



VSOLE
TECHNOLOGY BEYOND IMAGINATION

Manufacturer of **Gujarat's 1st Solar PV Inverter**
with **European 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 **11 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

KEY BENEFITS

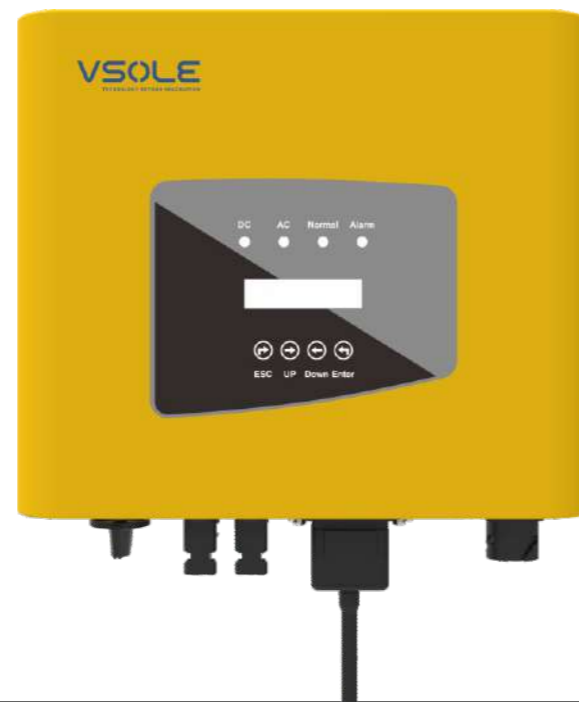
- Compact & light design for easy installation
- Wide input range
- Natural cooling
- Mobile app



