Sigen Energy Controller 3.0-12.0 kW Single Phase

SigenStor EC	3.0 SP	4.0 SP	5.0 SP	6.0 SP	8.0 SP	10.0 SP	12.0 SP	Units
DC Input (from PV)								
Max. PV power	6000	8000	10000	12000	16000	20000	24000	W
Max. DC input voltage [1]				600				V
Nominal DC input voltage				350				V
Start-up voltage				100				V
MPPT voltage range				50 ~ 550				V
Number of MPP. trackers	2	2	2	2	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	3000	4000	5000	6000	8000	10000	12000	W
Max. output apparent power	3300	4400	5500	6600	8800	11000	12000	VA
Nominal output current	13.6	18.2	22.7	27.3	36.4	45.5	54.6	A
Max. output current	15.0	20.0	25.0	30.0	40.0	50.0	54.6	A
Nominal output voltage	220 / 230 / 240				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	98.0%	98.0%	98.0%	98.0%	97.6%	97.6%	97.6%	
European efficiency	97.0%	97.2%	97.4%	97.4%	97.0%	97.0%	97.0%	
AC Output (backup)								
Peak output power (10 seconds)	4500	6000	7500	9000	12000	15000	15000	W
Nominal output voltage	220 / 230 / 240				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 series							
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 / 245				700 / 300 / 260			mm
Weight	18				36			kg
Storage temperature range	-40 ~ 70							°C
Operating temperature range	-30 ~ 60							°C
Relative humidity range	0% ~ 100%							
Max. operating altitude	4000							m
Cooling	Natural convection				Smart air cooling			
System ingress protection rating	IP66							
Standard Compliance [4]								
EMC	IEC/EN 62311, IEC/EN 61000-6-1/2/3/4, IEC/EN 61000-3-2/11, EN 61000-3-3/12, ETSI EN 301 489-1/3/17							
Safety	IEC/EN 62109-1, IEC 62109-2, EN 62477							
Grid compliance	IEC 62116, IEC 61727, EN 50549-1, UNE 217001/UNE 217002/NTS 631, CEI 0-21, XP C15-712-3, C10/11, G98/G99/G100, VDE 4105, NRS 097							

1. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
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.
3. This is an optional feature only supported in certain models, please contact Sigenergy for more information.
4. For all standards refer to the certificates catogary on the Sigenergy website.