PRODUCT CATALOGUE

SOFARSOLAR

Energy to Power your Life

SHENZHEN SOFARSOLAR CO., LTD.

SOFARSOLAR COMPANY PROFILE

Shenzhen SOFARSOLAR Co., Ltd. (hereinafter referred to as " SOFARSOLAR"), founded in 2013, is a high-tech enterprise integrating independent R&D, production, sales and service. The company specialises in power conversion equipment, energy storage systems, and smart energy R&D and management. SOFARSOLAR's core products include a wide range of inverters, including grid-tied inverters (1–255 kW) and hybrid inverters (3–20 kW), as well as batteries, EV charging and green energy application solutions.

Since its establishment, SOFARSOLAR has set up three R&D centers in Shenzhen, Wuhan and Shanghai and two manufacturing bases in Dongguan and Huizhou (under construction), which has contributed to gaining competitive advantages in products, technologies, markets and services across the world. The company's marketing and service strategy is determined by a customer-centric approach, and SOFARSOLAR now has branches both in China (Shenzhen, Shanghai, Wuxi, Dongguan, Huizhou, Wuhan, Hong Kong) and abroad (Germany, Poland, South Korea and Australia). Through this global presence, SOFARSOLAR continues to deliver the best products and services for our partners and customers around the world.

SOFARSOLAR has achieved certifications and network access licenses in the many important PV markets worldwide, and is widely recognized as a reliable, efficient and professional partner. With a firm, long-standing position in China's top 5 string inverter manufacturers, the company has also become the world's leading energy storage solution provider, recognized by consumers of SOFARSOLAR storage solutions in more than 80 countries worldwide. EuPD has awarded SOFARSOLAR as a "Top Brand PV Inverter" in multiple countries, such as Poland, Brazil, The United Kingdom and India, which illustrates the company's commitment to achieving the most optimal results together with its international partners.

In the future, SOFARSOLAR will continue to create premium quality products which meet the needs of customers all over the world and contribute to the energy transition. By continuously promoting the application and popularization of clean energy worldwide, the company takes a leading position in ensuring a green future.

WHY CHOOSE SOFARSOLAR?

- Innovative product portfolio to meet the demands of all sizes of PV and energy storage installations, providing solutions for all situations
- Reliable system monitoring solution, with WiFi connection as standard
- Long-term warranty with local service support
- Automated production lines, equipped with state-of-the-art technology for high-quality and reliable products

INVERTER PORTFOLIO

Single-phase Inverter

SOFAR 1100TL-G3 / 1600TL-G3 / 2200TL-G3 / 2700TL-G3 / 3000TL-G3 / 3300TL-G3
SOFAR 3KTLM-G3 / 3.6KTLM-G3 / 4KTLM-G3 / 4.6KTLM-G3 / 5KTLM-G3 / 5.5KTLM-G3 / 6KTLM-G3
SOFAR 7KTLM-G3 / 7.7KTLM-G3 / 8KTLM-G3 / 9KTLM-G3 / 10KTLM-G3 / 15KTLM-G3

Three-phase Inverter

SOFAR 3.3KTLX-G3 / 4.4KTLX-G3 / 5KTLX-G3 / 5.5KTLX-G3 / 6.6KTLX-G3 / 8.8KTLX-G3 / 10KTLX-G3 / 11KTLX-G3 / 12KTLX-G3
SOFAR 15KTLX-G3 / 17KTLX-G3 / 20KTLX-G3 / 22KTLX-G3 / 24KTLX-G3
SOFAR 25KTLX-G3 / 30KTLX-G3 / 33KTLX-G3 / 40KTLX-G3 / 45KTLX-G3 / 50KTLX-G3
SOFAR 60KTLX-G3 / 70KTLX-G3 / 72KTLX-G3 / 75KTLX-G3 / 80KTLX-G3 / 60KTLX-G3-HV / 70KTLX-G3 -HV/ 80KTLX-G3-HV
SOFAR 100KTL / 110KTL / 100KTL-HV / 125KTL-HV / 136KTL-HV
SOFAR 255KTL-HV

Energy Storage System

ME 3000-SP
ME 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 15KTL-3PH / 20KTL-3PH
HYD 3000-ES / 3600-ES / 4000-ES / 4600-ES / 5000-ES / 6000-ES
HYD 3000-EP / 3680-EP / 4000-EP / 4600-EP / 5000-EP / 5500-EP / 6000-EP
HYD 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 15KTL-3PH / 20KTL-3PH
GTX2500
GTX3000-H4/H5/H6/H7/H8H9/H10
GTX5000-PRO
SOFAR PowerAll
BTS E5 ... E20-D5

Inverter Data Logger

LIG-1 / LIW-1
LSG-3 / LSG-4 / LSW-3 / LS4G-3 / LSE-3 LP-1 / LP-2

SOFAR

1100…3300TL-G3

1100 / 1600 / 2200 / 2700 / 3000 / 3300 W

SINGLE-PHASE

- Max. efficiency up to 97.7%
- 140% DC overload
- RS485 / WiFi / Bluetooth
- Optional: Ethernet / GPRS / LTE

SINGLE-MPPT

- Lightweight, quick and easy to install
- IP65 design for outdoor
- Built-in zero export function

Datasheet	SOFAR 1100TL-G3	SOFAR 1600TL-G3	SOFAR 2200TL-G3	SOFAR 2700TL-G3	SOFAR 3000TL-G3	SOFAR 3300TL-G3
Input (DC)						
Recommended max. PV input power (Wp)	1500	2200	3000	3700 W	4100	4500
Max. input voltage (V)	500			550		
Aux. start-up voltage (V)	60					
Start-up voltage (V)	70					
Rated input voltage (V)	360					
MPPT operating voltage range (V)	50-500			50-550		
Full power MPPT voltage range (V)	110-450	150-450	200-450	250-500	275-500	300-500
Max. input current MPPT (A)	12					
Max. DC input short circuit current per MPPT (A)	15					
Number of MPPT / string per MPPT	1 / 1					
Input terminal type	MC4 / H4					
Output (AC)						
Rated power (W)	1100	1600	2200	2700	3000	3300
Max. AC power (VA)	1100	1600	2200	2700	3000	3300
Rated output current (A)	4.8	7	9.6	11.8	13	14.3
Max. output current (A)	5.3	7.7	10.6	13	14.5	16
Nominal grid voltage	L / N / PE, 220 Vac, 230 Vac, 240 Vac					
Grid voltage range	180 Vac-276 Vac (according to local standard)					
Nominal grid frequency	50 Hz / 60 Hz					
Grid frequency range	45...55 Hz / 54...66 Hz (according to local standard)					
THDi	< 3%					
Power factor	1 default (adjustable +/-0.8)					
Efficiency						
Max. efficiency	97.5%			97.7%		
European Weighted efficiency	96.9%			97.2%		
Self-consumption at night (W)	< 1					
MPPT efficiency	> 99.9%					
Protection						
Anti-islanding protection	Yes					
DC reverse polarity protection	Yes					
Overtemperature protection	Yes					
Leakage current protection	Yes					
Overvoltage protection	PV: II, AC: III					
Overcurrent protection	Yes					
Earth fault protection	Yes					
External environment pollution degree	III					
SPD	MOV: Type III standard					
Communication						
Standard Communication mode	RS485 / WiFi / USB / Ethernet Optional: GPRS					
General						
Topology	Transformerless					
Ambient temperature range	-30°C...+60°C					
Allowable relative humidity range	0...100%					
Noise	< 25 dB					
DC switch	Optional					
Cooling	Natural					
Max. operating altitude	2000 m					
Dimension	303*260.5*118 mm mm			321*260.5*131.5 mm mm		
Support bracket	Wall-mounted					
Weight (kg)	5.5			6.3		
Display	LCD+LED					
Degree of protection	IP65					
Warranty	10 years, optional: up to 20 years					
Standard						
EMC	EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3					
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 62109-1 / 2					
Grid standards	AS 4777, VDE V 0124-100, VDE V 0126-1-1, VDE-AR-N 4105, G83 / 2, C10 / 11, RD 1699					

SOFAR

3000…6000TLM-G3

3000 / 3600 / 4000 / 4600 / 5000 / 6000 W

SINGLE-PHASE

- Max. efficiency up to 98.4%
- Two MPP trackers with 150% DC overload
- Built-in zero export function
- Optional AFCI function

DUAL-MPPT

- Compact design, lightweight
- Natural cooling, no fans, low noise
- RS485 / WiFi / Bluetooth / Ethernet, optional: GPRS

Datasheet	SOFAR 3KTLM-G3	SOFAR 3.6KTLM-G3	SOFAR 4KTLM-G3	SOFAR 4.6KTLM-G3	SOFAR 5KTLM-G3	SOFAR 5KTLM-G3-A	SOFAR 6KTLM-G3
Input (DC)							
Recommended max. PV input power (Wp)	4500	5400	6000	7000	7500	7500	9000
Max. DC power for single MPPT (W)	3500				3750		4500
Number of MPP trackers	2						
Number of DC inputs	1 for each MPPT						
Max. input voltage (V)	600						
Start-up voltage (V)	90						
Rated input voltage (V)	380						
MPPT operating voltage range (V)	80-550						
Full power MPPT voltage range (V)	200-500				210-500		260-500
Max. input MPPT current (A)	15 / 15						
Max. input short circuit current per MPPT (A)	22.5 / 22.5						
Output (AC)							
Rated power (W)	3000	3680	4000	4600	5000		6000
Max. AC power (VA)	3300	3680	4400	4600	5500	5000	6000
Nominal output current (A)	13.6	16	18.2	21	22.7	21.7	27.3
Max. output current (A)	15	16	20	23	25	21.7	29
Nominal grid voltage	L / N / PE, 220 Vac, 230 Vac, 240 Vac						
Grid voltage range	180 Vac-276 Vac (according to local standard)						
Nominal frequency	50 Hz / 60 Hz						
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)						
Active power adjustable range	0...100%						
THDi	< 3%						
Power factor	1 default (adjustable +/-0.8)						
Performance							
Max. efficiency	98.2%			98.4%			
European efficiency	97.3%			97.5%			
Protection							
DC reverse polarity protection	Yes						
DC switch	Optional						
AFCI protection	Optional						
Overvoltage category	DC: II, AC: III						
Safety protection	Anti-islanding, RCMU, Ground fault monitoring						
SPD	MOV: Type III standard						
Communication							
Standard Communication mode	RS485 / WiFi / Bluetooth / USB Optional: GPRS						
Protection							
Ambient temperature range	-30°C...+60°C						
Self-consumption at night (W)	< 1						
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0...100%						
Max. operating altitude	4000 m						
Noise	< 25 dB						
Weight (kg)	9.2			10			
Cooling	Natural						
Dimension	349*344*164 mm						
Display	LCD, App via Bluetooth						
Standard warranty	10 years, optional: up to 20 years						
Standard							
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12						
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)						
Grid standards	VDE-AR-N 4105, VDE V 0126-1-1, V 0124-100, AS / NZS 4777, CEI 0-21, G98 / G99, C10 / 11, EN 50549, RD 1699						