GRID TIE INVERTER - SINGLE PHASE

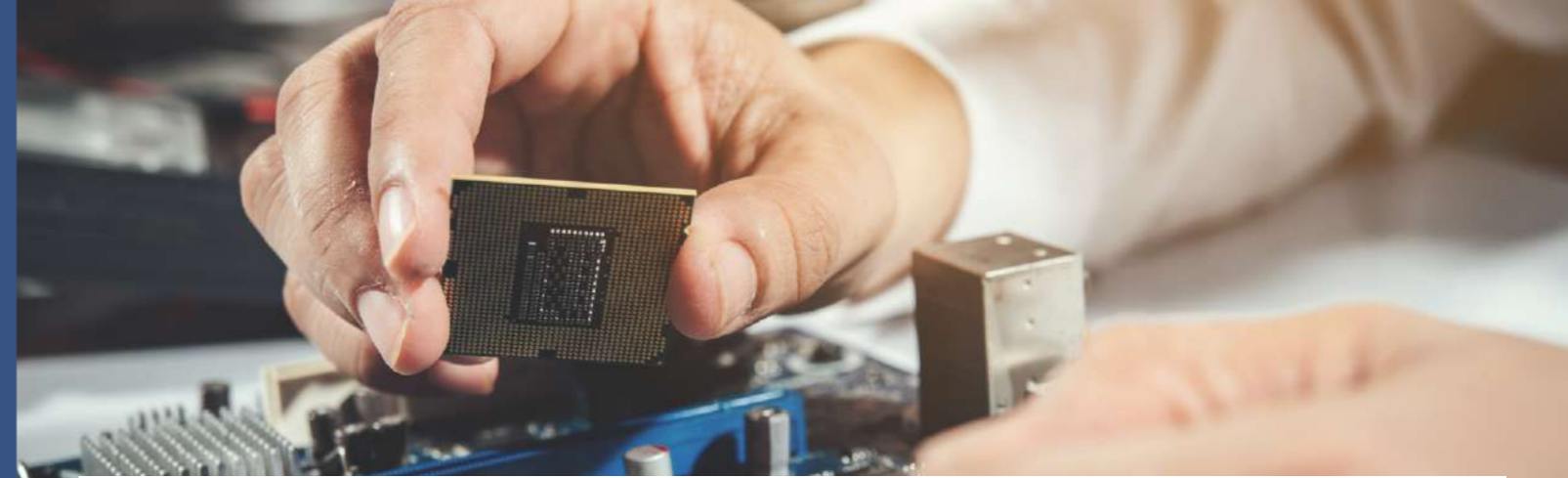
VSS (101S -622S) 1.0 KW-6.2KW

- T-type three-level topology & enhanced SVPWM (Space Vector Pulse Width Modulation).
- Max. DC input current per string; compatible upto 600WP solar panel.
- DC overloading upto 10%.
- High DC/AC ratio for more yields
- AC overloading upto 10%.
- Special external colour with Epoxy Novolac coating for better Heat Management.
- Compact and light weight design for an easy Installation
- Wide Input Range; Low Voltage start-up of 80V.
- Multiple MPPT Design with IDA Technology (Intelligent Disturbance Algorithm).
- Inbuilt surge protections at both AC and DC side.
- Fan-less natural cooling models.
- Compact and light weight design for an easy Installation.
- RS485, remote monitoring (Wi-Fi/GPRS)
- User friendly Web and Mobile App Monitoring
- Zero export enabled models (External CT required).
- VSG (Virtual Synchronous Generator) application .



GRID TIE INVERTER - SINGLE PHASE

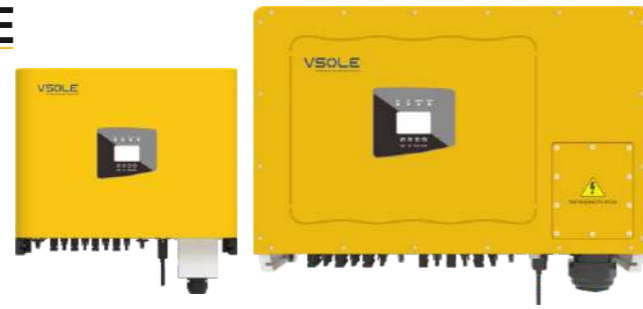
CAPACITY (KW)	1	2	2.3	3	3.3	4	4.2	5	5.3	6	6.2	
MODEL NUMBER	VS-101S	VS-201S	VS-231S	VS-301S	VS-331S	VS-401S	VS-422S	VS-502S	VS-532S	VS-602S	VS-622S	
INPUT (DC)												
Max.DC input power (KW)	1.1	2.2	2.5	3.3	3.6	4.4	4.6	5.5	5.8	6.6	6.8	
Max. DC I/P (Vdc)	550Vdc											
Max. MPPT I/P Current (A)	13A											
MPPT Short Circuit Current (A)	20A											
MPPT Tracking Voltage (Vdc)	70-500V						80-500V					
Min. Start Voltage (V)	80Vdc											
Number of MPPT Tracker	1						2					
Strings per MPPT Tracker	1											
OUTPUT (AC)												
Rated output power (KW)	1	2	2.3	3	3.3	4	4.2	5	5.3	6	6.2	
Rated Grid Voltage (V) / Range	230V / (140-295V)											
Rated Grid freq. (Hz) / Range	50Hz / (45-55Hz)											
Rated output current AC (A)	4.7	9.4	10.8	14.1	15.5	18.8	19.8	23.5	24.9	28.2	29.2	
AC Connection	P + N + PE											
THDI (%)	<3%											
Output Power factor	0.8 leading to 0.8 lagging											
EFFICIENCY												
Max. conversion Efficiency (%)	97.3			97.5			97.5					
Max. Euro Efficiency (%)	97.1			97.3			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	YES											
Surge Protection	DC: Type III / AC: Type III											
GENERAL DATA												
Dimensions (W*H*D) mm	280*272.5*184						330*323*190					
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)											
Ingress Protection	IP65											
Night Consumption (w)	<1											
Standard Warranty	8 Years (extendable upto 10 Year)											
CONNECTION TYPE												
MC-4	MC-4											
IP65 rated plug	IP65 rated plug											
WiFi / GPRS / RS 485 / ETHERNET LAN/ Local Monitoring	WiFi / GPRS / RS 485/ ETHERNET LAN / Local Monitoring											



