



## **LCD** Operation

LCD control panel consists of LCD display board, LED and buttons, which displays and controls these information including Running information, alarm information, function setting information.



Intelligent slot optional





Relay card

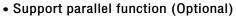
Parallel cable





Parallel board

## **Features**





- · Optimization battery group the quantity of battery:16/18/20pcs
- Wide input voltage range:208~478Vac
- Wide input frequency range:40~70Hz
- Maximum charging current up to 18A (Settable)
- Support 3/1 and 1/1 operation
- · Generator compatible
- ECO mode operation for energy saving
- · Design with maintenance switch
- Cold start
- Intelligent fan speed regulation
- · Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Colorful 2.4 inch TFT LCD display is optional
- · Multiple protection function:short-circuit,overload,overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface:RS232/USB/EPO (Relay card /SNMP card/Parallel kit optional)

QUALITY STANDARD COMPLIANCE













NEW Upgrade MICROPROCESSOR





## **True Online UPS** Rating 10kVA, 15kVA, 20kVA

## 3 Phase in, 1 Phase out



Mominal voltage   200/20072479/set (LH4PE)	MODEL		ZC-MP 10kVA	ZC-MP 15kVA		ZC-MP 20kVA	
Sand-Model15b/scc (SPH-N.PE)	Capacity		10kVA / 9kW	15kVA / 13.5kW		20kVA / 18kW	
Digrating violage range	INPUT						
Depreting frequency range	Nominal voltage			380/400/415Vac (3PH+N+PE) 220/230/240Vac (L+N+PE)			
Max.voltage.220V-25% (p0ptional+10%, ±15%, ±20%)	Operating voltage range			208~478Vac; 120~276Vac			
Sypass voltage range	Operating freq	uency range		40~70Hz (50/60Hz Auto-Sensing)			
Frequency protection range	Bypass voltage range		230V:+20% (Optional+10%,+15%) 240V:+15% (Optional+10%)				
Output Voltage         220/230740Vac (L+N+PE)           Voltage regulation         £1%           Power factor         0.9           Output         Line mode (frequency Statum)         £1%/£2%/£4%/£5%/£10% of the rated frequency (Optional)           Frequency         Bat. mode (S0/60-0.1%)Hz         C0/60-0.1%)Hz           Transfer time (frequency Statum)         Accepted (S0/60-0.1%)Hz         C0/60-0.1%)Hz           Transfer time (frequency Statum)         Accepted (S0/60-0.1%)Hz         C0/60-0.1%)Hz           Crest factor         3-1         C0/60-0.1%         C0/60-0.1%           Harmonic distortion (THDV)         £3% Linear load         C5% Non linear load           Salt mode (S150%): last 1 minimal turn to bypass; 210% last 10min turn to bypass; 210% last 10min turn to bypass sende immediately turn to bypass mode immediately turn bypass mode immedi	FREQUENCY						
Output voltage voltage repulation         ±1%           Voltage repulation         ±1%           Overval factor         0.9           Output         Line mode         ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)           Fransfet time from the fire to Bypass         0ms           Output waveform         Pure Sinewave           Crest factor         3:1           Harmonic distortion (THDv)         ±2% Linear load           55% No. linear load         55% No. linear load           55% No. linear load         55% No. linear load           60verload         AC mode         Loads110%: last 60min turn to bypass; \$125%; last 10min turn to bypass; \$150%; tast 10min turn to bypass; \$125%; tast 10min turn to bypass; \$150%; turn to bypass mode immediately           Note that the fire time is the fire time is the fire time is the fire time; \$125% shut down UPS immediately           Note time is the fire time is the fire time is the fire time; \$125%; tast 10min; \$125%;	Frequency pro	tection range		50/60Hz±10%			
Voltage regulation	OUTPUT						
Power factor  Output	Output voltage			220/230/240Vac (L+N+PE)			
Output requency         Line mode Bat. mode (5006±0.1%) http           Fransfer time frequency         Ac mode to Batmode (nverter to Bypass)         Oms	Voltage regula	ition		±1%			
Transfer time	Power factor			0.9			
