

High Voltage  
Three Phase Hybrid Inverter

# PowerTrans HV

5/6/8/10A/10 kW



## Key Features



### PV Compatibility

Compatible with high power PV modules with 18A



### Unbalanced Load

Support 100% unbalanced loads



### UPS Switching

< 10ms UPS-level switching



### Parallel Connection

Support parallel connections up to 10 pcs



### Remote Upgrade

Remote firmware upgrade & work mode setting



### VPP Integration

Virtual Power Plant/ Firm Frequency Response integrated

## ■ Main Parameters

| Model                                |                                            | PTH 5K-EU                                                                                                       | PTH 6K-EU | PTH 8K-EU   | PTH 10KA-EU | PTH 10K-EU |
|--------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|-------------|-------------|------------|
| PV<br>Input Data                     | Recommended Max. PV Power (Wp)             | 7500                                                                                                            | 9000      | 12000       | 15000       | 15000      |
|                                      | Max. PV Input Voltage (V)                  |                                                                                                                 |           | 1000        |             |            |
|                                      | MPPT Voltage Range (V)                     |                                                                                                                 |           | 160 ~ 950   |             |            |
|                                      | Rated PV Input voltage (V)                 |                                                                                                                 |           | 600         |             |            |
|                                      | Start-up Voltage (V)                       |                                                                                                                 |           | 180         |             |            |
|                                      | No. of MPP Trackers                        |                                                                                                                 |           | 2           |             |            |
|                                      | No. of Input Strings per Tracker           |                                                                                                                 |           | 1           |             |            |
|                                      | Max. Input Current per MPPT (A)            |                                                                                                                 |           | 36(18 / 18) |             |            |
|                                      | Max. Short-circuit Current per MPPT (A)    |                                                                                                                 |           | 46(23 / 23) |             |            |
|                                      | DC Switch                                  |                                                                                                                 |           | Integrated  |             |            |
| AC<br>Output Data                    | Maximum Apparent Power (VA)                | 5500                                                                                                            | 6600      | 8800        | 10000       | 11000      |
|                                      | Rated AC Power (W)                         | 5000                                                                                                            | 6000      | 8000        | 10000       | 10000      |
|                                      | Maximum AC Current (A)                     | 7.6                                                                                                             | 9.1       | 12.2        | 14.4        | 15.2       |
|                                      | Rated AC Current (A)                       | 7.2                                                                                                             | 8.7       | 11.5        | 14.4        | 14.4       |
|                                      | Rated AC Voltage / Range (V)               | 3 / N / PE, 220 / 380, 230 / 400; ± 20%                                                                         |           |             |             |            |
|                                      | Grid Frequency / Range (Hz)                | 50 / 60; ± 5                                                                                                    |           |             |             |            |
|                                      | Adjustable Power Factor (cosφ)             | 0.8 leading ~ 0.8 lagging                                                                                       |           |             |             |            |
|                                      | Output THDi (@Rated Output)                | < 3%                                                                                                            |           |             |             |            |
| AC<br>Input Data                     | Max .apparent AC Power (VA)                | 10000                                                                                                           | 12000     | 16000       | 20000       | 20000      |
|                                      | Max. AC Current (A)                        | 15.2                                                                                                            | 18.2      | 24.4        | 28.8        | 30.4       |
|                                      | Rated AC Voltage / Range (V)               | 3 / N / PE, 220 / 380, 230 / 400; ± 20%                                                                         |           |             |             |            |
|                                      | Grid Frequency / Range (Hz)                | 50 / 60; ± 5                                                                                                    |           |             |             |            |
| Battery Data                         | Battery Type                               | Lithium                                                                                                         |           |             |             |            |
|                                      | Battery Voltage Range (V)                  | 160 ~ 700                                                                                                       |           |             |             |            |
|                                      | Max. Charging / Discharging Current (A)    | 30 / 30                                                                                                         |           |             |             |            |
|                                      | Communication Interface                    | CAN                                                                                                             |           |             |             |            |
| EPS<br>Output Data<br>(With Battery) | EPS Rated Power (W)                        | 5000                                                                                                            | 6000      | 8000        | 10000       | 10000      |
|                                      | EPS Rated Voltage (V)                      | 3 / N / PE, 220 / 380, 230 / 400                                                                                |           |             |             |            |
|                                      | EPS Rated Frequency (Hz)                   | 50 / 60                                                                                                         |           |             |             |            |
