



VSOLE
TECHNOLOGY BEYOND IMAGINATION

India's 1st Solar PV Inverter with Latest Standards & Modern Technology



Redefining the **Solar World** with Sustainable & Reliable **Solar Inverter.**



#startupindia



**AatmaNirbhar
Bharat Abhiyan**



OUR STORY

Vsole is a start-up company formed by an experienced bunch of skilled professionals. Our Team has come together to build top notch Solar based products to meet the needs of current industry. We have successfully developed Solar grid-tie inverter & Hybrid Inverters for Solar industry those are totally reliable, easy to care, user friendly with unbreakable sustainability. We have established the corporate office in Surat, Gujarat popularly known as Solar-city of INDIA and established State of Art facility in the state of GUJARAT which is the hub of Solar business in INDIA. Our Team has a total experience of more than **12 years** in the field of Solar Energy that put us in unique position to provide end-to-end customised solution to our user's satisfaction.

With a strong belief in **"Make in India"**, Vsole's mission is to bring India made solar inverters to promote pollution free climate all around the world.



OUR VISION

Our vision is to cement a place for ourselves by being the part of this solar energy drive to take India to a next level.



OUR MISSION

Our mission is to fill the gaps in Indian solar industry by providing the most reliable & carefree product at an affordable price with long product life.

WHY VSOLE

Below mentioned unique features makes our Inverter suitable for "EVERYONE"

Affordable

So more and more people could use them and get clean energy.

Reliable

Our products are made from high grade components to work tirelessly, also they are supported by longer & unique warranty terms.

Sustainable

We understand Inverters upto chip & component level, which stand us apart from the rest in the solar industry.

Dependable

We are driven by a simple idea: **"SOLAR IS FOR EVERYONE"**. The future of energy is in Solar energy industry, we plan to fulfill the demands of industry by providing best experience through our product & Services to our distributors, dealers, EPCs players and end users. Our complete local presence across India makes us more **dependable & trustable**.

OUR USP



Cost effective & compact design.



24 hours remote service support.



Easy approach & reachability for EPC companies & end users in India.

