



SOFAR **1.1K~3.3KTL-G3**

1100/1600/2200/2700/3000/3300

Single-Phase Single-MPPT

1.4

1.4 DC overload



Light weight, quick and easy to install



IP65 ingress protection

0

Built-in zero export function

97.7%

Max. efficiency up to 97.7%



Smart monitoring, RS485, WiFi/GPRS/4G/Ethernet(optional)

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	1500Wp	2200Wp	3000Wp	3700Wp	4100Wp	4500Wp
Max. Input voltage	500V	500V	500V	550V	550V	550V
Start-up voltage	70V					
Rated input voltage	360V					
MPPT operating voltage range	50-500V	50-500V	50-500V	50-550V	50-550V	50-550V
Full power MPPT voltage range	110-450V	150-450V	200-450V	250-500V	275-500V	300-500V
Max. Input current MPPT	12A					
Maximum DC input short circuit current per MPPT	15A					
Number of MPPT/ String per MPPT	1/1					
Input terminal type	MC4/H4					
Output (AC)						
Rated power	1100W	1600W	2200W	2700W	3000W	3300W
Max. AC power	1100VA	1600VA	2200VA	2700VA	3000VA	3300VA
Rated Output current	4.8A	7A	9.6A	11.8A	13A	14.3A
Max. Output current	5.3A	7.7A	10.6A	13A	14.5A	16A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac					
Grid voltage range	180Vac-276Vac (According to local standard)					
Nominal frequency	50Hz/60Hz					
Grid frequency range	45~55Hz/54~66Hz (According to local standard)					
THDi	<3%					
Power factor	1default (adjustable +/-0.8)					
Efficiency						
Max. Efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%
European weighted efficiency	96.9%	96.9%	96.9%	97.2%	97.2%	97.2%
Self-consumption at night	<1W					
MPPT efficiency	>99.9%					
Protection						
Anti-Islanding protection	Yes					
DC reverse polarity protection	Yes					
Over temp protection	Yes					
Leakage current protection	Yes					
Over voltage protection	Yes					
Over current protection	Yes					
Earth fault protection	Yes					
SPD	MOV: Type III standard					
Communication						
Standard communication mode	RS485, WiFi/GPRS/4G/Ethernet(optional), USB					
General Data						
Topology	Transformerless					
Ambient temperature range	-30°C ~ +60°C					
Allowable relative humidity range	0~100%					
Noise	<25dB					
DC switch	optional					
Cooling	Natural					
Max. Operating altitude	2000m					
Dimension[mm]	303*260.5*118	303*260.5*118	303*260.5*118	321*260.5*131.5	321*260.5*131.5	321*260.5*131.5
Support bracket	Wall-mounted					
Weight	5.5kg	5.5kg	5.5kg	6.3kg	6.3kg	6.3kg
Display	LCD+LED					
Degree of protection	IP65					
Warranty	5 years/ 7 years/ 10 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 3K~6KTLM-G3

3000/3600/4000/4600/5000/6000



Single-Phase Dual-MPPT

- | | | | |
|---|---|---|---------------------------------------|
| 0 | Built-in zero export function | AFCI | Optional AFCI function |
|  | Compact design, light in weight |  | Natural cooling, no fans, low noise |
| 98.4% | Max. efficiency up to 98.4% | 2
MPPT | Two MPP trackers with 1.5*DC overload |
|  | Smart monitoring, remote firmware upgrade | | |

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	4500Wp	5400Wp	6000Wp	7000Wp	7500Wp	7500Wp	9000Wp
Max DC power for single MPPT	3500W	3500W	3500W	3500W	3750W	3750W	4500W
Number of MPP trackers	2						
Number of DC inputs	1 for each MPPT						
Max. Input voltage	600V						
Start-up voltage	90V						
Rated input voltage	380V						
MPPT operating voltage range	80V-550V						
Full power MPPT voltage range	200V-500V	200V-500V	200V-500V	200V-500V	210V-500V	210V-500V	260V-500V
Max. Input MPPT current	15A/15A						
Max. input short circuit current per MPPT	22.5A/22.5A						
Output (AC)							
Rated power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. AC power	3300VA	3680VA	4400VA	4600VA	5500VA	5000VA	6000VA
Nominal output current	13.6A	16A	18.2A	21A	22.7A	21.7A	27.3A
Max. Output current	15A	16A	20A	23A	25A	21.7A	29A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz/60Hz						
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)						
Active power adjustable range	0~100%						
THDi	<3%						
Power factor	1 default (adjustable +/-0.8)						
Performance							
Max efficiency	98.2%	98.2%	98.2%	98.4%	98.4%	98.4%	98.4%
European efficiency	97.3%	97.3%	97.3%	97.5%	97.5%	97.5%	97.5%
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	MOV: Type III standard						
Communication							
Standard communication mode	RS485/USB, Optional: WiFi/GPRS/4G						
General Data							
Ambient temperature range	-30°C~+60°C						
Self-consumption at night	<1W						
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Max. Operating altitude	4000m						
Noise	<25dB						
Weight	9.2kg	9.2kg	9.2kg	10kg	10kg	10kg	10kg
Cooling	Natural						
Dimension	349*344*164mm						
Display	LCD&Bluetooth+APP						
Standard warranty	5 years, Optional: 7&10 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	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(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						



SO FAR 3K~7.5KTL-G2

3000/3600/4000/4600/5000/6000/7500



Single-Phase Dual-MPPT

- | | |
|---|---|
|  Built-in zero export function |  2 MPPT high precision string detection |
|  IP65 ingress protection |  I-V curve scanning function |
|  98.2% Max. efficiency up to 98.2% |  Built-in sound and light alarm function |
|  Smart monitoring, RS485, Wifi/Ethernet/GPRS/4G (optional) | |