SOFAR

7K...10.5KTLM-G3

7000 / 7700 / 8000 / 9000 / 10000 / 10500 W

SINGLE-PHASE

- Max. efficiency up to 98.1%
- Three MPP trackers with 150% DC overload
- I-V curve scanning function
- Prolonged AC overload compatibility (110%)

THREE MPPTS

- Low start-up voltage, wide MPPT voltage range
- Optional AFCI protection
- Compatible with 500 W+ modules
- Natural cooling, no fans, low noise

Datasheet	SOFAR 7KTLM-G3	SOFAR 7.7KTLM-G3	SOFAR 8KTLM-G3	SOFAR 9KTLM-G3	SOFAR 10KTLM-G3	SOFAR 10.5KTLM-G3
Input (DC)						
Recommended max. PV input power (Wp)	10500	10500	12000	13500	15000	15000
Max. DC power for single MPPT (W)	6250 / 5000 / 5000					
Number of MPP trackers	3					
Number of DC inputs	3					
Max. input voltage (V)	600					
Start-up voltage (V)	90					
Rated input voltage (V)	360					
MPPT operating voltage range (V)	80–550					
Full power MPPT voltage range (V)	200–500		230–500	260–500	380–500	300–500
Max. input MPPT current (A)	20 / 16 / 16					
Max. input short circuit current per MPPT (A)	30 / 25 / 25					
Output (AC)						
Rated power (W)	7000	7700	8000	9000	10000	10500
Max. AC power (VA)	7700	7700	8800	9900	10000	10500
Nominal output current (A)	31.8	35	36.4	40.9	45.5	45.5
Max. output current (A)	35		40	45	46	46
Nominal grid voltage	L / N / PE, 220 Vac, 230 Vac, 240 Vac					
Grid voltage range	180 Vac–276 Vac (according to local standard)					
Nominal frequency	50 Hz / 60 Hz					
Grid frequency range	45 Hz–55 Hz / 54 Hz–66 Hz (according to local standard)					
Active power adjustable range	0–100%					
THDi	< 3%					
Power factor	1 default (adjustable +/-0.8)					
Performance						
Max. efficiency	98.1%					
European efficiency	97.3%					
Protection						
DC reverse polarity protection	Yes					
DC switch	Optional					
AFCI protection	Optional					
Protection class / overvoltage category	I / III					
Safety protection	Anti-islanding, RCMU, Ground fault monitoring					
SPD	PV: Type II standard, AC: Type III standard					
Communication						
Standard Communication mode	RS485 / WiFi / Bluetooth / USB Optional: GPRS / Ethernet / LTE					
Protection						
Ambient temperature range	-30°C...+60°C					
Self-consumption at night (W)	< 1					
Topology	Transformerless					
Degree of protection	IP65					
Allowable relative humidity range	0...100%					
Max. operating altitude	4000 m					
Noise	< 25 dB					
Weight (kg)	15					
Cooling	Natural					
Dimension	468*380*184 mm					
Display	LCD, App via Bluetooth					
Standard warranty	10 years, optional: up to 20 years					
Standard						
EMC	EN 61000-6-1, EN 61000-6-2, ,EN 61000-6-3, EN 61000-6-4					
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068					
Grid standards	AS/NZS 4777, G99, INMETRO, NB/T32004					

SOFAR

3.3K…12KTLX-G3

3300 / 4400 / 5500 / 6600 / 8800 / 11000 / 12000 W

THREE-PHASE

- Maximum efficiency 98.6%
- Maximum DC input voltage 1100 V
- Remote firmware upgrade
- Type II SPD for both DC and AC side

DUAL-MPPT

- Low start-up voltage, wide MPPT voltage
- Smart string level monitoring
- Natural cooling, no fans, low noise

Datasheet	SOFAR 3.3KTLX-G3	SOFAR 4.4KTLX-G3	SOFAR 5.5KTLX-G3	SOFAR 6.6KTLX-G3	SOFAR 8.8KTLX-G3	SOFAR 11KTLX-G3	SOFAR 12KTLX-G3
Input (DC)							
Recommended max. PV input power (Wp)	4500	6000	7500	9000	12000	15000	18000
Max. DC power for single MPPT (W)	4500	6000		7500		7500	7500/15000
Number of MPP trackers	2						
Number of DC inputs	1 / 1					1 / 1	2 / 1
Max. input voltage (V)	1100						
Start-up voltage (V)	160						
Rated input voltage (V)	650						
MPPT operating voltage range (V)	140-1000						
Full power MPPT voltage range (V)	160-850	190-850		290-850	380-850	420-850	460-850
Max. input MPPT current (A)	15 / 15					15 / 15	30 / 15
Max. input short circuit current per MPPT (A)	22.5 / 22.5					22.5 / 22.5	45 / 22.5
Output (AC)							
Rated power (W)	3000	4000	5000	6000	8000	10000	12000
Max. AC power (VA)	3300	4400	5500	6600	8800	11000	13200
Nominal output current (A)	4.3	5.8	7.2	8.7	11.6	14.5	17.4
Max. output current (A)	5	6.7	8.3	10	13.3	16.7	20
Nominal grid voltage	3 / N / PE, 220 V / 380 Vac, 230 V / 400 Vac						
Grid voltage range	310 - 480 Vac (according to local standard)						
Nominal frequency	50 Hz / 60 Hz						
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)						
Active power adjustable range	0...100%						
THDi	< 3%						
Power factor	1 default (adjustable +/-0.8)						
Performance							
Max. efficiency	98.40%				98.50%		
European efficiency	97.50%				98.00%		
Self-consumption at night (W)	< 1						
MPPT efficiency	> 99.9%						
Protection							
DC reverse polarity protection	Yes						
Anti-islanding protection	Yes						
Leakage current protection	Yes						
Ground fault monitoring	Yes						
PV-array string fault monitoring	Yes						
Feed-in limitation function	Yes						
DC switch	Yes						
AFCI protection	Optional						
Input / output SPD	PV: type II standard, AC: type II standard						
Communication							
Power management unit	According to certification and request						
Standard Communication mode	RS485 / WiFi / Bluetooth / USB Optional: GPRS / Ethernet / LTE						
Operation data storage	25 years						
General Data							
Ambient temperature range	-30°C...+60°C						
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0...100%						
Max. operating altitude	4000 m						
Noise	< 40 dB						
Weight (kg)	17				18		
Cooling	Natural						
Dimension	430*385*182 mm						
Display	LCD, App via Bluetooth						
Warranty	10 years, optional: up to 20 years						
Standard							
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4						
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC61683, IEC 60068 (1, 2, 14, 30)						
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G98 / G99, EN 50530, NB / T32004						

SOFAR

15K...24KTLX-G3

15000 / 17000 / 20000 / 22000 / 24000 W

THREE-PHASE

- Maximum efficiency 98.6%
- Maximum DC input voltage 1100 V
- Type II SPD for both DC and AC side
- 110% long-time overload ability

DUAL-MPPT

- Low start-up voltage, wide MPPT voltage
- Smart string level monitoring
- Remote firmware upgrade

Datasheet	SOFAR 15KTLX-G3	SOFAR 17KTLX-G3	SOFAR 20KTLX-G3	SOFAR 22KTLX-G3	SOFAR 24KTLX-G3
Input (DC)					
Recommended max. PV input power (Wp)	22500	25500	30000	33000	36000
Number of MPP trackers	2				
Number of DC inputs	2 / 2				
Max. input voltage (V)	1100				
Start-up voltage (V)	160				
Rated input voltage (V)	650				
MPPT operating voltage range (V)	140-1000				
Full power MPPT voltage range (V)	420-850	450-850	480-850	510-850	540-850
Max. input MPPT current (A)	26 / 26				
Max. input short circuit current per MPPT (A)	36 / 36				
Output (AC)					
Rated power (W)	15000	17000	20000	22000	24000
Max. AC power (VA)	16500	18700	22000	24200	26400
Max. output current (A)	23.9	27.1	31.9	35.1	38.3
Nominal grid voltage	3 / N / PE, 220 V / 380 Vac, 230 V / 400 Vac				
Grid voltage range	310 - 480 Vac (according to local standard)				
Nominal frequency	50 Hz / 60 Hz				
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)				
Active power adjustable range	0...100%				
THDi	< 3%				
Power factor	1 default (adjustable +/-0.8)				
Performance					
Max. efficiency	98.60%				
European Weighted efficiency	98.20%				
Self-consumption at night (W)	< 1				
MPPT efficiency	> 99.9%				
Protection					
DC reverse polarity protection	Yes				
Anti-islanding protection	Yes				
Leakage current protection	Yes				
Ground fault monitoring	Yes				
PV-array string fault monitoring	Yes				
Anti reverse power function	Optional				
DC switch	Yes				
AFCI protection	Optional				
Input / output SPD	PV: type II standard, AC: type II standard				
Communication					
Power management unit	According to certification and request				
Standard Communication mode	RS485 / WiFi / Bluetooth / USB Optional: GPRS				
Operation data storage	25 years				
General Data					
Ambient temperature range	-30°C...+60°C				
Topology	Transformerless				
Degree of protection	IP65				
Allowable relative humidity range	0...100%				
Max. operating altitude	4000 m				
Noise	< 40 dB				
Weight (kg)	20	22		23	
Cooling	Fan				
Dimension	520*430*189 mm				
Display	LCD, App via Bluetooth				
Warranty	10 years, optional: up to 20 years				
Standard					
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4				
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC61683, IEC 60068 (1, 2, 14, 30)				
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G98 / G99, EN 50530, NB / T32004				

SOFAR

25K…50KTLX-G3

25000 / 30000 / 33000 / 36000 / 40000 / 45000 / 50000 W

THREE-PHASE

- Up to 4 MPPTs with DC overload capability (up to 150%)
- Type II SPD for both DC and AC side
- Low start-up voltage, wide MPPT voltage range
- I-V curve scanning function
- Intelligent monitoring, remote operation

