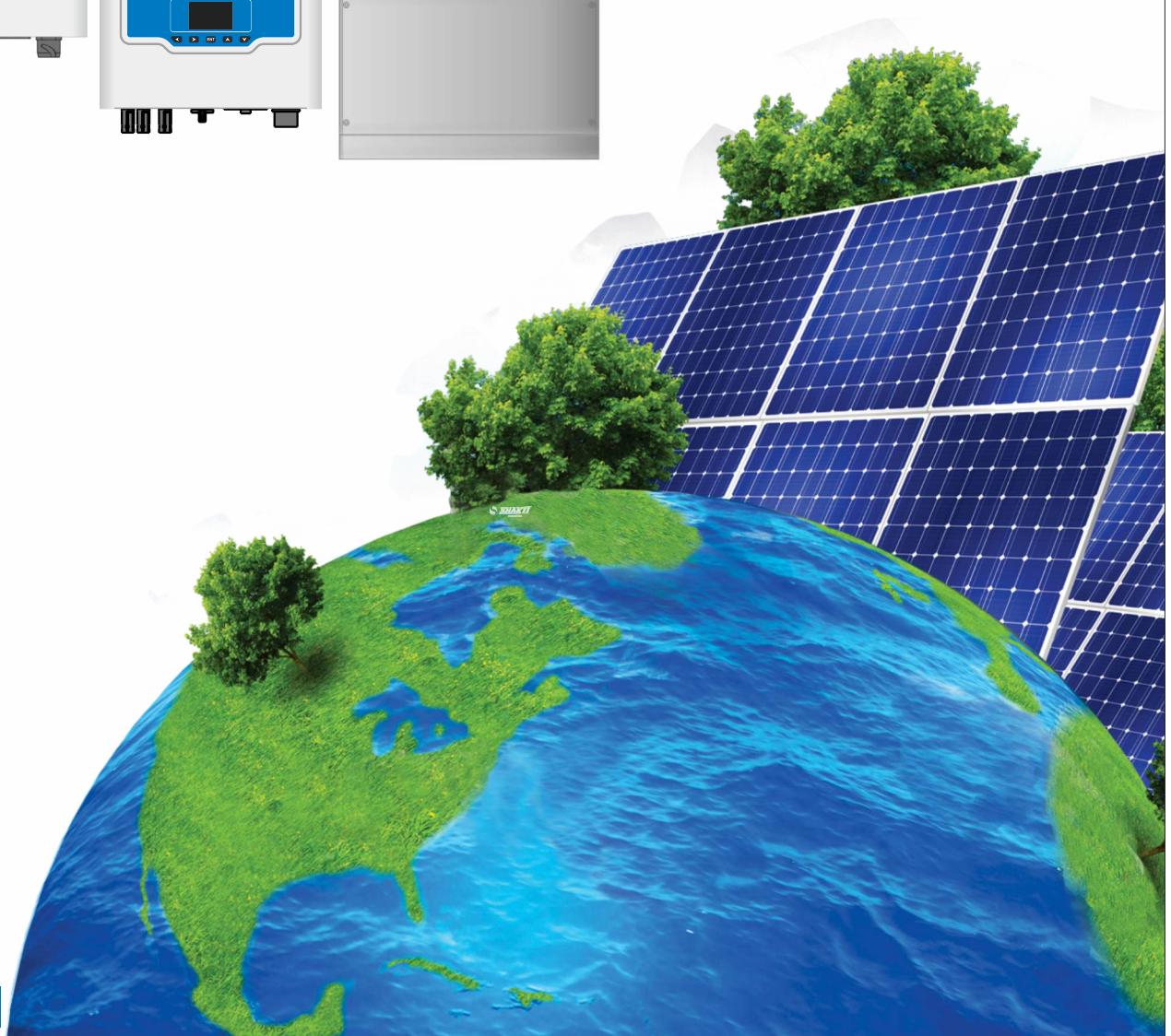




Shakti Sunrise series

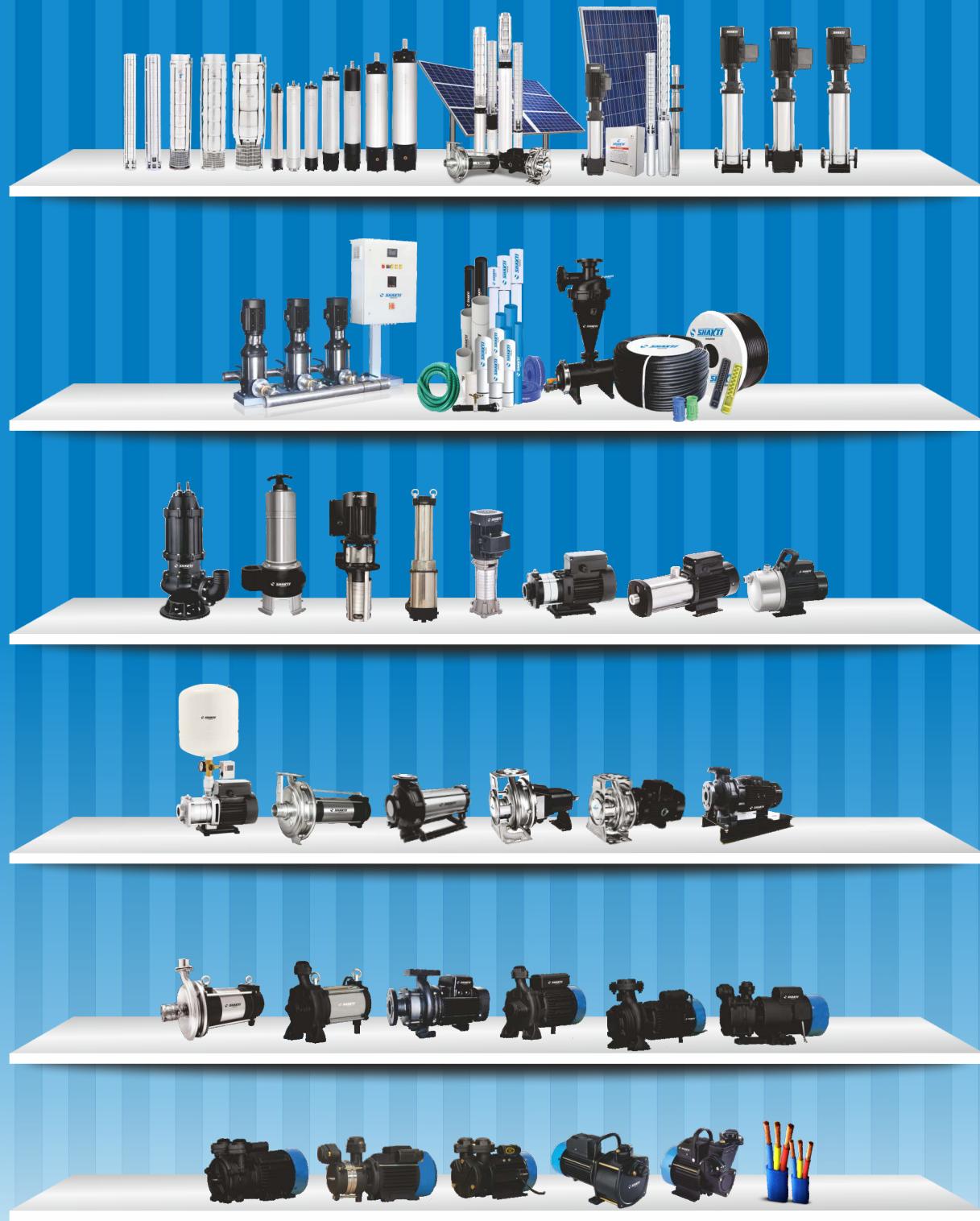
On Grid Inverter



SHAKTI

THE POWER OF INNOVATION, EFFICIENCY & TECHNOLOGY.

WORLD FAMOUS SHAKTI PUMPS BEST SUITED FOR INDUSTRIAL, AGRICULTURE AND IRRIGATION



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A foundation, strong & sound

The foundation of Shakti Pumps (India) Ltd. was laid way back in 1982. From a humble beginning with an urge to excel, we have grown gradually and evolved to become India's largest manufacturer of submersible pumps and motors today.

An ISO 9001-2008, ISO 14001:2004 & BS OHSAS 18001:2007 company, strategically located in central India, equipped with cutting-edge technology manufactures uniquely designed solar pump controllers and grid tied solar inverters to meet diverse market requirements.