Datasheet	SOFAR 3KTLM-G2	SOFAR 3.6KTLM-G2	SOFAR 4KTLM-G2	SOFAR 4.6KTLM-G2	SOFAR 5KTLM-G2	SOFAR 6KTLM-G2	SOFAR 7.5KTLM
Input (DC)							
Recommended Max. PV input power	3990Wp	4790Wp	5320Wp	6120Wp	6650Wp	7980Wp	9980Wp
Max DC power for single MPPT	3500W	3500W	3500W	3500W	3500W	3500W	2*2750W/ 3000W
Number of MPP trackers	2						
Number of DC inputs	1/1						2/1
Max. Input voltage	600V						
Start-up voltage	120V						
Rated input voltage	360V						
MPPT operating voltage range	90-580V						
Full power MPPT voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	300V-520V	250V-520V
Max. Input current per MPPT	11A/11A						22A/11A
Maximun DC input short circuit current per MPPT	13.2A						26.4/13.2A
Output (AC)							
Rated power	3000W	3680W	4000W	4600W	5000W	6000W	7500W
Max. AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA	7500VA
Max. Output current	13.7A	16.8A	18.2A	21A	22.8A	27.3A	32.6A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz/60Hz						
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)						
Active power adjustable range	0~100%						
THDi	<3%						
Power factor	1default (adjustable +/-0.8)						
Power limit export	Zero export or adjustable power limit export						
Performance							
Max efficiency	98.0%						98.2%
European weighted efficiency	97.5%						97.6%
Self-consumption at night	<1W						
MPPT efficiency	>99.9%						
Protection							
DC reverse polarity protection	Yes						
DC switch	Optional						
Protection class/overvoltage category	I/III						
Safety protection	Anti islanding, RCMU, Ground fault monitoring						
SPD	MOV: Type III standard						
Communication							
Power management unit	According to certification and request						
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G(optional), SD card(optional)						
Operation data storage	25 years						
General Data							
Ambient temperature range	-25℃~+60℃						-30℃~+60℃
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Max. Operating altitude	2000m						
Noise	<25dB						
Weight	11.5kg						18kg
Cooling	Natural						
Dimension	405*315*135mm						467*352*157mm
Display	LCD display						
Warranty	5 years/ 7 years/ 10 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	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)						
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G83/G59/G98/G99, NB/T32004; ABNT NBR 16149/16150 (for SOFAR3KTLM-G2, SOFAR5KTLM-G2& 7.5KTLM)						



SOFAR **7K~10.5KTLM-G3**

7K / 7.7K / 8K / 9K / 10K / 10.5K



Single-Phase **Three-MPPT**

110%

Longtime 110% AC overload ability

98.1%

Max. efficiency up to 98.1%



Lower start voltage, wide MPPT voltage range

3
MPPT

Three MPP trackers with 1.5*DC overload



Smart I/V curve scanning

AFCI

Optional AFCI protection



Natural cooling, no fans, low noise



Compatible with 500W+ PV modules



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	10500Wp	10500Wp	12000Wp	13500Wp	15000Wp	15000Wp
Max. DC power for single MPPT	6600W/5000W/5000W					
Number of MPP trackers	3					
Number of DC inputs	3					
Max. input voltage	600V					
Start-up voltage	90V					
Rated input voltage	360V					
MPPT operating voltage range	80V-550V					
Full power MPPT voltage range	200V-500V	200V-500V	230V-500V	260V-500V	280V-500V	300V-500V
Max. input MPPT current	20A/16A/16A					
Max. input short circuit current per MPPT	30A/25A/25A					

Output (AC)

Rated power	7000W	7700W	8000W	9000W	10000W	10500W
Max. AC power	7700VA	7700VA	8800VA	9900VA	10000VA	10500VA
Nominal output current	31.8A	35A	36.4A	40.9A	45.5A	45.5A
Max output current	35A	35A	40A	45A	46A	46A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac					
Grid voltage range	180Vac-276Vac (According to local standard)					
Nominal frequency	50/60Hz					
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)					
Active power adjustable range	0~100%					
THDi	<3%					
Power factor	1 default (adjustable+/-0.8)					

Efficiency

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

Communication	RS485/USB/Bluetooth, Optional:WiFi/GPRS/4G
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General Data

Ambient temperature range	-30°C~+60°C
Self-consumption at night	<1W
Topology	Transformerless
Degree of protection	IP65
Allowable relative humidity range	0~100%
Max. operating altitude	4000m
Noise	<25dB
Weight	15kg
Cooling	Natural
Dimension	468*380*184mm
Display	LCD & APP+Bluetooth
Standard warranty	5 years, Optional :7 & 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, IEC 62116, IEC 61727, IEC 61683, IEC 60068
Grid standards	AS/NZS 4777, G99, INMETRO, NB/T32004



SOFAR 3.3K~12KTL-X

3300/4400/5000/5500/6600/8800/11000/12000



Three-Phase Dual-MPPT



Integrated with DC switch

98.3%

Max. efficiency up to 98.3%



Super large 4-inch LCD

DRM

Built-in DRM port and logic



Smart monitoring, RS485, Wifi/Ethernet/GPRS/4G (optional)



Over / under voltage, over current, over temperature, Anti-islanding and other multiple protections

