

1,2,3,6,10,20 kVA single/single-phase and three/single-phase





- **HIGH POWER INTENSITY**
- STRONGEST PERFORMANCE
- **FLEXIBILITY**
- **HIGH EFFICIENCY WITH LOW HEAT** DISSIPATION
- **EXTENDABLE AUTONOMY**





Smart Energy Solutions

Technical Specifications

MODEL	ZP120N-1K	ZP120N-1K-KS*	ZP120N-2K	ZP120N-2K-KS*	ZP120N-3K	ZP120N-3K-KS	
Power Rating	1000V	A/900W	2000VA	V1800W	3000V	A/2700W	
			INF	PUT			
Rated Voltage	220Vac/230Vac/240Vac						
Voltage Tolerance	110Vac-300Vac						
Voltage Range - Line Low Transfer	176Vac/165Vac/110Vac (± 3%) based on load percentage 100%/75%/50%						
Voltage Range - Line High Transfer	300Vac (± 3%)						
Frequency Range	45-55Hz / 54-66Hz						
THDi %	<5% with full load						
Power Factor	≥0.99 (I/P:220V, FULL RCD LOAD)						
			OUT	PUT			
Rated Voltage	200VAC**/208VAC**/220VAC/230VAC/240VAC						
Voltage Regulation	± 2 %						
Rated Frequency AC Mode	50/60 Hz ± 0,2 %						
Crest Ratio	3:1						
Harmonic Distortion	< 3% THD, linear load						
Output Waveform	Pure Sinewave						
Overload Capability	105%-110%: 1 min; 110%-125%: 30 sec ; 125%-150%: 10 Sec; >150%: 1 sec						
Parallel	N/A						
Power Factor	0.9						
	,		BATTE	ERIES			
Туре		Sea	aled lead acid bat	tery, maintenance fr	ee		
Rating	12V/7Ah	According to	12V/7Ah	According to	12V/7Ah	According to	
Number of batteries	3	capacity of external	8	capacity of external	8	capacity of external	
Back-up Time (typical load)***	>10 minutes	batteries	>18 minutes	batteries	>10 minutes	batteries	
DC Voltage	36Vdc 96Vdc 96Vdc				SVdc		
Charging Time	< 5 hours						
			GENERAL CHA	RACTERISTICS			
Transfer Time (Inverter to bypass)		0 ms					
Efficiency (online mode)	88%		88%		88%		
Dimensions WxDxH (mm)	145x4	145x400x220 192x4		60x347			
Net Weight (kg)	13	7	31	13	31	13	
Operating Temperature			0°C ~	40 °C			
Noise Level (at 1m)	< 50dB < 55dB						
Humidity Tolerance			0-95% (no	condensing)			
Interface standard via Smart USB	WinPower Software supports: Windows 95/98/NT/2000/XP/ME, Linux, Sun Solaris, IBM Aix, FreeBSD HP-UX, and MAC						
Interface for Intelligent Slot	SNMP / RS485 / AS400 Card/ ModBus						
Compliance	 European Directives: L V 2006/95/CE Low voltage directive; EMC 2004/108/EC Electromagnetic compatibility directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2 Classification according to IEC 62040-3 (Voltage Frequency Independent) VFI - SS - 111 						

^{*} ks versions are supplied with extra battery charger

^{**} Derate to 90% with 208Vac output voltage.

*** The autonomy time are calculated at 75% rated load as PF=0.9.

MODEL	ZP120N-6K	ZP120N-6K-KS*	ZP120N-10K-11	ZP120N -10K-11-KS*			
Power Rating	6000\	/A/5400W	10000	VA/9000W			
	INPUT						
Rated Voltage	220Vac/230Vac/240Vac						
Voltage Tolerance	110Vac-276Vac						
Voltage Range - Line Low Transfer	176Vac/110Vac (± 3%) based on load percentage 100%/50%						
Voltage Range - Line High Transfer	276Vac (± 3%)						
Frequency Range	45-55Hz / 54-66Hz						
THDi %	<5% with full load						
Power Factor	≥0.99 (I/P:220V, FULL RCD LOAD)						
	.'	OUTP	UT				
Rated Voltage	200VAC**/208VAC**/220VAC/230VAC/240VAC						
Voltage Regulation	± 1 %						
Rated Frequency AC Mode	50/60 Hz ± 0,2 %						
Crest Ratio	3:1						
Harmonic Distortion	< 2% THD, linear load						
Output Waveform	Pure Sinewave						
Overload Capability	100%-110%: 5 min ; 110%-130%: 1 min ; 130%-150%: 10 sec ; >150%: 2 sec						
Parallel		Up t	0 4				
Power Factor	0.9						
	BATTERIES						
Туре		Sealed lead acid batte	ery, maintenance free				
Rating	12V/7Ah		12V/9Ah				
Number of batteries	20	According to capacity of external batteries	20	According to capacit of external batteries			
Back-up Time (typical load)***	> 10 minutes		>10 minutes				
DC Voltage		240\	/dc				
Charging Time	< 5 hours GENERAL CHARACTERISTICS						
Transfer Time (Inverter to bypass)	0 ms						
Efficiency (online mode)	>92%						
Dimensions WxDxH (mm)	260x550x708						
Net Weight (kg)	86	34	92	37			
Operating Temperature		0°C ~	45 °C				
Noise Level (at 1m)	<50dB <55dB						
Humidity tolerance	0-95% (no condensing)						
Interface standard via Smart USB	WinPower Software supports: Windows 95/98/NT/2000/XP/ME, Linux, Sun Solaris, IBM Aix, FreeBSD HP-UX, and MAC						
Interface for Intelligent Slot	SNMP / RS485 / AS400 Card/ ModBus						
Compliance	 European Directives: L V 2006/95/CE Low voltage directive; EMC 2004/108/EC Electromagnetic compatibility directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C3 Classification according to IEC 62040-3 (Voltage Frequency Independent) VEL- SS - 111 						

