

Battery energy storage system

SENEC.Home P4

Technical data sheet



Valid for	SENECHOME P4
Serial number	P4H1-XXXXXXXX-XXXX-XX
Valid in	Germany
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General technical data

Product type	Hybrid / AC
Dimensions (H x W x D)	1,120 mm x 750 mm x 450 mm
Total weight (incl. 5 battery modules)	238 kg
Total weight (without battery modules)	60 kg
SENEC.Cloud-capable	Yes
Backup power mode-capable ^[01]	Yes (three-phase)
Communication interfaces (end customer)	Ethernet
Communication interfaces (installer)	RS485 / SG Ready / USB / Ripple control receiver
User interfaces (end customer)	SENEC.App
User interfaces (installer)	mein-senec.de / SENEK.Cockpit
Automatic security updates	Yes
Automatic feature optimisation and expansion	Yes
Control of compatible external PV inverters	Yes
Ingress protection	IP54
Protection class	I
Over voltage category	AC: III PV (DC): II ^[04] BAT (DC): II
Permissible ambient temperature	Optimal operation: +15 °C to +35 °C Limited operation: -20 °C to +15 °C and +35 °C to +50 °C
Relative humidity	5 % to 95 % (non-condensing)
Installation requirement (indoor)	Upright on surface with sufficient load-bearing capacity and additional tilt protection
Installation requirements (outdoor)	Outdoor installation not permissible
Cooling concept	2Cool (active cooling via 2 fans)

AC performance data

Voltage $U_{AC/Backup, nom}$	3x 220 V to 240 V
Frequency $f_{AC/Backup, nom}$	50/60 Hz
Max. current $I_{AC, rated}$	3x 18 A
Max. apparent power $S_{AC, max/rated}$ (depending on the number of battery modules)	Hybrid: 11.8 kVA AC: 6.68 kVA / 10.02 kVA / 11.8 kVA / 11.8 kVA
Power factor $\cos \varphi$	0.8 ind. to 0.8 cap. (adjustable as needed)
Max. hybrid power $S_{Hybrid, max}^{[04]}$	24.0 kVA
Max. backup power $S_{Backup, max}$	11.8 kVA
Max. mains draw	Requirements in accordance with VDE-AR-N 4105:2018

Battery module

Battery technology	Lithium iron phosphate (LFP)
Battery topology	High-voltage module
Weight per battery module	30.5 kg ±1.5 kg
Number of battery modules	2 to 5
Max. usable storage capacity $E_{BAT, use}$ (depends on the number of battery modules) ^[02]	7.1 kWh / 10.65 kWh / 14.2 kWh / 17.75 kWh

Max. charging power (on DC side) $P_{BAT, max [charge]}$ (depending on the number of battery modules) ^[03]	Hybrid: 6.68 kW / 10.02 kW / 12.6 kW / 12.6 kW AC: 6.68 kW / 10.02 kW / 11.8 kW / 11.8 kW
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Max. discharging power (on AC side) $P_{BAT, max [discharge]}$ (depending on the number of battery modules) ^[03]	6.68 kW / 10.02 kW / 11.8 kW / 11.8 kW
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Battery module safety

Deep discharge protection	Yes (only during active operation)
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Power regulation	Automatic power derating outside of the optimal operating temperatures until safety shutdown
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PV performance data^[04]

MPPT voltage range $U_{PV, MPPT}$	125 V to 800 V
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PV starting voltage	190 V
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Max. PV input voltage $U_{PV, max}$	1,000 V
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Number of MPPT inputs	3
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Max. PV module power per MPPT	8.33 kWp
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Max. PV input current $I_{PV, max}$ (per MPPT)	14 A
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Max. PV short-circuit current $I_{SC, PV, max}$ (per MPPT)	17.5 A
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Inverter topology	Transformerless (non-isolated)
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Warranty & monitoring

Warranty	10 years manufacturer's warranty
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Monitoring	Free of charge using the SENECA.App for Android/iOS
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Remote maintenance	Automatic software updates & diagnosis
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Functions

Energy management system	SENEC.PowerPilot
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Black start-capable ^[04]	Yes
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Backup power function	SENEC.Backup (additional add-on required) ^[01]
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Shading management	Compatibility with external power optimisers
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Directives & standards

CE marking & EU compliance	Low Voltage Directive 2014/35/EU	EN 62109-1:2010 EN 62109-2:2011 EN IEC 62477-1:2022 EN 61010-1:2010 + A1:2019 + A1:2019/AC:2019
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	EMC Directive 2014/30/EU	EN IEC 61000-6-1:2019 EN IEC 61000-6-3:2021
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	RoHS Directive 2011/65/EU	EN IEC 63000:2018
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VDE Application Rule		VDE-AR-N 4105:2018 VDE-AR-E 2510-2:2021 VDE-AR-E 2510-50:2017
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Battery safety		IEC 62619:2022 UN 38.3
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[01] The optional backup power mode is only available with SENECA.Backup. Additional costs are charged for materials and installation in particular.

The product SENECA.Home P4 is a smart, networked product. In order to use the product, you need a permanent internet connection and registration on mein-senec.de, including the creation of a SENECA user account.

[02] Depends on the charging and discharging conditions, such as the temperature and frequency of use.

The corresponding terms and conditions of service apply to the use of the mein-senec.de online service. These can be downloaded from www.senec.com/de/unternehmen/download or at Mein-SENECA/SENECA Online-Dienste.

[03] Depends on the battery state of health (SOH).

All statements without guarantee. Errors, typographical mistakes and changes are reserved. Illustrations may differ from the delivered product.

[04] Only available for product type hybrid.

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