Datasheet	SOFAR [*] 3.3KTL-X	SOFAR 4.4KTL-X	SOFAR [*] 5KTL-X (Australia)	SOFAR 5.5KTL-X	SOFAR 6.6KTL-X	SOFAR 8.8KTL-X	SOFAR 11KTL-X	SOFAR 12KTL-X
Input (DC)								
Recommended Max. PV input power	4390Wp	5860Wp	6650Wp	7320Wp	8780Wp	11710Wp	14630Wp	15960Wp
Max DC power for single MPPT	3550W	4500W	5700W	5700W	6250W	6200W	6200W	6850W
Number of MPP trackers	2							
Number of DC inputs	1 for each MPPT							
Max. Input voltage	1000V							
Start-up voltage	200V							
Rated input voltage	600V							
MPPT operating voltage range	160-960V							
Full power MPPT voltage range	160V-850V	190V-850V	240V-850V	240V-850V	290V-850V	380V-850V	480V-850V	575V-850V
Max. Input current per MPPT	11A/11A							
Maxnimun DC input short circuit current per MPPT	14A							
Output (AC)								
Rated power	3000W	4000W	5000W	5000W	6000W	8000W	10000W	12000W
Max. AC power	3300VA	4400VA	5000VA	5500VA	6600VA	8800VA	11000VA	13200VA
Max. Output current	4.8A	6.4A	8.0A	8.0A	9.6A	12.8A	15.9A	19.1A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac							
Grid voltage range	310Vac-480Vac (According to local standard)							
Nominal frequency	50Hz/60Hz							
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)							
Active power adjustable range	0~100%							
THDi	<3%							
Power factor	1 default (adjustable+/-0.8)							
Power limit export	Zero export or adjustable power limit export							
Performance								
Max efficiency	98.0%	98.0%	98.0%	98.0%	98.0%	98.3%	98.3%	98.3%
European weighted efficiency	97.5%	97.5%	97.5%	97.5%	97.5%	98.0%	98.0%	98.0%
Self-consumption at night	<1W							
MPPT efficiency	>99.9%							
Protection								
DC reverse polarity protection	Yes							
DC switch	Yes							
Safety protection	Anti islanding, RCMU, Ground fault monitoring							
ARPC	Anti reverse power controller(optional)							
Communication								
Power management unit	According to certification and request							
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G(optional), SD card							
Operation data storage	25 years							
General Data								
Ambient temperature range	-25°C~+60°C							
Topology	Transformerless							
Degree of protection	IP65							
Allowable relative humidity range	0~100%							
Max. Operating altitude	2000m							
Noise	<29dB							
Weight	21kg	21kg	21kg	21kg	21kg	22kg	22kg	22kg
Cooling	Natural							
Dimension	457*452*202mm							
Display	LCD display							
Warranty	5 years/ 7 years/ 10 years							
Standard								
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4							
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30), IEC60255							
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G83, Rd1699, UTE C15-712-1, EN50530, NB/T32004							

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

SOFAR 3300/4400/5000/5500/6600/8800/11000/12000TL-X_EN_202105_V1

SOFAR 3.3K~12KTLX-G3

3300/4400/5000/5500/6600/8800/10000/11000/12000



Three-Phase Dual-MPPT



Remote firmware upgrade



Smart string level monitoring



Maximum DC input voltage 1100V



Low start-up voltage, wide MPPT voltage

98.6%

Maximum efficiency 98.6%

SPD

Type II SPD for both DC and AC



Natural cooling, no fans, low noise

Datasheet

SOFAR
3.3KTLX-G3

SOFAR
4.4KTLX-G3

SOFAR
5KTLX-G3-A

SOFAR
5.5KTLX-G3

SOFAR
6.6KTLX-G3

SOFAR
8.8KTLX-G3-A

SOFAR
8.8KTLX-G3

SOFAR
10KTLX-G3-A

SOFAR
11KTLX-G3-A

SOFAR
11KTLX-G3

SOFAR
12KTLX-G3

Input (DC)

Recommended Max. PV input power	4500Wp	6000Wp	7500Wp	7500Wp	9000Wp	12000Wp	12000Wp	15000Wp	15000Wp	15000Wp	18000Wp
Number of MPP trackers	2										
Number of DC inputs	1/1	1/1	1/1	1/1	1/1	1/2	1/1	1/2	1/2	1/1	1/2
Max. input voltage	1100V										
Start-up voltage	160V										
Rated input voltage	650V										
MPPT operating voltage range	140V-1000V										
Full power MPPT voltage range	160V-850V	190V-850V	240V-850V	240V-850V	290V-850V	380V-850V	380V-850V	420V-850V	420V-850V	420V-850V	460V-850V
Max. input MPPT current	15A/15A	15A/15A	15A/15A	15A/15A	15A/15A	15A/30A	15A/15A	15A/30A	15A/30A	15A/15A	15A/30A
Max. input short circuit current per MPPT	22.5A/22.5A	22.5A/22.5A	22.5A/22.5A	22.5A/22.5A	22.5A/22.5A	22.5A/45A	22.5A/22.5A	22.5A/45A	22.5A/45A	22.5A/22.5A	22.5A/45A

Output (AC)

Rated power	3000W	4000W	5000W	5000W	6000W	8000W	8000W	10000W	10000W	10000W	12000W
Max. AC power	3300VA	4400VA	5000VA	5500VA	6600VA	8800VA	8800VA	10000VA	11000VA	11000VA	13200VA
Max. Output current	5A	6.7A	7.6A	8.3A	10A	13.3A	13.3A	15.2A	16.7A	16.7A	20A
Nominal grid voltage	3/N/PE, 220V/380Vac, 230V/400Vac										
Grid voltage range	310Vac-480Vac (According to local standard)										
Nominal frequency	50 / 60Hz										
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)										
Active power adjustable range	0~100%										
THDi	<3%										
Power factor	1 default (adjustable+/-0.8)										

Performance

Max efficiency	98.40%	98.40%	98.40%	98.40%	98.40%	98.50%	98.50%	98.50%	98.50%	98.50%	98.50%
European efficiency	97.50%	97.50%	97.50%	97.50%	97.50%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

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
AFCI protection	Optional
Input / output SPD	PV: type II standard, AC: type II standard

Communication

Standard communication mode	RS485/ USB/ Bluetooth, Optional: WiFi / GPRS/4G
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General Data

Ambient temperature range	-30℃~+60℃										
Self-consumption at night	<1W										
Topology	Transformerless										
Degree of protection	IP65										
Allowable relative humidity range	0~100%										
Max. Operating altitude	4000m										
Noise	≤40dB										
Weight	17kg	17kg	17kg	17kg	17kg	17kg	17kg	18kg	18kg	18kg	18kg
Cooling	Natural										
Dimension	430*385*182mm										
Display	LCD&Bluetooth +APP										
Standard warranty	5 years, Optional: 7 years/ 10 years										

Standard

EMC	EN61000-3-2, EN61000-3-3,EN61000-3-11, EN61000-3-12,EN61000-6-1, EN61000-6-3										
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC61683, IEC60068(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, EN50549, G98/G99, EN50530, NB/T32004										



