



Sigen Energy Controller

5.0 – 30.0 kW Three Phase

- EMS inside for precise control
- On & off-grid compatibility
- Up to 4 MPP. trackers
- DC/AC ratio up to 1.6
- Multi-source black start
- IP66 system protection rating

Sigen Energy Controller 5.0–30.0 kW Three Phase Australia

SigenStor EC	5.0 TP	10.0 TP	15.0 TP	20.0 TP	25.0 TP	30.0 TP	Units	
DC Input (from PV)								
Max. PV power	8000	16000	24000	32000	40000	48000	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	3	4	4	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	9999	15000	20000	25000	29900	W	
Max. output apparent power	5500	9999	15000	22000	27500	29900	VA	
Nominal output current	7.6	14.4	21.7	30.4	38.0	43.3	A	
Max. output current	8.4	14.4	21.7	33.4	41.8	43.3	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%	98.3%	98.3%	98.3%	98.3%	98.4%		
European efficiency	96.1%	97.5%	97.9%	97.9%	98.0%	98.0%		
AC Output (backup)								
Nominal output power	5000	10000	15000	20000	25000	30000	W	
Max. output apparent power	5500	11000	16500	22000	27500	33000	W	
Peak output power (10 seconds)	7500	15000	22500	30000	30000	36000	W	
Nominal output current	7.6	15.2	22.8	30.4	38.0	45.6	A	
Max. output current	8.4	16.7	25.1	33.4	41.8	50.1	A	
Peak output current (10 seconds)	11.4	22.8	34.2	45.6	45.6	54.7	A	
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	36	36	36	36	38	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							

1. 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.
2. This is an optional feature only supported in certain models, please contact Sigenenergy for more information.
3. For all standards refer to the certificates category on the Sigenenergy website.