Transfer time   AC mode to Bat.mode   nwenter to Bypass   Dms	Output	Line mode	$\pm 1\%/\pm 2\%/\pm 4\%/\pm 5\%/\pm 10\%$ of the rated frequency (Optional)				
Transfer time   Inverter to Bypass   Oms	frequency	Bat. mode	(50/60±0.1%)Hz				
Inverter to Bypass   Ours	Transfer time	AC mode to Bat.mode		0ms			
Crest factor         3:1           Harmonic distortion (THDv)         ≤2% Linear load           AC mode         Load≤110%: last 60min turn to bypass; ≤125%: last 10min turn to bypass; ≤125% last 10min turn to bypass; ≤125% last 10min turn to bypass mode immediately           Batmode         Load≤110%: last 10min; ≤125%: last 11min; ≥125% blut down UPS immediately           Bypass mode         Breaker 2x32A         Breaker 2x50A         Breaker 2x50A           EFFICIENCY           Efficiency         up to 93.5%         up to 94%           Battery           Maintenance free sealed lead acid 12V9Ah           Charging current           Charging current can be set according to battery capacity           Backup time         5 min full load 15-30 mins (depend on loads)           PHYSICAL           Dimension W x D x H (mm)         220x531x450           Net weight (kg)         without battery cabinet         without battery cabinet           EPVIRONMENTAL           Charge temperature         0~40           Storage temperature         0~95% (Non condensing)           Altitude         <58dB at 1 Meter	<td>Transfer time</td> <td>Inverter to Bypass</td> <td colspan="4">0ms</td>	Transfer time	Inverter to Bypass	0ms			
Harmonic distortion (THDv)	Output waveform			Pure Sinewave			
### Armonic distortion (IHIDV)  ### AC mode	Crest factor			3:1			
Noverload   Sat   Maintenance   Free   Sat   Maintenance   Sat   Maintenance   Sat   Sat   Maintenance   Sat	Harmonic distortion (THDv)						
Bypass mode   Breaker 2x32A   Breaker 2x50A   Breaker 2x63A		AC mode					
### EFFICIENCY  Efficiency ### Up to 93.5% ### Up to 93.5%  ### BATTERY  Standard unit ### 192/216/240 Vdc (Settable)  Battery ### Maintenance free sealed lead acid 12V9Ah  Charging current ### Charging current can be set according to battery capacity  Backup time ### S min full load 15-30 mins (depend on loads)  PHYSICAL  Dimension W x D x H (mm) ### PHYSICAL  Dimension W x D x H (mm)  Net weight (kg) ### 28 ### without battery cabinet  ### PA ### A	Overload	Bat.mode	Load≤110%: last 10min; ≤125%: last 1min; ≥125% shut down UPS immediately				
### Efficiency		Bypass mode	Breaker 2x32A	Breaker 2x50A		Breaker 2x63A	
### Standard unit 192/216/240 Vdc (Settable)  ### Standard unit 192/216/240 Vdc (Settable)  ### Battery	EFFICIENCY						
Standard unit  192/216/240 Vdc (Settable)  Battery  Maintenance free sealed lead acid 12V9Ah  Charging current  Charging current can be set according to battery capacity  Backup time  5 min full load 15-30 mins (depend on loads)  PHYSICAL  Dimension W x D x H (mm)  220x531x450  Net weight (kg)  without battery cabinet  ENVIRONMENTAL  Operating temperature  Orage temperature  10~40  Storage temperature  -25~55  Humidity range  0 ~95% (Non condensing)  Altitude  <1500m,derating required when>1500m  Noise level  \$58dB at 1 Meter  STANDARDS  Safety  IEC/EN62040-1,IEC/EN62477-1	Efficiency		up to 93.5% up to 94%				
Battery  Maintenance free sealed lead acid 12V9Ah  Charging current  Charging current can be set according to battery capacity  Backup time  5 min full load 15-30 mins (depend on loads)  PHYSICAL  Dimension W x D x H (mm)  220x531x450  Net weight (kg)  22 without battery cabinet  ENVIRONMENTAL  Operating temperature  5 conge temperature  10~40  Storage temperature  10~95% (Non condensing)  Altitude  Noise level  55dB at 1 Meter  STANDARDS  Safety  Maintenance free sealed lead acid 12V9Ah  Charging current can be set according to battery cabite best exceeded.  4 condition battery capacity  8 without battery cabinet  28 without battery cabinet  Without battery cabinet  40~40  Charging current can be set according to battery capacity  8 without battery capacity  9 without battery capacity  9 without battery cabinet  10~40  Charging current can be set according to battery capacity  8 without battery capacity  9 witho	BATTERY						