GRID TIE INVERTER - THREE PHASE

VSS (052T-1106T) 5.0KW-110KW

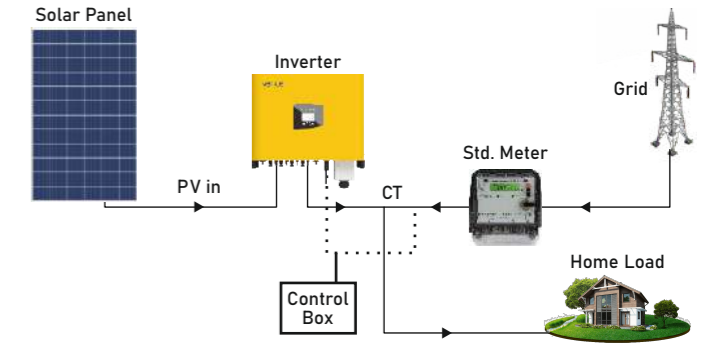
- Max. efficiency up to 98.9% .
- Heavy duty inbuilt DC Isolation switch.
- Special external colour with Epoxy Novolac coating for better heat management.
- Max. DC input current per string; compatible upto 600WP solar panel.
- Type II DC / AC SPD, frequency drop control technology.
- Intelligent Fan 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%.

OPTIONAL FEATURES FOR GRID TIE INVERTERS

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



ZERO EXPORT FEATURE

Grid Tie Inverter - Three Phase

CAPACITY (KW)	5	6	7	8	9	10	12	15	18	20	25
MODEL NUMBER	VS-052T	VS-062T	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)	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			13A+26A			26A		30A		
MPPT Short Circuit Current (A)	20A			20A+40A			40A		46A		
MPPT Tracking Voltage (Vdc)	200-850V										
Min. Start Voltage(V)	250V										
Number of MPPT Tracker	2										
Strings per MPPT Tracker	1			1+2			2		3		
OUTPUT (AC)											
Rated output power (KW)	5	6	7	8	9	10	12	15	18	20	25
Rated Grid Voltage (V) / Range	230V/(140-295V)										
Rated Grid freq. (Hz) / Range	50Hz/(45-55Hz)										
Rated output current AC (A)	7.2	8.6	10.1	11.56	13.0	14.5	17.34	21.7	26.01	28.90	36.12
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 III / AC: Type III										
GENERAL DATA											
Dimensions (W*H*D) mm	330*457*185					330*508*206					
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)										
Ingress Protection	IP65										
Night Consumption (w)	<1										
Standard Warranty	8 Years (extendable upto 10 Year)										
CONNECTION TYPE											
MC-4	MC-4										
IP65 rated plug	IP65 rated plug										
WiFi / GPRS / RS 485 / ETHERNET LAN / Local Monitoring	WiFi/ GPRS/ RS 485/ ETHERNET LAN/ Local Monitoring										

