



Sigen Energy Controller

3.0 – 6.0 kW Single Phase

- EMS inside for precise control
- DC ground-fault protection
- Multi-source black start
- On & off-grid compatibility
- DC/AC ratio up to 2
- IP66 system protection rating

Signen Energy Controller 3.0–6.0 kW Single Phase

SignenStor EC	3.0 SP	3.6 SP	4.0 SP	4.6 SP	5.0 SP	6.0 SP	Units
DC Input (from PV)							
Max. PV power	6000	7360	8000	9200	10000	12000	W
Max. DC input voltage			600				V
Nominal DC input voltage			350				V
Start-up voltage			100				V
MPPT voltage range			50 ~ 550				V
Number of MPP. trackers			2				
Number of PV strings per MPPT			1				
Max. input current per MPPT			16				A
Max. short-circuit current per MPPT			20				A
AC Output (on-grid)							
Nominal output power	3000	3680	4000	4600	5000	6000	W
Max. output apparent power	3300	3680	4400	5000	5500	6600	VA
Nominal output current	13.6	16.0	18.2	20.9	22.7	27.3	A
Max. output current	15.0	16.0	20.0	22.7	25.0	30.0	A
Nominal output voltage			220 / 230 / 240				V
Nominal grid frequency			50 / 60				Hz
Power factor			0.8 leading ~ 0.8 lagging				
Total current harmonic distortion			THDi < 2%				
Efficiency							
Max. efficiency			98.0%				
European efficiency	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%	
AC Output (backup)							
Peak output power (10 seconds)	4500	5520	6000	6900	7500	9000	W
Nominal output voltage			220 / 230 / 240				V
Nominal output frequency			50 / 60				Hz
Power factor			0.8 leading ~ 0.8 lagging				
Total voltage harmonic distortion			THDv < 2%				
Switch time to backup mode ¹			0				ms
Battery Connection							
Battery module models			SignenStor BAT 5.0 / 8.0				
Number of modules per controller			1 ~ 6				pcs
Battery module voltage range			300 ~ 600				V
General Data							
Dimensions (W / H / D)			700 / 300 / 245				mm
Weight			18				kg
Storage temperature range			-40 ~ 70				°C
Operating temperature range			-30 ~ 60				°C
Relative humidity range			0% ~ 95%				
Max. operating altitude			4000				m
Cooling			Natural convection				
System ingress protection rating			IP66				
Communication			WLAN / Fast Ethernet / RS485 / Signen CommMod (4G/3G/2G)				
Standard Compliance							
Standard ²			IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62477, IEC/EN 61000-6-1, IEC/EN 61000-6-2				

1. Need to be used together with Signen Energy Gateway and Signen Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Signen Energy Controller is higher than the total power of the home loads.
2. For all standards refer to the certificates category in the Signenergy website.

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