated	L	ΣΙ	74.
	Formula	Н	\sum_{i}	7
Power	Range	L	0.0W~240.0W	0.0W~480.0W
		Н	200W~2600W	400W~5200W
	Accuracy	L H	L1 Power + L2 Po	wer, Calculated value
Power Factor	Range		0-1.000	
ower ructor	Calculated F	ormula		ed and displayed to three significant digits
)ouror				· , · · · · · · · · · · · · · · · · · ·
ower Apparent (VA)	Range	L	0.0W~240.0VA	0.0W~480.0VA
		Н .	200W~2600VA	± 400W~5200VA
	Calculated	L	$\sqrt{(\sum^W)^2 + (\sum^Q)^2}$	Calculated value
	Formula	Н	,	
	Range	L	0.0VAR ~ ± 240.0VAR	0.0VAR ~ ± 480.0VAR
			0.0VAR ~ ± 240.0VAR ± 200VAR ~ ± 2600VAR	0.0VAR ~ ± 480.0VAR ± 400VAR ~ ± 5200VAR
	Range Calculated	L	± 200VAR ~ ± 2600VAR	± 400VAR ~ ± 5200VAR
	Range	L H	± 200VAR ~ ± 2600VAR	
eactive (Q)	Range Calculated	L H L	± 200VAR ~ ± 2600VAR	± 400VAR ~ ± 5200VAR
eactive (Q)	Range Calculated	L H L	± 200VAR ~ ± 2600VAR	± 400VAR ~ ± 5200VAR
eactive (Q) OC OUTPUT Max. Power	Range Calculated Formula	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W
eactive (Q) OC OUTPUT lax. Power	Range Calculated Formula	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A
OC OUTPUT Max. Power Max. Current	Range Calculated Formula 0-210 0-420	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A
OC OUTPUT Max. Power Max. Current ipple and Noise	Calculated Formula 0-210 0-420 e (RMS)	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V <700 mV 20 V <1100 mV
DC OUTPUT Max. Power Max. Current Lipple and Noise	Calculated Formula 0-210 0-420 e (RMS)	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A
eactive (Q) C OUTPUT Aax. Power Aax. Current ipple and Noise	Range Calculated Formula 0-210 0-420 e (RMS)	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V < 700 mV 20 V < 1100 mV
DC OUTPUT Max. Power Max. Current ipple and Noise ipple and Noise	Range Calculated Formula 0-210 0-420 e (RMS)	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4 <4.	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V < 700 mV 20 V < 1100 mV
DC OUTPUT Max. Power Max. Current tipple and Noise tipple and Noise DC SETTINGS	Range Calculated Formula 0-21(0-42) e (RMS) e (p-p)	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4 <4.	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V <700 mV 20 V <1100 mV 0 Vp-p
Power Reactive (Q) DC OUTPUT Max. Power Max. Current Ripple and Noise Ripple and Noise OC SETTINGS	Range Calculated Formula 0-21(0-42) e (RMS) e (p-p) Range Accuracy	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4 <4.	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V <700 mV 20 V <1100 mV 0 Vp-p 120 V Selectable tting + 3 counts)
Current Hi	Range Calculated Formula 0-210 0-420 e (RMS) e (p-p) Range Accuracy 5 V-210 V	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4 <4. 5-210 V / 5-4 ± (0.2% of se	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V <700 mV 20 V <1100 mV 0 Vp-p 120 V Selectable tting + 3 counts) 0.10 - 28.80 A
DC OUTPUT Max. Power Max. Current Ripple and Noise Ripple and Noise Ripple and Noise OC SETTINGS Voltage	Range Calculated Formula 0-21(0-42) e (RMS) e (p-p) Range Accuracy	L H L H	± 200VAR ~ ± 2600VAR L1 VAR + L2 VA 3000 W 14.4 A 7.2 A Range: 5-2 Range: 5-4 <4. 5-210 V / 5-4 ± (0.2% of se	± 400VAR ~ ± 5200VAR R, Calculated value 6000 W 28.8 A 14.4 A 210 V <700 mV 20 V <1100 mV 0 Vp-p 120 V Selectable tting + 3 counts)

DC MEASUREMENT		430XAC	460XAC	
Voltage	Range		-420.0 V	
voitage	Accuracy	± (0.2% of setting + 5 counts)		
Current	Range	0.05 A~19.50 A	0.05 A~39.00 A	
Current	Accuracy	± (1% of reading +5 counts)		
Power	Range	0 W~3900 W	0 W~7800 W	
Accuracy		± (2% of reading +5 counts)		
PROTECTION		X		
Software OCP		Over Current 110% of f	ull rated current >1 second	
Output Short Sh	nut 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 < 100H	lz, maximum voltage deviation + 5V	
	L	When output frequency 101-500	Hz, maximum voltage deviation + 15V	
		When output frequency 501-1000	Hz, maximum voltage deviation + 20V	
		When output frequency < 100H	z, maximum voltage deviation + 10V	
	Н	When output frequency 101-500Hz, maximum voltage deviation + 30V		
		When output frequency 501-1000Hz, maximum voltage deviation + 40V		
Software LVP		When output frequency < 100Hz, maximum voltage deviation -5V > 0.5 second		
	L	When output frequency 101-500Hz, 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		
	Protection (RCP)	Over 75W		
GENERAL				
Transient (only f	or 40~70 Hz)	Trans-Volt 0.0-300.0 V Resolution 0.1 V		
			359° Resolution 1°	
		Trans-Time 0.5-999.9 mS Resolution 0.1 mS		
o .: v =		Trans-Cycle 0-9999, 0-Constant		
Operation Key F		Soft key, Numeric key, Rotary Knob		
Remote Input Si		Test, Reset, Interlock, Recall program memory 1 through 7		
Remote Output	signai	Pass, Fail , Test-in Process Voc. Passured Driven		
Key Lock		Yes, Password Driven		
Memory		50 memories, 9 steps/memory START / END / POTH / OEE in the Program mode Output Signal 5 V PNC type		
Ext Trigger Alarm Volume Se	ottina	START / END / BOTH / OFF in the Program mode, Output Signal 5 V, BNC type Range: 0-9; 0 = OFF, 1 is softest volume, 9 is loudest volume.		
		240 x 64 dot resolution Monographic LCD/Contrast 9 Levels 1-9		
Graphic Display		240 x 64 dot resolution monographic LCD/Contrast 9 Levels 1-9 PF ≥0.97 at Full load		
PFC		≥78% (at Full load)		
Efficiency Auto Loop cycle		0 = Continuous, OFF, 2~9999		
Over Current Fol		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 x	x H x D)	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			- · · · · · · · · · · · · · · · · · · ·	

Specifications subject to change

Why We Use Counts

APT publishes some specifications using "counts" which allows us to provide a better indication of the tester'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.