



 frelit[®]



www.frelitenergy.com

ABOUT US

Frelit Energy Private Limited, founded in 2019 and based in Vadodara, Gujarat, is a leading manufacturer of high-performance solar inverters and power solutions for residential, commercial, and industrial use. Focused on technology and quality, we ensure energy efficiency, seamless power conversion, and durability. With strong R&D, we help individuals and businesses achieve energy independence while reducing costs. Committed to sustainability and customer satisfaction, we provide expert guidance, reliable after-sales support, and cost-effective solar solutions for a greener future.



Our Vision

Frelit Energy envisions a sustainable future powered by advanced solar solutions, making renewable energy the preferred choice for a greener, energy-independent world.

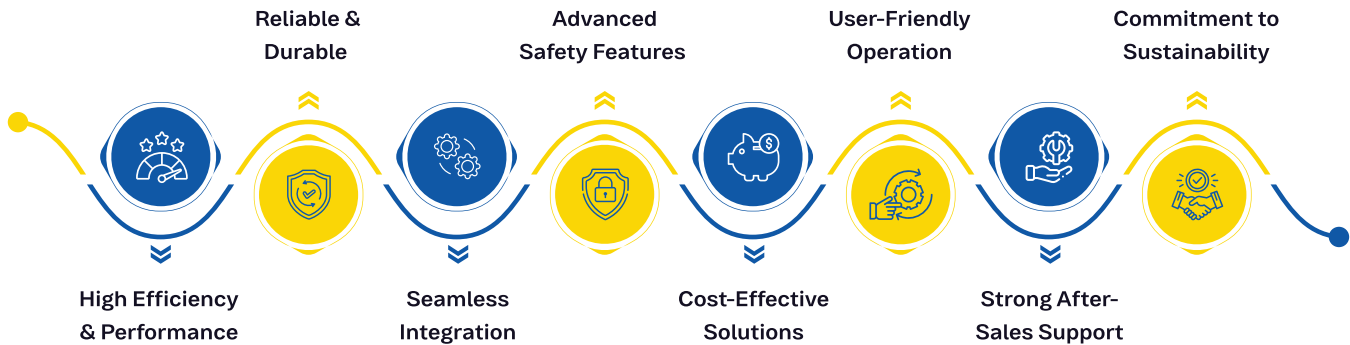


Our Mission

To makes clean energy accessible and reliable through innovative, cost-effective solar solutions, strong partnerships, and seamless customer support for a sustainable future.

Why Choose Frelit Energy?

Frelit Energy is committed to delivering high-performance solar solutions that ensure efficiency, reliability, and sustainability. Here's why we stand out:



- **High Efficiency & Performance** – Our advanced power conversion technology maximizes energy output for optimal performance.
- **Reliable & Durable** – Designed for long-term use, our solar inverters seamlessly integrate with residential, commercial, and industrial solar systems.
- **Advanced Safety Features** – Equipped with multiple protection mechanisms to prevent voltage fluctuations, overloads, and short circuits.
- **Cost-Effective Solutions** – Offering top-quality solar technology at competitive pricing, ensuring the best value for your investment.
- **User-Friendly Operation** – Smart monitoring and intuitive interfaces enable real-time performance tracking for hassle-free usage.
- **Strong After-Sales Support** – We provide dedicated technical assistance and warranty coverage to ensure long-term reliability.
- **Commitment to Sustainability** – Our solutions promote clean energy adoption, contributing to a greener and more sustainable future.



Single Phase On-Grid Inverter 1kW-6kW

- High DC/AC ratio for more yields.
- Low start-up Voltage
- Wide Input Voltage Range.
- Anti-PID function
- Anti Islanding/Overvoltage Protection
- Smart cooling models.
- Remote monitoring (Wi-Fi/GPRS).
- Bigger Graphic LCD Display
- Efficiency up to 97.8% for superior energy conversion
- Compact and light weight design for an easy Installation.



