



# Three-phase Hybrid Inverter

## RZE-HY20-TL



Equipped with GEN port, compatible with diesel generators, smart loads, and AC coupling.



Supports battery charge/discharge currents up to 400A.



Color touch screen (4.3/7" optional).



Supports 100% 3-phase unbalanced output on both ports (BACKUP & GRID).



IP66 rated enclosure, designed for both indoor and outdoor deployment in harsh environments.



110% continuous overload rating at sustained operation.





| Technical Data                              | RZE-HY20-TL                                                                                                                          |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input DC (PV side)</b>                   |                                                                                                                                      |
| Max. PV access power                        | 40kW                                                                                                                                 |
| Max. PV input power                         | 32kW                                                                                                                                 |
| Max. PV input voltage                       | 1000V                                                                                                                                |
| Nominal input voltage                       | 600V                                                                                                                                 |
| MPPT working voltage range                  | 180V ~850V                                                                                                                           |
| Number of independent MPPT/strings per MPPT | 2/2                                                                                                                                  |
| MPPT max. current                           | 2*36A                                                                                                                                |
| Start-up voltage                            | 200V                                                                                                                                 |
| <b>Output/Input AC (Grid side)</b>          |                                                                                                                                      |
| Nominal apparent power                      | 20kW                                                                                                                                 |
| Max. apparent power                         | 22kVA                                                                                                                                |
| Nominal voltage                             | 380V/400V                                                                                                                            |
| Nominal frequency                           | 50Hz/60Hz                                                                                                                            |
| Rated current                               | 30.3A/29A                                                                                                                            |
| Max. current                                | 33A                                                                                                                                  |
| Power factor                                | -0.8~+0.8(adjustable)                                                                                                                |
| THDi                                        | <3%(Nominal Output)                                                                                                                  |
| Grid system pattern                         | 3L+N+PE                                                                                                                              |
| Max. AC current from utility grid           | 60A                                                                                                                                  |
| <b>Output AC (Back-up)</b>                  |                                                                                                                                      |
| Nominal output power                        | 20kW                                                                                                                                 |
| Max. output apparent power                  | 22kVA                                                                                                                                |
| Nominal output voltage                      | 380V/400V                                                                                                                            |
| Nominal output frequency                    | 50Hz/60Hz                                                                                                                            |
| Output THDV                                 | <3%                                                                                                                                  |
| Automatic switch time                       | <10ms                                                                                                                                |
| <b>Battery</b>                              |                                                                                                                                      |
| Battery type                                | Li-ion/Lead-acid                                                                                                                     |
| Battery voltage range                       | 40V-60V                                                                                                                              |
| Max. charging/discharging current           | 400A                                                                                                                                 |
| Charging strategy for Li-ion battery        | Self-adaption to BMS                                                                                                                 |
| Charging strategy for Lead-acid battery     | Three-stage                                                                                                                          |
| <b>Efficiency</b>                           |                                                                                                                                      |
| Max. MPPT efficiency                        | 99.9%                                                                                                                                |
| Europe efficiency                           | 97.5%                                                                                                                                |
| Max. battery to load efficiency             | 94.5%                                                                                                                                |
| <b>Protection</b>                           |                                                                                                                                      |
| Anti islanding protection                   | Yes                                                                                                                                  |
| Insulation impedance protection             | Yes                                                                                                                                  |
| RCD detection                               | Yes                                                                                                                                  |
| PV reverse polarity protection              | Yes                                                                                                                                  |
| Output over voltage protection              | Yes                                                                                                                                  |
| Output over current protection              | Yes                                                                                                                                  |
| <b>General Data</b>                         |                                                                                                                                      |
| Dimensions(L/W/H)in mm                      | 425/290/710                                                                                                                          |
| Weight                                      | 45kg                                                                                                                                 |
| Operation temperature range                 | -25 °C ~+60 °C                                                                                                                       |
| Heat dissipation mode                       | Smart cooling                                                                                                                        |
| IP Class                                    | IP 66                                                                                                                                |
| Maximum altitude                            | 4000m                                                                                                                                |
| Self-Consumption night                      | <3W                                                                                                                                  |
| Topology                                    | Transformerless                                                                                                                      |
| <b>Features</b>                             |                                                                                                                                      |
| LCD display                                 | Yes                                                                                                                                  |
| Communication interface                     | WiFi/4G/USB/CAN/RS485                                                                                                                |
| Standards                                   | IEC 6 2109-1/IEC 62109-2/EN IEC 61000-6-1/EN IEC 61000-6-3/CEI 0-21<br>VDE AR 4105/VDE V 0124-100/NC RfG/PSE/PTPIREE/EN50549/NRS 097 |

