

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

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 upgrate 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



