

Icon PERC

> 400- 420W

+21.4%

Module efficiency

Module efficiency up to 21.49 %



Different designs

Black - Silver - Bicolour



PID resistance

Certified according to IEC TS 62804 standards



Increased resistance

Certified resistance against salt mist and ammonia



Hail resistance

RG3/HW3 certified



Easy to handle

Comfortable installation thanks to an optimized area size



20

Years

Product Warranty

+5 years for Premium Partners

30

Years

Performance Warranty

Linear Warranty

2% First year degradation

0.62% Annual degradation

80% Power in year 30

Light up your world with Eurener

Eurener's extensive portfolio of certifications and awards is testament to our unwavering commitment to our partners and our deep sense of social and ethical responsibility.



Spanish Quality
Worldwide



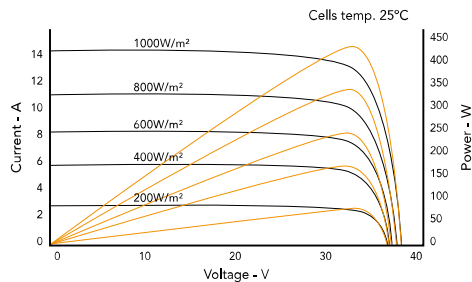
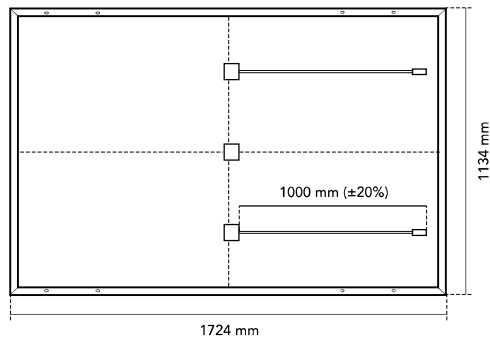
Awarded as TOP Brand PV
in -FR-SW-BE-UK-



EcoVadis
Platinum Medal



Eurener MEPV — ICON 400-420W



Mechanical Specification

Solar cells	Monocrystalline silicon cells
Front Glass	3.2 mm thick tempered glass with high strength and ARC
Frame	Black/silver anodized aluminium
Junction Box	IP68, 3 by-pass diodes
Connector	Connector MC4 compatible
Cable	1000 mm (±20%) length and 4 mm² section
Dimension	1724 x 1134 x 30 mm (±1%)
Area	1.96 m²
Weight	21.5 kg
Packaging	962/936 pcs/truck

Temperature Coefficients

Temperature coefficient of I_{sc} (α)	0.044 %/°C
Temperature coefficient of V_{oc} (β)	-0.276 %/°C
Temperature coefficient of P_{max} (γ)	-0.35 %/°C
Temperature range	-40 °C ~ +85 °C
Nominal operating cell temperature (NOCT)	45 ± 2 °C

	MEPV 400	MEPV 410	MEPV 415	MEPV 420 SILVER ONLY
Electrical Characteristics	STC			
Nominal power. P_{max}	400 Wp	410 Wp	415 Wp	420 Wp
Short-circuit current (I_{sc})	13.79 A	13.95 A	14.02 A	14.10 A
Open-circuit voltage (V_{oc})	37.07 V	37.32 V	37.45 V	37.57 V
Maximum power current (I_{mp})	12.90 A	13.04 A	13.13 A	13.21 A
Maximum power voltage (V_{mp})	31.01 V	31.45 V	31.61 V	31.81 V
Module efficiency	20.46 %	20.98 %	21.23 %	21.49 %
Electrical Characteristics	NOCT			
Nominal power. P_{max}	302 Wp	309 Wp	313 Wp	317 Wp
Short-circuit current (I_{sc})	11.13 A	11.26 A	11.31 A	11.38 A
Open-circuit voltage (V_{oc})	35.02 V	35.26 V	35.38 V	35.50 V
Maximum power current (I_{mp})	10.42 A	10.53 A	10.60 A	10.67 A
Maximum power voltage (V_{mp})	28.96 V	29.39 V	29.54 V	29.74 V

* STC: 1000 W/m², module temperature 25°C, AM 1.5

* NOCT: 800 W/m², ambient temperature 20°C, AM 1.5

Operating parameters

Maximum voltage	1500 V
Maximum series fuse rating. I_r	25 A
Power output tolerance	0 - +3 %
V_{oc} and I_{sc} tolerance	± 3 %
Fire rating	Class C (UL 790)
Protection class	Class II (IEC 61140)
Mechanical loads	Front load 5400 Pa, Back load 2400 Pa

Corporate and product certificates

ECOVADIS rating - Platinum Medal (TOP 1%)
Solar Industry Forced Labor Prevention Pledge by SEIA
ISO9001:2015 - Quality Management Systems
ISO14001:2015 - Environmental Management System
WEEE compliance in Germany
PV CYCLE Italy
IEC 61215 - Terrestrial photovoltaic (PV) modules - Design qualification and type approval
IEC 61730 - Photovoltaic (PV) module safety qualification
IEC 61701 - Photovoltaic (PV) modules - Salt mist corrosion testing
IEC 62716 - Photovoltaic (PV) modules - Ammonia corrosion testing
IEC TS 62804 - Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation
Hail resistance HW3/RG3
Certificate of Factory Production Control (UK) - MCS
Fire reaction class: 1 - LAPI
Assesed by Sundahus



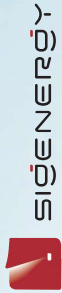
NOTE: Read the safety and installation manual before using the product. This data sheet is not legally binding, Eurener reserves the right of final interpretation. Eurener reserves the right to change the product characteristics and/or specifications without prior notice. The latest versions of all documents can always be found on our website at www.eurener.com.