Quality, a way of life at Shakti.

We accord paramount importance to quality. Be it practices, procedures or people, each and every aspect of our company, comes together to ensure that customers get products and services of the highest quality.

Our quality control and testing labs are amongst the most advanced set-ups in the country - enabling us to meet international quality standards consistently.



Technological Strength.

The use of automated Japanese machinery & fully automated test setup boost our technological strength. Shakti Pumps R&D is a recognized in house R&D by Government of India.



Product Model

On-grid Single Phase Inverter Shakti SRS - 1/2/3 - X

Features

- Optimized global MPPT algorithm, MPPT efficiency higher than 99.5%
- Max. efficiency of 97.6%, European efficiency of 97.1%
- Super wide input voltage range(50V-450V/500V/550V), supporting system with a minimum of 3 solar panels
- With reduced derating under high temperature, the generating capacity is improved



Reduced Installation Time

- Transformerless, smaller and lighter up to 5.6kg
- AC output quick connector design, for faster installation

Intelligent and user friendly GUI

- One-button safety setting, easy configuration of all parameters
- Built-in independent RTC chip, supporting data storage of 25 years
- Integrated RS232 / Wi-Fi interfaces, for improved communication
- Free monitoring anytime anywhere
- Local and remote intelligent maintenance by PC, IOS and Android devices
- Responds to power grid dispatching, energy management of micro-grids

Safe, Reliable & Rugged Design

- IP65 protection for indoor and outdoor installation
- Aluminum case design to enhance heat dissipation & prevent rust corrosion, prolong life time
- Optional built-in high voltage DC switch for safer maintenance & application
- Natural convection for longer life

Technical Data

| SHAKTI SUNRISE SERIES (SINGLE PHASE) | | | |
|--------------------------------------|---|-------------|---------|
| TYPE | SRS-1-X | SRS-2-X | SRS-3-X |
| INPUT DATA | | | |
| Max. DC Power (W) | 1200 | 2400 | 3630 |
| Max. DC Voltage (V) | 450 | 500 | 550 |
| MPPT Voltage range (V) | 60-425 | 60-450 | 60-500 |
| Nominal DC voltage (V) | | 360 | |
| Start Voltage (V) | | 70 | |
| Min. DC Voltage(V) | | 50 | |
| Max. DC Input current (A) | | 11 | |
| Number of DC Connection per MPPT | | 1 | |
| Number of MPPT | | 1 | |
| DC Switch | Optional | | |
| OUTPUT DATA | | | |
| Rated AC Power (W) | 1000 | 2000 | 3000 |
| Max. AC Power (W) | 1100 | 2200 | 3300 |
| Rated AC Current (A) | 4.3 | 8.7 | 13 |
| Max. AC Current (A) | 5.3 | 10.6 | 15.9 |
| Nominal AC Voltage/Range | 220V, 230V, 240V/180V-280V | | |
| Grid Frequency / Range | 50Hz, 60Hz/ +- 5Hz | | |
| Power factor ($\cos\theta$) | >0.99 (Full load) | | |
| Total Harmonic Distortion (THDi) | <3 % | | |
| Feed In | 1L+N+PE | | |
| Efficiency | | | |
| Max. Efficiency | 97.10% | 97.40% | 97.60% |
| Euro Efficiency (at 360Vdc) | 96.60% | 96.90% | 97.10% |
| MPPT Efficiency | > 99.5 % | | |
| Protection | | | |
| Internal Over-Voltage Protection | Integrated | | |
| DC Insulation Monitoring | Integrated | | |
| DCI Monitoring | Integrated | | |
| GFCI Monitoring | Integrated | | |
| Grid Monitoring | Integrated | | |
| AC Short Circuit Current Protection | Integrated | | |
| Thermal Protection | Integrated | | |
| Anti-island Protection Monitoring | AFD | | |
| Interface | | | |
| AC Connection | Plug-in-Connector | | |
| DC Connection | MC4 /H4 | | |
| LCD/LED Display | LCD (16x2 character, Backlight) / LED (3Light) | | |
| Display Language | English | | |
| Datalogger & Communication | Rs232 (Standard) / GPRS (Optional)/Wi-Fi (Optional) | | |
| General Data | | | |
| Topology | Transformerless | | |
| Consumption at Night (W) | <0.2 | | |
| Consumption at Standby (W) | 6 | | |
| Operating Temperature Range | -25 °C to +60 °C (45 °C to 60 °C with derating) | | |
| Cooling Method | Natural Convection | | |
| Ambient Humidity | 0% to 100% Non-condensing | | |
| Altitude | Up to 2000m (without power derating) | | |
| Noise (dBA) | < 15 | < 25 | |
| Ingres Protection | IP65 (Indoor & Outdoor Installation) | | |
| Mounting | Rear Panel | | |
| Diamensions (H*W*d) (mm) | 315*260*120 | 354*305*120 | |
| Net Weight (kg) | 5.6 | 7.8 | 8.4 |
| Standard Warranty (Year) | 5 (standard) | | |
| Certificates | IEC 62109-1/2, IEC 61000-2/3, IEC 61683, CE IEC 60068-2, IEC 62116, IEC61727 | | |

