

blueplanet hybrid 6.0 - 10.0 TL3

Hybrid inverter.



Storing the sun the easy way.

6.0 - 10 kW inverter output, also in battery operation

3-phase mains parallel operation, off-grid capable (upcoming)

2 MPP trackers for flexible integration of solar PV systems

98% efficiency, outstanding partial load behaviour

Integrated battery management and monitoring

Adapter plate and low weight for easy installation

Technical Data

| | PRELIMINARY | PRELIMINARY | PRELIMINARY | |
|--|------------------------------|---------------------|---------------------|---------------------|
| PV Input (DC) | hybrid 6.0 TL3 | hybrid 7.5 TL3 | hybrid 8.5 TL3 | hybrid 10.0 TL3 |
| Max. power per input | 6 000 W | 6 000 W | 6 000 W | 6 000 W |
| Number of inputs / MPP Tracker | 2 | 2 | 2 | 2 |
| Nom. / max. DC voltage | 720 V DC / 900 V DC | 720 V DC / 900 V DC | 720 V DC / 900 V DC | 720 V DC / 900 V DC |
| Start-up voltage | 240 V DC | 240 V DC | 240 V DC | 240 V DC |
| MPP voltage range | 200 V DC – 740 V DC | 200 V DC – 740 V DC | 200 V DC – 740 V DC | 200 V DC – 740 V DC |
| Max. input current per MPP Tracker | 12 A | 12 A | 12 A | 12 A |
| Max. short-circuit current $I_{sc\ max}$ | 15 A per input channel | | | |
| Overload behaviour | shift of working point | | | |
| Efficiency | | | | |
| PV (DC) to grid (AC) [max.] | >98 % | >98 % | >98 % | >98 % |
| PV (DC) to grid (AC) [EU] | >97,5 % | >97,6 % | >97,7 % | >97,7 % |
| PV (DC) to battery (DC) [max.] | >97 % | >97 % | >97 % | >97 % |
| Battery (DC) to grid (AC) [max.] | >97 % | >97 % | >97 % | >97 % |
| Night-time consumption (off) | <0,1 W | <0,1 W | <0,1 W | <0,1 W |
| Idle state consumption | 27 W | 27 W | 27 W | 27 W |
| Battery Mode Input (DC) | | | | |
| Nom. DC voltage | 410 V DC | 410 V DC | 410 V DC | 410 V DC |
| Max. charge / discharge current | 25 A | 25 A | 25 A | 25 A |
| Battery voltage min. - max. | 96 V DC - 450 V DC | 96 V DC - 450 V DC | 96 V DC - 450 V DC | 96 V DC - 450 V DC |
| Galvanic isolation | no | no | no | no |
| Safeguarding | safety-fuse, cut-off relay | | | |
| Battery Mode AC-Connection | | | | |
| Nom. charging power | 6 000 W | 7 500 W | 8 500 W | 9 990 W |
| Nom. discharging power | 6 000 W | 7 500 W | 8 500 W | 9 990 W |
| Voltage shape in off-grid mode | true sinus | true sinus | true sinus | true sinus |
| Number of current phases | 3 | 3 | 3 | 3 |
| Grid Feed-In (AC) | | | | |
| Nom. power AC | 6 000 W | 7 500 W | 8 500 W | 9 990 W |
| Max. power AC | 6 600 VA | 8 300 VA | 9 400 VA | 11 000 VA |
| Number of phases | 3 | 3 | 3 | 3 |
| Typ. power per phase to grid | 2 000 W | 2 500 W | 2 833 W | 3 330 W |
| Max. AC current per phase | 16,1 A RMS | 16,1 A RMS | 16,1 A RMS | 16,1 A RMS |
| Feed-in | sym. / asym. | sym. / asym. | sym. / asym. | sym. / asym. |
| Nom. AC voltage | 210 – 264 V AC | 210 – 264 V AC | 210 – 264 V AC | 210 – 264 V AC |
| AC voltage range | 184 – 264 V AC | 184 – 264 V AC | 184 – 264 V AC | 184 – 264 V AC |
| Grid frequency range | 47,5 Hz – 51,5 Hz | 47,5 Hz – 51,5 Hz | 47,5 Hz – 51,5 Hz | 47,5 Hz – 51,5 Hz |
| Power factor | 0,9c – 0,9i | 0,9c – 0,9i | 0,9c – 0,9i | 0,9c – 0,9i |
| Topology | transformerless | transformerless | transformerless | transformerless |
| Load compensation | 100 ms | 100 ms | 100 ms | 100 ms |
| General Data | | | | |
| Dimension (WxHxD) | 610 x 552 x 200 mm | 610 x 552 x 200 mm | 610 x 552 x 200 mm | 610 x 552 x 200 mm |
| Weight | 33 kg | 33 kg | 33 kg | 33 kg |
| Display | LCD | LCD | LCD | LCD |
| DC disconnecting switch | integrated | integrated | integrated | integrated |
| RC Protective Device | integrated | integrated | integrated | integrated |
| Protective relais | integriert (VDE AR-N 4105) | | | |
| Battery Management System | integrated | integrated | integrated | integrated |
| Operating temperature range | +5 bis +40°C | +5 bis +40°C | +5 bis +40°C | +5 bis +40°C |
| Installation altitude* | 0 – 1000 m | 0 – 1000 m | 0 – 1000 m | 0 – 1000 m |
| Installation humidity | 20 – 90% RH (non-condensing) | | | |
| Protection (island mode) | PE, RCD type B integrated** | | | |
| Noise emission | <35 dB(A) | <35 dB(A) | <35 dB(A) | <35 dB(A) |
| Over temperature behaviour | power reduction | power reduction | power reduction | power reduction |
| Degree of protection (IEC 60529) | IP20 | IP20 | IP20 | IP20 |
| Case material | aluminium | aluminium | aluminium | aluminium |
| PWM frequency | 20 kHz | 20 kHz | 20 kHz | 20 kHz |
| On-grid operation | grid-commutated | grid-commutated | grid-commutated | grid-commutated |
| Energy source for battery charging | PV, grid | PV, grid | PV, grid | PV, grid |
| Pollution degree | PD2 | PD2 | PD2 | PD2 |