SINCE
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more than
energy

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European Experts in Residential modules

Since 1997 our main purpose has been to supply quality and long-lasting photovoltaic modules that allow us and future generations, to continue generating clean energy to take care of our planet.



Sigen Energy Controller

- 3.0 – 12.0 kW | Single Phase
- 5.0 – 30.0 kW | Three Phase
- 5.0 – 12.0 kW | Three Phase Low Voltage



- 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 3.0–12.0 kW Single Phase ¹

SigenStor EC	3.0 SP	3.6 SP	4.0 SP	4.6 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	7360	8000	9200	10000	12000	16000	20000	24000	W
Max. DC input voltage					600					V
Nominal DC input voltage					350					V
Start-up voltage					100					V
MPP1 voltage range					50 - 550					V
Number of MPP trackers			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	3680	4000	4600	5000	6000	8000	10000	12000	W
Max. output apparent power	3300	3680	4400	5000	5500	6600	8800	11000	12000	VA
Nominal output current	13.6	16.0	18.2	20.9	22.7	27.3	36.4	45.5	54.6	A
Max. output current	15.0	16.0	20.0	22.7	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%	98.0%	98.0%	97.6%	97.6%	97.6%	
European efficiency	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%	97.0%	97.0%	97.0%	
AC Output (backup)										
Peak output power (10 seconds)	4500	5520	6000	6900	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						
Communication				WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)						
Standard Compliance										
Standard ⁴							IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2			

1. Sigen Energy Controller 8.0-12.0 kW Single Phase is only available in specific regions. Please contact Sigenenergy or local distributors for details.
2. This refers to the back-side disruption time, to achieve this functionality, Sigen Energy Gateway needs to be used together with Sigen Energy Controller and Sigen Battery.
3. 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.
4. This is an optional feature only supported in certain models, please contact Sigenenergy for more information.
For all standards refer to the certificates category on the Sigenenergy website.

Sigen Energy Controller 5.0–30.0 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	30.0 TP	Units
DC Input (from PV)											
Max. PV power	8000	9600	12800	16000	19200	24000	27200	32000	40000	48000	W
Max. DC input voltage	1100										V
Nominal DC input voltage	600										V
Start-up voltage	180										V
MPPT voltage range	160 - 1000										V
Number of MPP trackers	2		3	4							
Number of PV strings per MPPT	1										1
Max. input current per MPPT	16										A
Max. short-circuit current per MPPT	20										A
AC Output (on-grid)											
Nominal output power	5000	6000	8000	10000	12000	15000	17000	20000	25000	30000	W
Max. output apparent power	5500	6600	8800	11000	13200	16500	18700	22000	27500	33000	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)	7500	9000	12000	15000	18000	22500	25500	30000	30000	36000	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 ²	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 ³ , 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	4000										m
Cooling	Smart air cooling										
System ingress protection rating	IP66										
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)										
Standard Compliance											
Standard ⁴	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 Sigenergy or local distributors for details.
2. This refers to the back-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 category on the Sigenergy website.

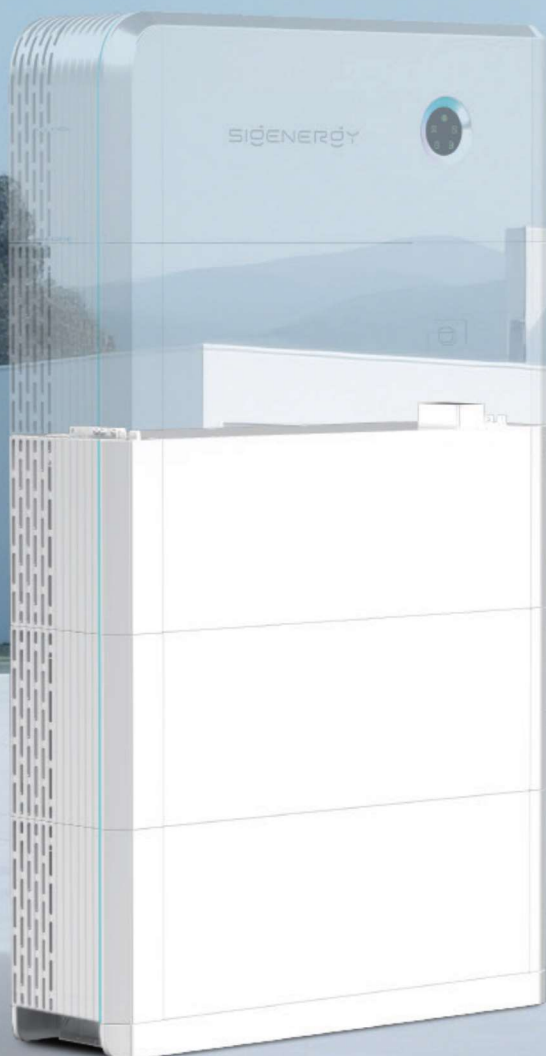
Sigen Energy Controller 5.0–12.0 kW Three Phase Low Voltage ¹