SOFAR 15K~24KTLX-G3

15000/17000/20000/22000/24000

Three-Phase Dual-MPPT



Remote firmware upgrade



Smart string level monitoring



1100v

Maximum DC input voltage 1100V



Low start-up voltage, wide MPPT voltage

98.75%

Maximum efficiency 98.6%

SPD

Type II SPD for both DC and AC

110%

110% long-time overload ability

Datasheet	SOFAR 15KTLX-G3	SOFAR 15KTLX-G3-A	SOFAR 17KTLX-G3	SOFAR 20KTLX-G3	SOFAR 20KTLX-G3-A	SOFAR 22KTLX-G3	SOFAR 24KTLX-G3	SOFAR 24KTLX-G3-A
Input (DC)								
Recommended Max. PV input power	22500Wp	22500Wp	25500Wp	30000Wp	30000Wp	33000Wp	36000Wp	36000Wp
Number of MPP trackers	2							
Number of DC inputs	2/2							
Max. input voltage	1100V							
Start-up voltage	160V							
Rated input voltage	650V							
MPPT operating voltage range	140V-1000V							
Full power MPPT voltage range	420V-850V	420V-850V	450V-850V	480V-850V	480V-850V	510V-850V	540V-850V	540V-850V
Max. input MPPT current	26A/26A	26A/26A	26A/26A	26A/26A	26A/26A	26A/26A	26A/26A	26A/26A
Max. input short circuit current per MPPT	36A/36A	36A/36A	36A/36A	36A/36A	36A/36A	36A/36A	36A/36A	36A/36A
Output (AC)								
Rated power	15000W	15000W	17000W	20000W	20000W	22000W	24000W	24000W
Max. AC power	16500VA	15000VA	18700VA	22000VA	20000VA	24200VA	26400VA	24000VA
Max. Output current	23.9A	23.9A	27.1A	31.9A	31.9A	35.1A	38.3A	38.3A
Nominal grid voltage	3/N/PE, 220V/380Vac, 230V/400Vac							
Grid voltage range	310Vac-480Vac (According to local standard)							
Nominal frequency	50 / 60Hz							
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)							
Active power adjustable range	0~100%							
THDi	<3%							
Power factor	1default (adjustable +/-0.8)							
Performance								
Max efficiency	98.60%							
European weighted efficiency	98.20%							
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								
Standard communication mode	RS485/ USB/ Bluetooth, Optional: WiFi / GPRS / 4G							
General Data								
Ambient temperature range	-30°C ~ +60°C							
Self-consumption at night	< 1W							
Topology	Transformerless							
Degree of protection	IP65							
Allowable relative humidity range	0~100%							
Max. Operating altitude	4000m							
Noise	≤40dB							
Weight	20kg	20kg	22kg	22kg	22kg	23kg	23kg	23kg
Cooling	Fan							
Dimension	520*430*189mm							
Display	LCD&Bluetooth +APP							
Standard warranty	5 years, Optional: 7 years/ 10 years							
Standard								
EMC	EN61000-6-1, EN61000-6-3, EN61000-6-3-11, EN61000-6-3-12							
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC61683, IEC60068(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, EN50549, G98/G99, EN50530, NB/T32004							

SOFAR 10K~15KTL-G2

10000 / 12000 / 15000



Three-Phase Dual-MPPT



Fuse free design

DRM

Built-in DRM port and logic



I-V curve scanning function

98.3%

Max. efficiency up to 98.3%



Outdoor IP65 protection level



Smart control and flexible configuration



Datasheet	SOFAR I 0000TL-G2	SOFAR I 2000TL-G2	SOFAR I 5000TL-G2
Input (DC)			
Max. PV input power	I 8000Wp	I 8000Wp	I 9950Wp
Max DC power for single MPPT	I I 000W/7500W	I I 000W/7500W	I I 000W/7500W
Number of MPP trackers	2		
Number for DC inputs	2/1		
Max. input voltage	I 000V		
Start-up voltage	200V		
Rated input voltage	600V		
MPPT operating voltage range	I 60V-960V		
Full power MPPT voltage range	350V-850V	500V-850V	500V-850V
Max. input MPPT current	2 I A/I I A		
Maximun DC input short circuit current per MPPT	30A/I 5A		
Output (AC)			
Rated power	I 0000W	I 2000W	I 5000W
Max. AC power	I I 000VA	I 3200VA	I 6500VA
Max. Output current	3*I 6.5A	3*20A	3*24A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/4 I 5Vac		
Grid voltage range	3 I 0Vac-480Vac (According to local standard)		
Nominal frequency	50/60Hz		
Grid Frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)		
Active power adjustable range	0~I 00%		
THDi	<3%		
Power factor	>0.99 (adjustable +/-0.8)		
Performance			
Max efficiency	98.3%		
European weighted efficiency	98.0%		
Self-consumption at night	< I W		
MPPT efficiency	>99.9%		
Protection			
DC reverse polarity protection	Yes		
DC switch	Yes		
ARPC	Anti reverse power controller (optional)		
Safety protection	Anti islanding, RCMU, Ground fault monitoring		
Communication			
Power management unit	According to certification and request		
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G (optional), SD card		
Operation data storage	25 years		
General Data			
Ambient temperature range	-25°C ~ +60°C		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0~I 00%		
Max. Operating altitude	2000m		
Noise	<45dB		
Weight	23.5kg	23.5kg	25kg
Cooling	Fan		
Dimension	539*452*202mm		
Display	LCD display		
Warranty	5 years/ 7 years/ I 0 years		
Standard			
EMC	EN 6 I 000-6- I, EN 6 I 000-6-3		
Safety standards	IEC62 I 09- I/2, IEC62 I I 6, IEC6 I 727, IEC-6 I 683, IEC60068(I,2,I 4,30)		
Grid standards	AS/NZS 4777, VDE-AR-N 4 I 05, CEI 0-2 I, EN50549, V 0 I 26- I - I, NB/T32004		



SOFAR **20K~33KTL-G2**

20000/ 25000/ 30000/ 33000

Three-Phase Dual-MPPT

4"

