

# LV SERIES

## Split Phase Hybrid Inverter

3.8 - 11.5 kW



130% PV Oversizing  
2/4 MPPTs  
150V start-up voltage



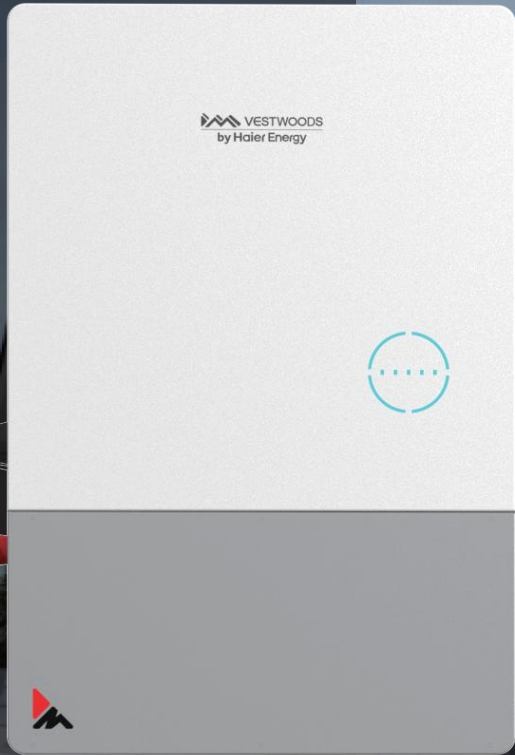
Top-quality IGBT Components  
UL Standard components  
ensure long-term  
safe and stable operation