TECHNICAL SPECIFICATIONS

MODEL NO.	FE-1.1S1	FE-2.2S1	FE-3.0S1	FE-3.4S1	FE-4.0S1	FE-4.4S1	FE-4.7S1	FE-5.0S1	FE-5.5S1	FE-6.0S1
DC Side/ Input Parameters										
Max DC Power (W)	1350W	2650W	3600W	4100W	4800W	5300W	5650W	6000W	6600W	7200W
Max DC Voltage (Vdc)	550	550	550	550	550	550	550	550	550	550
Min System Start/Shut down Voltage (Vdc)	65/70	75/100	75/100	75/100	75/100	75/100	75/100	75/100	75/100	75/100
MPPT Voltage Range (Vdc)	70~450	100~450	100~450	100~450	100~450	100~450	100~500	100~500	100~500	100~500
Max. Input Current(A)	18 A						22 A			
Max.Input Short Circuit per MPPT	25 A						30 A			
Number Of MPP Trackers	1									
Strings per MPP Trackers	1									
AC Side / Output Parameters										
Rate Output Power (W)	1100	2200	3000	3400	4000	4400	4700	5000	5500	6000
Nominal Output Voltage / Range (V)	208,220,230,240/180-270									
AC Grid Frequency/Range(Hz)	50Hz,60Hz(Auto-Selection)/44Hz-55Hz;54Hz-65Hz									
Maximum Output Current(A)	6	8	12	16	16	16	21	23	23	28
AC Connection(With PE)	Single Phase									
Current Distortion (THDi)	<1.5%	<1.5%	<1.5%	<1.5%	<1.5%	<2.5%	<2.5%	<2.5%	<2.5%	<2.5%
Power Factor	~1% (Adjustable from 0.8 Leading to 0.8 Lagging)									
Efficiency										
Maximum Conversion Efficiency	97.3%	97.3%	97.4%	97.5%	97.8%	97.8%	97.8%	97.5%	97.5%	97.6%
European Efficiency	97.0%	97.0%	97.1%	97.2%	97.3%	97.3%	97.3%	97.2%	97.2%	97.3%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Safety and Protection										
DC Reverse-Polarity Protection	Yes									
Anti Islanding /Overvoltage Protection	Yes									
Short Circuit Protection	Yes									
Leakage Current Protection	Yes									
Grid Monitoring/Ground Fault Monitoring	Yes									
DC/AC Side SPD (Thermally Protected)	Yes									
General Parameters										
Dimension (L/W/H)(mm)	300/294/104						370/318.5/105.5			
Weight (Kg)	5						7			
Embedded DC Switch	Optional									
Night Power Consumption(W)	<0.2									
Isolation Type	Transformerless									
Protection Degree	IP65									
Operation Temperature (°C)	-25 to +60									
Cooling Concept	Natural Convection									
Operating Attitude (m)	<2000m Without Power Derating									
Acoustic Noise Level (dB)	<25									
Display	Graphic LCD									
Communication Interface	Standard WiFi; RS485 (Optional)									
Warranty	10 Years									



Three Phase On-Grid Inverter 4kW-15kW

- High DC/AC ratio for more yields.
- Low start-up Voltage
- Wide Input Voltage Range .
- Anti-PID function
- Anti Islanding/Overvoltage Protection
- Smart cooling models.
- Remote monitoring (Wi-Fi/GPRS).
- Bigger Graphic LCD Display
- Efficiency up to 97.8% for superior energy conversion
- Compact and light weight design for an easy Installation.



TECHNICAL SPECIFICATIONS

MODEL NO.	FE-4.0T2	FE-5.0T2	FE-6.0T2	FE-7.0T2	FE-8.0T2	FE-10.0T2	FE-12.0T2	FE-15.0T2
Input (DC)								
Max DC Power (W)	4800W	6000W	7200W	8400W	9600W	12000W	14000W	18000W
Max DC Voltage (Vdc)	1000Vdc							
Min Working Voltage (Vdc)	160Vdc							
MPPT Voltage Range (Vdc)	160~850Vdc							
Max. Input Current/Per String (A)	18A / 18A							
Max. Input Short Circuit Per MPPT	25A / 25A							
Number Of MPP Trackers	2							
Strings per MPP Trackers	1							
Output(AC)								
Rate Output Power (W)	4000	5000	6000	7000	8000	10000	12000	15000
Nominal AC Output	8	10	12	14	15	17	20	23
AC Output Range	45/55Hz; 280~490 Vac (Adj)							
Power Factor	Adjustable from 0.8 Leading to 0.8 Lagging							
Harmonics	<5%							
Grid Type	3 W/N/P/E							
Efficiency								
Maximum Conversion Efficiency	98.0%	98.2%	98.2%	98.3%	98.3%	98.4%	98.4%	98.4%
European Efficiency	97.5%	97.7%	97.7%	97.8%	97.8%	97.9%	97.9%	98.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Safety and Protection								
DC Breaker	Yes							
DC/AC SPD	Yes							
Residual Current Protection	Yes							
Leakage Current Protection	Yes							
Insulation Impedance Detection	Yes							
General Parameters								
Dimension (L/W/H)(mm)	480*476*157							
Weight (Kg)	16							
Operating Temperature Range (°C)	-25 to +60							
Degree of Protection	IP65							
Cooling Concept	Smart Cooling							
Isolation Type	Transformerless							
Display	Graphic LCD							
Humidity	0-95%, No Condensaon							
Communication	Standard WiFi; RS485 (Optional)							
Warranty	10 years							



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Corporate Office :

Frelit Energy Private Limited

315 to 318 Lilleria Paramount & Richmond
Towers, Nr. Tulsidham Cross Roads,
Manjalpur, Vadodara, Gujarat - 390011

Factory Address :

Frelit Energy Private Limited

Plot No. 147, Aatmiya-2 Industrial Park,
Manglej, Taluka Karjan, Gujarat - 391210

For Sales Service

079410 56633

sales@frelitenergy.com
support@frelitenergy.com



Visit Our Website

www.frelitenergy.com



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