Product Model

On-grid Three Phase Inverter Shakti SRT - 4/5/6/8/10 - X

Features

- Optimized global MPPT algorithm, MPPT efficiency higher than 99.5%
- Asymmetric dual MPPT which are compatible to all kinds of solar roofs
- Max. efficiency of 98.0%, European efficiency of 97.6%
- Super wide input voltage range(150V-1000V), supporting various solar panels and string designs
- With reduced derating under high temperature, the generating capacity is improved

Reduced Installation Time

- Transformerless, smaller and lighter
- AC output quick connector design, for faster installation
- Specialized mounting design, easy to install

Intelligent and user friendly GUI

- One-button safety setting, easy configuration of all parameters
- Built-in independent RTC chip, supporting data storage of 25 years
- Integrated LCD graphical display, showing daily/monthly/yearly generation
- Integrated RS232 / Wi-Fi interfaces, for improved communication
- Free monitoring anytime anywhere
- Local and remote intelligent maintenance by PC, IOS and Android devices
- Responds to power grid dispatching, energy management of micro-grids
- Integrated with the function of reactive adjusting

Safe, Reliable & Rugged Design

- IP65 protection for indoor and outdoor installation
- Aluminum case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Built-in high voltage DC switch for safer maintenance and application
- Built-in convective fans to lower the temperature of core components, prolong life time
- Natural convection for longer life