OUR PRODUCTS



Grid Tie Inverter
Single Phase

Grid Tie Inverter
Three Phase

Bi Directional
Hybrid Inverter

GRID TIE INVERTER - SINGLE PHASE

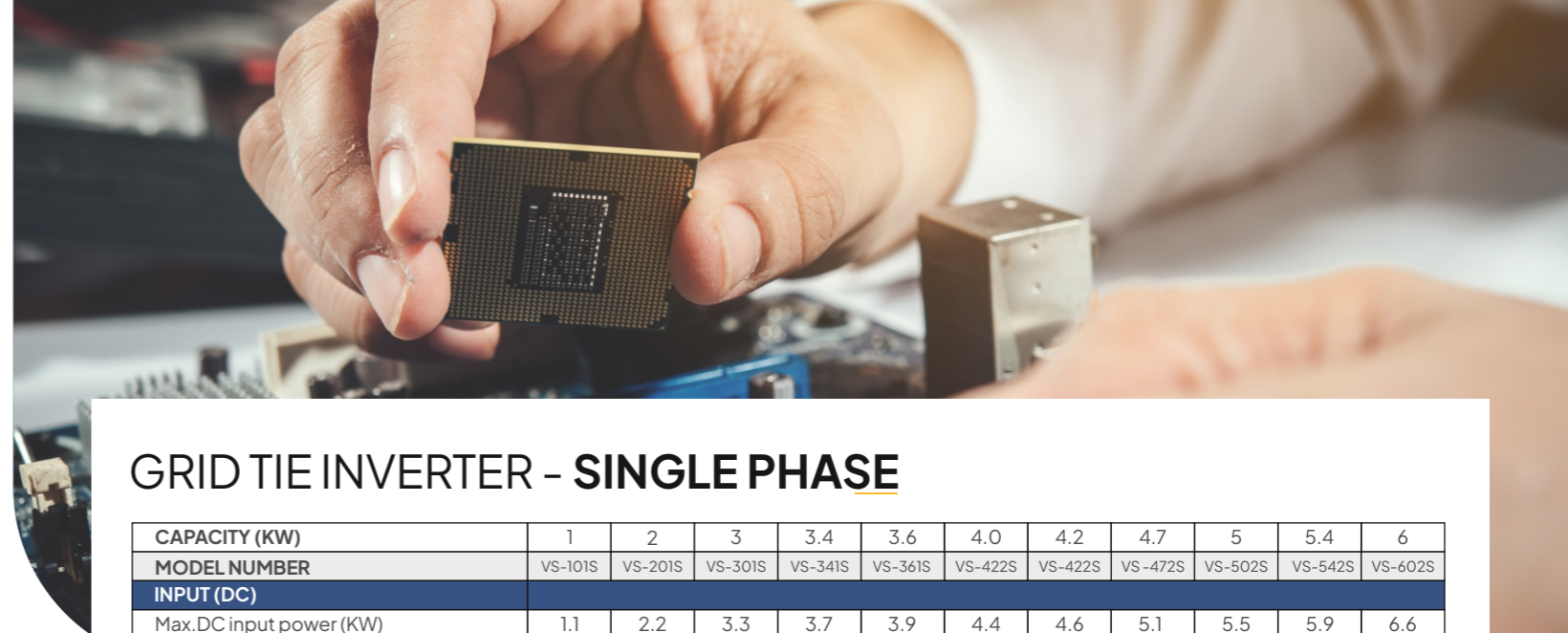
VS (101S -602S) 1.0 KW-6.0 KW

- DC overloading upto 10%.
- High DC/AC ratio for more yields.
- Max. DC input current per string; compatible upto 800WP solar panel.
- H - bridge & T-type three-level topology & enhanced SPWM (Space Pulse Width Modulation).
- Special external colour with Epoxy Novolac coating for better Heat Management.
- Wide Input Range; Low Voltage start-up of 80V.
- Compact and light weight design for an easy Installation
- Multiple MPPT Design with IDA Technology (Intelligent Disturbance Algorithm).
- Inbuilt surge protections at both AC and DC side.
- Fan-less natural cooling models.
- RS485, remote monitoring (Wi-Fi/GPRS)
- User friendly Web and Mobile App Monitoring
- Zero export enabled models (External CT required).



KEY BENEFITS

- Compact & light design for easy installation
- Wide input range
- Natural cooling
- Sole Smart Mobile app for Monitoring



GRID TIE INVERTER - SINGLE PHASE

CAPACITY (KW)	1	2	3	3.4	3.6	4.0	4.2	4.7	5	5.4	6
MODEL NUMBER	VS-101S	VS-201S	VS-301S	VS-341S	VS-361S	VS-422S	VS-422S	VS-472S	VS-502S	VS-542S	VS-602S
INPUT (DC)											
Max. DC input power (KW)	1.1	2.2	3.3	3.7	3.9	4.4	4.6	5.1	5.5	5.9	6.6
Max. DC I/P (Vdc)	550V										
Max. MPPT I/P Current (A)	13A / 20A										
MPPT Short Circuit Current (A)	20A / 30A										
MPPT Tracking Voltage (Vdc)	70-550V						80-550V				
Start-Up Voltage (V)	80V										
Number of MPPT Tracker	1			1			1/2		2		
Strings per MPPT Tracker	1										
OUTPUT (AC)											
Rated output power (KW)	1	2	3	3.4	3.6	4.0	4.2	4.7	5	5.4	6
Rated Grid Voltage (V)	230V										
Voltage Operating Range (V)	140-285V						170 - 285V				
Rated Grid freq. (Hz) / Range	50Hz (± 5%)										
Rated output current AC (A)	4.8	9.6	14.3	16.2	17.2	19	20	22.5	23.5	25.8	28.7
AC Connection	P+N+PE										
THDI (%)	<3%										
Output Power factor	0.8 leading to 0.8 lagging										
EFFICIENCY											
Max. conversion Efficiency (%)	97.5%										
Max. Euro Efficiency (%)	97.3%										
MPPT Efficiency (%)	>99%										
PROTECTION											
Anti-Islanding Protection	YES										
DC Reverse Polarity Protection	YES										
Insulation Resistance Protection	YES										
Ground Fault Protection	YES										
Output Over Current Protection	YES										
Output Short circuit Protection	YES										
Output Over Voltage Protection	YES										
DC Isolator Switch	NO										
Surge Protection	DC: Type III / AC: Type III										
GENERAL DATA											
Dimensions (W*H*D) mm	280W*272.5H*184D						330W*323H*190D				
Weight (Kg)	4.8						7.5				
Topology	Transformerless										
Noise Emission (dB)	≤25dB										
Display	LED with LCD Display										
Cooling Method	Natural Cooling										
Operating ambient Temperature	(-25°C ~ +65°C)										
Operating Humidity	0% - 100%										
Max. Operating Altitude (m)	2000 (>2000 Derating)m										
Ingress Protection	IP65										
Night Consumption (w)	<1										
Standard Warranty	8 Years (extendable upto 10 Year)										
CONNECTION TYPE											
DC connectors	MC-4										
Ingress AC plug	IP65 rated plug										
Communication Modes	WiFi / GPRS / RS 485/ ETHERNET LAN / Local Monitoring										
Remote Monitoring	YES										

GRID TIE INVERTER - THREE PHASE

VS (052T-332T) 5.0KW-330KW



- Max. efficiency up to 98.9% .
- Heavy duty inbuilt DC Isolation switch.
- Special external colour with Epoxy Novolac coating for better heat management.
- Max. DC input current per string; compatible upto 800WP solar panel.
- Type II DC / AC SPD, frequency drop control technology.
- Intelligent Fan based cooling on higher capacity models.

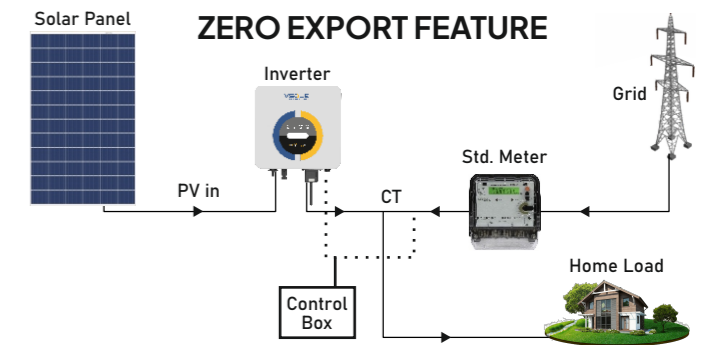
- Compact & light weight design for an easy Installation.
- RS485, remote monitoring (Wi-Fi/GPRS).
- Multiple protection functions.
- DC overloading upto 20%.

