

# Sunny Boy 5000TL HC

Maximum flexibility



Suitable for different strings due to separate MPP-Tracking

Suitable for modules based on 6 " and 6 " + cells with higher currents

Extended input voltage range (125 to 750 V DC)

Transformerless with integrated all-pole sensitive residual current detection

SMA grid guard® (MSD)

Diagnosis and communication via Powerline Communication, radio transmission or via data cable (RS232 or RS485)

Extended temperature range -25 °C to +60 °C

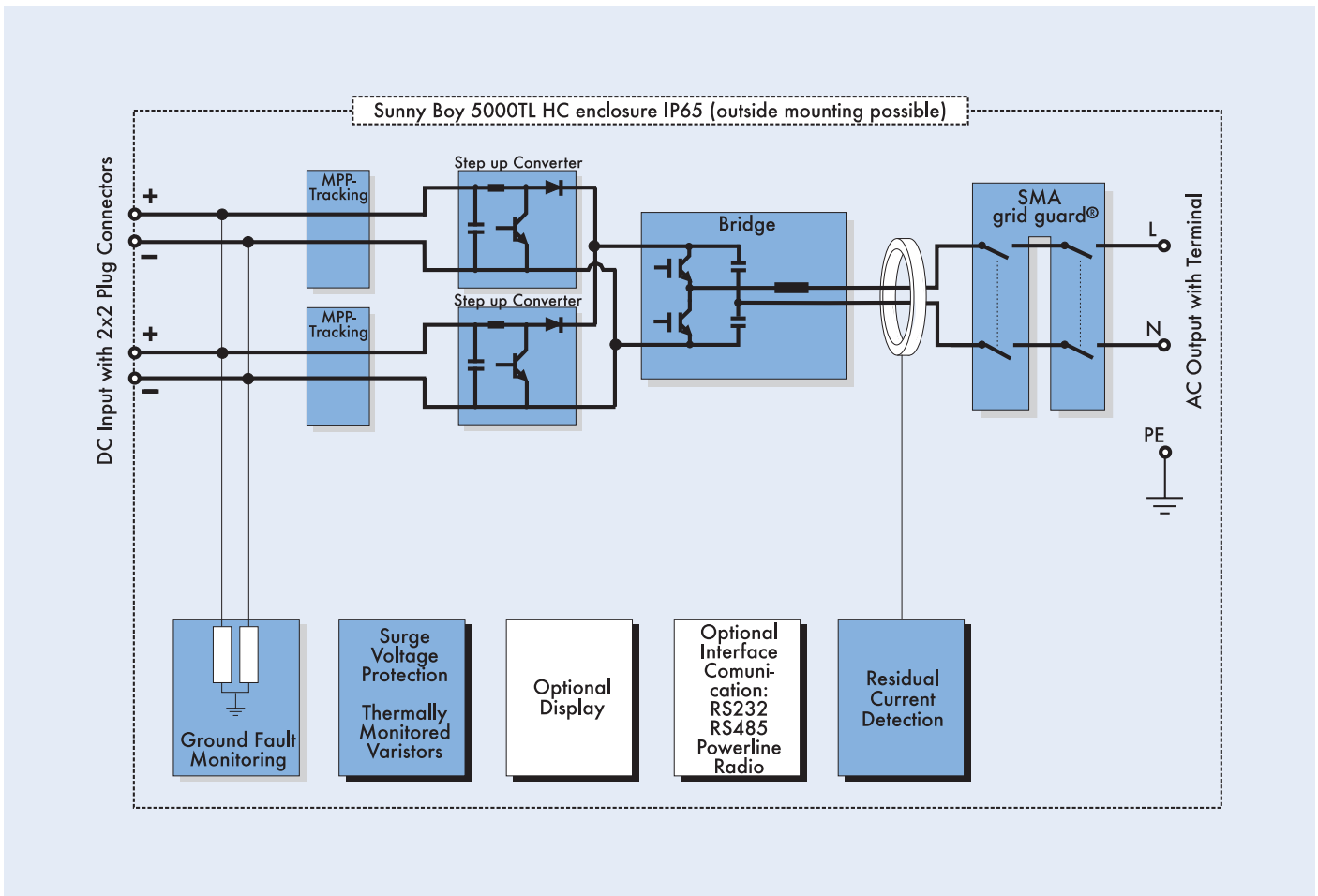
For outdoor and indoor installation

Connection of DC input with waterproof snap cable connectors

Surge voltage protection with integrated thermally monitored varistors

The main purpose of an inverter should be to ensure the best possible energy yield from your solar power system. Multi-string technology developed by SMA uses a separate MPP (maximum power point) controller for each input to achieve outstanding results even when the individual module strings are running with different module types, unequal numbers of modules or modules facing in different directions. What's more, all current cell technologies can be used with the SB 5000TL HC without any problems. With efficiency improved still further to 96 % and increased input sensitivity, electricity can be fed into the grid even with minimal sunshine.





Schematic diagram of the Sunny Boy 5000TL HC

## Technical Data

	SB 5000TL HC Multi-String	
<b>Input</b>		
Recc. maximum PV-power ( $P_{PV}$ )	approx. 6000 W <sub>p</sub> *)	
Max. DC power ( $P_{DC, max}$ )	5300 W	
Max. DC voltage ( $U_{DC, max}$ )	750 V	
PV-voltage range, MPPT ( $U_{PV}$ )	125 V - 750 V	
Max. input current ( $I_{PV, max}$ )	2 x 7.5 A	
DC voltage ripple ( $U_{pp}$ )	< 10 %	
Max. number of strings	2	
DC disconnection	Snap cable connectors	
Thermally monitored varistors	yes	
Ground fault monitoring	yes	
Pole confusion protection	Short circuit diode	
<b>Output</b>		
Max. AC power ( $P_{AC, max}$ )	5000 W	
Nominal AC power ( $P_{AC, nom}$ )	4600 W	
THD of grid current	< 4 %	
Default range of AC voltage ( $U_{AC}$ )	198 V - 260 V	
Possible range of AC voltage	180 V - 265 V	
AC frequency ( $f_{AC}$ )	49.8 Hz - 50.2 Hz	
Possible range of AC frequency	45.5 Hz - 54.5 Hz	
Phase shift ( $\cos \varphi$ )	1	
Short circuit proof	yes, current control	
Connection to utility	AC screw terminal	
<b>Efficiency</b>		
Max. Efficiency	96 %	
Euro-eta	95 %	
<b>Enclosure</b>		
accord. to DIN EN 60529	IP65	
<b>Mechanical Data</b>		
Width / height / depth in mm	470 / 490 / 225	
Weight	approx. 31 kg	

\*) for PV-Plants in Germany