SUNGROW
Clean power for all

THE 3-PHASE SOLUTION

BEYOND THE EXPECTED

BEYOND EASY

No wiring between the individual modules required. Simple plug & play.

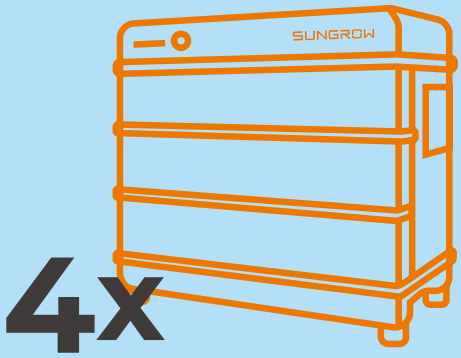
BEYOND USUAL

Profit of a maximum discharge current of 30 A and enjoy maximum self-consumption.

BEYOND SERVICE

One manufacturer, one point of contact. Enjoy direct support for the whole solution.

DID YOU KNOW?



It's possible to connect **up to 4 batteries in parallel** to one single hybrid inverter. Furthermore, **up to 5 hybrid inverters can be combined in parallel** for endless flexibility. The parallel operation of the hybrid inverters is subject to specific country regulation conditions.

The 3-phase Solution **comes with** an **energy meter** and **WiNet module**, enabling 10 sec. refresh live data monitoring.

"

BEYOND EFFORTLESS

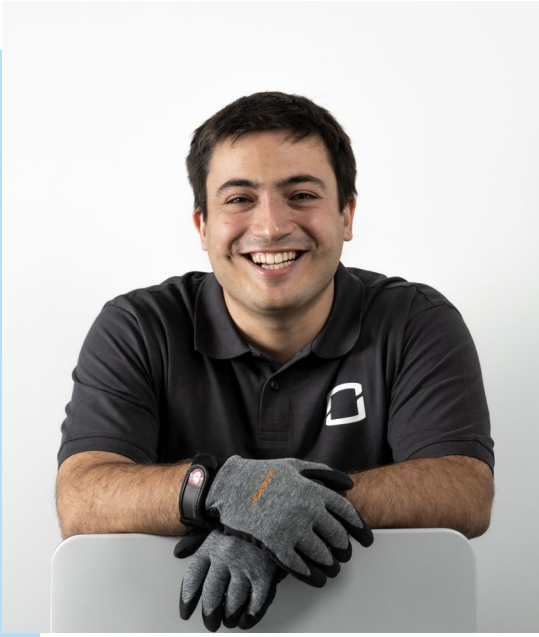
With only 33 kg per module and the simple plug & play style, the installation can easily be realized by one person. The 3-phase Hybrid recognizes and sets-up the Battery automatically after installation.

BEYOND POWERFUL BACKUP

The most optimized residential backup experience, with advanced backup load management and seamless 20 ms switching time.

BEYOND SAFE

The Battery has been certified with the most updated safety standards like the strict VDE2510-50. Furthermore, it has been designed with multiple layers of redundant measurements for maximum safety.