UPS Level Transition  
Switching Time 0ms



Overload Ability  
200% for 10s



| Model                                   | VEH-P11.5KA1-LV                                                                                                                                                                                                                                                                         |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Battery</b>                          |                                                                                                                                                                                                                                                                                         |
| Battery Voltage Range                   | 40-60V                                                                                                                                                                                                                                                                                  |
| Max. Charge/Discharge Current           | 200/200A                                                                                                                                                                                                                                                                                |
| Max. Charge/Discharge Power             | 9600/9600W                                                                                                                                                                                                                                                                              |
| Charging Strategy for Li-ion Battery    | Self-adaption to BMS                                                                                                                                                                                                                                                                    |
| Charging Curve                          | 3 Stages/Equalization                                                                                                                                                                                                                                                                   |
| <b>PV Input</b>                         |                                                                                                                                                                                                                                                                                         |
| Recommended Max. PV Power               | 14400W                                                                                                                                                                                                                                                                                  |
| Max. Input Voltage                      | 550V                                                                                                                                                                                                                                                                                    |
| Rated Voltage                           | 380V                                                                                                                                                                                                                                                                                    |
| Start-up Voltage                        | 150V                                                                                                                                                                                                                                                                                    |
| MPPT Voltage Range                      | 125-500V                                                                                                                                                                                                                                                                                |
| Max. Input Current                      | 32/32A                                                                                                                                                                                                                                                                                  |
| Max. Short Circuit Current              | 40/40A                                                                                                                                                                                                                                                                                  |
| MPPT Number/Max. Input Strings Number   | 2/4                                                                                                                                                                                                                                                                                     |
| <b>AC Input and Output (On-grid)</b>    |                                                                                                                                                                                                                                                                                         |
| Rated Output Power                      | 11520W                                                                                                                                                                                                                                                                                  |
| Max. Output Apparent Power              | 11520VA                                                                                                                                                                                                                                                                                 |
| Max. Input Power                        | 19200W                                                                                                                                                                                                                                                                                  |
| Rated AC Output Voltage/Range           | 240V, 211-264/208V, 183-229V                                                                                                                                                                                                                                                            |
| Rated Grid Frequency                    | 60Hz                                                                                                                                                                                                                                                                                    |
| Max. Output Current                     | 48A                                                                                                                                                                                                                                                                                     |
| Max. Input Current                      | 80A                                                                                                                                                                                                                                                                                     |
| Power Factor                            | >0.99 (0.8 leading ... 0.8 lagging)                                                                                                                                                                                                                                                     |
| THDi (@rated Output)                    | <3%                                                                                                                                                                                                                                                                                     |
| <b>AC Output (Off-grid)</b>             |                                                                                                                                                                                                                                                                                         |
| Rated Output Power                      | 9600W                                                                                                                                                                                                                                                                                   |
| Max. Output Apparent Power              | 19200VA, 10s                                                                                                                                                                                                                                                                            |
| Back-up Switch Time                     | <40                                                                                                                                                                                                                                                                                     |
| Rated Output Voltage                    | 120/240V (split phase), 120/208V                                                                                                                                                                                                                                                        |
| Rated Output Frequency                  | 60Hz                                                                                                                                                                                                                                                                                    |
| Max. Continuous Output Current          | 40A                                                                                                                                                                                                                                                                                     |
| THDv (@linear load)                     | <3%                                                                                                                                                                                                                                                                                     |
| <b>Efficiency</b>                       |                                                                                                                                                                                                                                                                                         |
| MPPT Efficiency                         | 99.9%                                                                                                                                                                                                                                                                                   |
| Max. Efficiency                         | 97.6%                                                                                                                                                                                                                                                                                   |
| EU Efficiency                           | 97.0%                                                                                                                                                                                                                                                                                   |
| Max. Battery Discharge to AC Efficiency | 95.0%                                                                                                                                                                                                                                                                                   |
| <b>General</b>                          |                                                                                                                                                                                                                                                                                         |
| Protection                              | Anti-islanding protection, PV string input reverse polarity protection, Insulation resistor detection, Residual current monitoring unit, AC over current protection, AC short current protection, AC overvoltage and undervoltage protection, Surge protection (DC Type II/AC Type III) |
| Dimensions (W*H*D [mm])                 | 19.8*29.1*7.95 inch (502*740*202mm)                                                                                                                                                                                                                                                     |
| Weight                                  | 90.4 lbs (41kg)                                                                                                                                                                                                                                                                         |
| Mounting                                | Wall mounting                                                                                                                                                                                                                                                                           |
| Operating Temperature                   | -13°F to +149°F (>113°F, derating)/-25°C to +65°C (>45°C, derating)                                                                                                                                                                                                                     |
| Relative Humidity                       | 0-95%, no condensing                                                                                                                                                                                                                                                                    |
| Cooling                                 | Natural convection                                                                                                                                                                                                                                                                      |
| Topology (Solar/Battery)                | Transformerless/High-frequency isolation                                                                                                                                                                                                                                                |
| Altitude                                | ≤6562 ft (2000 m)                                                                                                                                                                                                                                                                       |
| Protection Degree                       | Type 4X                                                                                                                                                                                                                                                                                 |
| Noise                                   | <40dB                                                                                                                                                                                                                                                                                   |
| User Interface                          | LED, App                                                                                                                                                                                                                                                                                |
| Digital Input/Output                    | 1 × DI, 2 × DO                                                                                                                                                                                                                                                                          |
| Max. Parallel                           | 10                                                                                                                                                                                                                                                                                      |
| Warranty                                | RS485, optional: Wi-Fi/Ethernet/4G                                                                                                                                                                                                                                                      |
| Communication                           | 10 Years                                                                                                                                                                                                                                                                                |
| <b>Certifications and Standards</b>     |                                                                                                                                                                                                                                                                                         |
| Grid Connection Standard                | IEEE 1547-2018, IEEE 1547.1-2020, SRD2.0                                                                                                                                                                                                                                                |
| Safety/EMC Standard                     | UL 1741, CSA C22.2 No.107.1, UL 1741 CRD, UL 1741 SB, FCC Part 15 Class B                                                                                                                                                                                                               |
| AFCI                                    | UL 1699B                                                                                                                                                                                                                                                                                |
| Software Approval                       | UL 1998                                                                                                                                                                                                                                                                                 |

\*This series is recommended to be compatible with VE-L & VE-W series of batteries.