

Sigen Energy Controller 5.0–30.0 kW Three Phase ¹

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	30.0 TP	Units	
DC Input (PV)												
Max. PV power	8,000	9,600	12,800	16,000	19,200	24,000	27,200	32,000	40,000	48,000	W	
Max. DC input voltage ²						1,100						V
Nominal DC input voltage						600						V
Start-up voltage						180						V
MPPT voltage range						160 ~ 1,000						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	5,000	6,000	8,000	10,000	12,000	15,000	17,000	20,000	25,000	30,000	W	
Max. output apparent power	5,500	6,600	8,800	11,000	13,200	16,500	18,700	22,000	27,500	33,000	VA	
Nominal output current	7.6	9.1	12.2	15.2	18.2	22.8	25.8	30.4	38.0	45.5	A	
Max. output current	8.4	10.0	13.4	16.7	20.1	25.1	28.4	33.4	41.8	50.0	A	
Nominal output voltage						380 / 400, 3W+N+PE					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%	98.4%		
European efficiency	96.1%	96.6%	97.1%	97.5%	97.7%	97.9%	97.9%	97.9%	98.0%	98.0%		
AC Output (Backup)												
Peak output power (10 seconds)	7,500	9,000	12,000	15,000	18,000	22,500	25,500	30,000	30,000	36,000	W	
Nominal output voltage						380 / 400, 3W+N+PE					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 ³						0					ms	
Battery Connection												
Battery module models						SigenStor BAT series						
Number of modules per controller						1 ~ 6					pcs	
Battery module voltage range						600 ~ 900					V	
Protection												
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter ⁴ , 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% ~ 100%						
Max. operating altitude						4,000					m	
Cooling						Smart air cooling						
System ingress protection rating						IP66						
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)											
Standard Compliance												
Standard ⁵	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2											

1. Sigen Energy Controller 30.0 kW Three Phase is only available in specific regions. Please contact Sigenenergy or local distributors for details.
2. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
3. This refers to the load-side disruption time, to achieve this functionality Sigen Energy Controller needs to be used together with Sigen Battery and Sigen Energy Gateway. 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.
4. This is an optional feature only supported in certain models, please contact Sigenenergy for more information.
5. For all standards refer to the certificates category on the Sigenenergy website.