Super large 4-inch LCD

1100v

1100V voltage level design

DRM

Built-in DRM port and logic

98.6%

Max. efficiency up to 98.6%

I-V

I-V curve scanning function

SPD

Built-in SPD, over / under voltage, over current, over temperature, Anti-islanding and other multiple protections

Datasheet	SOFAR 20000TL-G2	SOFAR 25000TL-G2	SOFAR 30000TL-G2	SOFAR 33000TL-G2
Input (DC)				
Recommended Max. PV input power	26600Wp	33250Wp	39900Wp	43890Wp
Max DC power for single MPPT	13000W	16000W	18000W	20000W
Number of MPP trackers	2			
Number for DC inputs	2 for each MPPT	3 for each MPPT	3 for each MPPT	3 for each MPPT
Max. input voltage	1100V			
Start-up voltage	250V			
Rated input voltage	620V			
MPPT operating voltage range	230V-960V			
Full power MPPT voltage range	480V-850V	460V-850V	520V-850V	580V-850V
Max. input MPPT current	24A/24A	28A/28A	30A/30A	30A/30A
Maximun DC input short circuit current per MPPT	30A	35A	37.5A	37.5A
Output (AC)				
Rated power	20000W	25000W	30000W	33000W
Max. AC power	22000VA	27500VA	33000VA	36300VA
Max. Output current	32A	40A	48A	53A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac			
Grid voltage range	310Vac-480Vac (According to local standard)			
Nominal frequency	50/60Hz			
Grid Frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)			
Active power adjustable range	0~100%			
THDi	<3%			
Power factor	>0.99 (adjustable +/-0.8)			
Performance				
Max efficiency	98.2%	98.4%	98.4%	98.6%
European weighted efficiency	98.0%	98.2%	98.2%	98.2%
Self-consumption at night	<1W			
MPPT efficiency	>99.9%			
Protection				
DC reverse polarity protection	Yes			
DC switch	Yes			
Protection class/ overvoltage category	I/III			
Safety protection	Anti islanding, RCMU, Ground fault monitoring			
ARPC	Anti reverse power controller (optional)			
Communication				
Power management unit	According to certification and request			
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G (optional), SD card			
Operation data storage	25 years			
General Data				
Ambient temperature range	-25℃~+60℃			
Topology	Transformerless			
Degree of protection	IP65			
Allowable relative humidity range	0~100%			
Max. operating altitude	2000m			
Noise	<30dB	<45dB	<45dB	<45dB
Weight	37kg			
Cooling	Natural	Fan	Fan	Fan
Dimension	666*512*254mm			
Display	LCD display			
Warranty	5 years/ 7 years/ 10 years			
Standard				
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12			
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30), IEC60255			
Grid standards	AS/NZS 4417, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN 50549, G59, P.O. 12.3, RD1699, UTE C15-712-1, EN 50530, NB/T32004			



SOFAR **30K~40KTL**

30000/ 33000/ 36000/ 40000



Three-Phase Dual-MPPT

4"

Super large 4-inch LCD



Fuse free design



Outdoor IP65 protection level



I-V curve scanning function

98.7%

Max. efficiency up to 98.7%



Support Modbus communication, external Wifi/ Ethernet/ GPRS/4G (optional)

Datasheet	SOFAR 30000TL	SOFAR 33000TL	SOFAR * 36000TL	SOFAR 40000TL
Input (DC)				
Recommended Max. PV input power	39900Wp	43890Wp	47880Wp	53200Wp
Max DC power for single MPPT	15360W	17000W	20400W	20400W
Number of MPP trackers	2			
Number for DC inputs	4 for each MPPT			
Max. input voltage	1000V			
Start-up voltage	350V			
Rated input voltage	600V	600V	600V	700V
MPPT operating voltage range	250V-960V			
Full power MPPT voltage range	480V-800V	480V-800V	500V-800V	560V-800V
Max. input MPPT current	32A/32A	35A/35A	38A/38A	35A/35A
Max. input current per string	12A			
Maxnimun DC input short circuit current per MPPT	40A	40A	42A	40A
Output (AC)				
Rated power	30000W	33000W	36000W	40000W
Max. AC power	30000VA	33000VA	36000VA	40000VA
Max. Output current	43A	48A	54A	48A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac			3/N/PE or 3/PE, 277/480Vac
Grid voltage range	310Vac-480Vac (According to local standard)			422Vac-528Vac(According to local standard)
Nominal frequency	50/60Hz			
Grid Frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)			
Active power adjustable range	0~100%			
THDi	<3%			
Power factor	>0.99 (adjustable +/-0.8)			
Performance				
Max efficiency	98.5%	98.5%	98.5%	98.7%
European weighted efficiency	98.2%	98.2%	98.2%	98.4%
Self-consumption at night	<1W			
MPPT efficiency	>99.9%			
Protection				
DC reverse polarity protection	Yes			
DC switch	Yes			
Protection class/ overvoltage category	I/III			
Safety protection	Anti islanding, RCMU, Ground fault monitoring			
ARPC	Anti reverse power controller (optional)			
Input/output SPD (II)	Optional			
Communication				
Power management unit	According to certification and request			
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G (optional), SD card, Multi-function relay			
Operation data storage	25 years			
General Data				
Ambient temperature range	-25℃~+60℃			
Topology	Transformerless			
Degree of protection	IP65			
Allowable relative humidity range	0~100%			
Max. operating altitude	2000m			
Noise	<30dB	<45dB	<45dB	<45dB
Weight	50kg			
Cooling	Natural	Fan	Fan	Fan
Dimension	774*564*298mm			
Display	LCD display			
Warranty	5 years/ 7 years/ 10 years			
Standard				
EMC	EN 61000-6-2, EN 61000-6-4			
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)			
Grid standards	AS/NZS 4777, AS/NZS 61000, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN50549, G59, Rd1699, UTE C15-712-1, EN50530			



