

CRYSTAL SERIES





ON-LINE 1-PHASE INPUT 1-PHASE OUTPUT

General Features

- High-frequency and double-conversion online technology
- Wide input voltage range
- Advanced PFC technology (Power Factor Correction)
- Very low total harmonic distortion (THD)
- Self-testing capability at startup
- Advanced battery management (ABM)
- Cold start feature (with fully charged batteries)

- Battery charging while UPS is off
- Lightning and surge protection feature
- Intelligent fan management based on load
- Additional backup time with batteries (optionel)
- Short circuit and overload protection
- EMI/RFI noise filter
- RS232 (SNMP optional)
- Shutdown & Restart capability through software

Control, Protection, and Communication

- High-temperature protection
- Fan test protection
- Protection against AC, L and N incorrect connections
- Output short circuit protection
- Silent operation; cold start; AC resart, automatic restart
- RS232, SNMP card, USB

Technical Specifications

Model			JCL 1000	JCL 2000	JCL 3000	JCL 6000	JCL 10000	
Power (kva)			1 kVA	2 kVA	3 kVA	6 kVA	10 kVA	
Nominal voltage					220V			
Frequency					50Hz/60Hz(oto)		
Input voltage ran	nge			110 ~ 300 VAC(h	nalf load). 140-3	300VAC (full load)	
Input frequency range			45-55 Hz ± 0,5% 50 Hz 55-65 Hz ± 0,5% 60 Hz					
Phase	Phase				nophase + N +			
Power factor			≥0.9		Topilade - It	≥0.99		
Input current (ful	II load)		4.0A	8.1A	12.1A	24.2A	40.4A	
THD	•				<5%			
Bypass voltage ra	ange				186VAC-252VA	С		
Output								
Nominal voltage			Adj	ustacle from LCD	/208VAC/220V	AC/230VAC/240	VAC	
Power factor				0,8				
Valtoge range					±2%			
Dc Voltage					≤1 Hz/s			
Crest Factor					3:01			
Frequency								
Ac Mode				Sam	e as input frequ	iency		
Battery mode					50/60±0.2Hz			
Pahese lock spee	ed				≤1 Hz/s			
Waveform				100 % lineer load	d <3%; 100%; no	o llineer load <5%	6	
Transfer Ti	me							
•	node transition tin				0ms			
Battery to grid m	ode transition tim	ne			0ms			
Grid to bypass m	ode transition tim	ne			≤4ms			
Bypass to grid mo	ode transition tim	е			≤4ms			
Normal operation	n mode to ECO m	ode transition time			≤10ms			
Sytem Ful	ll load		%90	0		%92		
efficiency ECC	O Mode				%94			
Inverter overload	d capacity					ass mode transit ss mode transitio		
Battery				130% 3001113 Ala	iiii duillig bypa	ss mode transition	ווע	
Battery type				Maintenar	nce-Free Lead A	cid Battery		
DC Voltage			24D VC	48V DC	72V DC	168V DC	168V DC	
Battery quantitiy	,		7AH/12V	7AH/12V	7AH/12V	0.411/1.21/		
OI :	'				/ AI I/ 12 V	9AH/12V	9AH/12V	
Charging			2	4	6	9AH/12V 14	9AH/12V 14	
				4				
Charge			2		6	14	14	
Charge Output voltage				55±0.6V	6 82.5±0.9V	14 193.7±0.9V		
Charge Output voltage Charging method			2	55±0.6V	6 82.5±0.9V 3-Stage Chargin	14 193.7±0.9V	14	
Charge Output voltage Charging method			2	55±0.6V 390% capacity re	6 82.5±0.9V 3-Stage Chargin ached after 5 h	14 193.7±0.9V g ours of charging	14	
Charge Output voltage Charging method Recharge time	d		2	55±0.6V 590% capacity re Battery (for m	6 82.5±0.9V 3-Stage Chargin	14 193.7±0.9V g ours of charging tional charger)	14	
Charge Output voltage Charging method Recharge time	d		2	55±0.6V 390% capacity re Battery (for m	6 82.5±0.9V 3-Stage Chargin ached after 5 h odels with addi	14 193.7±0.9V g ours of charging tional charger)	14	
Charge Output voltage Charging method Recharge time Input voltage ran	d nge		2	55±0.6V 3 90% capacity re Battery (for m	6 82.5±0.9V 3-Stage Chargin ached after 5 h odels with addi 80VAC~300VA	14 193.7±0.9V g ours of charging tional charger) C 1A	14	
Charge Output voltage Charging method Recharge time Input voltage ran	d nge		2	55±0.6V : 90% capacity re Battery (for m St Model wi	6 82.5±0.9V 8-Stage Chargin ached after 5 h odels with addi 80VAC~300VA andard Model:	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A	14	
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Charge Output voltage Charging method Recharge time Input voltage ran Charging current Software Fo	d nge : eatures	perating status, data informat	2 27.5±0.4V	55±0.6V : 90% capacity re Battery (for m St Model wi	6 82.5±0.9V 8-Stage Chargin ached after 5 h odels with addi 80VAC~300VA andard Model: th Additional C	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A	14	
Charge Output voltage Charging method Recharge time Input voltage ran Charging current Software Fo	d nge : eatures	perating status, data informat	2 27.5±0.4V	55±0.6V : 90% capacity re Battery (for m St Model wi	6 82.5±0.9V 8-Stage Chargin ached after 5 hodels with addi 80VAC~300VA andard Model: th Additional Cle increased up	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A	14	
Charge Output voltage Charging method Recharge time Input voltage ran Charging current Software Fo Status Analysis: U Display	d nge : eatures JPS on/off, UPS op		2 27.5±0.4V tion history	55±0.6V : 90% capacity re Battery (for m St Model wi	6 82.5±0.9V 8-Stage Chargin ached after 5 h odels with addi 80VAC~300VA andard Model: th Additional C	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A	14	
Charge Output voltage Charging method Recharge time Input voltage ran Charging current Software Fo Status Analysis: U Display	d nge : eatures JPS on/off, UPS op	ons For System Ope	2 27.5±0.4V tion history	55±0.6V : 90% capacity re Battery (for m St Model wi	6 82.5±0.9V 8-Stage Chargin ached after 5 hodels with addisovAc~300VA andard Model: th Additional Cle increased up	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A	14	
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Charge Output voltage Charging method Recharge time Input voltage ran Charging current Software Fo Status Analysis: U Display Environmer	d nge : eatures JPS on/off, UPS on	ons For System Ope Operating temperature	2 27.5±0.4V tion history	55±0.6V 90% capacity re Battery (for m St Model wi (can b)	6 82.5±0.9V 3-Stage Chargin ached after 5 hodels with addisovandard Model: th Additional Cle increased up to the CD/LED 0~40°C -25°C~55°C 0% (non-conde	14 193.7±0.9V g ours of charging tional charger) C 1A harger: 6A to 12A)	14	
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