

Single Phase Hybrid Inverter with Grid Feeding
& IP54 Protection



Zynex Series



Models:

ZX-3M-0816

ZX-3M-1020

3 MPPT

IP54 Protection



In Built Wifi



IP54
Protection



Dual Output



3 MPPT



Grid Feeding



Batteryless
Operation



BMS



Easy-to-install



Reliable



User-Friendly

- 3 independent MPPTs for flexible and optimized large PV array design
- Max. 20 A input current per MPPT, ideal for bifacial and large area PV modules
- Up to 200% PV array oversizing for higher energy yields
- ShadeSol shadow management

- UPS-level switching time < 10 ms
- IP54 rated design for indoor and outdoor use
- Up to 200% power output for 10s during power outages
- Multi-source design for black start integrating PV, battery, and generator

- Expandable up to 30 kW in on-grid and off-grid mode
- Compatible with both lead-acid and lithium batteries
- Smart setup, commissioning and monitoring via KNOX App

Technical Datasheet

PRODUCT MODEL	ZX-3M-0816	ZX-3M-1020
PV INPUT		
Max. PV array power	16000 Wp	20000 Wp
Max. input voltage	550 V	
MPP voltage range / rated input voltage	40-530 V / 380 V	
Min. input voltage / start voltage	40 V / 50 V	
No. of independent MPPT trackers / strings per MPPT input	3 / 1	
Max. input current / Max. power per MPP tracker	20 A / 10000 W	20 A / 10000 W
Max. short-circuit current per MPP tracker	25 A	
BATTERY INPUT		
Battery voltage range	40 V to 60V	
Max. charge / discharge power	8000 W	10000 W
Max. charge current / Max. discharge current	190 A	210 A
Battery type	LiFePO4 / Lead-acid	
AC OUTPUT		
AC voltage range / Nominal AC voltage	154 V to 276 V / 220, 230, 240, L/N	
Rated AC grid frequency	50 Hz / 60 Hz	
AC grid frequency range	45-55 Hz / 55-65 Hz	
Rated apparent power	8000 VA	10000 VA
Max. apparent power	8800 VA	11000 VA
Rated grid output current (@230 V)	34.8 A	43.5 A
Max. grid output current (@230 V)	38.3 A	47.8 A
Harmonic distortion (THD) at rated output	< 3 % (of nominal power)	
Power factor at rated power / adjustable range	1/ 0.8 leading to 0.8 lagging	
AC INPUT		
Nominal AC voltage	220, 230, 240 V, L/N	
Rated grid frequency	50 Hz / 60 Hz	
Max. input power from grid	16000 W	18000 W
Max. input current from grid	69.6 A	78.3 A
EPS OUTPUT		
Nominal AC voltage	220, 230, 240 V, L/N	
Nominal output frequency	50 Hz / 60 Hz	
Rated apparent power	8000 VA	10000 VA
Peak output apparent power (off-grid upto 10s)	16000 VA	20000 VA
Rated current (@230 V)	34.8 A	43.5 A
Max. current (@230V, continuous on-grid / off-grid)	38.3 A	47.8 A
Max. switch time	< 10 ms	
Output THDv (@ Linear load)	2 %	
GENERATOR SIDE		
Max. input apparent power	8000 VA	10000 VA
Max. charge / discharge power	8000 VA	10000 VA
Max. input current	36.4 A	45.5 A
Rated AC voltage	220, 230, 240 V, L/N	
Rated AC frequency	50 Hz / 60 Hz	
EFFICIENCY		
MPPT efficiency	99.9 %	
European efficiency / Max. efficiency	97 % / 97.6 %	
SAFETY PROTECTION		
Surge protection	● / Type II	
Insulation resistance detection	●	
PV string input reverse polarity protection	●	
Ground fault monitoring	●	
Residual current monitoring unit	●	
AC short circuit protection	●	
Anti-islanding protection	●	
GENERAL DATA		
Dimensions (W / H / D)	484 / 679 / 230 mm	
Weight	34.5 kg	
Operating temperature range	-25 °C ... +60 °C	
Cooling concept	Smart cooling	
Degree of protection (as per IEC 60529)	IP54	
Max. relative humidity	100 %	
Max. operating altitude	3000 m	
GENERAL DATA		
User interface	LED & App	
BMS interface	CAN	
Communication interfaces	Dongle: WiFi (2.4 GHz) / LAN (100 Mbps) Inverter: RS485 (ModBus RTU), LAN (100Mbps, Modbus TCP only)	
Digital output (dry contact) / No. of outputs	● / 2	
Digital input (dry contact) / No. of inputs	● / 6	
Integrated power control / export power control	● / ●	

● standard features ○ optional features