* Power reduction of 2 % per 100 m above 1000 m altitude.

** If two or more inverters are installed in the same grid, a separate residual current device (RCD type B) is compulsory.

General Datas

| | | | | |
|---------------------------------------|--|------------|------------|------------|
| Protection class (IEC 62109-1) | I | I | I | I |
| DC Overvoltage category (IEC 60664-1) | II | II | II | II |
| AC Overvoltage category (IEC 60664-1) | III | III | III | III |
| WEEE-Reg.-Nr. | DE57110363 | DE57110363 | DE57110363 | DE57110363 |
| Certificates | VDE 0126, VDE AR-N 4105 | | | |
| Warranty | 5 years | 5 years | 5 years | 5 years |
| Kommunikationsanschlüsse | 2 x RJ45 (RS485), 1 x RJ45 (Ethernet) external | | | |

Connections

| | |
|---|--|
| DC connection for battery with automatic cut-off poin | PhoenixContact Sunclix |
| DC connection for PV | PhoenixContact Sunclix |
| AC connection for grid and off-grid operation | 5-Pole PhoenixContact - Art. 1409205 |
| AC connection max. wire cross section | 4 mm ² (da upgrade möglich) |
| Communication ports | 2 x RJ45 (RS485), 1 x RJ45 (Ethernet) external |

Supported Devices

| | |
|----------------|---|
| Energy storage | blueplanet hy-bat 3.6 or higher, DOMUS 3.6 or higher, BYD Battery-Box H6.4-10.2 |
| Meter | blueplanet hy-switch |

Energiewandlungspfade

| PV (DC) to grid (AC) PV | (DC) to battery (DC) | PV (DC) to grid (AC) PV | (DC) to battery (DC) |
|-------------------------|----------------------|-------------------------|----------------------|
| yes | yes | yes | yes |