THREE TO FOUR MPPTS

- Max. efficiency up to 98.90%
- Prolonged AC overload capability (110%)
- Optional AFCI protection
- Compatible with 500 W+ modules
- Optional Anti-PID

Datasheet	SOFAR 25KTLX-G3	SOFAR 30KTLX-G3	SOFAR 30KTLX-G3-A	SOFAR 33KTLX-G3	SOFAR 36KTLX-G3	SOFAR 40KTLX-G3	SOFAR 45KTLX-G3	SOFAR 50KTLX-G3	SOFAR 40KTLX-G3-HV	SOFAR 50KTLX-G3-HV
Input (DC)										
Recommended max. PV input power (Wp)	37500	45000	45000	49500	54000	60000	67500	75000	60000	75000
Number of MPP trackers	3					4			3	4
Number of DC inputs	2 for each MPPT									
Max. input voltage (V)	1100									
Start-up voltage (V)	200									
Rated input voltage (V)	620								725	725
MPPT operating voltage range (V)	180-1000									
Full power MPPT voltage range (V)	480–850			510-850	540–850	480–850	510–850	540–850	620–850	650–850
Max. input MPPT current (A)	3*40					4*40			3*40	4*40
Max. input short circuit current per MPPT (A)	3*50					4*50			3*50	4*50
Output (AC)										
Rated power (W)	25000	30000	29900	33000	36000	40000	45000	50000	40000	50000
Max. AC power (VA)	28000	34000	29900	37000	40000	44000	50000	55000	44000	55000
Rated output current (A)	37.9	45.5	45.3	50.0	54.5	60.6	68.2	75.8	48.1	60.2
Max. output current (A)	42.4	51.5	45.3	56.0	60.6	66.7	75.8	83.3	53	66.2
Nominal grid voltage	3 / N / PE, 220 V / 380 Vac, 230 V / 400 Vac								3/N/PE or 3/PE, 277/480 Vac	
Grid voltage range	310 - 480 Vac (according to local standard)								422 - 528 VaC (according to local standard)	
Nominal frequency	50 Hz / 60 Hz									
Grid frequency range	45 Hz–55 Hz / 54 Hz–66 Hz (according to local standard)									
Active power adjustable range	0–100%									
THDi	< 3%									
Power factor	1 default (adjustable +/-0.8)									
Performance										
Max. efficiency	98.60%					98.80%				98.90%
European Weighted efficiency	98.20%									
Self-consumption at night (W)	<3									
Protection										
DC reverse polarity protection	Yes									
Anti-islanding protection	Yes									
Leakage current protection	Yes									
Ground fault monitoring	Yes									
PV-array string fault monitoring	Yes									
Feed-in limitation function	Yes									
DC switch	Yes									
AFCI protection	Optional									
Anti-PID function	Optional									
Input / output SPD	PV: type II standard, AC: type II standard									
Communication										
Power management unit	According to certification and request									
Standard Communication mode	RS485 / WiFi / Bluetooth / USB Optional: GPRS / LTE									
Operation data storage	25 years									
General Data										
Ambient temperature range	-30°C...+60°C									
Topology	Transformerless									
Degree of protection	IP65									
Allowable relative humidity range	0–100%									
Max. operating altitude	4000 m									
Noise	< 60 dB									
Weight (kg)	36					37				
Cooling	Fan									
Dimension	585*480*220 mm									
Display	LCD, App via Bluetooth									
Warranty	10 years, optional: up to 20 years									
Standard										
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12									
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 60255									
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, UNE 206 007-1, EN 50549, G98/G99, EN 50530, NB/T32004									

SOFAR

60K...80KTL-G3

60 / 70 / 72 / 75 / 80 kW

THREE-PHASE

- Max. efficiency up to 99%
- Compatible with 500 W+ PV modules
- Type II SPD for both DC and AC side, optional: Type I
- Supports Modbus Communication, external WiFi / PLC / GPRS (optional)
- Low start-up voltage, wide MPPT voltage range

SIX MPPTS

- Remote firmware upgrade
- I-V curve scanning function
- 6 MPP trackers with 1.5 times DC overload
- Optional AFCI protection
- Optional Anti-PID function
- Longtime 110% AC overload ability

Datasheet	SOFAR 60KTLX-G3	SOFAR 70KTLX-G3	SOFAR 72KTLX-G3	SOFAR 75KTLX-G3	SOFAR 80KTLX-G3	SOFAR 60KTLX-G3-HV	SOFAR 70KTLX-G3-HV	SOFAR 80KTLX-G3-HV
Input (DC)								
Recommended max. input power (Wp)	90000	105000			120000	105000	112500	120000
Number of MPP trackers	6							
Number of DC inputs	2 per MPPT							
Max. input voltage (V)	1100							
Start-up voltage (V)	200							
Rated input voltage (V)	620					720		
MPPT operating voltage range (V)	180-1000							
Full power MPPT voltage range (V)	500-580	550-850				600-850		
Max. input MPPT current (A)	6*32	6*40				6*32		6*40
Max. input short circuit current (A)	6*50	6*60				6*50		6*60
Output (AC)								
Rated power (W)	60000	70000	72000	75000	80000	60000	70000	80000
Max. AC power (VA)	66000	77000	72000	75000	88000	66000	77000	88000
Max. output current (A)	100	116.7	109.1	113	133.3	79.4	92.7	106
Nominal grid voltage	3 / N / PE or 3 / PE, 220 / 380 Vac, 230 / 400 Vac, 240 / 415 Vac					3 / N / PE or 3 / PE, 277/480 Vac		
Grid voltage range	310 - 480 Vac (according to local standard)					422 Vac-528 Vac (according to local standard)		
Nominal frequency	50 / 60 Hz							
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)							
Active power adjustable range	0...100%							
THDi	< 3%							
Power factor	1 default (adjustable +/-0.8)							
Performance								
Max. efficiency	98.60%	99.00%						
European weighted efficiency	98.40%					98.50%		
Protection								
DC reverse polarity protection	Yes							
Anti-islanding protection	Yes							
Leakage current protection	Yes							
Ground fault monitoring	Yes							
PV-array string fault monitoring	Yes							
Anti reverse power function	Yes							
DC switch	Yes							
Anti-PID protection	Optional							
AFCI	Optional							
Input / output SPD	PV: type II standard, optional: type I. AC: type II standard, optional: type I							
Communication								
Power management unit	According to certification and request							
Communication	RS485 / WiFi / Ethernet / Bluetooth, optional: GPRS / 4G							
Operation data storage	25 years							
General Data								
Ambient temperature range	-30°C...+60°C							
Self-comsumption at night (W)	< 2							
Topology	Transformerless							
Degree of protection	IP66							
Allowable relative humidity range	0...100%							
Max. operating altitude	4000 m							
Weight (kg)	53							
Cooling	Fan							
Dimension	687*561*275mm							
Display	LCD, App via Bluetooth							
Warranty	10 years, optional: up to 20 years							
Standard								
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12							
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 60255							
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G99, EN 50530, NB / T32004							

SOFAR

100K...136KTL

100 / 110 / 125 / 136 kW

THREE-PHASE

- Max. efficiency up to 99%
- IP66 design for outdoor
- Type II SPD for both DC and AC side
- Supports Modbus Communication, external WiFi / PLC / GPRS (optional)
- AC / DC dual power supply redundant design, 24-hour status monitoring

EIGHT TO TWELVE MPPTS

- Remote firmware upgrade
- I-V curve scanning function
- Maximum 12 MPP trackers with 1.5 times DC overload

Datasheet	SOFAR 100KTL	SOFAR 110KTL	SOFAR 100KTL-HV	SOFAR 125KTL-HV	SOFAR 136KTL-HV
Input (DC)					
Max. input voltage (V)	1100				
Rated input voltage (V)	625		725		785
Start-up voltage (V)	200				
MPPT operating voltage range (V)	180-1000				
Full power MPPT voltage range (V)	500-850		550-850		
Number of MPP trackers	10				12
Number for DC inputs	20				24
Max. input current per MPPT (A)	26				
Max. input short circuit current per MPPT (A)	40				
Output (AC)					
Rated power (kW)	100	110	100	125	136
Max. AC power (kVA)	110	121	110	137	150
Max. output current (A)	160	175	128	160	
Nominal grid voltage	3 / N / PE, 230 V / 400 Vac, 220 V / 380 Vac		3 / PE, 500 Vac		3 / PE, 540 Vac
Grid voltage range	310 - 480 Vac		400 Vac-575 Vac		432 Vac-621 Vac
Nominal frequency	50 / 60 Hz				
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)				
Active power adjustable range	0...100%				
THDi	< 3%				
Power factor	1 default (adjustable +/-0.8)				
Performance					
Max. efficiency	98.70%	98.75%	98.80%	99.00%	
European Weighted efficiency	98.30%		98.50%		98.51%
MPPT efficiency	> 99.9%				
Protection					
DC reverse polarity protection	Yes				
Anti-islanding protection	Yes				
Leakage current protection	Yes				
Ground fault monitoring	Yes				
PV-array string fault monitoring	Yes				
Zero voltage ride through	Yes				
DC switch	Yes				
Anti-PID protection	Optional				
AFCI	Optional				
Protection class / overvoltage category	PV: II, AC: III				
Input / output SPD	PV: type II standard, AC: type II standard				
Communication					
Power management unit	According to certification and request				
Communication	RS485 / WiFi / Ethernet, optional: GPRS				
Operation data storage	25 years				
General Data					
Ambient temperature range	-30°C...+60°C				
Topology	Transformerless				
Degree of protection	IP66				
Allowable relative humidity range	0...100%				
Max. operating altitude	4000 m				
Weight (kg)	90				92
Cooling	Smart forced air cooling				
Dimension	995.5*663.5*368 mm				
Display	LCD, App via Bluetooth				
Warranty	10 years, optional: up to 20 years				
Standard					
EMC	EN 61000-6-2, EN 61000-6-4				
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)				
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G99, EN 50530, NB / T32004				

SOFAR

80K...110KTL-PRO
100K...136KTL-HV-PRO

80 / 100 / 110 / 125 / 136 kW

THREE-PHASE

- Max. efficiency up to 99%
- IP66 design for outdoor
- Type II SPD for both DC and AC side
- AC / DC dual power supply redundant design, 24-hour status monitoring
- Optional Anti-PID function

EIGHT TO TWELVE MPPTS

- Remote firmware upgrade
- I-V curve scanning function
- Maximum 12 MPP trackers with 1.5 times DC overload
- Optional AFCI protection