|                                      | EPS Rated Current (A)                      | 7.6                                                                                                             | 9.1       | 12.2        | 14.4        | 15.2       |
|                                      | Output THDi (@Rated Output)                | < 3%                                                                                                            |           |             |             |            |
|                                      | Automatic Switch Time (ms)                 | < 10                                                                                                            |           |             |             |            |
| Efficiency                           | Peak Apparent Power, Duration (VA, s)      | 7500.60                                                                                                         | 9000.60   | 12000.60    | 15000.60    | 15000.60   |
|                                      | Max. Efficiency                            | 98.00%                                                                                                          | 98.00%    | 98.00%      | 98.00%      | 98.00%     |
|                                      | Euro Efficiency                            | 97.70%                                                                                                          | 97.70%    | 97.70%      | 97.70%      | 97.70%     |
|                                      | Max. Battery Charge / Discharge Efficiency | 97.60%                                                                                                          | 97.60%    | 97.60%      | 97.60%      | 97.60%     |
| Protection                           | DC Insulation Monitoring                   | Integrated                                                                                                      |           |             |             |            |
|                                      | Input Reverse Polarity Protection          | Integrated                                                                                                      |           |             |             |            |
|                                      | Anti-island Protection                     | Integrated                                                                                                      |           |             |             |            |
|                                      | Residual Current Monitoring                | Integrated                                                                                                      |           |             |             |            |
|                                      | Over-heat Protection                       | Integrated                                                                                                      |           |             |             |            |
|                                      | AC Overcurrent Protection                  | Integrated                                                                                                      |           |             |             |            |
|                                      | AC Short-circuit Protection                | Integrated                                                                                                      |           |             |             |            |
|                                      | AC Overvoltage Protection                  | Integrated                                                                                                      |           |             |             |            |
|                                      | DC Surge Protection                        | Integrated (Type II)                                                                                            |           |             |             |            |
|                                      | AC Surge Protection                        | Integrated (Type II)                                                                                            |           |             |             |            |
| General<br>Data                      | Size (Width * Height * Depth) (mm))        | 520 * 412 * 188                                                                                                 |           |             |             |            |
|                                      | Weight (kg)                                | 27                                                                                                              |           |             |             |            |
|                                      | User Interface                             | LED + OLED                                                                                                      |           |             |             |            |
|                                      | Communication                              | RS485 and USB or Wifi or 4G (Optional)                                                                          |           |             |             |            |
|                                      | Operating Temperature Range (°C)           | -25 ~ +60                                                                                                       |           |             |             |            |
|                                      | Relative Humidity                          | 0 ~ 100%                                                                                                        |           |             |             |            |
|                                      | Operating Altitude (m)                     | ≤ 2000                                                                                                          |           |             |             |            |
|                                      | Standby Self Consumption (W)               | < 15                                                                                                            |           |             |             |            |
|                                      | Topology                                   | Transformerless                                                                                                 |           |             |             |            |
|                                      | Cooling                                    | Natural                                                                                                         |           |             |             |            |
|                                      | Enclosure                                  | IP65                                                                                                            |           |             |             |            |
|                                      | Noise (dB)                                 | < 35                                                                                                            |           |             |             |            |
|                                      | Warranty (years)                           | 5                                                                                                               |           |             |             |            |
| Certifications &<br>Standards        | Grid Regulation                            | VDE 4105, EN 50549-1, VDE 0126, CEI 0-21, EN 50549-GR, EN 50549-PL, TOR Erzeuger, EN50549-CZ, AS4777, UNE217002 |           |             |             |            |
|                                      | Safety Regulation                          | IEC 62109-1, IEC 62109-2                                                                                        |           |             |             |            |
|                                      | EMC                                        | IEC 61000-6-1, IEC 61000-6-3                                                                                    |           |             |             |            |