



Sigen Energy Controller

3.0 – 6.0kW Single Phase

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

Sigen Energy Controller 3.0–6.0 kW Single Phase

SigenStor 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%			
Disruption time of backup switch ¹				0			ms
Battery Connection							
Battery module models				SigenStor BAT 5.0 / 8.0			
Number of modules per controller				1 ~ 6			pcs
Battery module voltage range				300 ~ 600			V
Protection							
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter ² , AC overcurrent/overvoltage/short-circuit protection. Type II DC/AC surge protection, Anti-islanding protection						
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 / Sigen CommMod (4G/3G/2G)			
Standard Compliance							
Standard ³	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62477, IEC/EN 61000-6-1, IEC/EN 61000-6-2						

- This refers to the load-side disruption time, to achieve this functionality Sigen Energy Gateway needs to be used together with Sigen Energy Controller and Sigen Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Energy Controller is higher than the total power of the home loads.
- This is an optional feature only supported in certain models, please contact Sigenenergy for more information.
- For all standards refer to the certificates category in the Sigenenergy website.

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