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iMars BN Series
single-phase off-grid inverter

BN1024E
BN1524E
BN2024E
BN3024E

SOLAR POWER INVERTER
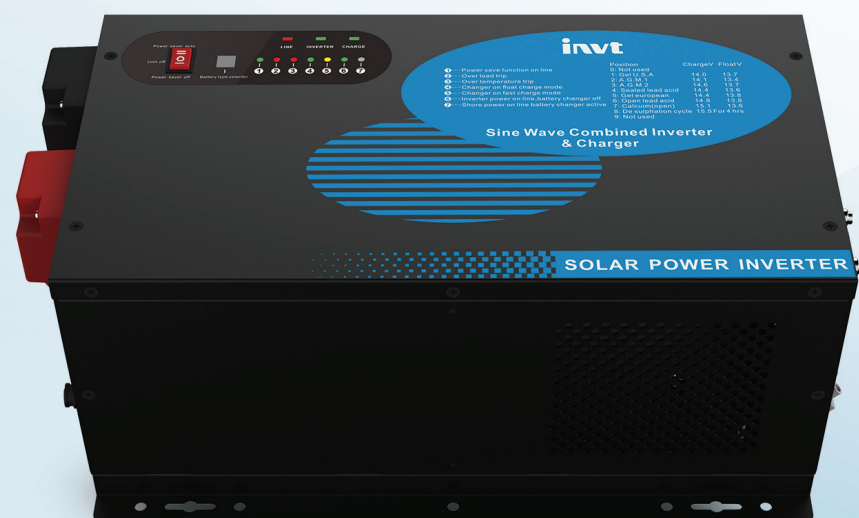
Description

iMars BN series single-phase off-grid inverter adopt the combination technology of integrating traditional isolated UPS function and solar inverter . to provide the flexible and reliable system solution for residential or industrial uninterruptible power requirements.

Features

- Protection class IP20;
- Isolated internal transformer design to ensure the stability and reliability;
- Capable of providing the continuous power to linear load or non-linear load of lamp, computer, fridge, air-conditioner and the industrial devices;
- MPPT solar charging technology;
- Electricity Quick charging function;
- Multiple charging voltage grades to adapt to more battery Topologys, to maximize battery performance;

- over-load and short-circuit protection;
- multiple working mode are optional for different working priority (Grid / battery/saving mode);
- User-friendly multiple communication module(RS485, RS232, Ethernet, GPRS, WIFI) are optional to be compatible with more monitoring device : mobile ,computer, internet/remote operation;
- Support 12/24V battery, 120V/230V (50/60Hz) output .

Specification

	1024E	1524E	2024E	3024E
Line Mode Specifications				
AC Input Voltage	220/230 Vac			
AC voltage range	155Vac~272 Vac ±2%			
Frequency	50Hz/ 60Hz (Auto detection)			
Frequency Range	47+0.3Hz ~ 55+0.3Hz for 50Hz; 57+0.3Hz ~ 65+0.3Hz for 60Hz			
Over-Load /Short Protection	Circuit breaker			
Efficiency	>95%			
Transfer Time	10ms (typical)			
Max Bypass Overload Current	30A			
Invert Mode				
Output Voltage Waveform	Sine wave			
Rated Output Power (VA)	1000	1500	2000	3000
Rated Output Power (W)	1000	1500	2000	3000
Power factor	1.0			
Output Voltage (V)	230Vac			
Output Voltage Regulation	±10%			
Output Frequency (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz			
Efficiency	>80%			
Over-Load Protection	(110%<load<125%) ±10%: Fault (shutdown output) after 15 minutes; (125%<load<150%) ±10%: Fault (shutdown output) after 60s; Load>150% ±10%: Fault (shutdown output) after 20s			
Surge Rating (10s)	3000VA	4500VA	6000VA	11000VA
Capable of starting electric motor	1 HP			2HP
Output Short-Circuit Protection	Current limit (Fault after 10s)			
Bypass Breaker Size	10A		30A	
Nominal DC Input Voltage/ Min DC start voltage	24V /22V			
DC voltage range	20.0Vdc~32Vdc , ± 0.6Vdc regulation（Low alarm:21V; Shut-down: 20V; High fault: 32V;High recovery:31V）			
Power saver	Load ≦25W (Enabled on "P/S auto" setting of Remote control)			
AC OUTPUT 2 (LOAD)				
Charge Current	20A	25A	35A	50A
Charge Current Regulation	± 5Adc			
Battery initial voltage	20 –31.4Vdc			
Charger Short Circuit Protection	Circuit breaker			
Breaker Size	30A			
Over Charge Protection	Bat. V ≥ 31.4Vdc, beeps 0.5s every 1s & fault after 60s			
Charger(solar)				
MPPT Voltage range	15-90V			
Max PV open-circuit voltage	90V			
Rated Charge Current	50A			
efficiency	98%			
Overload protection(DC load)	2.0xInom>20s, 1.5xInom temperature controlled			
Battery temperature sensor	BTS-optional remote battery temperature sensor for increased charging precision			
Standby Power Consumption	5W			
General Specifications				
Safety Certification/ EMC Classification	CE(EN62040−1), EN62040-2, C2			
Protection class	IP20			
Operating temperature range	-15°C to 40°C (-25°C ～60°C for storage)			
Operation humidity	5% to 95%			
Audible Noise	60dB max			
Communication	RS-485/RS-232/Remote control			
Size	381mm x 217mm x 179mm		461mm x 217mm x 179mm	