Grid Tie Inverter - Three Phase

CAPACITY (KW)	4	5	6	7	8	9	10	12	15	18	20	25
MODEL NUMBER	VS-422S	VS-502S	VS-602S	VS-072T	VS-082T	VS-092T	VS-102T	VS-122T	VS-152T	VS-182T	VS-202T	VS-252T
INPUT (DC)												
Max.DC input power (KW)	5.2	6.0	7.2	8.4	9.6	10.8	12.0	14.4	18.0	21.6	24.0	30.0
Max. DC I/P (Vdc)	1000V											
Max. MPPT I/P Current (A)	13A / 20A						13A+26A			30A		
MPPT Short Circuit Current (A)	20A / 30A						20A+40A			46A		
MPPT Tracking Voltage (Vdc)	120-1000V						180-1000V					
Start-Up Voltage(V)	140V						200V					
Number of MPPT Tracker	2											
Strings per MPPT Tracker	1						1+2			2		
OUTPUT (AC)												
Rated output power (KW)	4	5	6	7	8	9	10	12	15	18	20	25
Rated Grid Voltage (V)	415V											
Voltage Operating Range (V)	280-455V											
Rated Grid freq. (Hz) / Range	50Hz (± 5%)											
Rated output current AC (A)	6.7	7.6	9.2	10.7	12.2	13.8	15.3	18.3	22.9	27.5	30.6	38.2
AC Connection	3P + N + PE											
THDI (%)	<3%											
Output Power factor	0.8 leading to 0.8 lagging											
EFFICIENCY												
Max. conversion Efficiency (%)	98.3%											
Max. Euro Efficiency (%)	97.5%											
MPPT Efficiency (%)	>99%											
PROTECTION												
Anti-Islanding Protection	YES											
DC Reverse Polarity Protection	YES											
Insulation Resistance Protection	YES											
Ground Fault Protection	YES											
Output Over Current Protection	YES											
Output Short circuit Protection	YES											
Output Over Voltage Protection	YES											
DC Isolator Switch	YES											
Surge Protection	DC: Type II / AC: Type II											
GENERAL DATA												
Dimensions (W*H*D) mm	330W*457H*185D						330W*508H*206D					
Weight (Kg)	10.0						20.8					
Topology	Transformerless											
Noise Emission (dB)	≤45dB											
Display	LED with LCD Display											
Cooling Method	Natural Cooling						Smart Fan Cooling					
Operating ambient Temperature	(-25°C ~ +65°C)											
Operating Humidity	0% - 100%											
Max. Operating Altitude (m)	2000 (>2000 Derating)m											
Ingress Protection	IP65											
Night Consumption (w)	<1											
Standard Warranty	8 Years (extendable upto 10 Year)											
CONNECTION TYPE												
DC connectors	MC-4											
Ingress AC plug	IP65 rated plug											
Communication Modes	WiFi / GPRS / RS 485/ ETHERNET LAN / Local Monitoring											
Remote Monitoring	YES											

OPTIONAL FEATURES FOR GRID TIE INVERTERS

- Weather monitoring system (optional).
- DC Isolation Switch for Three phase inverters.
- Offline Data Storage facility upto 6 months on demand.
- String Level monitoring
- Anti- PID Function (optional).
- ZED - Zero Export Device (optional).