SigenStor EC	5.0 TPLV	6.0 TPLV	8.0 TPLV	10.0 TPLV	12.0 TPLV	Units
DC Input (from PV)						
Max. PV power	8000	9600	12800	16000	19200	W
Max. DC input voltage	600					V
Nominal DC input voltage	360					V
Start-up voltage	100					V
MPPT voltage range	50 - 550					V
Number of MPP trackers	2	2	3	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	5000	6000	8000	10000	12000	W
Max. output apparent power	5500	6600	8800	10000	13200	VA
Nominal output current	13.2	15.8	21.0	26.2	31.5	A
Max. output current	14.5	17.4	23.1	28.9	34.7	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%					
Efficiency						
Max. efficiency	98%					
European efficiency	97.3%	97.5%	97.7%	97.8%	97.8%	
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 ² , 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	4000					m
Cooling	Smart air cooling					
System ingress protection rating	IP66					
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)					
Standard Compliance						
Standard ³	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2					

1. Sigen Energy Controller Three Phase Low Voltage is only available in specific regions. Please contact Sigenergy or local distributors for details.
2. This is an optional feature only supported in certain models, please contact Sigenergy for more information.
3. For all standards refer to the certificates category on the Sigenergy website.

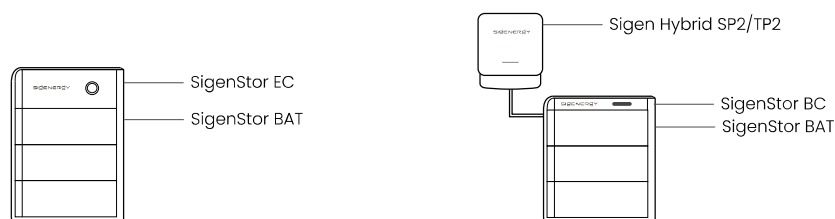
Sigen Battery

- Premium 280Ah cells with 10,000 cycles, long-lasting & reliable
- 5-layer battery safety protection to define the safety standard
- Battery optimizer inside, mix old and new, upgrade with ease
- Higher energy density, efficient storage, compact design
- 100% depth of discharge, maximum energy utilization



Sigen Battery 5.0 / 8.0

SigenStor BAT	5.0	8.0	Units
Performance Specification			
Battery type	LiFePO4		
Cell capacity	280		Ah
Cycle life ¹	10000		
Total energy capacity	5.38	8.06	kWh
Usable energy capacity ²	5.2	7.8	kWh
Depth of discharge ³	100%		
Max. charge / discharge power	2500	4000	W
Peak charge / discharge power (10 seconds)	3750	6000	W
General Data			
Weight	55	70	kg
Dimensions (W / H / D)	767 / 270 / 260		mm
Storage temperature range	-25 ~ 60		°C
Operating temperature range	-20 ~ 55		°C
Relative humidity range	5% ~ 95%		
Max. operating altitude	4000		m
Cooling	Natural convection		
System ingress protection rating	IP66		
Installation method	Floor standing / Wall-mounted		
Number of modules per controller	1 ~ 6		pcs
Compatible inverters	SigenStor EC series, Sigen Hybrid SP2/TP2 series ⁴		
Standard Compliance			
Standard ⁵	IEC/EN 60730-1, UN 38.3, IEC/EN 62619, IEC/EN 63056, IEC/EN 62040		
	SigenStor BC		
Operating voltage range (Single Phase)	300 ~ 600		V
Operating voltage range (Three Phase)	600 ~ 900		V
Weight	8		kg
Dimensions (W / H / D)	765 / 109 / 260 (without decorative cover)		mm
Compatible battery	SigenStor BAT series		
Compatible inverter	Sigen Hybrid SP2/TP2 series		
Communication	CAN		



1. This is provided by the battery cell manufacturer. Based on cell test condition of 25±2°C, 0.5C charge and discharge rate and SOH=60%.
2. Test conditions: 100% depth of discharge, 0.2C rate charge & discharge averagely at 25°C, at the beginning of life.
3. Refers to the usable energy capacity. Battery must be recharged within 7 days after being fully discharged to keep battery healthy.
4. SigenStor BC must be used if Sigen Hybrid SP2/TP2 is to be connected to the Sigen Battery.
5. For all standards refer to the certificates category on the Sigenenergy website.

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