Grid Tie Inverter - Three Phase

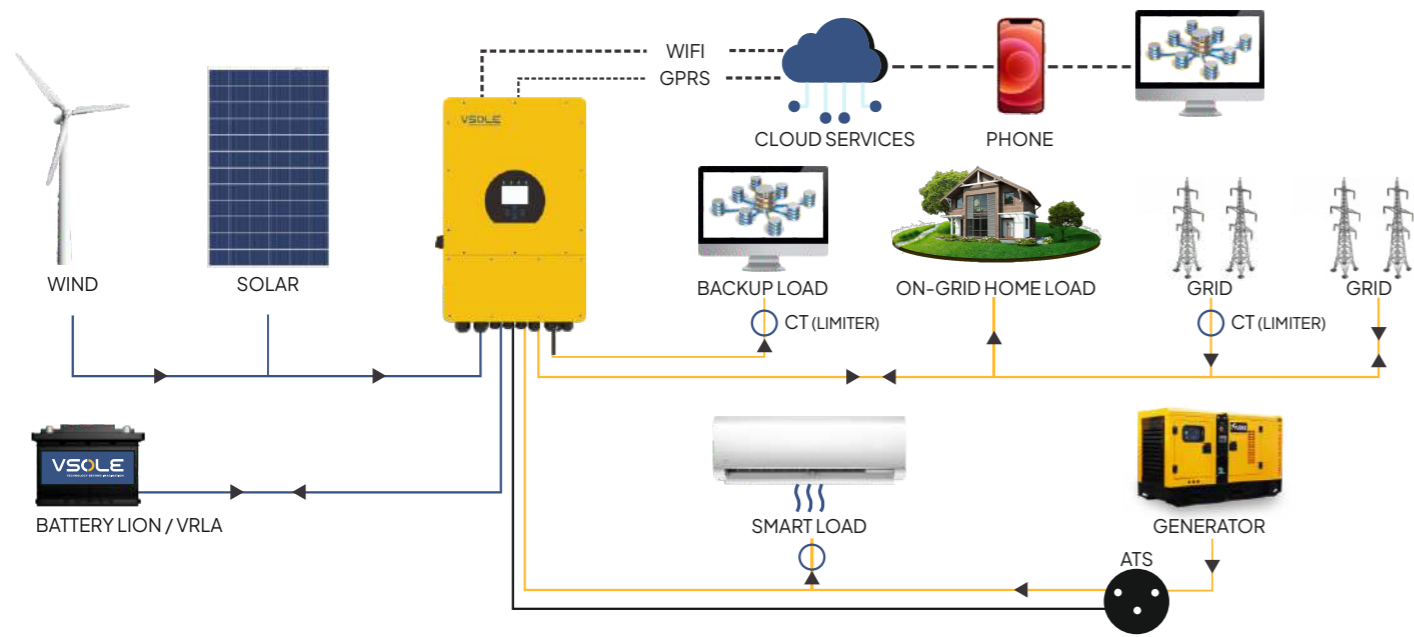
CAPACITY (KW)	30	33	35	40	45	50	55	60	70	75	80	90	100	110	
MODEL NUMBER	VS-302T	VS-332T	VS-352T	VS-403T	VS-453T	VS-503T	VS-554T	VS-604T	VS-704T	VS-754T	VS-804T	VS-904T	VS-1004T	VS-1106T	
INPUT (DC)															
Max.DC input power (KW)	36.0	39.3	42.0	48.0	54.0	60.0	66.0	72.0	84.0	90.0	96.0	108.0	120.0	132.0	
Max. DC I/P (Vdc)	1000V														
Max. MPPT I/P Current (A)	40A				40A				40A						
MPPT Short Circuit Current (A)	60A				60A				60A						
MPPT Tracking Voltage (Vdc)	200-850V														
Min. Start Voltage (V)	250V														
Number of MPPT Tracker	2		3		4		4			6					
Strings per MPPT Tracker	3			3			4			4					
OUTPUT (AC)															
Rated output power (KW)	30	33	35	40	45	50	55	60	70	75	80	90	100	110	
Rated Grid Voltage (V) / Range	230V/(140-295V)														
Rated Grid freq. (Hz) / Range	50Hz/(45-55Hz)														
Rated output current AC (A)	43.35	47.68	50.57	57.80	65.02	72.25	79.48	86.70	101.15	108.38	115.60	130.05	144.50	158.95	
AC Connection	3P + N + PE														
THDI (%)	<3%														
Output Power factor	0.8 leading to 0.8 lagging														
EFFICIENCY															
Max. conversion Efficiency (%)	98.6				98.7				98.7						
Max. Euro Efficiency (%)	97.8				98				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 III / AC: Type III					DC: Type II / AC: Type II					DC: Type II / AC: Type II				
GENERAL DATA															
Dimensions (W*H*D) mm	362*577*215					647.5*537*303.5					700*575*297			838*568*323	
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							Smart Fan Cooling							
Operating ambient Temperature	(-25°C ~ +65°C)														
Operating Humidity	0% - 100%														
Max. Operating Altitude (m)	2000 (>2000 Derating)														
Ingress Protection	IP65														
Night Consumption (w)	<1														
Standard Warranty	8 Years (extendable upto 10 Year)							8 Years (extendable upto 10 Year)							
CONNECTION TYPE															
MC-4	MC-4														
IP65 rated plug	IP65 rated plug														
WiFi/ GPRS / RS 485 / ETHERNET LAN / Local Monitoring	WiFi / GPRS / RS 485 / ETHERNET LAN / Local Monitoring					WiFi / GPRS / RS 485 / ETHERNET LAN / Local Monitoring					WiFi/ GPRS/ RS 485/ ETHERNET LAN/ Local Monitoring				