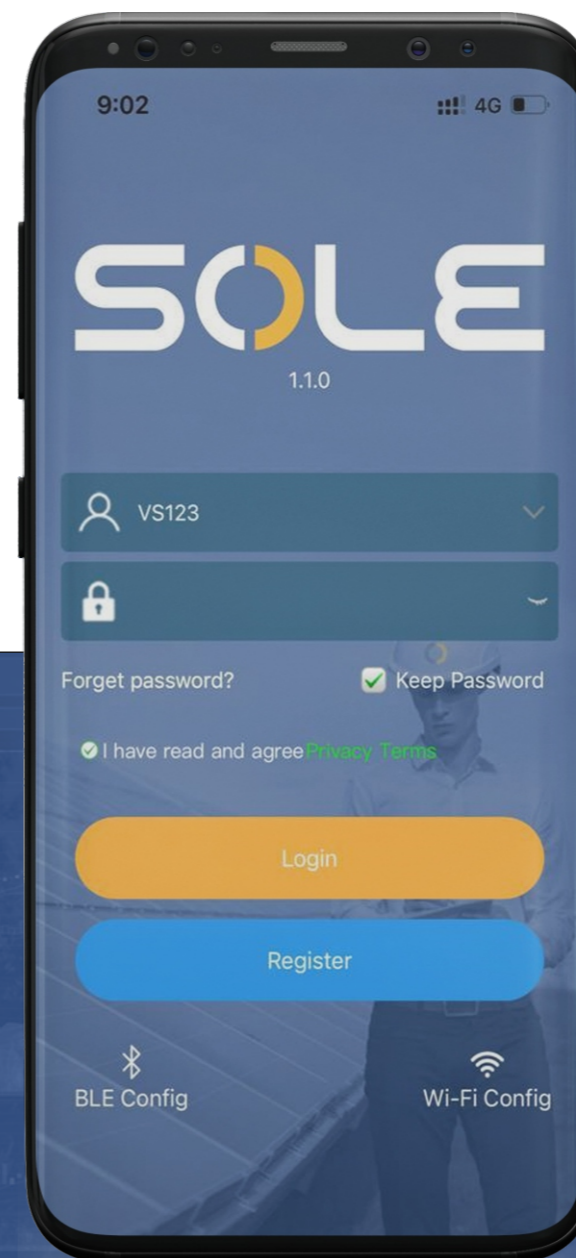
Grid Tie Inverter - Three Phase

CAPACITY (KW)	30	35	40	45	50	60	70	75	80	90	100	110	
MODEL NUMBER	VS-302T	VS-352T	VS-403T	VS-453T	VS-503T	VS-604T	VS-704T	VS-754T	VS-804T	VS-904T	VS-1004T	VS-1106T	
INPUT (DC)													
Max.DC input power (KW)	36.0	42.0	48.0	54.0	60.0	72.0	84.0	90.0	96.0	108.0	120.0	132.0	
Max. DC I/P (Vdc)	1000V												
Max. MPPT I/P Current (A)	40A												
MPPT Short Circuit Current (A)	60A												
MPPT Tracking Voltage (Vdc)	200-1000V												
Start-Up Voltage (V)	200V												
Number of MPPT Tracker	2			3			4			4/6			6
Strings per MPPT Tracker	2+3 / 3			3			4			4			
OUTPUT (AC)													
Rated output power (KW)	30	35	40	45	50	60	70	75	80	90	100	110	
Rated Grid Voltage (V)	415V												
Voltage Operating Range (V)	280-455V												
Rated Grid freq. (Hz) / Range	50Hz (± 5%)												
Rated output current AC (A)	41.7	49	55.7	63.2	70.3	84.3	99.4	105.3	113.2	127.3	141.7	154.6	
AC Connection	3P + N + PE												
THDI (%)	<3%												
Output Power factor	0.8 leading to 0.8 lagging												
EFFICIENCY													
Max. conversion Efficiency (%)	98.6%			98%			98.7%			98.3%			
Max. Euro Efficiency (%)	97.8%			98%			98.3%			98.3%			
MPPT Efficiency (%)	>99%												
PROTECTION													
Anti-Islanding Protection	YES												
DC Reverse Polarity Protection	YES												
Insulation Resistance Protection	YES												
Ground Fault Protection	YES												
Output Over Current Protection	YES												
Output Short circuit Protection	YES												
Output Over Voltage Protection	YES												
DC Isolator Switch	YES												
Surge Protection	DC: Type II / AC: Type II												
GENERAL DATA													
Dimensions (W*H*D) mm	362W*577H*215D			647.5W*537H*303.5D			700W*575H*297D			838W*568H*323D			
Weight (Kg)	25.5			44.5			60.0			73.7			
Topology	Transformerless												
Noise Emission (dB)	≤45dB												
Display	LED with LCD Display												
Cooling Method	Smart Fan Cooling												
Operating ambient Temperature	(-25°C ~ +65°C)												
Operating Humidity	0% - 100%												
Max. Operating Altitude (m)	2000 (>2000 Derating)m												
Ingress Protection	IP65												
Night Consumption (w)	<1												
Standard Warranty	8 Years (extendable upto 10 Year)												
CONNECTION TYPE													
DC connectors	MC-4												
Ingress AC plug	IP65 rated plug												
Communication Modes	WiFi / GPRS / RS 485/ ETHERNET LAN / Local Monitoring												
Remote Monitoring	YES												



GIRD TIE INVERTER - THREE PHASE

CAPACITY (KW)	120	125	135	330
MODEL NUMBER	VS-1206T	VS-1258T	VS-1358T	VS-332T
INPUT (DC)				
Max.DC input power (KW)	180	187.5	195	396
Max. DC I/P (V)	1100 V			1500V
Max. MPPT I/P Current (A)	40A			
MPPT Short Circuit Current (A)	60A			
MPPT Tracking Voltage (V)	200 -1000V			500-1500V
Start-Up Voltage(V)	250V			500V
Number of MPPT Tracker	6		8	12
Total Number of Strings	24		32	30
OUTPUT (AC)				
Rated output power (KW)	120	125	135	330
Rated output Voltage (V) / Range	3L/N/PE 220/380V,230/400V 0.85uN - 1.1 Un			800V(640-920V)
Rated output freq. (Hz) / Range	50Hz (± 5%)			
Rated output current AC (A)	174A	181.2A	188.5A	231A
AC Connection	3W + PE			
Max Output Current AC (A)	191.4A		195.7A	254A
THDI (%)	<3%			
Output Power factor	0.8 leading to 0.8 lagging			
EFFICIENCY				
Max. conversion Efficiency (%)	98.8%			99.00%
Max. Euro Efficiency (%)	98.3%			98.50%
PROTECTION				
Anti-Islanding Protection	YES			
DC Reverse Polarity Protection	YES			
Insulation Resistance Protection	YES			
Ground Fault Protection	YES			
Output Over Current Protection	YES			
Output Short circuit Protection	YES			
Output Over Voltage Protection	YES			
DC Isolator Switch	YES			
AC/DC Surge Protection	YES			
String Detection	YES			
PID Protection & Recovery	YES			
High/Low Voltage Ride Through	YES			
GENERAL DATA				
Dimensions (W*H*D) mm	1006Wx516Hx325.5D			1100W*920H*360D
Weight (Kg)	103			150
Topology	Transformerless			
Noise Emission (dB)	≤65dB			≤45dB
Cooling Method	Intelligent Air Cooling			
Operating ambient Temperature	(-30°C ~ +60°C)			
Operating Humidity	0% - 100%			
Max. Operating Altitude (m)	4000 (>4000 Derating)m			
Ingress Protection	IP65			IP66
Night Consumption (w)	<1W(Night)			<5W (Determined by testing, no higher than 10W)
Standard Warranty	8 Years(extendable upto 10 Year)			5 Years
CONNECTION TYPE				
DC Connectors	MC-4			
Communication Modes	RS 485/ RS232/WIFI/LAN			RS 485/ PLC
Remote Monitoring	YES			