Datasheet	SOFAR 80KTL-PRO	SOFAR 100KTL-PRO	SOFAR 110KTL-PRO	SOFAR 100KTL-HV-PRO	SOFAR 125KTL-HV-PRO	SOFAR 136KTL-HV-PRO
Input (DC)						
Max. input voltage (V)	1100					
Rated input voltage (V)	625			725		785
Start-up voltage (V)	200					
MPPT operating voltage range (V)	180-1000					
Full power MPPT voltage range (V)	550-850			600-850		
Number of MPP trackers	8	10				12
Number for DC inputs	16	20				24
Max. input current per MPPT (A)	32					
Max. input short circuit current per MPPT (A)	50					
Output (AC)						
Rated power (kW)	80	100	110	100	125	136
Max. AC power (kVA)	88	110	121	110	137	150
Max. output current (A)	128	160	175	128	160	
Nominal grid voltage	3 / N / PE, 230 V / 400 Vac, 220 V / 380 Vac			3 / PE, 500 Vac		3 / PE, 540 Vac
Grid voltage range	310 - 480 Vac			400 Vac-575 Vac		432 Vac-621 Vac
Nominal frequency	50 / 60 Hz					
Grid frequency range	45 Hz-55 Hz / 54 Hz-66 Hz (according to local standard)					
Active power adjustable range	0...100%					
THDi	< 3%					
Power factor	1 default (adjustable +/-0.8)					
Performance						
Max. efficiency	98.60%	98.70%	98.75%	98.80%	99.00%	
European Weighted efficiency	98.20%	98.30%		98.50%		98.51%
Protection						
DC reverse polarity protection	Yes					
Anti-islanding protection	Yes					
Leakage current protection	Yes					
Ground fault monitoring	Yes					
PV-array string fault monitoring	Yes					
Zero voltage ride through	Yes					
DC switch	Yes					
Anti-PID protection	Optional					
AFCI	Optional					
Protection class / overvoltage category	PV: I, AC: III					
Input / output SPD	PV: type II standard, AC: type II standard					
Communication						
Communication	RS485 / WiFi / Bluetooth / PLC / USB, optional: GPRS					
General Data						
Ambient temperature range	-30°C...+60°C					
Topology	Transformerless					
Degree of protection	IP66					
Allowable relative humidity range	0...100%					
Max. operating altitude	4000 m					
Weight (kg)	88	90				92
Cooling	Smart forced air cooling					
Dimension	995.5*663.5*368 mm					
Display	LCD, App via Bluetooth					
Warranty	10 years, optional: up to 20 years					
Standard						
EMC	EN 61000-6-2, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12					
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)					
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G99, EN 50530, NB / T32004					

SOFAR

250K...255KTL-HV

255 KW

THREE-PHASE

- 12 MPPTs with max. efficiency up to 99.02%
- Built-in Anti-PID and PID recovery
- Type II SPD for both DC and AC
- AC / DC dual power supply redundant design, 24-hour status monitoring

TWELVE MPPTS

- I-V curve scanning function
- IP66 and C5 protection design for outdoor
- Compatible with Al and Cu AC cables
- Touch free commissioning and remote firmware upgrade

Datasheet	SOFAR 255KTL-HV
Input (DC)	
Max. input voltage (V)	1500
Rated input voltage (V)	1160
Start-up voltage (V)	550
MPPT operating voltage range (V)	500-1500
Full power MPPT voltage range (V)	800-1300
Number of MPP trackers	12
Number for DC inputs	24
Max. input MPPT current (A)	30*12
Max. input short circuit current (A)	50*12
Output (AC)	
Nominal grid voltage	3 / PE, 800 Vac
Grid voltage range	640 Vac-920 Vac
Nominal frequency	50 / 60 Hz
Grid frequency range	45...55 Hz / 55... 65 Hz (according to local standard)
Active power adjustable range	0...100%
THDi	< 3%
Power factor	1 default (adjustable +/-0.8)
Performance	
Max. efficiency	99.02%
European efficiency	98.70%
Protection	
DC reverse polarity protection	Yes
Anti-islanding protection	Yes
Leakage current protection	Yes
Ground fault monitoring	Yes
PV-array string fault monitoring	Yes
Zero voltage ride through	Yes
DC switch	Yes
Anti-PID function	Optional
AFCI protection	Optional
Protection class / overvoltage category	I / III
Input / output SPD	PV: type II standard, AC: type II standard
Communication	
Communication	RS485 / WiFi / Bluetooth Optional: GPRS / PLC
General Data	
Ambient temperature range	-30°C...+60°C
Self-consumption at night (W)	< 2
Topology	Transformerless
Degree of protection	IP66
Allowable relative humidity range	0...100%
Max. operating altitude	5000 m (>4000 m derating)
Noise	≤ 60 dB
Weight (kg)	99.3
Cooling	Smart forced air cooling
Dimension	1100.5*713.5*368 mm
Display	LCD, App via Bluetooth
Standard warranty	10 years, optional: up to 20 years
Standard	
EMC	EN 61000-6-2, EN 61000-6-4
Safety standards	IEC 62109-1 / 2, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, UNE 206 007-1, EN 50549, G99, EN 50530, NB / T32004

ME

3000-SP

3000 W

AC-COUPLED ENERGY STORAGE INVERTER

- Various operational modes available
- Flexible configuration, allowing both lead-acid and lithium batteries
- LCD+LED – user friendly interface
- Compatible with other brands of inverter
- IP65 design for outdoor
- Smart fanless cooling design
- Smart battery energy management system

Datasheet	ME 3000-SP
Battery Parameters	
Battery type	Lithium-ion, Lead-acid
Nominal battery voltage (V)	48
Battery voltage range (V)	42-58
Recommended battery capacity (Ah)	200 (100-500 optional)
Recommended storage capacity (kWh)	9.6
Max. charging current (A)	60
Charging current range (A)	0-60 (programmable)
Charging curve	3-Stage adaptive with maintenance
Max. discharging current (A)	65
Electronic protection	OCP OTP OVP
Short circuit protection	Fuse (100 A)
Discharge times (hour)	Po=1 kVA 9.6 H, Po=3 kVA 3.2h
Depth of discharge	Lithium-ion: 0-85% DOD adjustable, Lead-acid: 0-90% DOD adjustable
AC Parameters	
Max. output power (VA)	3000
Max. output current (A)	13
AC voltage range (V)	150-275
Grid frequency range	47...53 Hz / 57...63 Hz
THD	< 3%
Power factor	1 default (+/-0.8 adjustable)
Connection phase	Single
Current (inrush) (A)	0.8 / 1us
Max. output fault current (A)	100 / 1us
Max. output over current protection (A)	13
System Parameters	
Max. charging efficiency	94.1%
Max. discharging efficiency	94.3%
Standby losses (W)	< 5
Topology	High frequency isolated transformer
Degree of protection	IP65
Safety protection	Anti-islanding, RCMU, ground fault monitoring
Communication	RS485 / WiFi / Ethernet, optional: GPRS
SPD protection	III
Environmental	
Ambient temperature range	-25°C...+60°C (above 45°C derating)
Allowable relative humidity range	0...100%
Protective class	Class I
Max. operating altitude	2000 m
Current sensor connection	External
Emergency Power Supply	
EPS rated power (VA)	3000
EPS rated voltage (V), frequency	230, 50 / 60 Hz
EPS rated current (A)	13
Total harmonic distortion	< 3%
Switch time	< 3s
General Data	
Noise	< 25 dB
Weight (kg)	16
Cooling	Natural
Dimension (W*H*D)	543.2*358*171.7 mm
Display	LCD display
Warranty	5 years (optional: extension to 10 years)
Standard	
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Safety standards	IEC 62109-1 / 2, IEC62040-1
Grid standards	AS / NZS 4777, AS / NZS 62040, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN 50549, G83 / G98, UTE C15-712-1

ME

5K...20KTL-3PH

5000 / 6000 / 8000 / 10000 / 15000 / 20000 W

AC-COUPLED ENERGY STORAGE INVERTER

- Max. battery charge / discharge efficiency up to 97.8%
- Wide battery voltage range (180-800 V)
- Up to 2 battery inputs with max. 50 A charge / discharge current
- Off-grid and on-grid output can be connected to unbalanced load
- Flexible switching between grid-tied mode and energy storage mode
- Compact design with functional LCD

Datasheet	ME 5KTL-3PH	ME 6KTL-3PH	ME 8KTL-3PH	ME 10KTL-3PH	ME 15KTL-3PH	ME 20KTL-3PH
Battery Input Data						
Battery type	Li-Ion & Lead-acid					
No. of battery input	1			2		
Battery voltage range (V)	180-800					
Battery voltage range for full load (V)	200-800	240-800	320-800	200-800	300-800	400-800
Nominal charging / discharging power (W)	5000	6000	8000	10000	15000	20000
Max. charging / discharging current (A)	25			50 (25 / 25)		
Peak charging / discharging current, duration (A, s)	40, 60			70 (35 / 35), 60		
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN (RS485)					
AC Output Data (On-grid)						
Nominal AC power (W)	5000	6000	8000	10000	15000	20000
Max. AC power output to utility grid (VA)	5500	6600	8800	11000	16500	22000
Max. AC power from utility grid (VA)	10000	12000	16000	20000	30000	40000
Max. AC current output to utility grid (A)	8	10	13	16	24	32
Max. AC current from utility grid (A)	15	17	24	29	44	58
Nominal grid voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac					
Grid voltage range	184 Vac...276 Vac					
Nominal grid frequency	50 / 60 Hz					
Grid frequency range	45 Hz...55 Hz / 55 Hz...65 Hz					
Output power factor	ca. 1 (adjustable 0.8 leading to 0.8 lagging)					
Output THDi (@Nominal output)	< 3%					
AC Output Data (Back-up)						
Nominal output power (W)	5000	6000	8000	10000	15000	20000
Max. output power (VA)	5500	6600	8800	11000	16500	22000
Peak output power, duration (VA, s)	10000, 60	12000, 60	16000, 60	20000, 60	22000, 60	
Rated output current (A)	7.2	8.7	11.6	14.5	21.7	29
Max. output current (A)	8	10	13	16	24	32
Peak output current, duration (A, s)	15, 60	18, 60	24, 60	30, 60	32, 60	
Nominal output voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac					
Nominal output frequency	50 / 60 Hz					
Output THDv (@Symmetrical load)	< 3%					
Switch time	< 10 ms					
Efficiency						
Max. discharge efficiency	97.6%			97.8%		
Max. charge efficiency	97.6%			97.8%		
Protection						
DC switch	Yes					
PV reverse polarity protection	Yes					
Output overcurrent protection	Yes					
Output overvoltage protection	Yes					
Anti-islanding protection	Yes					
Residual current detection	Yes					
Insulation resistor detection	Yes					
Surge protection level	AC: Type II, DC: Type III					
Battery reverse protection	Yes					
Features						
DC terminal	MC4					
Grid AC terminal	5P Connector					
Back-up AC terminal	5P Connector					
Display	LCD Display					
Monitoring interfaces	RS485 / WiFi / Bluetooth / Ethernet, optional: GPRS					
Parallel operation	Yes					
Standard warranty	Standard 5 years, optional: up to 20 years					
General Data						
Dimension	586.6*515*261.2 mm					
Weight (kg)	30			34		
Inverter topology	Transformerless					
Standby self consumption (W)	< 15					
Operating temperature range	-30°C...60°C					
Relative humidity	0...100%					
Noise	< 45 dB					
Operating altitude	< 4000 m					
Cooling	Natural			Forced airflow		
Protection degree	IP65					
Certifications & Standards						
EMC	EN61000-1, EN61000-2, EN61000-3, EN61000-4, EN61000-4-16, EN61000-4-18, EN61000-4-29					
Safety	IEC62109-1, IEC62109-2, NB-T32004 / IEC62040-1					
Grid	AS / NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-21 / CEI 0-16, EN50438 / EN 50549, G83 / G59 / G98 / G99, UTE C15-712-1, UNE206 007-1					

