

Sigen Energy Controller

3.0 – 12.0 kW

5.0 – 30.0 kW

3.8 – 11.4 kW

Single Phase

Three Phase

Split Phase



- EMS-integrated intelligent management for precision control
- Max. 2.0 DC/AC ratio compatibility, higher energy utilization (Single Phase)
- Unbalanced 3-phase power output, ensuring efficient operation
- 150% peak output power in off-grid mode, instant high-power boost
- Up to 4 MPP trackers for maximum solar energy extraction

Sigen Energy Controller 3.8–11.4 kW Split Phase

SigenStor EC							
Field Configuration	3.8	4.8	5.7	7.6	9.6	11.4	Units
DC Input (from PV)							
Max. PV power	7680	9600	11520	15360	19200	22800	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			4				
Number of PV strings per MPPT			1				
Max. input current per MPPT			16				A
Max. short-circuit current per MPPT			20				A
AC Input / Output (on-grid)							
Nominal output power	3840	4800	5760	7680	9600	11400	W
Max. continuous current	16.0	20.0	24.0	32.0	40.0	47.5	A
AC switch current rating	20.0	25.0	30.0	40.0	50.0	60.0	
Nominal output voltage			240 / 120				V
Grid frequency range			59.3 ~ 60.5				Hz
Power factor			0.8 leading ~ 0.8 lagging				
Total current harmonic distortion			THDi < 2%				
Efficiency							
Max. efficiency			97.61%				
AC Output (backup)							
Backup output power @240V	3840	4800	5760	7680	9600	11400	W
Backup output power @120V	1920	2400	2880	3840	4800	5700	W
Peak output power	8640	8640	8640	14400	14400	14400	W
Nominal output voltage			240 / 120				V
Output frequency range			59.3 ~ 60.5				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				
Battery module voltage range			300 ~ 600				V
General Data							
Dimensions (W / H / D)			700 x 300 x 260 / 27.6 x 11.8 x 10.2				mm / in
Weight			35 / 77.1				kg / lbs
Storage temperature range			-40 ~ 70 / -40 ~ 70				°C / °F
Operating temperature range			-30 ~ 60 / -22 ~ 140				°C / °F
Relative humidity range			0% ~ 95%				
Max. operating altitude			4000 / 13123				m / ft
Cooling			Smart air cooling				
System ingress protection rating			IP66				
Communication			WLAN / Fast Ethernet / RS485				
Standard Compliance							
Standard			UL 1741, UL 1741 SB, UL 1741 CRD, IEEE 1547-2018, IEEE 1547.1-2020, UL 1998, UL 991, UL1699B, CP 65, FCC Part 15 Class B				

- 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 backup loads.