Technical Data

| SHAKTI SUNRISE SERIES (THREE PHASE) | | | | | |
|---|--|---------|-------------|---------|----------|
| TYPE | SRT-4-X | SRT-5-X | SRT-6-X | SRT-8-X | SRT-10-X |
| INPUT DATA | | | | | |
| Max. DC Power (W) | 4840 | 6050 | 7260 | 9680 | 11000 |
| Max. DC Voltage (V) | | | 1000 | | |
| MPPT Voltage range (V) | | | 160-900 | | |
| Nominal DC voltage (V) | | | 600 | | |
| Start Voltage (V) | | | 180 | | |
| Min. DC Voltage(V) | | | 150 | | |
| Max. DC Input current PV1/PV2 (A) | | 11/11 | | 22/11 | |
| Number of DC Connection per MPPT | | 1/1 | | 2/1 | |
| Number of MPPT | | | 2 | | |
| DC Switch | | | Integrated | | |
| OUTPUT DATA | | | | | |
| Rated AC Power (W) @ 230, 50 Hz | 4000 | 5000 | 6000 | 8000 | 10000 |
| Max. AC apparent Power (W) | 4400 | 5500 | 6600 | 8800 | 10000 |
| Rated AC Current (A) | 5.8 | 7.2 | 8.7 | 11.6 | 14.5 |
| Max. AC Current (A) | 7 | 8.8 | 10.5 | 14.1 | 16.1 |
| Nominal AC Voltage/Range | 3/N/PE, 220/380V, 230/400V, 240/415V:180V-280V/312V-485V | | | | |
| Grid Frequency / Range | 50Hz, 60Hz/44Hz-55Hz, 54-65Hz | | | | |
| Power factor, Adjustable ($\cos\theta$) | 0.9 leading ~ 0.9 lagging | | | | |
| Total Harmonic Distortion (THDI) | <3 % (at nominal power) | | | | |
| Feed In | 3L+N+PE | | | | |
| Efficiency | | | | | |
| Max. Efficiency | 97.80% | 97.80% | 97.80% | 98.00% | 98.00% |
| Euro Efficiency (at 600Vdc) | 97.00% | 97.20% | 97.40% | 97.50% | 97.60% |
| MPPT Efficiency | > 99.5 % | | | | |
| Protection | | | | | |
| Internal Over-Voltage Protection | | | Integrated | | |
| DC Insulation Monitoring | | | Integrated | | |
| DCI Monitoring | | | Integrated | | |
| GFCI Monitoring | | | Integrated | | |
| Grid Monitoring | | | Integrated | | |
| AC Short Circuit Current Protection | | | Integrated | | |
| Thermal Protection | | | Integrated | | |
| Anti-island Protection Monitoring | | | AFD | | |
| Interface | | | | | |
| AC Connection | Plug-in-Connector | | | | |
| DC Connection | MC4 /H4 | | | | |
| LCD Display | 3.5 inch Graphic LCD Display, Backlight, Inverter parameter and Data Display | | | | |
| Display Language | English | | | | |
| Datalogger & Communication | 1*RS485/1*RS232 / GPRS (Optional)/Wi-Fi (Optional) | | | | |
| General Data | | | | | |
| Topology | Transformerless | | | | |
| Consumption at Night (W) | <0.6 | | | | |
| Consumption at Standby (W) | <10 | | | | |
| Operating Temperature Range | -25 °C to +60 °C (45 °C to 60 °C with derating) | | | | |
| Cooling Method | Natural Convection | | | | |
| Ambient Humidity | 0% to 100% Non-condensing | | | | |
| Altitude | Up to 2000m (without power derating) | | | | |
| Noise (dBA) | < 29 | | | | |
| Ingres Protection | IP65 (Indoor & Outdoor Installation) | | | | |
| Mounting | Rear Panel | | | | |
| Diamensions (H*W*d) (mm) | 530*355*190 | | 530*355*200 | | |
| Net Weight (kg) | 20.5 | | 23 | | |
| Standard Warranty (Year) | 5 (standard) | | | | |
| Certificates | IEC 62109-1/2, IEC 61000-2/3, IEC 61683, IEC 60068-2, IEC 62116, IEC61727 | | | | CE |

Product Model

On-grid Three Phase Inverter Shakti SRT - 15/20/33 - X

Features

- Optimized global MPPT algorithm, MPPT efficiency higher than 99.5%
- Dual MPPT which are compatible to all kinds of solar roofs
- Max. efficiency of 98.8%, European efficiency of 98.5%
- Super wide input voltage range(180V-1000V), supporting various solar panels and string designs

Reduced Installation Time

- Aluminum case design, smaller and lighter
- Integrate DC combiner box, reduce system cost
- Separate area for maintenance, easy and quick for repair

Intelligent and user friendly GUI

- One-button safety setting, easy configuration of all parameters
- Built-in independent RTC chip, supporting data storage of 25 years
- Integrated LCD graphical display, showing daily/monthly/yearly generation
- Integrated with the function of reactive power control & ZVRT, responds to power grid dispatching, energy management of grid
- Integrate string current monitoring, monitor string working status

Safe, Reliable & Rugged Design

- IP65 protection for indoor and outdoor installation
- Optional DC&AC surge protection, guarantee system safety
- Optional Anti-PID module, protect panels from PID damage
- Aluminum case design to enhance heat dissipation and resist rust corrosion, prolong life time