HYD

3000…6000-ES

3000 / 3600 / 4000 / 4600 / 5000 / 6000 W

SINGLE-PHASE ENERGY STORAGE INTEGRATED INVERTER

- Various operational modes available
- Flexible configuration, allowing both lead-acid and lithium batteries
- Built-in zero export function
- Supports both on- and off-grid operation
- IP65 design for outdoor
- Smart fanless cooling design
- EPS function (switchover time less than 10 ms)

Datasheet	HYD 3000-ES	HYD 3600-ES	HYD 4000-ES	HYD 4600-ES	HYD 5000-ES	HYD 6000-ES
Battery Input Data						
Battery type	Lithium-ion, Lead-acid					
Nominal battery voltage (V)	48					
Battery voltage range (V)	42-58					
Battery capacity (Ah)	50-2000					
Max. charging / discharging power (W)	3000					
Max. charging current (A)	65 (programmable)					
Max. discharging current (A)	70 (programmable)					
Charging curve (Lithium-ion)	BMS					
Charging curve (Lead-acid)	3-Stage adaptive with maintenance					
Depth of discharge	Lithium-ion: 0-90% DOD adjustable, Lead-acid: 0-50% DOD adjustable					
Input DC (PV side)						
Recommended max. PV input power (Wp)	3990	4790	5320	6120	6650	7980
Max. DC power for single MPPT (W)	2000	2400	2600	2800	3000	3500
Max. input voltage (V)	600					
Start-up voltage (V)	120					
Nominal DC voltage (V)	360					
MPPT operating voltage range (V)	90-580					
Full power MPPT voltage range (V)	160-520	180-520	200-520	230-520	250-520	300-520
MPPT number	2					
Max. DC input current (A)	12 / 12					
Max. DC input short current (A)	15 / 15					
Output AC (Grid side)						
Max. output power (W)	3000	3680	4000	4600	5000	6000
Max. output current (A)	13.7	16	18.2	21.0	22.8	27.3
Nominal grid voltage	L / N / PE, 220, 230, 240					
Operation phase	Single (L-N-PE)					
AC voltage range (V)	180...276 (according to local standard)					
Grid frequency range	44-55 Hz / 54-66 Hz (according to local standard)					
THD	< 3%					
Power factor	1 default (+/-0.8 adjustable)					
Output AC (Emergency Power Supply)						
EPS rated power (VA)	3000					
Operation phase	Single (L-N-PE)					
EPS rated voltage, frequency	230 V, 50 / 60 Hz					
EPS rated current (A)	13.2					
Peak output apparent power (VA, s)	4000, 10					
THD	< 3%					
Switch time	10 ms default					
Efficiency						
MPPT efficiency	99.9%					
Max efficiency of solar inverter		97.6%		97.8%		98.0%
European efficiency of solar inverter		97.2%		97.3%		97.5%
Max. charging efficiency of battery	94.6%					
Max. discharging efficiency of battery	94.6%					
Protection						
PV reverse polarity protection	Yes					
PV insulation detection	Yes					
Ground fault monitoring	Yes					
Overcurrent protection	Yes					
Overvoltage protection	Yes					
Battery soft start protection	Yes					
SPD protection	III					
General Data						
Ambient temperature range	-25°C...+60°C (above 45°C derating)					
Standby losses (W)	< 10					
Topology	High frequency insolation (for battery)					
DC-Switch	Yes					
Degree of protection	IP65					
Allowable relative humidity range	0...100%					
Communication	RS485 / WiFi / Ethernet / 4G / SD, optional: GPRS					
Protective class	Class I					
Max. operating altitude	2000 m					
Current sensor connection	External					
Noise	< 25 dB					
Weight (kg)	20.5					
Cooling	Natural					
Dimension (W*H*D)	566*394*173 mm					
Display	LCD dislay					
Warranty	Standard 5 years, optional: up to 20 years					
Certifications & Standards						
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12					
Safety	IEC 62109-1 / 2, IEC62040-1, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)					
Grid	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN 50549, G83 / G59 / G98 / G99, UTE C15-712-1, UNE 206 007-1					

HYD

3000...6000-EP

3000 / 3680 / 4000 / 4600 / 5000 / 5500 / 6000 W

SINGLE-PHASE ENERGY STORAGE INTEGRATED INVERTER

- Various operational modes available
- Flexible configuration, allowing both lead-acid and lithium batteries
- Built-in zero export function
- Supports both on- and off-grid operation
- IP65 design for outdoor
- Smart fanless cooling design
- EPS function (switchover time less than 10 ms)

Datasheet	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD 5000-EP*	HYD 5500-EP	HYD 6000-EP
Battery Parameters							
Battery type	Lithium-ion, Lead-acid						
Nominal battery voltage (V)	48						
Battery voltage range (V)	42-58						
Battery capacity (Ah)	50-2000						
Max. charging / discharging power (W)	3750	4000	4250	5000			
Max. charging current (A)	75	80	85	100			
Max. discharging current (A)	75	80	85	100			
Charging curve (Lithium-ion)	BMS						
Charging curve (Lead-acid)	3-Stage adaptive with maintenance						
Depth of discharge	Lithium-ion: 0-90% DOD adjustable, Lead-acid: 0-50% DOD adjustable						
Input DC (PV side)							
Recommended max. PV input power (Wp)	4500	5400	6000	6900	7500		9000
Max. DC power for single MPPT (W)	3500						
Max. input voltage (V)	600						
Start-up voltage (V)	100						
Rated input voltage (V)	360						
MPPT operating voltage range (V)	90-580						
Full power MPPT voltage range (V)	160-520	180-520	200-520	230-520	250 V-520 V		300-520
Number of MPP trackers	2						
Max. input current per MPPT (A)	13 / 13						
Max. input short circuit current per MPPT (A)	18 / 18						
Output / Input AC (Grid side)							
Nominal AC power (W)	3000	3680	4000	4600	5000		6000
Max. AC power output to utility grid (VA)	3300	3680	4400	4600	5000	5500	6000
Max. AC power from utility grid (VA)	6000	7360	8000	9200	10000		12000
Max. AC current output to utility grid (A)	15	16	20	20.9	21.7	25	27.3
Max. AC current from utility grid (A)	27.3	32	36.4	41.8	43.4		54.6
Nominal grid voltage	L / N / PE, 220 V, 230 V, 240 V						
Grid voltage range	180 Vac-276 Vac (according to local standard)						
Nominal frequency	50 Hz / 60 Hz						
Output THDi (@Nominal output)	< 3%						
Power factor	1 default (+/-0.8 adjustable)						
Output AC (Emergency Power Supply)							
Max. apparent power (VA)	3000	3680	4000	4600	5000		
Peak output power, duration (VA, s)	3600, 60	4400, 60	4800, 60	5520, 60	6000, 60		
Max. output current (A)	13.6	16	18.2	20.9	22.7		
Nominal voltage, frequency	220 V / 230 V, 50 / 60 Hz						
THDv (@Symmetrical load)	< 3%						
Switch time	10 ms default						
Efficiency							
MPPT efficiency	99.9%						
Max. efficiency of solar inverter	97.6%			97.8%			98.0%
European efficiency of solar inverter	97.2%			97.3%			97.5%
Max. charging efficiency of battery	94.6%						
Max. discharging efficiency of battery	94.6%						
Protection							
PV reverse polarity protection	Yes						
PV insulation detection	Yes						
Ground fault monitoring	Yes						
Overcurrent protection	Yes						
Overvoltage protection	Yes						
DC switch	Yes						
Firm frequency response function	Optional						
SPD protection	MOV: Type III standard						
General Data							
Ambient temperature range	-30°C...+60°C (above 45°C derating)						
Standby self-consumption (W)	< 10						
Topology	High frequency insolation (for battery)						
Degree of protection	IP65						
Allowable relative humidity range	0...100%						
Communication	RS485 / WiFi / Bluetooth / CAN2.0 / Etherrnet, optional: GPRS						
Protective class	Class I						
Max. operating altitude	4000 m						
Current sensor connection	External						
Noise	< 25 dB						
Weight (kg)	21.5						
Cooling	Natural						
Dimension	482*503*183 mm						
Display	LCD, App via Bluetooth						
Warranty	Standard 5 years, optional: up to 20 years						
Certifications & Standards							
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12						
Safety standards	IEC 62109-1 / 2, IEC62040-1, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)						
Grid standards	AS / NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN 50549, G83 / G59 / G98 / G99, UTE C15-712-1, UNE 206 007-1						

The models marked with "*" should be available only for some designated countries.

