



Sigen Energy Controller

5.0 – 25.0 kW Three Phase

- EMS inside for precise control
- On & off-grid compatibility
- Up to 4 MPP trackers
- IP66 system protection rating
- Multi-source black start



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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	
DC Input (from PV)											
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
AC Output (on-grid)											
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%	
Efficiency											
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%		
AC Output (backup)											
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 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										600 ~ 900	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 / 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)	
Standard Compliance											
Standard ³	IEC/EN 62109-1, IEC/EN 62109-2, 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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