

Technical Data

BDS 1800TL / BDS 2300TL / BDS 3000TL / BDS 4000TL / BDS 4600TL / BDS 5400TL

MODEL	BDS 1800TL	BDS 2300TL	BDS 3000TL
Rated AC power	1500 W	2000 W	2800 W
Maximum AC power	1650 W	2200 W	3080 W
INPUT			
Maximum Input power	1800 W	2300 W	3200 W
Maximum DC voltage in an open circuit	450 Vdc	500 Vdc	500 Vdc
MPPT operating range	125 - 400 Vdc	125 - 450 Vdc	125 - 450 Vdc
Maximum input current	18,4 Adc	18,4 Adc	20 Adc
Startup voltage	90 Vdc	90 Vdc	90 Vdc
DC Switch	optional	optional	optional
Initial feeding voltage	125 Vdc	125 Vdc	125 Vdc
Ripple voltage	< 10%	< 10%	< 10%
Number of Inputs	2	2	2
MPPT number	1	1	1
OUTPUT			
Operating voltage	230 Vac	230 Vac	230 Vac
Number of grid phases	1	1	1
Voltage Range	187 - 264 Vac (VDE 0126-1-1, VDE AR-N-4105) / 200 - 270 (AS4777) 184 - 276 (ENEL) / 207-264 (G83/1, G59/2) / 196-253 (RD1663) / 195.5-253 (IEC61727)		
Voltage range at maximum power	200 - 260 Vac	200 - 260 Vac	200 - 260 Vac
Frequency range	47,5 - 50,2 (VDE 0126-1-1) / 47,5 - 51,5 (VDE AR-N-4105) / 45 - 55 (AS4777) 49,7 - 50,3 (ENEL) / 47 - 50,5 (G83/1, G59/2) / 49 - 51 (RD1663, IEC61727)		
cos phi	-0,95 - 0,95	-0,95 - 0,95	-0,95 - 0,95
Nominal current	7,7 Aac	10,2 Aac	14,2 Aac
Maximum current	8,4 Aac	11,3 Aac	15,7 Aac
DC current injection (max.)	<20 mA	<20 mA	<20 mA
Current Harmonic Distorsion (THDi)	< 1%	< 1%	< 1%
Power factor	>0,99	>0,99	>0,99
Galvanic separation	No	No	No
SYSTEM			
Maximum efficiency	>97,1%	>97,1%	>97,1%
European efficiency	>96,5%	>96,5%	>96,5%
Switching plan	self-commutated, transformerless	self-commutated, transformerless	self-commutated, transformerless
Off-grid protection	Yes	Yes	Yes
Night power consumption	< 0,2 W	< 0,2 W	< 0,2 W
Detecting earth leakage	Yes	Yes	Yes
Heat dissipation	Convection	Convection	Convection
MECHANICAL SPEC.			
Dimensions in mm (HxDxW)	320x140x380	320x140x380	320x140x380
Weight	14 Kg	14 Kg	14 Kg
Protection class	IP65	IP65	IP65
Display	LCD 2 x 16 characters	LCD 2 x 16 character	LCD 2 x 16 character
Function key	1	1	1
Data Interface	RS232 / RS485 wireless (optional)	RS232 / RS485 wireless (optional)	RS232 / RS485 wireless (optional)
Thermal protection	Yes	Yes	Yes
Noise emission	< 35 dB (silent operation)	<35 dB (silent operation)	<35 dB (silent operation)
Ambient operating temp	-20°C - +60°C (> 45°C derating)	-20°C - +60°C (> 45°C derating)	-20°C - +60°C (> 45°C derating)
CERTIFICATIONS			
Safety compliance	VDE AR-N-4105, VDE 0126-1-1+A1, AS4777, ENEL, G83/1, G59/2, RD1663, CE		

BDS 4000TL	BDS 4600TL	BDS 5400TL
3650 W	4000 W	4600 W
4000 W	4400 W	5000 W
4000 W	4600 W	5400 W
550 Vdc	550 Vdc	550 Vdc
125 - 530 Vdc	125 - 530 Vdc	125 - 530 Vdc
20 A dc	20 A dc	20 A dc
90 Vdc	90 Vdc	90 Vdc
optional	optional	optional
125 Vdc	125 Vdc	125 Vdc
< 10%	< 10%	< 10%
2	2	2
2	2	2
230 Vac	230 Vac	230 Vac
1	1	1
187 - 264 Vac (VDE 0126-1-1, VDE AR-N-4105) / 200 - 270 (AS4777)		
184 - 276 (ENEL) / 207 - 264 (G83/1, G59/2) / 196 - 253 (RD1663) / 195.5 - 253 (IEC61727)		
200 - 260 Vac	200 - 260 Vac	200 - 260 Vac
47,5 - 50,2 (VDE 0126-1-1) / 47,5 - 51,5 (VDE AR-N-4105) / 45 - 55 (AS4777)		
49,7 - 50,3 (ENEL) / 47 - 50,5 (G83/1, G59/2) / 49 - 51 (RD1663, IEC61727)		
-0,95 - 0,95	-0,95 - 0,95	-0,95 - 0,95
18,6 A ac	20,4 A ac	23,6 A ac
20,4 A ac	22,5 A ac	26 A ac
<20 mA	<20 mA	<20 mA
< 1%	< 1%	< 1%
>0,99	>0,99	>0,99
No	No	No
>97,6%	>97,6%	>97,6%
>96,5%	>96,5%	>96,5%
self-commutated, transformerless	self-commutated, transformerless	self-commutated, transformerless
Yes	Yes	Yes
< 0,2 W	< 0,2 W	< 0,2 W
Yes	Yes	Yes
Convection	Convection	Convection
360x150x500	360x150x500	360x150x500
23 Kg	23 Kg	23,5 Kg
IP65	IP65	IP65
LCD 2 x 16 characters	LCD 2 x 16 characters	LCD 2 x 16 characters
1	1	1
RS232 / RS485 wireless (optional)	RS232 / RS485 wireless (optional)	RS232 / RS485 wireless (optional)
Yes	Yes	Yes
< 40 dB (silent operation)	< 40 dB (silent operation)	< 40 dB (silent operation)
-20 °C - +60 °C (> 45 °C derating)	-20 °C - +60 °C (> 45 °C derating)	-20 °C - +60 °C (> 45 °C derating)

VDE AR-N-4105, VDE 0126-1-1+A1, AS4777, ENEL, G83/1, G59/2, RD1663, CE