HYD

5K...20KTL-3PH

5000 / 6000 / 8000 / 10000 / 15000 / 20000 W

THREE-PHASE ENERGY STORAGE INTEGRATED INVERTER

- Various operational modes for optimal perfomance
- Up to 2 MPPTs, allowing a flexible configuration
- Maximum two battery inputs
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported
- Multiple parallel systems, more flexible system solutions
- Fully digital operation, enabling higher control accuracy

Datasheet	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 15KTL-3PH	HYD 20KTL-3PH
Battery Input Data						
Battery type	Li-Ion					
No. of battery input	1			2		
Battery voltage range (V)	180-800					
Battery voltage range for full load (V)	200-800	240-800	320-800	200-800	300-800	400-800
Nominal charging / discharging power (W)	5000	6000	8000	10000	15000	20000
Max. charging / discharging current (A)	25			50 (25 / 25)		
Peak charging / discharging current, duration (A, s)	40, 60			70 (35 / 35), 60		
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN (RS485)					
PV String Input Data						
Recommended max. PV input power (Wp)	7500 (6000 / 6000)	9000 (6600 / 6600)	12000 (6600 / 6600)	15000 (7500 / 7500)	22500 (11250 / 11250)	30000 (15000 /15000)
Max. DC voltage (V)	1000					
Start-up operating voltage (V)	200					
MPPT voltage range (V)	180-960					
Nominal DC voltage (V)	600					
Full power MPPT voltage range (V)	250-850	320-850	360-850	220-850	350-850	450-850
Max. input current (A)	12.5 / 12.5			25 / 25		
Max. short current (A)	15 / 15			30 / 30		
No. of MPP trackers	2					
No. of strings per MPP tracker	1			2		
AC Output Data (On-grid)						
Nominal AC power (W)	5000	6000	8000	10000	15000	20000
Max. AC power output to utility grid (VA)	5500	6600	8800	11000	16500	22000
Max. AC power from utility grid (VA)	10000	12000	16000	20000	30000	40000
Max. AC current output to utility grid (A)	8	10	13	16	24	32
Max. AC current from utility grid (A)	15	17	24	29	44	58
Nominal grid voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac					
Grid voltage range	184 Vac...276 Vac					
Nominal grid frequency	50 / 60 Hz					
Grid frequency range	45 Hz...55 Hz / 55 Hz...65 Hz					
Output power factor	ca. 1 (adjustable 0.8 leading to 0.8 lagging)					
Output THDi (@Nominal output)	< 3%					
AC Output Data (Back-up)						
Nominal output power (W)	5000	6000	8000	10000	15000	20000
Max. output power (VA)	5500	6600	8800	11000	16500	22000
Peak output power, duration (VA, s)	10000, 60	12000, 60	16000, 60	20000, 60	22000, 60	
Rated output current (A)	7.2	8.7	11.6	14.5	21.7	29
Max. output current (A)	8	10	13	16	24	32
Peak output current, duration (A, s)	15, 60	18, 60	24, 60	30, 60	32, 60	
Nominal output voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac					
Nominal output frequency	50 / 60 Hz					
Output THDv (@symmetrical load)	< 3%					
Switch time	< 10 ms					
Efficiency						
MPPT efficiency	99.9%					
Euro efficiency	97.5%			97.7%		
Max. efficiency	98.0%			98.2%		
Max. battery charge / discharge efficiency	97.6%			97.8%		
Protection						
DC switch	Yes					
PV reverse polarity protection	Yes					
Output overcurrent protection	Yes					
Output overvoltage protection	Yes					
Anti-islanding protection	Yes					
Residual current detection	Yes					
Insulation resistor detection	Yes					
Surge protection level	II					
Battery reverse protection	Yes					
General Data						
Dimension	571.4*515*264.1 mm					
Weight (kg)	33			37		
Inverter topology	Transformerless					
Standby self-consumption (W)	< 15					
Operating temperature range	-30°C...+60°C					
Relative humidity	0...100%					
Noise	< 45 dB					
Operating altitude	< 4000 m					
Cooling	Natural			Forced airflow		
Protection degree	IP65					
Feature						
DC terminal	MC4					
Grid AC terminal	5P Connector					
Back-up AC terminal	5P Connector					
Display	LCD Display					
Monitoring interfaces	RS485 / WiFi / CAN2.0 / Ethernet / Bluetooth, optional: GPRS					
Parallel operation	Yes					
Standard warranty	Standard 5 years, optional: up to 20 years					
Certifications & Standards						
EMC	EN 61000-6-1, EN61000-6-3					
Safety	IEC 62109-1, IEC 62109-2, NB-T32004 / IEC 62040-1					
Grid	AS / NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-16 / CEI 0-21, EN 50549, G98 / G99, UTE C15-712-1					

LV ENERGY STORAGE

GTX2500

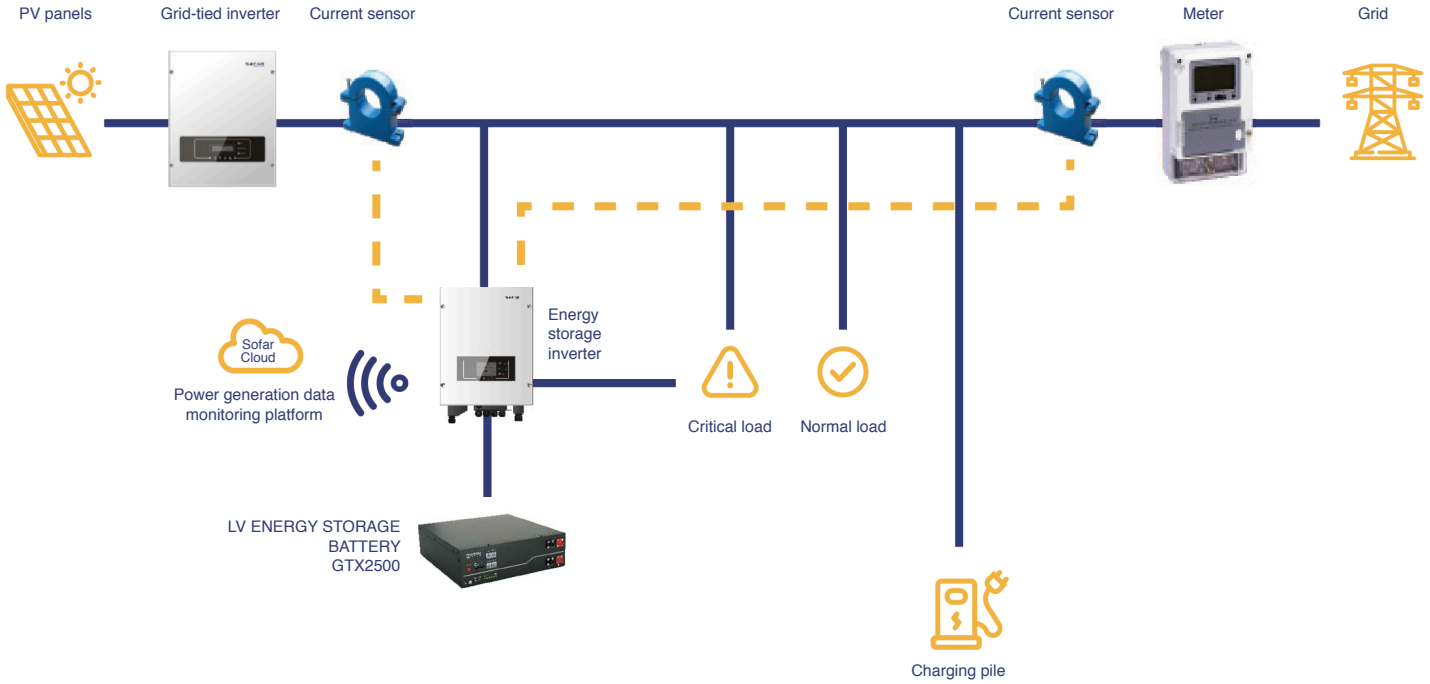
2.5 kWh

- Extensive cycle life (6000 cycles)
- Supports parallel operation (up to 8 units)
- Efficient automated production line, achieving optimum production quality
- Simple stack design, saving time and costs
- User-friendly one-button operation, automatic module ID assignment process
- Extensive range of certifications, including IEC62619, UN38.3, IEC62040-1, SAA, etc.
- Remote diagnosis and real-time data monitoring
- Compatible with multiple hybrid inverter brands

Datasheet	GTX2500
Basic Parameters	
Battery type	LiFePO4, Lithium Iron Phosphate
Nominal capacity (Ah)	50
Nominal voltage (Vdc)	51.2
Total energy (Wh)	2500
Usable energy (90% DOD) (Wh)	2250
Charge voltage (Vdc)	55.68-56.16
Discharge voltage (Vdc)	45.6-56.16
Nominal charge current (A)	25
Max. charge current (A)	30
Max. charge power (W)	1685
Nominal discharge current (A)	25
Nominal discharge power (W)	1280
Max. discharge current (A)	30
Max. discharge power (W)	1500
Short current (A)	350
Communication	RS232, RS485, CAN
Working temperature	-20 °C... 60°C
Storage temperature	≤ 25°C: 12 months , ≤ 35°C: 6 months, ≤ 45°C: 3 months
Operating humidity	< 95% RH
Storage humidity	< 95% RH
Max. operating altitude	≤ 2000 m
Scalable	Suggest up to 4
Enclosure protection rating	IP20
Weight (kg)	27
Dimension	400 mm*417 mm*120 mm
Certification	IEC62619, UN38.3, IEC62040-1, SAA etc.
Cycle life	6000 Cycles@ 80% DOD / 25°C / 0.5C, 60% EOL

