



Sigen Energy Controller

3.0 – 6.0 kW Single Phase

- EMS inside for precise control
- DC ground-fault protection
- Multi-source black start
- On & off-grid compatibility
- 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	
DC Input (from PV)								
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	
AC Output (on-grid)								
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%					
Efficiency								
Max. efficiency			98.0%					
European efficiency	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%		
AC Output (backup)								
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 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			300 ~ 600				V	
Protection								
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.					
General Data								
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)					
Standard Compliance								
Standard ²			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.
- For all standards refer to the certificates category in the Sigenenergy website.

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