

# Sigen Energy Controller 8.0–12.0 kW Single Phase

Preliminary

SigenStor EC	8.0 SP	10.0 SP	12.0 SP	Units
<b>DC Input (from PV)</b>				
Max. PV power	16000	20000	24000	Wp
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
<b>AC Output (on-grid)</b>				
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%		
<b>Efficiency</b>				
Max. efficiency		97.6%		
European efficiency		97%		
<b>AC Output (backup)</b>				
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		THDi < 2%		
Disruption time of backup switch <sup>1</sup>		0		ms
<b>Battery Connection</b>				
Battery modules		SigenStor BAT 5.0 / 8.0		A
Battery modules per controller		1 ~ 6		pcs
Battery module voltage range		300 ~ 600		V
<b>Protection</b>				
Safety protection feature	DC ground fault protection, Arc fault circuit interrupter, DC reverse polarity protection, Anti-islanding protection, AC overcurrent/overvoltage/short-circuit protection, Insulation monitoring, Residual current monitoring, DC/AC surge protection			
<b>General Data</b>				
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. 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.

# Sigen Hybrid Inverter 8.0–12.0 kW Single Phase

Preliminary

Sigen Hybrid	8.0 SP	10.0 SP	12.0 SP	Units
<b>DC Input (from PV)</b>				
Max. PV power	16000	20000	24000	Wp
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
<b>AC Output (on-grid)</b>				
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%		
<b>Efficiency</b>				
Max. efficiency		97.6%		
European efficiency		97%		
<b>Additional Features</b>				
Compatible battery module		SigenStor BAT 5.0 / 8.0		A
Battery modules per controller		1 ~ 6		pcs
Battery module voltage range		300 ~ 600		V
Peak output power (10 seconds)	12000	15000	15000	W
Nominal output voltage		220 / 230		V
<b>Protection</b>				
Safety protection feature	DC ground fault protection, Arc fault circuit interrupter, DC reverse polarity protection, Anti-islanding protection, AC overcurrent/overvoltage/short-circuit protection, Insulation monitoring, Residual current monitoring, DC/AC surge protection			
<b>General Data</b>				
Dimensions (W / H / D)		700 / 300 / 283		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		
Ingress protection rating		IP66		
Installation method		Wall-mounted		
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)			

# Sigen PV Inverter 8.0–12.0 kW Single Phase

Preliminary

Sigen PV Max	8.0 SP	10.0 SP	12.0 SP	Units
<b>DC Input (from PV)</b>				
Max. PV power	16000	20000	24000	Wp
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
<b>AC Output</b>				
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%		
<b>Efficiency</b>				
Max. efficiency		97.6%		
European efficiency		97%		
<b>Protection</b>				
Safety protection feature	DC ground fault protection, Arc fault circuit interrupter, DC reverse polarity protection, Anti-islanding protection, AC overcurrent/overvoltage/short-circuit protection, Insulation monitoring, Residual current monitoring, DC/AC surge protection			
<b>General Data</b>				
Dimensions (W / H / D)	700 / 300 / 283			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			
Ingress protection rating	IP66			
Installation method	Wall-mounted			
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)			