GTX2500_EN_202204

AC COUPLED SOLAR SYSTEM



HV ENERGY STORAGE

GTX 3000-H4 ... H10

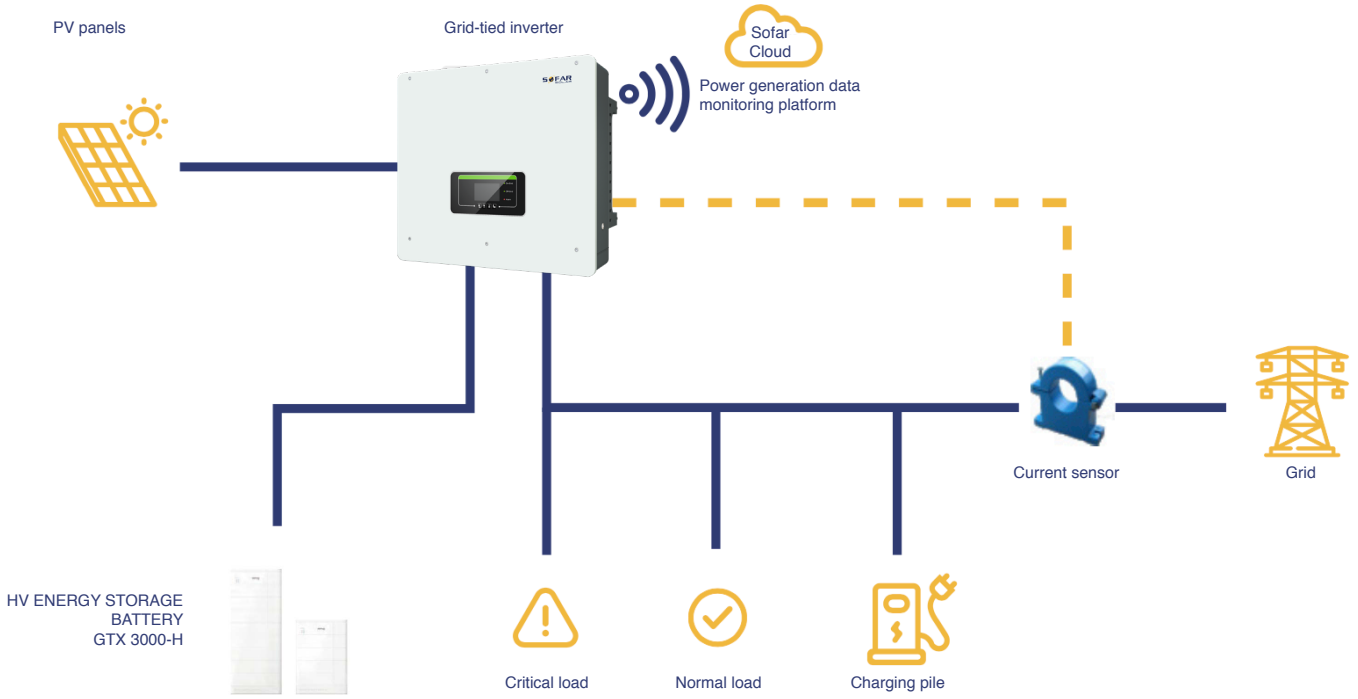
10 / 12.5 / 15 / 17.5 / 20 / 22.5 / 25 kWh

- Extensive cycle life (6000 cycles)
- Supports parallel operation (up to 4 units)
- Supports soft startup
- Supports charging activation from AC
- Efficient automated production line, achieving optimum production quality
- Simple stack design, saving time and costs
- User-friendly one-button operation, automatic module ID assignment process
- Extensive range of certifications, including IEC62619, UN38.3, IEC62040-1, SAA, etc.
- Remote diagnosis and real-time data monitoring

Datasheet	GTX 3000-H4	GTX 3000-H5	GTX 3000-H6	GTX 3000-H7	GTX 3000-H8	GTX 3000-H9	GTX 3000-H10
Parameters							
Battery module quantity	4	5	6	7	8	9	10
Nominal voltage (V)	204.8	256	307.2	358.4	409.6	460.8	512
Max. charge voltage (V)	230.4	288	345.6	403.2	460.8	518.4	576
Min. discharge voltage (V)	182.4	228	273.6	319.2	364.8	410.4	456
Nominal energy (kWh)	10	12.5	15	17.5	20	22.5	25
Available energy (90% DOD) (kWh)	9	11.25	13.5	15.75	18	20.25	22.5
Dimension (mm)	515*480*770	515*480*895	515*480*1020	515*480*1145	515*480*1270	515*480*1395	515*480*1520
Weight (kg)	138	168	198	228	258	288	318
Protection class	IP65						
Cooling	Natural						
Nominal charging current (A)	25						
Max. continuous charging current (A)	30						
Nominal discharge current (A)	25						
Max. continuous discharge current (A)	30						
Working temperature	-20°C...60°C (power derating below 8°C and above 40°C)						
Storage temperature	≤ 25°C: 12 months , ≤ 35°C: 6 months, ≤ 45°C: 3 months						
Environmental humidity	≤ 95%RH (no condensation)						
Operating altitude	≤ 2000 m						
Scale	Suggest no more than 4 parallel						
Certificates	UN38.3, IEC62619, IEC62040-1, SAA, etc.						
Cycle life	6000 @ 80% DOD / 25°C / 0.5C / 60% EOL						
Battery Module Parameters							
Battery type	LiFePO4, Lithium Iron Phosphate						
Nominal voltage (V)	51.2						
Nominal capacity (Ah)	50						
Weight (kg)	30						
Dimension	515*478.8*125 mm						
Protection	IP65						

GTX 3000-H4 / 3000-H5 / 3000-H6 / 3000-H7 / 3000-H8 / 3000-H9 / 3000-H10_EN_202204

HYBRID SOLAR SYSTEM



LV ENERGY STORAGE

GTX5000-PRO

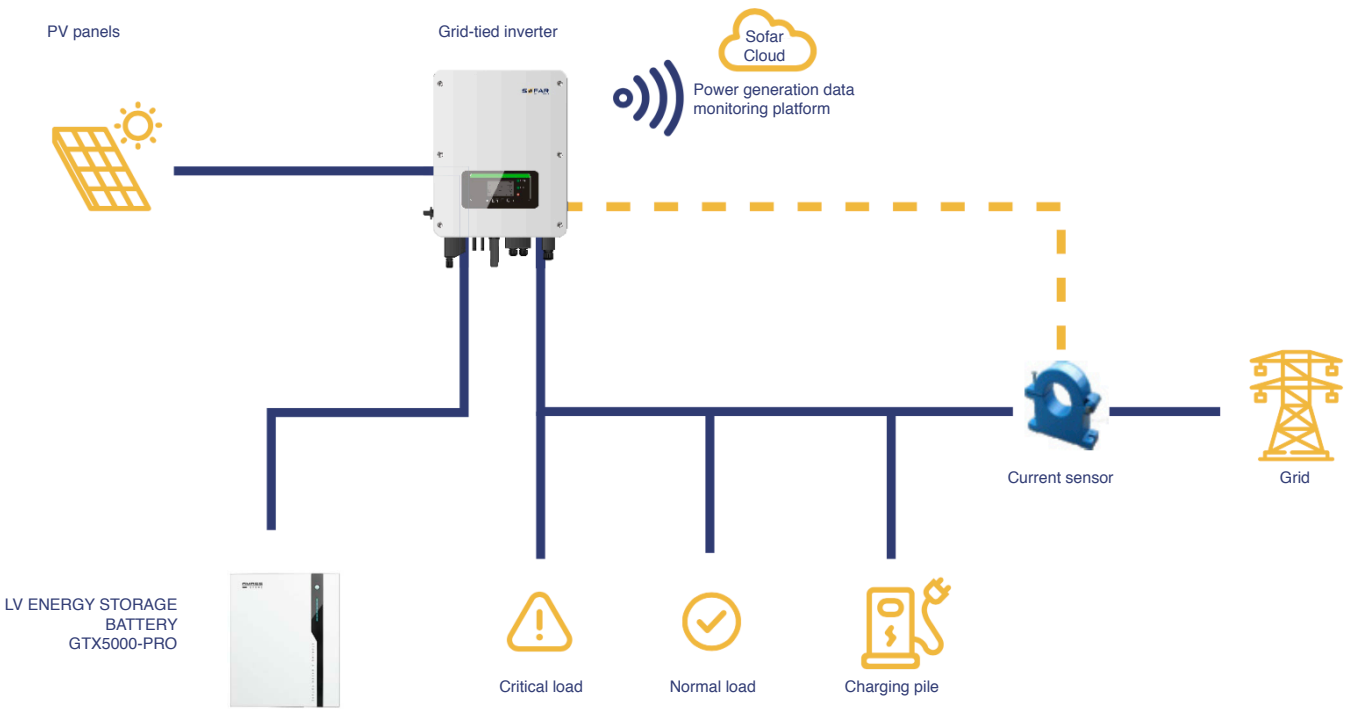
5.1 kWh

- CATL battery cells, extensive cycle life (6000 cycles)
- Supports parallel operation (up to 4 units)
- Efficient automated production line, achieving optimum production quality
- Wall-or floor-mounted installation, saving time and costs
- User-friendly one-button operation, automatic module ID assignment process
- Extensive range of certifications, including IEC62619, UN38.3, IEC62040-1, SAA, etc.
- Remote diagnosis and real-time data monitoring
- Compatible with multiple hybrid inverter brands

Datasheet	GTX5000-PRO
Basic Parameters	
Battery type	LiFePO4, Lithium Iron Phosphate
Nominal capacity (Ah)	100
Nominal voltage (Vdc)	51.2
Total energy (Wh)	5120
Usable energy (90% DOD) (Wh)	4600
Charge voltage (Vdc)	55.68-56.16
Discharge voltage (Vdc)	45.6-56.16
Nominal charge current (A)	50
Nominal charge power (W)	2560
Max. charge current (A)	100
Max. charge power (W)	5000
Nominal discharge current (A)	50
Nominal discharge power (W)	2560
Max. discharge current (A)	100
Max. discharge power (W)	5000
Short current (A)	350
Communication	RS232, RS485, CAN
Working temperature	0 °C...55°C
Storage temperature	≤ 25°C: 12 months, ≤ 35°C: 6 months, ≤ 45°C: 3 months
Operating humidity	< 95% RH
Storage humidity	< 95% RH
Max. operating altitude	≤ 2000 m
Scalable	Suggest up to 4
Enclosure protection rating	IP20
Net Weight (kg)	47
Dimension	480 mm*171.5 mm*606 mm
Certification	IEC62619, UN38.3, IEC62040-1, SAA etc
Cycle life	6000 Cycles@ 80% DOD / 25°C / 0.5C, 60% EOL

Note: Operating current derating according to cell voltage and battery temperature.