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Note: product specifications are subject to change without further notice

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Technical Specifications

MODEL		ZP120N-10K-31C	ZP120N-10K-31C-KS*	ZP120N-10K-31	ZP120N-10K-31-KS*	ZP120N-20K-31	ZP120N-20K-31-KS*	
Power F	Rating		10000V	A/9000W		20000VA	/18000W	
		e H		INP	JT			
Rated V	/oltage			AC/240VAC 1ph 3ph (autosensing)		220VAC/230VAC/240VAC 1ph or 380/400/415 3ph (autosen- sing)		
	Voltage Tolerance	110Vac-176Vac(*) -276Vac (±1%) Phase				110Vac-	276Vac	
1 phase	Voltage Range - Line Low Transfer				176Vac/110Vac (± 3%) based on load percentage 100%/50%			
	Voltage Range - Line High Transfer					276Vac	(± 3%)	
	Voltage Tolerance	190Vac-304Vac(**) -478Vac (±1%) 3 Phase			190Vac-478Vac			
3 phase	Voltage Range - Line Low Transfer				305Vac/190Vac (± 3%) based on load percentage 100%/50%			
11-2	Voltage Range - Line High Transfer					478Vac	(± 3%)	
Frequer	ncy Range			45-55Hz /	54-66Hz			
THDi %				<5% with	full load			
Power F	actor			≥0.99 (FU	LL LOAD)			
				OUTF	PUT			
Rated V	/oltage		200V	/AC**/208VAC**/22	0VAC/230VAC/24	10VAC		
Voltage	Regulation			± 1	%			
Rated F	requency AC Mode			50/60 Hz	± 0,2 %			
Crest R	atio			3:	1			
Harmor	nic Distortion			< 2% THD,	linear load			
Output	Waveform			Pure Si	newave			
Overloa	d Capability	10	0%-110%: 5 min;	110%-130%: 1 mi	n ; 130%-150%:	10 sec; >150%: 2 s	ec	
Power	Factor			0.	9			
Parallel				Up 1	to 4			
				BATTE	RIES			
Туре		Sealed lead acid battery, maintenance free						
Rating		12V/9Ah		12V/7Ah		12V/7Ah		
Numbe	rs of batteries	20	According to capacity	24+24 optional	According to capacity	24+24 optional	According to capacity	
Back-u	p Time (typical load)***	> 10 minutes	of external batteries	> 6 minutes + 6 minutes optional	of external batteries	> 6 minutes + 6 minutes optional	of external batteries	
DC Volt	age	240	Vdc	288	Vdc	288	Vdc	
Chargin	g Time	< 5 hours						
		GENERAL CHARACTERISTICS						
Transfer	Time (Inverter to bypass)			O r	ns			
Efficien	cy (online mode)	>9	2%	>93	3%	>92%		
Dimens	ions WxDxH (mm)	260x55	50x708	350x65		50x890		
Net We	ight (kg)	93	38	17	75	160	53	
Operati	ng Temperature			0°C ~	45 °C	5 °C		
Noise L	evel (at 1m)	<55dB <55dB <55dB		<55dB	<55dB			
Humidit	ty Tolerance	0-95% (no condensing)						
Interfac	e standard via Smart USB	WinPower Software supports: Windows 95/98/NT/2000/XP/ME, Linux, Sun Solaris, IBM Aix, FreeBSD, HP-UX, and MAC						
Interfac	e for Intelligent Slot	SNMP / RS485 / AS400 Card/ ModBus						
Complia	ance	• Standards: Safety	IEC EN 62040-1; E	Low voltage directive MC IEC EN 62040-2 -3 (Voltage Frequency	C3	C Electromagnetic cor SS - 111	npatibility directive	
* ks vers	ions are supplied with extra battery c	harger	PACE 100		occori # E			

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