INTRODUCING

SOLE
SMART

TRACK ALL
YOUR
SOLAR PROJECTS
AT ONE PLACE

MONITOR



SCAN TO DOWNLOAD **SOLE SMART MOBILE APPLICATION**



ANDROID

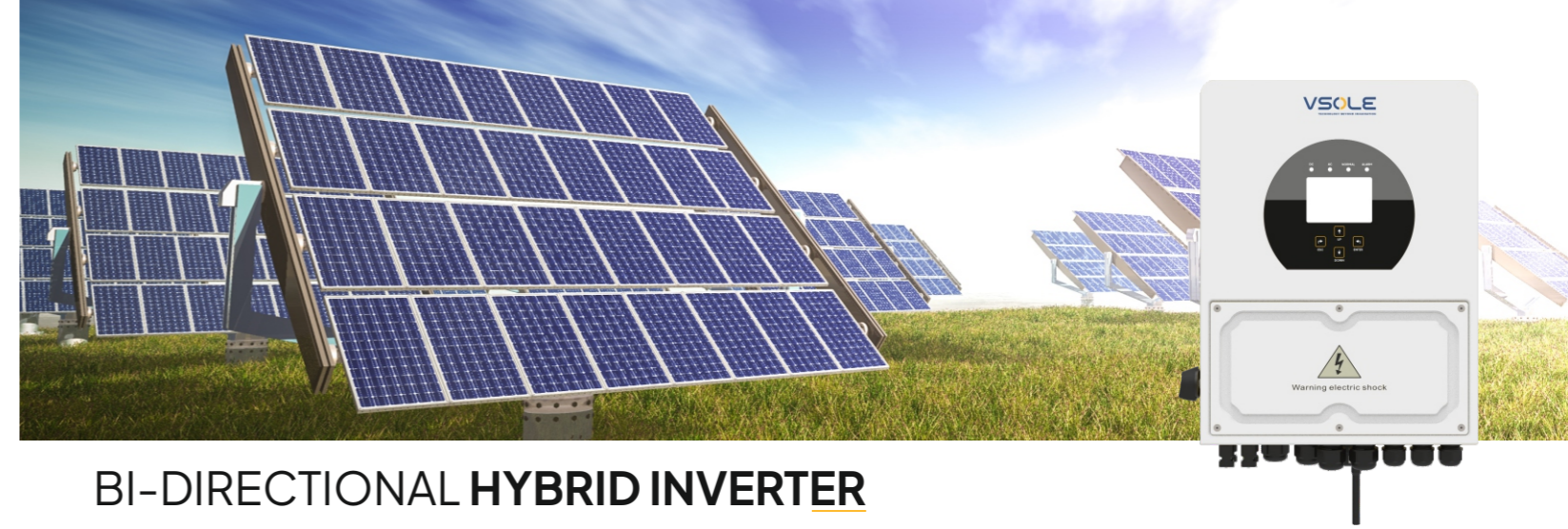


IOS

BI-DIRECTIONAL HYBRID INVERTER

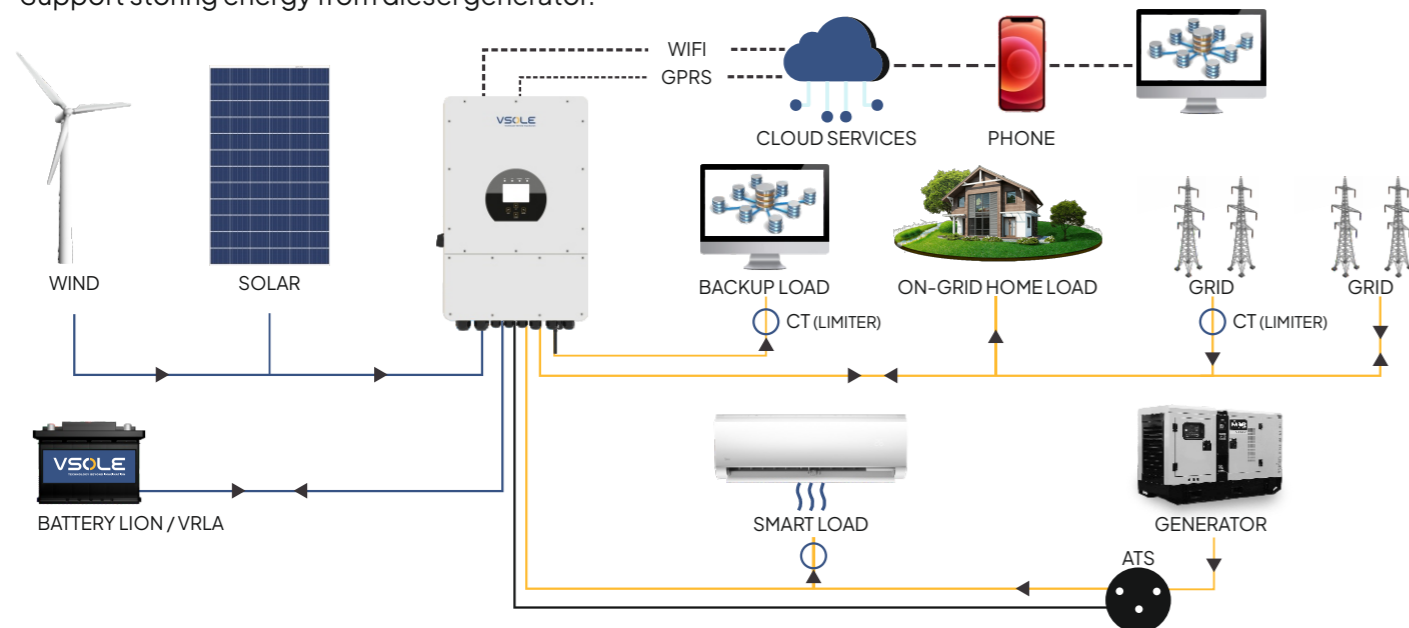
VS (HY03S - HY50T) 3.0KW-50.0KW

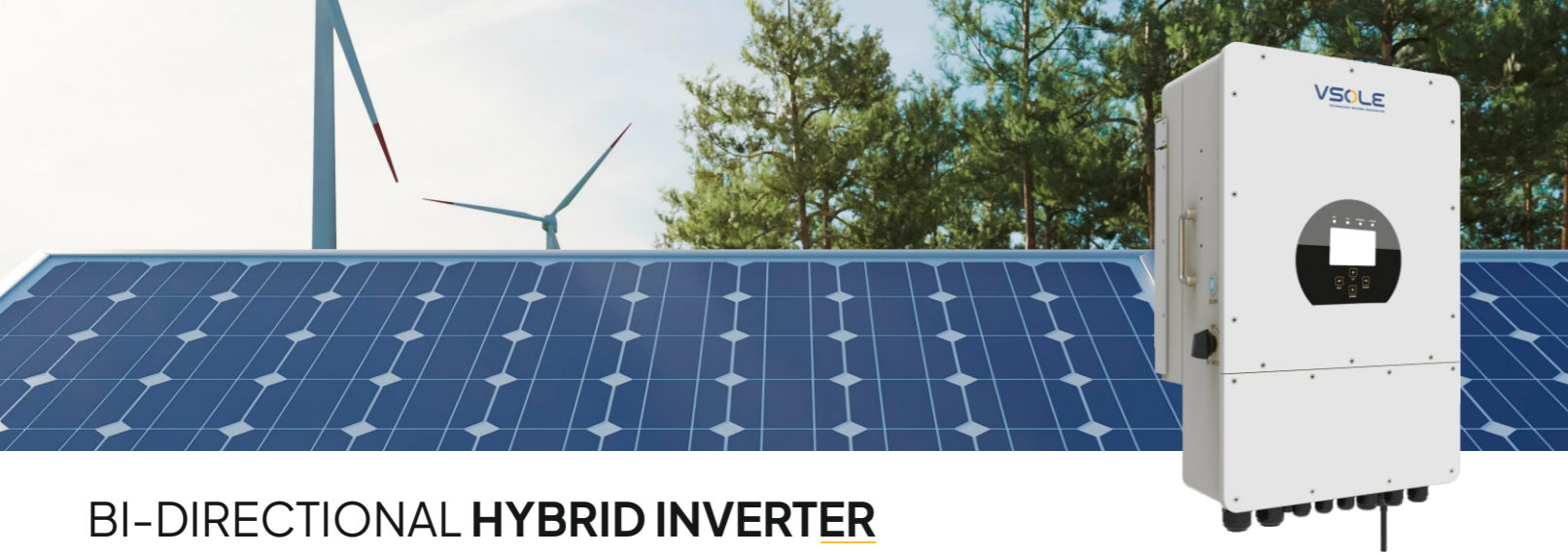
- All in 1- Off Grid / On Grid & Hybrid Bi-Directional solution
- Automatic Superfast switching time (Changeover Time) 4ms. It can be used as UPS
- Battery Management System (BMS) to protect & enhance the battery life (Li-ion/Lead Acid/Li-PO4)
- 100% unbalanced output, each phase; Max. output up to 50% rated power (Three Phase)
- Colourful touch LCD display with ease of operation & maintenance.
- Ideal solution for BLACK-OUT & BROWN-OUTS with GRID Exports with & without Battery.
- Programmable supply priority for PV, Battery & Grid.
- Inbuilt Zero Export / Reverse Power Limit to grid.
- Grid Peak Compensation Mode - It can reduce / Limit Maximum Demand (save your penalties)
- Intelligent SMART LOAD function for Air Conditioner, Geyser, Grid tie inverter & Home Appliances.
- DC couple and AC couple to retrofit existing solar system
- Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current upto 240A
- 48V low voltage battery, transformer isolation design
- 6 times period for battery charging / discharging
- Vector/frequency drop control.
- Supports using diesel generator to charge the battery directly. ensuring system energy supply 24*7Hrs
- Max. Conversion efficiency of 97.6%; Max. battery charge efficiency of 95.5%
- Support storing energy from diesel generator.



