



POWERSTOCC®

THE FAMILY OF CONVERTERS FROM SOLARSTOCC

The purpose of a converter is to convert the direct current produced in photovoltaic models into grid-standard alternating current. The resulting alternating current is then fed entirely into the grid. The new PowerStocC® converter series from SolarstocC uses the very efficient power electronics of Danfoss Silicon Power technology complete with integrated driver circuitry and safety devices. This assures absolutely reliable operation, optimum thermal management and high efficiency.

The PowerStocC® family of devices features:

- Building permits and certificates from the industrial accident insurers
- International environmental and quality standards
- Separate connecting zone with plug connections for DC and AC connections
- Electrically isolated direct-current and alternating-current stages
- Sleep circuit for night-time
- Surge protection
- Extended temperature range
- Stainless aluminium casing
- Five-year guarantee/ optional: Ten years
- Professional data transfer via DataStocC



From direct current to alternating current

Alternating current is the preferred energy supply worldwide because it can be transformed with ease and carried over long distances at high voltages without any significant losses. Unlike direct current, alternating current constantly changes its polarity at regularly repeated intervals. The converter converts the direct current generated in the photovoltaic modules into alternating current by means of rapid-switching transformers.

POWERSTOCC®

A straightforward affair for planners and fitters

PowerStoccc® converters are available in six different, optimally spaced performance categories. By intelligently combining different PowerStoccc® converters, any size of system, from small private systems to large-scale systems with an output running into megawatts, can be configured. The configuration software "My Solarstoccc Project"

supports the planner or fitter in this task. Professional data transfer is made possible by the data management system DataStoccc. Relevant system parameters are stored over months or years. Thus the physical activities within the system can be reproduced at any given time. The data transfer takes place wireless or via cable.

Input parameters

		PS 1200	PS 2000	PS 3000	PS 4000	PS 5000	PS 6000
Nominale PV generator input P_{PVnorm}		810 W	1600 W	2700 W	3200 W	4300 W	4800 W
Maximum PV generator output P_{PVmax}		1100 W	1950 W	3200 W	3900 W	5100 W	5850 W
Input voltage UPV in 2 versions	High Volt suitable for modules with 5 inch cell technology Max. input voltage, U_{PVmax} (at 1000 W/m ² ; -10 °C)	HV	200 V - 500 V	200 V - 500 V	200 V - 500 V	200 V - 500 V	200 V - 500 V
			600 V	600 V	600 V	600 V	600 V
MPP voltage range	Medium Volt suitable for modules with 6 inch cell technology Max. input voltage, U_{PVmax} (at 1000 W/m ² ; -10 °C)	MV	100 V - 350 V	100 V - 350 V	100 V - 350 V	100 V - 350 V	100 V - 350 V
			450 V	450 V	450 V	450 V	450 V
Max. input current I_{PVmax}		HV	5 A	7 A	14 A	14 A	21 A
		MV	10 A	11 A	22 A	22 A	33 A
DC input modules		1	1	2	2	3	3
Independent MPP trackers		1	1	2	2	3	3
DC disconnecting device	Scoop-proof MC plug system						
Surge protection	Varistors at the the DC input end						
Voltage ripple U_{ss}	Less than 10 %						
Earth-fault monitoring	Integrated as standard						
Polarity reversal protection	In the form of short-cut diodes						

Output parameters

	PS 1200	PS 2000	PS 3000	PS 4000	PS 5000	PS 6000
Rated output* ¹ P_{nom}	825 W	1650 W	2750 W	3300 W	4000 W	4600 W
Max. power output P_{max}	900 W	1800 W	3000 W	3600 W	4400 W	5000 W/ 5400 W ²
Nominal output current I_{nom}	3.3 A	6.5 A	11.3 A	13.0 A	17.5 A	19.0 A
Max. output current I_{max}	4.0 A	8.0 A	13 A	15.5 A	19.2 A	22.0 A
System voltage/ frequency adjustable according to country	195 V - 264 V 50 Hz	195 V - 264 V 50 Hz	195 V - 264 V 50 Hz	195 V - 264 V 50 Hz	195 V - 264 V 50 Hz	195 V - 264 V 50 Hz
Distortion factor of output current	< 5 %	< 5 %	< 5 %	< 5 %	< 5 %	< 5 %
Short-circuit capability	At supply end by means of current control					
Phase difference n verschiebungswinkel	In relation to currents fundamental wave: 0°					

*1: 25 °C *2: for 3-phase supply



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