HYBRID SOLAR SYSTEM

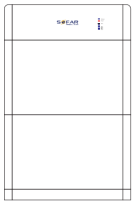
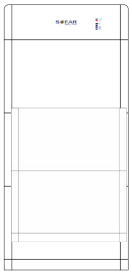
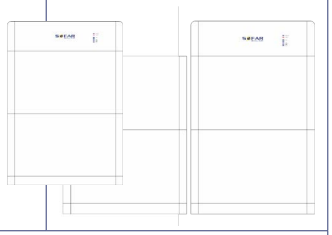


SOFAR

BTS E5...E20-D5

E5 / E10 / E15 / E20

- Modular and integrated design for easy transportation and installation
- Flexible battery capacity expansion
- User-friendly one-button battery operation
- Maximal battery energy with pack optimization
- Extremely low battery self-consumption in sleep mode
- Energy storage specially for ME / HYD 5...20KTL-3PH inverters

Datasheet	BTS E5-DS5	BTS E10-DS5	BTS E10-DS5	BTS E20-DS5
System Parameters				
System schematic				
Battery type	LFP			
Battery distribution unit	BTS 5K-BDU			
Number of battery distribution units	1			
Battery module	BTS 5K			
Number of battery modules	1	2	3	4
Battery total energy (kWh)[1]	5.12	10.24	15.36	20.48
Usable energy (kW)[2]	4.75	9.5	14.25	19
Rated power (kW)	2.5	5	7.5	10
Rated voltage	400 V			
Voltage range for full load	350-425 V			
Rated charge/discharge current (A)	7	14	21	28
Degree of protection	IP65			
Ambient temperature range	-10°C ... 45°C			
Allowable relative humidity range	5-95%			
Max. operating altitude[3]	4000 m			
Weight (kg)	59	110	161	212
Dimension (W*D*H)	708*170*680 mm	708*170*1100 mm	708*170*1520 mm	708*170*1940 mm
Installation	Floor stand			
Cooling	Natural			
Display	LED indicators			
Communication	CAN			
Warranty[4]	10 years			
Compatible inverters	Please refer to the BTS E5-20-DS5 configuration list			
Battery Module				
Model	BTS 5K			
Battery module energy (kWh)[1]	5.12			
Depth of discharge	90.0%			
Rated power (W)	2500			
Dimension (W*D*H)	708*170*420 mm			
Weight (kg)	50			
Battery Distribution Unit				
Model	BTS 5K-BDU			
Max. charge/discharge current (A)	35			
Dimension (W*D*H)	708*170*200 mm			
Weight (kg)	7.5			
Standard				
Certificates	UN38.3, IEC62619, IEC62040-1, SAA, etc.			

[1] Test conditions: 0.2C charge/discharge at 25°C, 100% DoD.
[2] Based on the battery cell.
[3] If the altitude is >2000 m, derating is required. Please refer to the derating curve.
[4] For the specific warranty conditions, please refer to the SOFARSOLAR battery warranty document.

SOFAR

POWERALL

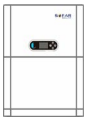
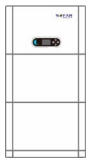
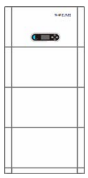
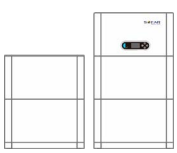
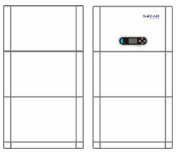
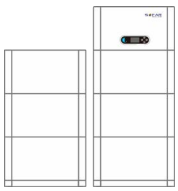
ESI 3K / ESI 3.68K / ESI 4K / ESI 4.6K / ESI 5K / ESI 6K

SINGLE-PHASE

- Modular and integrated AC-coupled energy storage
- Flexible battery capacity expansion
- User-friendly one-button battery operation
- Compatible with high current PV panels

TWO MPPTS

- Maximal battery energy with pack optimization
- Extremely low battery self-consumption in sleep mode
- Switchover time to critical loads less than 10 ms

System Parameters						
System schematic						
Rated output power (W)	3000-6000					
Number of batteries (n)	1	2	3	4	5	6
Battery capacity (kWh)[1]	5.12	10.24	15.36	20.48	25.6	30.27
Usable energy (kWh)[2]	4.75	9.5	14.25	19	23.75	28.5
Degree of protection	IP65					
Ambient temperature range[3]	-10°C ... 45°C					
Allowable relative humidity range	5-95%					
Max. operating altitude[4]	4000 m					
Weight (kg)	74.5	125.5	176.5	228.5	279.5	330.5
Dimension (W*D*H)	708*170*890 mm	708*170*1310 mm	708*170*1730 mm	708*170*1310 mm 708*170*900 mm	708*170*1310 mm 708*170*1320 mm	708*170*1730 mm 708*170*1320 mm
Display	LCD, App via Bluetooth					
Communication	RS485 / Bluetooth / Ethernet / WiFi, optional: 4G / GPRS					
Warranty[5]	10 years					
Product ordering model	[ESI 3-6K-S1 Inverter Module] + n * [BTS 5K Battery Module]					

Inverter Module							
Module	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1	ESI 5K-S1	ESI 5K-S1-A	ESI 6K-S1
Rated battery voltage (V)	400						
Max. charge/discharge current (A)	20						
Recommended max. PV input power (Wp)	4500	5400	6000	6900	7500	7500	9000
Max. input voltage (V)	550						
Rated input voltage (V)	360						
MPPT operating voltage range (V)	85-520						
Number of MPPTs	2						
Max. input current per MPPT (A)	16/16						
Rated grid voltage	L/N/PE, 220 V/230 V/ 240 V,50 Hz / 60 Hz						
Grid voltage range	180 Vac-276 Vac (according to local standard)						
Rated AC power (W)	3000	3680	4000	4600	5000	5000	6000
Max. AC power output to utility grid (VA)	3300	3680	4400	4600	5500	5000	6600
Rated voltage, frequency (off-grid)	220/230 V, 50/60 Hz						
Max. apparent power (off-grid) (VA)	3000	3680	4000	4600	5000	5000	6000
Peak output power, duration (off-grid) (VA)[6]	4500, 10s	5520, 10s	6000, 10s	6900, 10s	7500, 10s	7500, 10s	9000, 10s
Switchover time	<10 ms						
Topology	Transformerless						
Dimension (W*D*H)	708*170*410 mm						
Weight (kg)	22.5						

Efficiency		
Max. efficiency	97.7%	97.8%
European efficiency	97.0%	97.1%

Battery Module	
Model	BTS 5K
Battery type	LFP
Battery module energy (kWh)[1]	5
Depth of discharge	0-90% adjustable
Nominal power (W)	2500
Power control unit	Transformer isolation
Dimension (W*D*H)	708*170*420 mm
Weight (kg)	50

Standards	
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12
Safety standards	IEC 62109-1/2, IEC 62040-1, IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), UN38.3, IEC62619, SAA
Grid standards	VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, G98/G99, TR321,TR322, EN 50438/EN 50549 UTE C15-712-1, NRS 097-2-1, UNE 206 007-1

[1] Test conditions: 0.2C charge/discharge at 25°C, 100% DoD.
[2] Based on the battery cell.
[3] Please refer to the temperature derating curve.
[4] If the altitude is >2000 m, derating is required. Please refer to the derating curve.
[5] For the specific warranty conditions, please refer to the SOFARSOLAR battery warranty document.
[6] In a system with sufficient PV and battery power.

INVERTER

LOGGER

GPRS / WiFi & Ethernet

- High network coverage around the world
- Suitable for rural areas where no network connection is available (GPRS Version)
- Plug-and-play for a quick installation and easy operation
- Real-time alerts for i mmediate and quick troubleshooting
- Check the system status anytime and anywhere via online portal or app, no additional software required
- Remote firmware update and error analysis

GLOBAL DATA SERVICE

SofarSolar provides global data service for users around the world. For project sites in rural areas or places without Internet access, the inverter logger ensures stable data transmission to a remote server via mobile network, enabling remote monitoring anytime, anywhere.

Data plans for different users

Wide network coverage for most countries

Pay-as-you-go service & online top up

Datasheet	LIG-1	LIW-1
General Parameters		
Number of connections	Basic Version: 1-4, Advanced Version: 1-10	Basic Version: 1-4, Advanced Version: 1-10
Inverter Communication interface	One-way RS485 / 422	
Remote Communication interface	GSM	WiFi (802.11b / g / n) / Ethernet
Serial Communication rate	1200-57600bps (configurable)	1200-19200bps (configurable)
Working frequency	850 / 900 / 1800 / 1900 mHz	2.4GHz
Communication range	-	400 m (open space)
Transmitting power	2W(max.) / 1W(min.)	802.11b / g / n:+20 dBm / +18 dBm / 15 dBm (max.)
Data collection interval	Default: 5 mins (1-15 mins configurable)	
Parameter setting	Serial port AT instruction	Web server / serial port AT instruction
Data access	RS485 / 422, remote server	Serial port / WiFi point to point / remote server
Status	LED x4	
Electrical Parameters		
Input voltage (V)	5 V (+/-5%)	5
Static power consumption (W)	< 2	< 1.6
Max. instantaneous power consumption (W)	3	< 2.5
Environmental Parameters		
Working temperature	-25°C...+65°C	-10°C...+65°C
Working humidity	10%-90% (no condensation)	
Storage temperature	-25°C...+65°C	-10°C...+65°C
Storage humidity	< 40%	
Protection class	IP21	
Physical Parameters		
Dimension (L*W*H)	110 mm*80 mm*24 mm	110 mm*80 mm*26 mm
Others		
Installation	Wall-hanging / flatwise	110 mm*80 mm*26 mm

STICK

LOGGER

GPRS / WiFi / 4G / Ethernet / NB-IOT

- Independent from inverter to protect parts inside the inverter, eliminate potential problems
- Plug-and-play for easy installation, no external power supply needed
- External light indicator, logging status at a glance
- Outdoor design, easier to replace faulty equipment
- IP65 design, adaptable to bad weather conditions
- User-friendly SolarMAN App platform to monitor yield performance any time, anywhere

Datasheet	LSG-3	LSG-4	LSW-3	LS4G-3	LSE-3
General Parameters					
Remote Communication interface	GPRS		WiFi	4G	LAN
Working frequency	GSM850 / EGSM900 / DCS1800 / PCS1900 mHz		2.142GHz..., 2.484GHz	704...960 mHz, 1710...2690 mHz	Adaptive network 10 m / 100 m
Satellite positioning	-	GPS / beidou < 15m	-		
Antenna	External GPRS, stick antenna		External WiFi, stick antenna	External 4G, stick antenna	-
Data interface	RS232				
Working voltage (V)	4.7 -15				
Working power (W)	3		1.5	5	1
SIM card	Chip card / MicroSIM		-	MicroSIM	-
Mermory	2M Flash (2M-16M optional)				
Working temperature	-40°C...+85°C				
Working humidity	< 90% (no condensing)				
Number of connections	One				
Serial Communication rate	bps (1200-115200bps configurable)				
Data acquisition interval	Default 5min (1-15min configurable)				
Use configuration	Bluetooth	APP / web	AT+instruction set, remote server APP / web	Local serial port	Web
Firmware upgrade	Remote upgrade				
Others	Real-time control, data resuming				

LIG-1 / LIW-1_EN_202204

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