SOFAR **25K~50KTLX-G3**

25K/30K/33K/36K/40K/45K/50K

Three-Phase Three to Four MPPTs

1.5_{DC}

3/4 MPP trackers with 1.5*DC overload

98.9%

Max. efficiency up to 98.9%

SPD

Type II SPD for both DC and AC side

110%

Longtime 110% AC overload ability



Lower start voltage, wide MPPT voltage range

AFCI

Optional AFCI protection



Smart I/V curve scanning



Compatible with 500W+ PV modules



Smart monitoring, remote firmware upgrade

PID

Optional Anti-PID function



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
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Input (DC)

Recommended Max. PV input power	37500Wp	45000Wp	45000Wp	49500Wp	54000Wp	60000Wp	67500Wp	75000Wp	60000Wp	75000Wp
Max. DC power for single MPPT	25000Wp									
Number of MPP trackers	3	3	3	3	3	4	4	4	3	4
Number of DC inputs	2 for each MPPT									
Max. input voltage	1100V									
Start-up voltage	200V									
Rated input voltage	620V	620V	620V	620V	620V	620V	620V	620V	725V	725V
MPPT operating voltage range	180V-1000V									
Full power MPPT voltage range	480V-850V	480V-850V	480V-850V	510V-850V	540V-850V	480V-850V	510V-850V	540V-850V	620V-850V	650V-850V
Max. input MPPT current	3*40A	3*40A	3*40A	3*40A	3*40A	4*40A	4*40A	4*40A	3*40A	4*40A
Max. DC input short circuit current	3*50A	3*50A	3*50A	3*50A	3*50A	4*50A	4*50A	4*50A	3*50A	4*50A

Output (AC)

[illegible]

Efficiency

Max efficiency	98.60%	98.60%	98.60%	98.60%	98.60%	98.80%	98.80%	98.80%	98.90%	98.90%
European weighted efficiency	98.20%									

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
AFCI protection	Optional
Anti-PID function	Optional
Input/ output SPD	PV:Type II standard, AC:Type II standard

Communication

Communication	RS485/USB/Bluetooth, Optional:WiFi /GPRS /4G /PLC
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General Data

Ambient temperature range	-30℃~+60℃	
Self-consumption at night	< 3W	
Topology	Transformerless	
Degree of protection	IP65	
Allowable relative humidity range	0~100%	
Max. operating altitude	4000m	
Noise	≤60dB	
Weight	36kg	37kg
Cooling	Fan	
Dimension	585*480*220mm	
Display	LCD&Bluetooth +APP	
Standard warranty	5 years, Optional: 7 years/ 10 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, EN50549, G98/G99, EN50530, NB/T32004

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

SOFAR 25KTLX-G3/30KTLX-G3/30KTLX-G3-A/33KTLX-G3/36KTLX-G3/40KTLX-G3/45KTLX-G3/50KTLX-G3/40KTLX-G3-HV/50KTLX-G3-HV_EN_202108_V1



SOFAR **50K~70KTL**

50000/ 60000/ 70000

Three-Phase

Three-MPPT



Super large 4-inch LCD



Outdoor IP65 protection level



Sound and light alarm function



DC SPD Class 2, over/under voltage, over current, over temperature, Anti-islanding and other multiple protections



Fuse free design



Built-in DRM port and logic



Max. efficiency up to 98.6%



Datasheet	SOFAR 50000TL	SOFAR 60000TL	SOFAR 70000TL-HV
Input (DC)			
Recommended Max. PV input power	66500Wp	79800Wp	93100Wp
Max DC power for single MPPT	22000W	22000W	26000W
	16000W	22000W	26000W
	16000W	22000W	26000W
Number of MPP trackers	3		
Number for DC inputs	4/3/3	4/4/4	4/4/4
Max. input voltage	1000V		
Start-up voltage	350V		
Rated input voltage	600V	600V	700V
MPPT operating voltage range	250V-950V		
Full power MPPT voltage range	530V-800V	530V-800V	660V-800V
Max. input MPPT current	40A/30A/30A	40A/40A/40A	40A/40A/40A
Max. input current pet string	12A		
Maxnimun DC input short circuit current per MPPT	48A/36A/36A	48A	48A
Output (AC)			
Rated power	50000W	60000W	70000W
Max. AC power	50000VA	60000VA	75000VA
Max. Output current	80A	90A	90A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac		3/N/PE or 3/PE, 277/480Vac
Grid voltage range	310Vac-480Vac (According to local standard)		422Vac-528Vac(According to local standard)
Nominal frequency	50/60Hz		
Grid Frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)		
Active power adjustable range	0~100%		
THDi	<3%		
Power factor	>0.99 (adjustable+/-0.8)		
Performance			
Max efficiency	98.5%	98.6%	98.6%
European weighted efficiency	98.3%	98.4%	98.4%
Self-consumption at night	<1W		
MPPT efficiency	>99.9%		
Protection			
DC reverse polarity protection	Yes		
DC switch	Yes		
Protection class/ overvoltage category	I/III		
Input/ output SPD(III)	PV: type II standard, AC: type II optional		
Safety protection	Anti islanding, RCMU, Ground fault monitoring		
ARPC	Anti reverse power controller (optional)		
Communication			
Power management unit	According to certification and request		
Standard communication mode	RS485, Wifi/Ethernet/GPRS/4G (optional), SD card, Multi-function relay		
Operation data storage	25 years		
General Data			
Ambient temperature range	-25℃~+60℃		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0~100%		
Max. operating altitude	4000m		
Noise	≤60dB		
Weight	68kg	70kg	70kg
Cooling	Fan		
Dimension	713*737*297mm		
Display	LCD display		
Warranty	5 years/ 7 years/ 10 years		
Standard			
EMC	EN 61000-6-2, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12		
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)		
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, BDEW, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50549, G59, EN50530, NB/T32004		



