



# Sigen Energy Controller

5.0 – 25.0 kW Three Phase

- EMS inside for precise control
- DC ground-fault protection
- Multi-source black start
- On & off-grid compatibility
- DC/AC ratio up to 1.6
- IP66 system protection rating

# Sigen Energy Controller 5.0–25.0 kW Three Phase

SigenStor EC	5.0 TP	6.0 TP	8.0 TP	10.0 TP	12.0 TP	15.0 TP	17.0 TP	20.0 TP	25.0 TP	Units	
<b>DC Input (from PV)</b>											
Max. PV power	8000	9600	12800	16000	19200	24000	27200	32000	40000	W	
Max. DC input voltage										1100	V
Nominal DC input voltage										600	V
Start-up voltage										180	V
MPPT voltage range										160 ~ 1000	V
Number of MPP. trackers	2			3			4				
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	5000	6000	8000	10000	12000	15000	17000	20000	25000	W	
Max. output apparent power	5500	6600	8800	11000	13200	16500	18700	22000	27500	VA	
Nominal output current	7.6	9.1	12.2	15.2	18.2	22.8	25.8	30.4	38.0	A	
Max. output current	8.4	10.0	13.4	16.7	20.1	25.1	28.4	33.4	41.8	A	
Nominal output voltage										380 / 400	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	98.1%	98.2%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%		
European efficiency	96.1%	96.6%	97.1%	97.5%	97.7%	97.9%	97.9%	97.9%	98.0%		
<b>AC Output (backup)</b>											
Peak output power (10 seconds)	7500	9000	12000	15000	18000	22500	25500	30000	30000	W	
Nominal output voltage										380 / 400	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										600 ~ 900	V
<b>Protection</b>											
Safety protection feature	DC ground fault protection, Arc fault circuit interrupter, DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Type II DC/AC surge protection, Anti-islanding protection, AC overcurrent/overvoltage/short-circuit protection.										
<b>General Data</b>											
Dimensions (W / H / D)										700 / 300 / 260	mm
Weight										36	kg
Storage temperature range										-40 ~ 70	°C
Operating temperature range										-30 ~ 60	°C
Relative humidity range										0% ~ 95%	
Max. operating altitude										4000	m
Cooling										Smart air cooling	
System ingress protection rating										IP66	
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)										
<b>Standard Compliance</b>											
Standard <sup>2</sup>	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2										

- <sup>1</sup> 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.
- <sup>2</sup> For all standards refer to the certificates category in the Sigenenergy website.

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