



Sigen Energy Controller

5.0 – 25.0 kW Three Phase

- EMS inside for precise control
- On & off-grid compatibility
- DC ground-fault protection
- DC/AC ratio up to 1.6
- Multi-source black start
- 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
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 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 / 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 ²	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 For all standards refer to the certificates category in the Sigenenergy website.

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