Andrea Polini
Product Manager Hybrid / ESS

MORE HARD FACTS

Type designation	SH5.0RT	SH6.0RT	SH8.0RT	SH10RT
PV Input				
Max. PV input power	7500 W	9000 W	12000 W	15000 W
Max. PV input voltage	1000 V			
Startup voltage	180 V	250 V	250 V	250 V
Nominal input voltage	600 V			
MPP voltage range	150 V – 950 V	200 V – 950 V	200 V – 950 V	200 V – 950 V
MPP voltage range for nominal power	210 V – 850 V	250 V – 850 V	330 V – 850 V	280 V – 850 V
No. of MPPTs	2			
Max. number of PV strings per MPPT	1 / 1	1 / 1	1 / 1	1 / 2
Max. PV input current	25 A (12.5 A / 12.5 A)			
Max. current for input connector	16 A			
Short-circuit current of PV input	32 A (16 A / 16 A)	32 A (16 A / 16 A)	32 A (16 A / 16 A)	48 A (16 A / 32 A)
AC Input and Output				
Max. AC input power from grid	12500 W	15000 W	18600 W	20600 W
Nominal AC output power	5000 W	6000 W	8000 W	10000 W
Nominal AC ouput current	7.3 A	8.7 A	11.6 A	14.5 A
Max. AC output apparent power	5000 VA	6000 VA	8000 VA	10000 VA
Max. AC output current	7.6 A	9.1 A	12.1 A	15.2 A
Nominal AC voltage	3 / N / PE, 220 / 380 V; 230 / 400 V; 240 / 415 V			
AC voltage range	270 – 480 V			
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz			
THD	<3 % (of nominal power)			
DC current injection	<0.5 % In			
Power factor	>0.99 / 0.8 leading to 0.8 lagging			
Protection				
LVRT	Yes			
Anti-islanding protection	Yes			
AC short circuit protection	Yes			
Leakage current protection	Yes			
DC switch (solar)	Yes			
DC fuse (battery)	Yes			
Overvoltage category	III [MAINS], II [PV] [BATTERY]			
SPD	DC Type II / AC Type II			
Battery input reverse polarity protection	Yes			
Parallel operation / Max. No. of inverters	Master-slave mode / 5 *			
Battery Data				
Battery type	Li-ion battery			
Battery voltage	150 V – 600 V			
Max charge / discharge current	30A ** / 30A **			
Max charge / discharge power	7500 W / 6000 W	9000 W / 7200 W	10600 W / 10600 W	10600 W / 10600 W
System Data				
Max. efficiency	98.0%	98.2%	98.4%	98.4%
European efficiency	97.2%	97.5%	97.9%	97.9%
Isolation method (solar / battery)	Transformerless / Transformerless			
Degree of protection	IP65			
Operating ambient temperature range	-25 °C – 60 °C			
Allowable relative humidity range (non-condensing)	0% – 100%			
Cooling method	Natural convection			
Max. operating altitude	4000 m (>3000 m derating)			
Noise (Typical)	30dB (A)			
Display	LED			
Communication	RS485, WLAN, Ethernet, CAN, 4×DI, 1×DO			
DC connection type	MC4 (PV) / Sunclix (Battery)			
AC connection type	Plug and play connector			
Compliance	IEC / EN 62109, IEC / EN 61000-6, EN 62477-1, IEC 61727, IEC 62116, IEC 61683, VDE-AR-N-4105, AS/NZS 4777.2, EN50549-1, NRS 097-2-1, R25			
Mechanical Data				
Dimensions (W * H * D)	460 * 540 * 170 mm			
Mounting method	Wall-mounting bracket			
Weight	27 kg			
Backup Data				
Nominal voltage	3 / N / PE, 220 Vac / 230 Vac / 240 Vac			
Frequency range	50Hz / 60Hz			
Total hamonic factor output voltage(Linear load)	2%			
Switch time to emergency mode	< 20ms			
Nominal output power	5000 W / 5000 VA	6000 W / 6000 VA	8000 W / 8000 VA	10000 W / 10000 VA
Peak output power ***	6000 W / 6000 VA, 5min 10000 W / 10000 VA, 10s	7200 W / 7200 VA, 5min 10000 W / 10000 VA, 10s	12000 W / 12000 VA, 5min	12000 W / 12000 VA, 5min

*: This function will be available in 2021 Q2, Germany is available for 2 inverters parallel in maximum if no ripple control is used in system
**: Depending on the connected battery
***: Can be reached only if PV and battery power is enough

MORE HARD FACTS

SBR096/SBR128/SBR160/SBR192/SBR224/SBR256

Type designation	SBR096	SBR128	SBR160	SBR192	SBR224	SBR256
Technical properties	 3 modules	 4 modules	 5 modules	 6 modules	 7 modules	 8 modules
System Data						
Battery Type	LiFePO4 Prismatic Cell					
Battery Module	3.2 kWh, 33 kg					
Nominal Capacity	9.6 kWh	12.8 kWh	16 kWh	19.2 kWh	22.4 kWh	25.6 kWh
Energy (usable) [1]	9.6 kWh	12.8 kWh	16 kWh	19.2 kWh	22.4 kWh	25.6 kWh
Nominal voltage	192 V	256 V	320 V	384 V	448 V	512 V
Operating voltage	150 – 219 V	200 – 292 V	250 – 365 V	300 – 438 V	350 – 511 V	400 – 584 V
Rated DC power	5.76 kW	7.68 kW	9.6 kW	11.52 kW	13.44 kW	15.36 kW
Max. charge/discharge power	6.57 kW	8.76 kW	10.95 kW	13.14 kW	15.33 kW	17.52 kW
Max. charging/discharging current: continuous	30 A					
Max. charging/discharging current: 10s pulse	42 A					
Depth of Discharge	100%					
Short circuit current	1700 A					
Display	SOC indicator, status indicator					
Communication interface	CAN					
Protection						
Over / under voltage protection	Yes					
Over current protection	Yes					
Over / under temperature protection	Yes					
DC breaker	Yes					
General Data						
Dimensions (W*H*D)	625*545*330 mm	625*675*330 mm	625*805*330 mm	625*935*330 mm	625*1065*330 mm	625*1195*330 mm
Weight	114 kg	147 kg	180 kg	213 kg	246 kg	279 kg
Installation location	Indoor / Outdoor					
Mounting method	Floor stand					
Operating ambient temperature range	Charge: 0 to 50 °C / Discharge: -30 to 50 °C					
Degree of protection	IP55					
Allowable relative humidity range	0% to 95% (non-condensing)					
Max. operating altitude	2000 m					
Cooling method	Natural convection					
Certificates	CE, CEC, IEC 62619, IEC 62040, UN38.3, VDE 2510-50					
Warranty [2]	10 Years					
Expansion adaptation [3]	Up to 4 units in parallel (need extra Junction box)					

1: Test conditions: 25°C, 100% depth of discharge (DOD), 0.2C charge&discharge
2: Refer to battery warranty document for conditional application.
3: Available in Q3, 2021

THE NEW 3-PHASE SOLUTION

STAY UP-TO-DATE WITH OUR POWER NEWS

CLICK HERE TO JOIN