BI-DIRECTIONAL HYBRID INVERTER

VSS (03H-012H) 3.0KW-12.0KW



- 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/LiFP04)
- 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 AC, water heater, Micro & Grid tie inverter.
- 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
- V/f 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							Three Phase				
CAPACITY (KW)	3KW 24V	3KW 48V	3.6KW 48V	4KW 48V	5KW 48V	6KW 48V	8KW 48V	5KW 48V	6KW 48V	8KW 48V	10KW 48V	12KW 48V
MODEL NUMBER	VS-324S	VS-348S	VS-3648S	VS-448S	VS-548S	VS-648S	VS-848S	VS-548T	VS-648T	VS-848T	VS-1048T	VS-1248T
BATTERY INPUT DATA												
Battery Type	Lead-acid or Li-Ion							Lead-acid or Li-Ion				
Battery Voltage Range (V)	20~30	40~60					40~60					
Max. Charging Current (A)	140	70	90	120	120	135	190	120	150	190	210	240
Max. Discharging Current (A)	140	70	90	120	120	135	190	120	150	190	210	240
Charging Curve	3 Stages / Equalization							3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS							Self-adaption to BMS				
PV STRING INPUT DATA												
Max. DC Input Power (W)	3900	3900	4680	5200	6500	7800	10400	6500	7800	10400	13000	15600
Rated PV Input Voltage (V)	370 (125~500)							550 (160~800)				
Start-up Voltage M	125							160				
MPPT Voltage Range (V)	150~425							200~650				
Full Load DC Voltage Range (V)	300~425							350~650				
PV Input Current (A)	13	13					26	13			26+13	
Max. PV ISC (A)	16	17					34	17			34+17	
Number of MPPT/Strings per MPPT	1/1	2/1+1					2/2+2	2/1+1			2/2+1	
AC OUTPUT DATA												
Rated AC Output and UPS Power (W)	3000	3600	4000	5000	6000	8000	5000	6000	8000	10000	12000	
Max. AC Output Power (W)	3300	3690	4400	5500	6600	8800	5500	6600	8800	11000	13200	
AC Output Rated Current (A)	13.6	16.4	18.2	22.7	27.3	36	7.6	9.1	12.1	15.2	18.2	
Max. AC Current (A)	15	18	20	25	30	40	11.4	13.6	18.2	22.7	27.3	
Max. Continuous AC Passthrough (A)	35					40	50	45				
Peak Power (off grid)	2 time of rated power, 10 S							2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging							0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)							50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Single Phase							Three Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)							THD<3% (Linear load<1.5%)				
EFFICIENCY												
Max. Efficiency	97.60%							97.60%				
Euro Efficiency	96.50%							97%				
MPPT Efficiency	99.90%							99.90%				
PROTECTION												
Integrated	PV Input Lightning Protection, 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							-45~60°C, >45°C derating				
Cooling	Natural Cooling							Smart Cooling				
Noise (dB)	<30db							<45db				
Communication with BMS	RS485; CAN							RS485; CAN				
Weight (kg)	11.4					14		33.6				
Size (mm)	330W x 433H x 238D							422W x 699.3H x 279D				
Protection Degree	IP65											
Installation Style	Wall-mounted											

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 200 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

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