



Sigen Energy Controller

8.0 – 12.0 kW Single Phase

- EMS inside for precise control
- On & off-grid compatibility
- Up to 4 MPP. trackers
- DC/AC ratio up to 2
- Multi-source black start
- IP66 system protection rating

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Sigen Energy Controller 8.0–12.0 kW Single Phase

SigenStor EC ¹	8.0 SP	10.0 SP	12.0 SP	Units
DC Input (from PV)				
Max. PV power	16000	20000	24000	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	3	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	8000	10000	12000	W
Max. output apparent power	8800	11000	12000	VA
Nominal output current	36.4	45.5	54.6	A
Max. output current	40.0	50.0	54.6	A
Nominal output voltage		220 / 230		V
Nominal grid frequency		50 / 60		Hz
Power factor		0.8 leading ~ 0.8 lagging		
Total current harmonic distortion		THDi < 2%		
Efficiency				
Max. efficiency		97.6%		
European efficiency		97%		
AC Output (backup)				
Peak output power (10 seconds)	12000	15000	15000	W
Nominal output voltage		220 / 230		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 ²		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 reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter ³ , 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)			

1. Please contact Sigenenergy or local distributors for specific countries where sales are available.
2. Need to be used together with Sigen Energy Gateway 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.
3. This is an optional feature only supported in certain models, please contact Sigenenergy for more information.

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