

Sigen Energy Controller 5.0–30.0 kW Three Phase ¹

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	30.0 TP	Units	
DC Input (from PV)												
Max. PV power	8000	9600	12800	16000	19200	24000	27200	32000	40000	48000	W	
Max. DC input voltage ²							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	30000	W	
Max. output apparent power	5500	6600	8800	11000	13200	16500	18700	22000	27500	33000	VA	
Nominal output current	7.6	9.1	12.2	15.2	18.2	22.8	25.8	30.4	38.0	45.5	A	
Max. output current	8.4	10.0	13.4	16.7	20.1	25.1	28.4	33.4	41.8	50.0	A	
Nominal output voltage	380 / 400, 3W+N+PE										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%	98.4%		
European efficiency	96.1%	96.6%	97.1%	97.5%	97.7%	97.9%	97.9%	97.9%	98.0%	98.0%		
AC Output (backup)												
Peak output power (10 seconds) ³	2 times of nominal output power											
Nominal output voltage	380 / 400, 3W+N+PE										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 ⁴	0										ms	
Battery Connection												
Battery module models	SigenStor BAT series											
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 ⁵ , 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% ~ 100%											
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 ⁶	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2											

1. Sigen Energy Controller 30.0 kW Three Phase is only available in specific regions. Please contact Sigenenergy or local distributors for details.

2. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.

3. Actual load starting performance depends on the load type and its characteristics; practical results may vary.

4. 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.

5. This is an optional feature only supported in certain models, please contact Sigenenergy for more information.

6. For all standards refer to the certificates category on the Sigenenergy website.