BI-DIRECTIONAL HYBRID INVERTER

	Single Phase						
CAPACITY (KW)	3KW 24V	3KW 48V	3.6KW 48V	5KW 48V	6KW 48V	8KW 48V	10KW 48V
MODEL NUMBER	VS-HY03S	VS-HY03S	VS-HY03S	VS-HY05S	VS-HY06S	VS-HY08S	VS-HY10T
BATTERY INPUT DATA							
Battery Type	Lead-acid or Li-Ion						
Battery Voltage Range (V)	20~30	40~60					
Max. Charging Current (A)	140	70	90	120	135	190	220
Max. Discharging Current (A)	140	70	90	120	135	190	220
Charging Curve	3 Stages / Equalization						
Charging Strategy for Li-Ion Battery	Self-adaption to BMS						
PV STRING INPUT DATA							
Max. DC Input Power (W)	3600	3600	4320	6000	7200	9600	12000
Rated PV Input Voltage (V)	370V						
Voltage Operating Range (V)	125~500V						
Start-Up Voltage (V)	125						
MPPT Voltage Range (V)	150~425						
Full Load DC Voltage Range (V)	300~425						
PV Input Current (A)	13	13+13		26+26			
Max. PV Isc Current (A)	17	17+17		17+17			
Number of MPPT/Strings per MPPT	1/1	2/1+1		2/2+2			
AC OUTPUT DATA							
Rated AC Output and UPS Power (W)	3000	3600	5000	6000	8000	10000	
Max. AC Output Power (W)	3300	3690	5500	6600	8800	11000	
AC Output Rated Current (A)	13	15.7	21.7	26.1	34.8	43.5	
Max. AC Output Current (A)	15	18	25	30	40	50	
Max. Continuous AC Passthrough Current (A)	35			40		50	
Peak Power (off grid)	2 time of rated power, 10 S						
Power Factor	0.8 leading to 0.8 lagging						
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)						
Grid Type	Single Phase						
DC injection current (mA)	<0.5% IN						
EFFICIENCY							
Max. Eff. efficiency	97.60%						
Euro Eff. efficiency	97%						
MPPT Eff. efficiency	99.90%						
PROTECTION							
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection						
Output Over Voltage Protection	DC Type II/AC Type III						
GENERAL DATA							
Operating Temperature Range (°C)	-45~60°C, >45°C derating						
Cooling	Natural Cooling			Smart Cooling			
Noise (dB)	≤30db						
Communication with BMS	RS485; CAN						
Weight (kg)	14	15.1		32			
Dimension excluding connectors & Brackets (mm)	330W x 433H x 238D				420W x 670H x 223D		
Protection Degree	IP65						
Installation Style	Wall-mounted						
Standard Warranty	5 Years (Extendable upto 10 Years)						





BI-DIRECTIONAL HYBRID INVERTER

	Three Phase								
	5KW 48V	6KW 48V	8KW 48V	10KW 48V	12KW 48V	15KW 48V	25KW HV	30KW HV	50KW HV
CAPACITY (KW)	5KW 48V	6KW 48V	8KW 48V	10KW 48V	12KW 48V	15KW 48V	25KW HV	30KW HV	50KW HV
MODEL NUMBER	VS-HY05T	VS-HY06T	VS-HY08T	VS-HY10T	VS-HY12T	VS-HY15T	VS-HY25T	VS-HY30T	VS-HY50T
BATTERY INPUT DATA									
Battery Type	Lead-acid or Li-Ion						Li-Ion/Li-Po4		
Battery Voltage Range (V)	40~60						160~700	160~800	
Max. Charging Current (A)	120	150	190	210	240	270	50	50+50	
Max. Discharging Current (A)	120	150	190	210	240	270	50	50+50	
Charging Curve	3 Stages / Equalization								
Charging Strategy for Li-IonBattery	Self-adaption to BMS								
PV STRING INPUT DATA									
Max. DC Input Power (W)	6500	7800	10400	13000	15600	18000	32500	39000	65000
Rated PV Input Voltage (V)	550 (160~800)V						1000V		
Start-Up Voltage (V)	160						180		
MPPT Voltage Range (V)	200~650						150~850		
Full Load DC Voltage Range (V)	350~650						625~850	360~850	450~850
PV Input Current (A)	13+13			26+13			26+26	36+36+36	36+36+36+36
Max. PV Isc Current (A)	17+17			34+17			39+39	55+55+55+55	
Number of MPPT/Strings per MPPT	2/1+1			2/2+1			2/2+2	4/2+2+2+2	
AC OUTPUT DATA									
Rated AC Output and UPS Power (W)	5000	6000	8000	10000	12000	15000	25000	30000	50000
Max. AC Output Power (W)	5500	6600	8800	11000	13200	16500	26000	33000	55000
AC Output Rated Current (A)	7.2	8.7	11.6	14.5	17.4	21.8	36.3	43.5	72.5
Max. AC Output Current (A)	8	9.6	12.8	15.9	19.1	24	39.9	47.8	79.7
Max. Continuous AC Passthrough Current (A)	45						80	200	
Peak Power (off grid)	1.5 time of rated power, 10 S								
Power Factor	0.8 leading to 0.8 lagging								
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac								
Grid Type	Three Phase								
DC injection current (mA)	<0.5% IN								
EFFICIENCY									
Max. Efficiency	97.60%								
Euro Efficiency	97%								
MPPT Efficiency	99.90%								
PROTECTION									
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection.								
Output Over Voltage Protection	DC Type II/AC Type III								
GENERAL DATA									
Operating Temperature Range (°C)	-45~60°C, >45°C derating								
Cooling	Smart Cooling								
Noise (dB)	≤45db			≤55db			≤65db		
Communication with BMS	RS485; CAN								
Weight (kg)	33.6						30.5	80	
Size (mm)	422W x 702H x 281D						408W x 638H x 237D	527W x 894H x 294D	
Protection Degree	IP65								
Installation Style	Wall-mounted								
Standard Warranty	5 Years (Extendable upto 10 Years)								

