

Solar Input 3 K Hybrid 3.6K Hybrid 4K Hybrid 4.6K/SK Hybrid 6K/Hybrid

Max. DC Input Power	d600W	7000W	7000W	8000W	8000W
Nominal DC Input Voltage	360V.d.c	360V.d.c	360V.d.c	360V.d.c	3d0V.d.c
DC Input Voltage Range	100 550V.d.c	100 550V.d.c	100 550V.d.c	100 550V.d.c	100 550V.d.c
MPPT Voltage Range	120 - 500V.d.c	120 - 500V.d.c	120 - 500V.d.c	120 - 500V.d.c	120 - 500V.d.c
Start-up Voltage	140V.d.c	140V.d.c	140V.d.c	140V.d.c	140V.d.c
MPPT Number	2	2	2	2	2
Max DC Input Current	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A
Max Short-circuit Current	13.7A/13.7A	13.7A/13.7A	13.7A/13.7A	13.7A/13.7A	13.7A/13.7A
Max Input Power per MPPT	3600W/3600W	4000W/4000W	4000W/4000W	4000W/4000W	4000W/4000W
Max Feedback Current to Array	0/0 A	0/0 A	0/0 A	0/0 A	0/0 A

Battery Output

Compatible Battery Type	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid
Nominal Battery Voltage	48V.d.c	48V.d.c	48V.d.c	48V.d.c	48V.d.c
Battery Voltage Range	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c
Max Charge/D ischarge Current	66A/66A	80A/80A	80A/80A	80A/80A	80A/80A
Max Charge/D ischarge Power	3600W/3600W	3600W/3600W	3600W/3600W	3600W/3600W	4000W/4000W
Charging Curve	3 stages	3 stages	3 stages	3 stages	3 stages
Max. Charge Voltage	59V	59V	59V	59V	59V
DOD(Lithium-ion/Lead-Acid)	8096/50%6	80%6/50%	8096/50%	80%/50%	809a/50%
Capacity of Battery	2-20kWh	2-20kWh	2-20kWh	2-20LWh	2-20kWh

AC Output

Nominal AC Output Power	3000W	3600W	4000W	4600W/5000W	6000W
Max AC Output Power	3000VA	3600VA	4000VA	4600VA/5000VA	6000VA
Max AC Output Current	15A	16A	20A	23A	26A
Nominal AC Voltage	230V.a.c	230V.a.c	230V.a.c	230V.a.c	230V.a.c
AC Voltage Range	180-270V.a.c	180-270V.a.c	180-270V.a.c	180-270V.a.c	180-270V.a.c
Nominal AC Frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
AC Frequency Range	45- 55Hz / 55- 65Hz	45- 55Hz / 55- 65Hz	45- 55Hz / 55- 65Hz	45- 55Hz / 55- 65Hz	45- 55Hz / 55- 65Hz
Power Factor	Adjustable 0.8 overexcited to 0.8 underexcited	Adjustable 0.8 overexcited to 0.8 underexcited	Adjustable 0.8 overexcited to 0.8 underexcited	Adjustable 0.8 overexcited to 0.8 underexcited	Adjustable 0.8 overexcited to 0.8 underexcited
THDI	< 3%	< 3%	< 3%	< 3%	< 3%
Inrush Current	10A/10s	10A/10s	10A/10s	10A/10s	10A/10s
Max. Output Fault Current	50A/20us	50A/20us	50A/20us	50A/20us	50A/20us
Max. Output Over Current Protect	15A	20A	20A	25A	26A

UPS Output - with Battery

UPS Max. Output Power without Solar	3600W	3600W	3600W	3600W	4000W
UPS Max. Output Power with Solar	5000W	5000W	5000W	5000W	6000W
UPS Nominal Output Voltage	230V.a.c	230V.a.c	230V.a.c	230V.a.c	230V.a.c
UPS Nominal Output Frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
UPS Nominal Output Current	13A	13A	13A	13A	17.4A
Peak Power	4500W, 30s	4500W, 30s	4500W, 30s	4500W, 30s	4500W, 30s
THDV	< 5%	< 5%	< 5%	< 5%	< 5%
Switching Time	< 0.01s	0.01s	< 0.01s	< 0.01s	< 0.01s

Efficiency

Europe Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%
Max. Efficiency	97.9%	97.9%	97.9%	97.9%	97.9%
Battery Charge/D ischarge Efficiency	94.5%	99.5%	94.5%	94.5%	94.5%

Protection

Reverse Polarity Protection	Yes	Yes	Yes	Yes	Yes
Over Current/Voltage Protection	Yes	Yes	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes	Yes	Yes
AC Short-circuit Protection	Yes	Yes	Yes	Yes	Yes
Leakage Current Protection	Yes	Yes	Yes	Yes	Yes
Ground Fault Monitoring	Yes	Yes	Yes	Yes	Yes
Grid Monitoring	Yes	Yes	Yes	Yes	Yes
Ingress Protect Degree	IP65 / NEMA4X	IP65 / NEMA4X	IP65 / NEMA4X	IP65 / NEMA4X	IP65 / NEMA4X
DC Switch	Yes	Yes	Yes	Yes	Yes

General Data

Dimensions (W/H/D)	451 / 469 (551) / 184	451 / 469 (551) / 184	451 / 469 (551) / 184	451 / 469 (551) / 184	451 / 469 (551) / 184
Weight	20 kg	20 kg	20 kg	20 kg	20 kg
Topology	Transformerless (solar), HF (Battery)	Transformerless (solar), HF (Battery)	Transformerless (solar), HF (Battery)	Transformerless (solar), HF (Battery)	Transformerless (solar), HF (Battery)
Cooling Concept	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection
Relative Humidity	0-100%	0-100%	0-100%	0-100%	0-100%
Operating Temperature Range	-25 - 60 °C	-25 - 60 °C	-25 - 60 °C	-25 - 60 °C	-25 - 60 °C
Altitude	< 2000m	< 1000m	< 2000m	< 2000m	< 2000m
Noise Emission	< 25dB	< 25dB	< 25dB	< 25dB	< 25dB
Stand by Consumption	5W	< 5W	< 5W	5W	< 5W
Display & Communication Interfaces	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN

Certification & Approvals

AS4777, VDE-AR-N4105, VDE0126, G83, G59, NRS097-2-1
IEC62109-1-2, IEC62040, EN61000-6-1, EN61000-6-2, EN61000-6-3