Technical Data

| SHAKTI SUNRISE SERIES (THREE PHASE) | | | | | |
|---|--|-------------------------------|-------------|--|--|
| TYPE | SRT-15-X | SRT-20-X | SRT-33-X | | |
| INPUT DATA | | | | | |
| Max. DC Power (W) | 18150 | 24200 | 36300 | | |
| Max. DC Voltage (V) | | 1000 | | | |
| MPPT Voltage range (V) | | 180-900 | | | |
| Nominal DC voltage (V) | | 600 | | | |
| Start Voltage (V) | | 200 | | | |
| Min. DC Voltage(V) | | 180 | | | |
| Max. DC Input current PV1/PV2 (A) | | 22/22 | 22/22/22 | | |
| Number of DC Connection per MPPT | 2/2 | | 2/2/2 | | |
| Number of MPPT | 2 | | 3 | | |
| DC Switch | Integrated | | | | |
| OUTPUT DATA | | | | | |
| Rated AC Power (W) @ 230, 50 Hz | 15000 | 20000 | 30000 | | |
| Max. AC apparent Power (W) | 16500 | 22000 | 33000 | | |
| Rated AC Current (A) | 22.7 | 30.3 | 45.5 | | |
| Max. AC Current (A) | 25 | 33 | 50 | | |
| Nominal AC Voltage/Range | 3/N/PE, 220/380V, 230/400V, 240/415V:180V-280V/312V-485V | | | | |
| Grid Frequency / Range | 50Hz, 60Hz/44Hz-55Hz, 54-65Hz | | | | |
| Power factor, Adjustable ($\cos\theta$) | 0.8leading ~0.8lagging | | | | |
| Total Harmonic Distortion (THDi) | <3 % (at nominal power) | | | | |
| Feed In | 3L+N+PE | | | | |
| Efficiency | | | | | |
| Max. Efficiency | 98.40% | 98.50% | 98.80% | | |
| Euro Efficiency (at 600Vdc) | 98.10% | 98.20% | 98.50% | | |
| MPPT Efficiency | > 99.5 % | | | | |
| Protection | | | | | |
| Internal Over-Voltage Protection | Integrated | | | | |
| DC Insulation Monitoring | Integrated | | | | |
| DCI Monitoring | Integrated | | | | |
| GFCI Monitoring | Integrated | | | | |
| Grid Monitoring | Integrated | | | | |
| AC Short Circuit Current Protection | Integrated | | | | |
| VRT | Integrated | | | | |
| Thermal Protection | Integrated | | | | |
| AC Surge Protection | III (integrated), II (Optional) | | | | |
| String Current Monitoring | Integrated | | | | |
| Anti PID Module | Optional | | | | |
| DC Surge Protection | II (Optional) | | | | |
| DC Fuse | Optional | | | | |
| Anti-island Protection Monitoring | AFD | | | | |
| Interface | | | | | |
| AC Connection | Terminal Block | | | | |
| DC Connection | MC4 /H4 | | | | |
| LCD & LED Display | 3.5 inch Graphics LCD Display, Backlight | 3.5 inch Graphics LCD Display | | | |
| Display Language | English | | | | |
| Communication Port | 2*RS485+1*RS232 | | | | |
| Communication | GPRS (Optional)/Wi-Fi (Optional) / Ethernet (Optional) | | | | |
| General Data | | | | | |
| Topology | Transformerless | | | | |
| Consumption at Night (W) | <0.6 | | | | |
| Consumption at Standby (W) | <10 | | | | |
| Operating Temperature Range | -25 °C to +60 °C (45 °C to 60 °C with derating) | | | | |
| Cooling Method | Intelligent Fan | | | | |
| Ambient Humidity | 0% to 100% Non-condensing | | | | |
| Altitude | 4000m (>3000m Power derating) | | | | |
| Noise (dBA) | < 35 | | | | |
| Ingress Protection | IP65 (Indoor & Outdoor Installation) | | | | |
| Mounting | Rear Panel | | | | |
| Diamensions (H*W*d) (mm) | 640*450*232 | | 700*530*260 | | |
| Net Weight (kg) | 29 | 33 | 48 | | |
| Standard Warranty (Year) | 5 (standard) | | | | |
| Certificates | IEC 62109-1/2, IEC 61000-2/3, IEC 61683, IEC 60068-2, IEC 62116, IEC 61727  | | | | |

OUR PRESENCE



VC - 0000

Nov. 2019-20/L2/500

Nov. 2019 / R1 / SAP No. 2000017523



India : Toll Free No. 1800 103 5555

Other Countries : +91-7292 410500

SHAKTI PUMPS (INDIA) LIMITED

Plot No. 401, 402, & 413, Industrial Area, Sector - 3, Pithampur - 454774,
Dist. - Dhar, (M.P.) - INDIA, E-mail: info@shaktipumps.com,
Visit us at : www.shaktipumps.com