REI 2023



MSCA 2023



MASMA 2023



INTERSOLAR 2022



4 LEVEL SERVICE SUPPORT

Complaint Registration at Hotline Number +91 95120 22766 or raise the ticket from our website www.vsolesolar.com

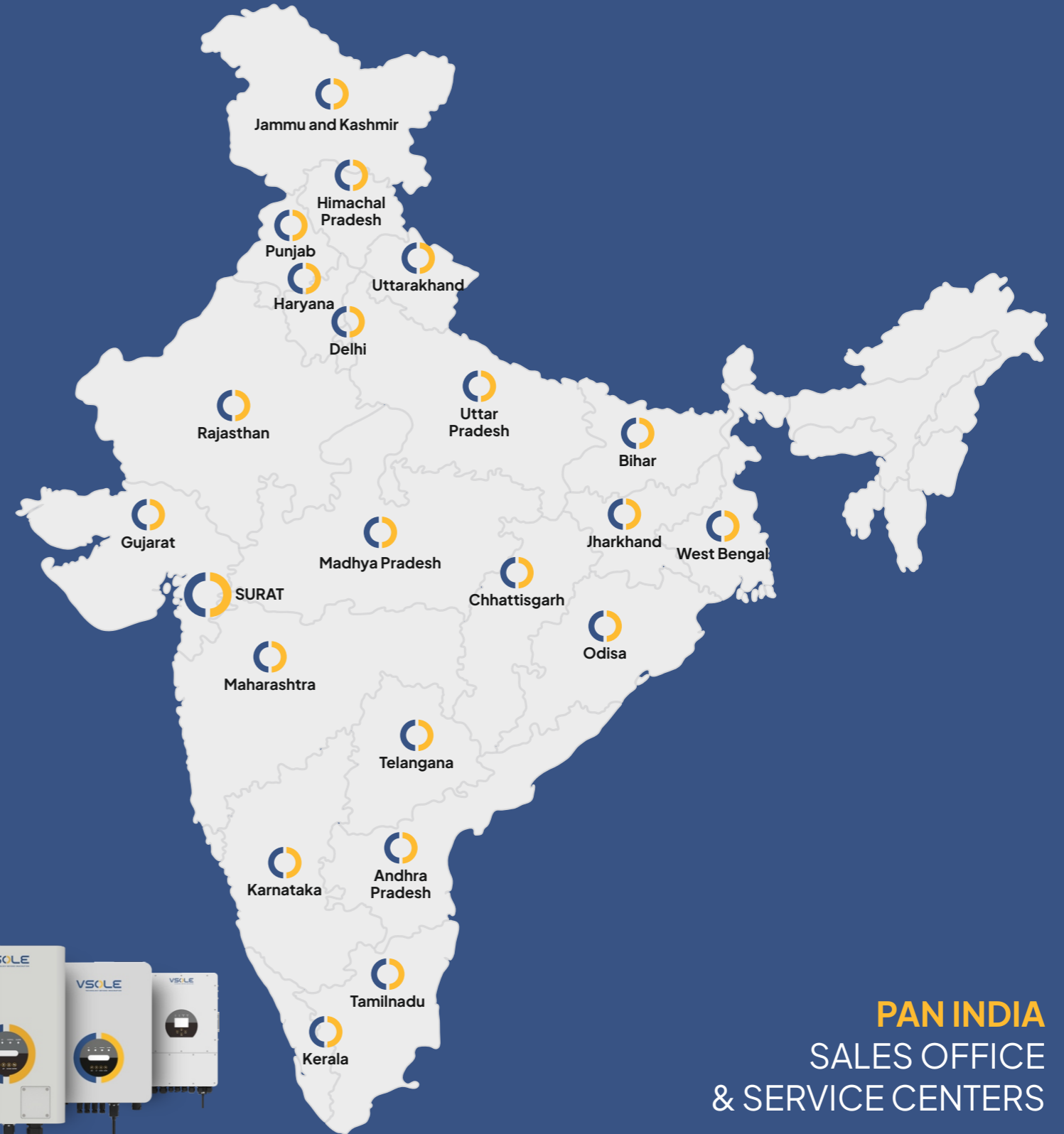


Remote support if the problem can get resolved over an online monitoring access (Each inverter should have internet connectivity through the provided RMS Dongle)

Field/Site Visit for problem found in hardware or for those which cannot be resolved via remote monitoring

Replacement will be provided against the faulty inverter within working 72Hours from the date of Complaint Log.

OUR PRESENCE



PAN INDIA
SALES OFFICE
& SERVICE CENTERS

We have sales cum service centers in every 300 kms in selected regions, the replacement can be provided through the nearest center on the basis of nature of fault in the inverter.



www.vsolesolar.com

The mentioned technical data in this brochure may be revised or updated as per changes in product development. The data in this brochure is subjected to change without any prior notice.

Ver - 2.2 | 2023

VSOLE SOLAR ENERGY PVT. LTD.

+91 75 75 88 14 14

info@vsolesolar.com

2, Anthem business park-1, Near Nayara Petrol Pump, Simada - Canal Road,
Kosmada, Surat- 395006, Gujarat, India

Toll Free: 1800 120 9697

f t i n /vsolesolar