Charging current  Backup time  5 min full load 15-30 mins (depend on loads)  PHYSICAL  Dimension W x D x H (mm)  220x531x450  Net weight (kg)  22 without battery cabinet  ENVIRONMENTAL  Operating temperature  Orage temperature  Storage temperature  Urage  Orage temperature  10°40  Storage temperature  0°40  Storage temperature  0°40  Storage temperature  10°40  Storage temperature  10°40  Storage temperature  10°40  Storage temperature  10°40  Storage temperature  10°556  Humidity range  1500m,derating required when>1500m  Noise level  55dB at 1 Meter  55dB at 1 Meter  STANDARDS  Safety  IEC/EN62040-1,IEC/EN62477-1	Standard unit			192/216/240 Vdc (Settable)			
Backup time 5 min full load 15-30 mins (depend on loads)  PHYSICAL  Dimension W x D x H (mm) 220x531x450  Net weight (kg) 22 24 24 without battery cabinet without battery cabinet without battery cabinet  ENVIRONMENTAL  Operating temperature 0°-40° Storage temperature -25°-55° Humidity range 0°-95% (Non condensing) Altitude <1500m, derating required when>1500m  Noise level <55dB at 1 Meter <58dB at 1 Meter  STANDARDS  Safety IEC/EN62040-1, IEC/EN62477-1	Battery			Maintenance free sealed lead acid 12V9/	Ah		
PHYSICAL  Dimension W x D x H (mm)  Net weight (kg)  Net weight (kg)  PHYSICAL  Net weight (kg)  PHYSICAL  Net weight (kg)  PHYSICAL  Storage temperature  Storage temperature  PHYSICAL  Operating temperature  O ~ 40°  Storage temperature  -25~55°  Humidity range  Altitude  Altitude  Altitude  Altitude  STANDARDS  Safety  STANDARDS  SIEC/EN62040-1,IEC/EN62477-1	Charging current		charging current can be set according to battery capacity				
Dimension W x D x H (mm)  Net weight (kg)  22  without battery cabinet  24  without battery cabinet  ENVIRONMENTAL  Operating temperature  Or 40'  Storage temperature  10 0 40'  Storage temperature  10 0 5 5 5  Humidity range  10 0 95% (Non condensing)  Altitude  Altitude  Altitude  STANDARDS  Safety  IEC/EN62040-1,IEC/EN62477-1	Backup time		5 min full load 15-30 mins (depend on loads)				
Dimension W x D x H (mm)  Net weight (kg)  22  without battery cabinet  24  without battery cabinet  ENVIRONMENTAL  Operating temperature  Or 40'  Storage temperature  10 0 40'  Storage temperature  10 0 5 5 5  Humidity range  10 0 95% (Non condensing)  Altitude  Altitude  Altitude  STANDARDS  Safety  IEC/EN62040-1,IEC/EN62477-1	PHYSICAL						
without battery cabinet withou	Dimension W x D x H (mm)			220x531x450			
ENVIRONMENTAL           Operating temperature         0°~40°           Storage temperature         -25°~55°           Humidity range         0~95% (Non condensing)           Altitude         <1500m,derating required when>1500m           Noise level         <55dB at 1 Meter	Net weight (kg)			24 without battery cabinet	Wi		
Storage temperature         -25~55°           Humidity range         0~95% (Non condensing)           Altitude         <1500m,derating required when>1500m           Noise level         <55dB at 1 Meter	ENVIRONMEN	ITAL				·	
Humidity range         0~95% (Non condensing)           Altitude         <1500m,derating required when>1500m           Noise level         <55dB at 1 Meter         <58dB at 1 Meter           STANDARDS         IEC/EN62040-1,IEC/EN62477-1	Operating temperature			0°∼40°			
Altitude <1500m,derating required when>1500m  Noise level <55dB at 1 Meter <58dB at 1 Meter  STANDARDS  Safety IEC/EN62040-1,IEC/EN62477-1	Storage tempe	erature		-25° <b>∼</b> 55°			
Noise level         <55dB at 1 Meter				0∼95% (Non condensing)			
STANDARDS Safety IEC/EN62040-1,IEC/EN62477-1	Altitude			<1500m,derating required when>1500	m		
Safety IEC/EN62040-1,IEC/EN62477-1	Noise level		<55dB a	at 1 Meter		<58dB at 1 Meter	
	STANDARDS						
	Safety			IEC/EN62040-1,IEC/EN62477-1			
	EMC		IEC/EN62040-2,IEC61000-4-2,IEC	61000-4-3,IEC61000-4-4,IEC61000-4-5,IE	C61000-4-6,IEC61000	)-4-8	



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