SOFAR

60K~80KTLX-G3

60KTLX-G3/ 70KTLX-G3/ 72KTLX-G3/ 75KTLX-G3/ 80KTLX-G3
60KTLX-G3-HV/ 70KTLX-G3-HV/ 80KTLX-G3-HV

Three-Phase Six - MPPTs

1.5_{DC}

6 MPP trackers with 1.5*DC overload

99.0%

Max. efficiency up to 99.0%

SPD

Type II SPD for both DC and AC side, Type I optional

110%

Longtime 110% AC overload ability



Lower start voltage, wide MPPT voltage range

AFCI

Optional AFCI protection



Smart I/V curve scanning



Compatible with 500W+ PV modules



Smart monitoring, remote firmware upgrade

PID

Optional Anti-PID function

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. PV input power	90000Wp	105000Wp	105000Wp	105000Wp	120000Wp	105000Wp	112500Wp	120000Wp
Number of MPP trackers	6							
Number of DC inputs	2 for each MPPT							
Max. input voltage	1100V							
Start-up voltage	200V							
Rated input voltage	620V					720V		
MPPT operating voltage range	180~1000V							
Full power MPPT voltage range	500~850V	550~850V				600~850V		
Max. input MPPT current	40A/40A/32A/32A/32A/32A							
Max. DC input short circuit current	60A/60A/50A/50A/50A/50A							
Output(AC)								
Rated power	60000W	70000W	72000W	75000W	80000W	60000W	70000W	80000W
Max. AC power	66000VA	77000VA	72000VA	75000VA	88000VA	66000VA	77000VA	88000VA
Max. output current	100A	116.7A	109.1A	113A	133.3A	79.4A	92.7A	106A
Nominal grid voltage	3/N/PE or 3/PE, 220/380Vac,230/400Vac,240/415Vac					3/N/PE or 3/PE, 277/480Vac		
Grid voltage range	310Vac-480Vac (According to local standard)					422Vac-528Vac(According to local standard)		
Nominal frequency	50 / 60Hz							
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)							
Active power adjustable range	0~100%							
THDi	<3%							
Power factor	1 (adjustable+/-0.8)							
Efficiency								
Max efficiency	98.80%	99.00%						
European 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							
AFCI protection	Optional							
Anti-PID function	Optional							
Input/ output SPD	PV:Type II standard,Type I optional; AC:Type II standard,Type I optional							
Communication								
Communication	RS485/USB/Bluetooth, Optional:WiFi /GPRS /4G /PLC							
General Data								
Ambient temperature range	-30℃~+60℃							
Self-consumption at night	<2W							
Topology	Transformerless							
Degree of protection	IP66							
Allowable relative humidity range	0~100%							
Max. operating altitude	4000m							
Weight	53kg							
Cooling	Fan							
Dimension	687*561*275mm							
Display	LCD&Bluetooth +APP							
Standard warranty	5 years, Optional: 7 years/ 10 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, EN50549, G99, EN50530, NB/T32004							



SOFAR

75K~136KTL

75KTL/80KTL/100KTL/110KTL/100KTL-HV/125KTL-HV/136KTL-HV



Three-Phase

Eight to twelve MPPTs

-  Max. efficiency up to 99%
-  Outdoor IP66 protection level
-  Type II SPD for both DC and AC
-  Support Modbus communication, external Wifi/ PLC/ GPRS/ 4G (optional)
-  AC / DC dual power supply redundant design, 24-hour status monitoring
-  Remote firmware upgrade
-  I-V curve scanning function
-  Maximum 12 MPP trackers with 1.5* DC overload

Datasheet	SOFAR 75KTL	SOFAR 80KTL	SOFAR 100KTL	SOFAR 110KTL	SOFAR 100KTL-HV	SOFAR 125KTL-HV	SOFAR 136KTL-HV
Input (DC)							
Max. input voltage				1100V			
Rated input voltage	625V	625V	625V	625V	725V	725V	785V
Start-up voltage				200V			
MPPT operating voltage range				180V-1000V			
Full power MPPT voltage range	500V-850V	500V-850V	500V-850V	500V-850V	550V-850V	550V-850V	550V-850V
Number of MPP trackers	8	8	10	10	10	10	12
Number for DC inputs	16	16	20	20	20	20	24
Max. input current per MPPT				26A			
Max. input short circuit current per MPPT				40A			
Output (AC)							
Rated power	75kW	80kW	100kW	110kW	100kW	125kW	136kW
Max. AC power	75kVA	88kVA	110kVA	121kVA	110kVA	137kVA	150kVA
Max. output current	113A	128A	160A	175A	128A	160A	160A
Nominal grid voltage		3/N/PE, 230V/400Vac, 220V/380Vac			3/PE, 500Vac	3/PE, 500Vac	3/PE, 540Vac
Grid voltage range	310Vac-480Vac	310Vac-480Vac	310Vac-480Vac	310Vac-480Vac	400Vac-575Vac	400Vac-575Vac	432Vac-621Vac
Nominal frequency				50/60Hz			
Grid frequency range			45Hz-55Hz/54Hz-66Hz (According to local standard)				
Active power adjustable range				0~100%			
THDi				<3%			
Power factor				1default (adjustable +/-0.8)			
Performance							
Max. Efficiency	98.60%	98.60%	98.70%	98.75%	98.80%	99.00%	99.00%
European efficiency	98.20%	98.20%	98.30%	98.30%	98.50%	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				I/III			
Input/ Output SPD				PV: type II standard, AC: type II standard			
Communication							
Communication				RS485, Optional: WiFi / GPRS / PLC / 4G			
General Data							
Ambient temperature range				-30℃~+60℃			
Topology				Transformerless			
Degree of protection				IP66			
Allowable relative humidity range				0~100%			
Max. operating altitude				4000m			
Weight	88kg	88kg	90kg	90kg	90kg	90kg	92kg
Cooling				Smart forced air cooling			
Dimension				995.5*663.5*368mm			
Display				LCD&Bluetooth+APP			
Standard warranty				5 years, Optional: 7 years/ 10 years			
Standard							
EMC				EN 61000-6-2, EN 61000-6-4			
Safety standard			IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)				
Grid standard			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, EN50549, G99, EN50530, NB/T32004				

SOFAR

250K~255KTL-HV

250KTL-HV / 255KTL-HV



Three-Phase Twelve MPPTs



Built-in Anti-PID and PID recovery



IP66 and C5 protection



Type II SPD for both DC and AC



Touch free commissioning and remote firmware upgrade



AC / DC dual power supply redundant design, 24-hour status monitoring



Compatible with Al and Cu AC cables



IV curve scan and diagnosis



12*MPPT with max. efficiency 99.02%

Datasheet

SOFAR 250KTL-HV

SOFAR 255KTL-HV

Input (DC)

