

# SPH 3000~6000TL BL-UP

- UPS without interruption
- IP65 & Natural cooling
- Online smart service
- Supports export limitation function



P O W E R  
- I N G O  
T O M O -  
R R O W O



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Datasheet	SPH3000TL BL-UP	SPH3600TL BL-UP	SPH4000TL BL-UP	SPH4600TL BL-UP	SPH5000TL BL-UP	SPH6000TL BL-UP
<b>Input data (DC)</b>						
Max. recommended PV power (for module STC)	6600W	6600W	6600W	8000W	8000W	8000W
Start voltage	150V	150V	150V	150V	150V	150V
Max. DC voltage	550V	550V	550V	550V	550V	550V
MPPT voltage range/nominal voltage	150V-550V /370V	150V-550V /370V	150V-550V /370V	150V-550V /370V	150V-550V /370V	150V-550V /370V
No. of MPP trackers/strings per MPP trackers	2/1	2/1	2/1	2/1	2/1	2/1
Max. input current per MPP trackers	12A	12A	12A	12A	12A	12A
<b>Output data (AC)</b>						
AC nominal power	3000W	3680W	4000W	4600W	5000W	6000W
Max. AC apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage/range	230V/240V; 180Vac-270Vac	230V/240V; 180Vac-270Vac	230V/240V; 180Vac-270Vac	230V/240V; 180Vac-270Vac	230V/240V; 180Vac-270Vac	230V/240V; 180Vac-270Vac
AC grid frequency/range	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz
Max. output current	16A	16A	22A	22A	22A	27A
Adjustable power factor	0.8leading... 0.8lagging	0.8leading... 0.8lagging	0.8leading... 0.8lagging	0.8leading... 0.8lagging	0.8leading... 0.8lagging	0.8leading... 0.8lagging
THDI (at normal power)	<3%	<3%	<3%	<3%	<3%	<3%
AC grid connection type	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
<b>Output data (Back-up)</b>						
AC nominal output power*1	3000W	3600W	3600W	3600W	3600W	3600W
Max. AC apparent power*2	3000VA	3600VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage	230/240Vac	230/240Vac	230/240Vac	230/240Vac	230/240Vac	230/240Vac
Nominal AC frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Max. output current	16A	16A	16A	16A	16A	16A
THDv(at linear load)	<3%	<3%	<3%	<3%	<3%	<3%
Automatic Transfer Time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
<b>Battery data (DC)</b>						
Battery voltage range	42~59V	42~59V	42~59V	42~59V	42~59V	42~59V
Recommended battery voltage	48V	48V	48V	48V	48V	48V
Max. charging / discharging current	75A	75A	75A	75A	75A	75A
Continuous charging / discharging power	3600W	3600W	3600W	3600W	3600W	3600W
Max charging / discharge power	4000W/10s	4000W/10s	4000W/10s	4000W/10s	4000W/10s	4000W/10s
Type of battery	Lithium/lead-acid	Lithium/lead-acid	Lithium/lead-acid	Lithium/lead-acid	Lithium/lead-acid	Lithium/lead-acid
Capacity of battery	50Ah~2000Ah	50Ah~2000Ah	50Ah~2000Ah	50Ah~2000Ah	50Ah~2000Ah	50Ah~2000Ah
<b>Efficiency</b>						
Max. efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.5%
Euro-eta	96.9%	96.9%	96.9%	97%	97%	97.1%
MAX. Battery charging/ discharging efficiency	94%	94%	94%	94%	94%	94%
<b>Protection devices</b>						
DC reverse-polarity protection	yes	yes	yes	yes	yes	yes
Battery reverse protection	yes	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes	yes
AC over voltage protection-varistor	yes	yes	yes	yes	yes	yes
AC short-circuit protection	yes	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes	yes
Residual-current monitoring unit	yes	yes	yes	yes	yes	yes
<b>General Data</b>						
Dimensions (W / H / D) in mm	560/450/180	560/450/180	560/450/180	560/450/180	560/450/180	560/450/180
Weight	27KG	27KG	27KG	27KG	27KG	27KG
Operating temperature range	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C
Noise emission (typical)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)
Altitude	2000m	2000m	2000m	2000m	2000m	2000m
Self-Consumption	< 7 W	< 7 W	< 7 W	< 7 W	< 7 W	< 7 W
Topology	transformerless	transformerless	transformerless	transformerless	transformerless	transformerless
Cooling	Natural	Natural	Natural	Natural	Natural	Natural
Protection degree	IP65	IP65	IP65	IP65	IP65	IP65
Relative humidity	100%	100%	100%	100%	100%	100%
<b>Interfaces</b>						
Display	LCD+LED	LCD+LED	LCD+LED	LCD+LED	LCD+LED	LCD+LED
RS232/RS485/CAN/USB	yes/yes/yes/yes	yes/yes/yes/yes	yes/yes/yes/yes	yes/yes/yes/yes	yes/yes/yes/yes	yes/yes/yes/yes
RF/WIFI/GPRS/4G	opt/opt/opt	opt/opt/opt	opt/opt/opt	opt/opt/opt	opt/opt/opt	opt/opt/opt
Warranty: 5 years / 10 years	5	5	5	5	5	5

IEC 61000-6-1, IEC 61000-6-3, IEC 62109-1/-2, IEC 62040-1, NRS 097-2-1

\*1) Continuous back-up power with only battery. \*2) Can be reached only if PV and battery power is enough.

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