



# 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
<b>DC Input (from PV)</b>							
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
<b>AC Output (on-grid)</b>							
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%			
<b>Efficiency</b>							
Max. efficiency				98.0%			
European efficiency	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%	
<b>AC Output (backup)</b>							
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 <sup>1</sup>				0			ms
<b>Battery Connection</b>							
Battery module models				SigenStor BAT 5.0 / 8.0			
Number of modules per controller				1 ~ 6			pcs
Battery module voltage range				300 ~ 600			V
<b>Protection</b>							
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter <sup>2</sup> , AC overcurrent/overvoltage/short-circuit protection. Type II DC/AC surge protection, Anti-islanding protection						
<b>General Data</b>							
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)			
<b>Standard Compliance</b>							
Standard <sup>3</sup>	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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