



Sigen Energy Controller

5.0 – 25.0 kW Three Phase

- EMS inside for precise control
- DC ground-fault protection
- Multi-source black start
- On & off-grid compatibility
- DC/AC ratio up to 1.6
- 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										V
Nominal DC input voltage										V
Start-up voltage										V
MPPT voltage range										V
Number of MPP. trackers	2			3			4			
Number of PV strings per MPPT										1
Max. input current per MPPT										A
Max. short-circuit current per MPPT										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										V
Nominal grid frequency										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										V
Nominal output frequency										Hz
Power factor	0.8 leading ~ 0.8 lagging									
Total voltage harmonic distortion	THDv < 2%									
Disruption time of backup switch ¹										ms

Battery Connection

Battery module models	SigenStor BAT 5.0 / 8.0									
Number of modules per controller										pcs
Battery module voltage range										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

- 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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Distributeur: VDH Solar Groothandel B.V.

Finlandlaan 1, 2391 PV Hazerswoude-Dorp, Holland | +31 (0)172 235 990 | info@vdh-solar.nl | www.vdh-solar.nl