Max. input voltage	1500V
Rated input voltage	1160V
Start-up voltage	550V
MPPT operating voltage range	500V-1500V
Full power MPPT voltage range	800V-1300V
Number of MPP trackers	12
Number for DC inputs	24
Max. input MPPT current	30A*12
Max. input short circuit current	50A*12

Output (AC)

AC output power	250kVA@30°C / 235kVA@40°C / 220kVA@50°C	255kVA@30°C / 235kVA@40°C / 220kVA@50°C
Max. output current	180.5A	184A
Nominal grid voltage	3/PE, 800Vac	
Grid voltage range	640Vac-920VVac	
Nominal frequency	50 / 60Hz	
Grid frequency range	45~55Hz / 55~65Hz (According to local standard)	
Active power adjustable range	0~100%	
THDi	<3%	
Power factor	I 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
AFCl protection	Optional
Protection class/ Overvoltage category	I/III
Input/ Output SPD	PV: type II standard AC: type II Standard

Communication

Communication	RS485 /USB /Bluetooth, Optional: WiFi / GPRS / PLC / 4G
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General Data

Ambient temperature range	-30°C ~ +60°C
Self-consumption at night	<2W
Topology	Transformerless
Degree of protection	IP66
Allowable relative humidity range	0~100%
Max. operating altitude	5000m (> 4000m derating)
Weight	99kg
Cooling	Smart forced air cooling
Dimension	1100.5*713.5*368mm
Display	LCD&Bluetooth+APP
Standard warranty	5 years, Optional: 7 years/ 10 years

Standard

EMC	EN 61000-6-2, EN 61000-6-4
Safety standard	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)
Grid standard	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, EN50549, G99, EN50530, NB/T32004



ME 3000SP

3KW AC

Coupled energy storage inverter

- | | | | |
|---|---|---|--|
|  | A variety of work modes are optional |  | LCD + LED – human friendly-machine interface |
|  | Outdoor IP65 design |  | Smart battery energy management system |
|  | Compatible with other brands of inverter |  | Flexible configuration of lead acid or lithium battery |
|  | Integrated fanless self-recognition heat dissipation design | | |

Datasheet

ME 3000SP

Battery Parameters

Battery Type	Lithium-ion, Lead-acid
Nominal battery voltage	48V
Battery voltage range	42-58V
Recommended battery capacity	200Ah (100~500Ah optional)
Recommended storage capacity	9.6kWh
Max. Charging current	60A
Charging current range	0-60A (Programmable)
Charging curve	3-Stage adaptive with maintenance
Max. Discharging current	60A
Electronic protection	OCP OTP OVP
Short circuit protection	Fuse (100A)
Discharge times (Hour)	Po=1kVA9.6h
	Po=3kVA3.2h
Depth of discharge	Lithium-ion: 0-80% DOD adjustable
	Lead-acid: 0-50% DOD adjustable

AC Parameters

Max. Output power	3kVA
Rated Input/ Output voltage	230V
Max. Input/ Output current	13A
AC Input/ Voltage range	180V-270V
Grid frequency range	44~55Hz / 54~66Hz
THD	< 3%
Power factor	1 default (+/-0.8 adjustable)
Connection phase	Single
Current (inrush)	0.8A/ 1us
Maximum output fault current	100A/ 1us
Maximum output over current protection	13A

System Parameters

Max. Charging efficiency	> 95%
Max. Discharging efficiency	> 95%
Standby losses	< 5W
Topology	High frequency isolated transformer
Degree of protection	IP65
Safety protection	Anti islanding, RCMU, Ground fault monitoring
Communication	RS485, Wifi/Ethernet/GPRS/4G, CAN2.0
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	2000m
Current sensor connection	External

Emergency Power Supply

EPS rated power	3000VA
EPS rated voltage, Frequency	230V, 50/60Hz
EPS rated current	13A
Total harmonic distortion	< 3%
Switch time	< 3s

General Data

Noise	< 25dB
Weight	16kg
Cooling	Natural
Dimension (W*H*D)	358*543.2*171.7mm
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	IEC62109-1/2, 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, EN50549, G83/G98, UTE C15-712-1



ME
5k~20kTL-3PH

5000/6000/8000/10000/15000/20000

5K~20KW AC

Coupled energy storage inverter



Compact design with functional LCD

97.8%

Max. battery charge/discharge efficiency 97.8%



Wide battery voltage range(180-800V)



Off-grid and On-grid output can be connected to unbalanced load



Flexible switching between grid-tied mode and energy storage mode



2 strings of battery input with maximum 50A charge and discharge current

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	180V~800V					
Battery voltage range for full load	200V~800V	240V~800V	320V~800V	200V~800V	300V~800V	400V~800V
Nominal charging/discharging power	5000W	6000W	8000W	10000W	15000W	20000W
Max. charging/discharging current	25A				50A(25A/25A)	
Peak charging/discharging current, Duration	40A, 60s				70A(35A/35A), 60s	
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN(RS485)					
AC Output Data (On-grid)						
Nominal AC power	5000W	6000W	8000W	10000W	15000W	20000W
Max. AC power output to utility grid	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Max. AC power from utility grid	10000VA	12000VA	16000VA	20000VA	30000VA	40000VA
Max. AC current output to utility grid	8A	10A	13A	16A	24A	32A
Max. AC Current from utility grid	15A	17A	24A	29A	44A	58A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac					
Grid voltage range	184Vac~276Vac					
Nominal grid frequency	50/60Hz					
Grid frequency range	45Hz~55Hz/55Hz~65Hz					
Output power factor	~1(0.8 leading to 0.8 lagging)					
Output THDi (@Nominal output)	<3%					
AC Output Data (Back-up)						
Nominal output power	5000W	6000W	8000W	10000W	15000W	20000W
Max. output power	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Peak output power, Duration	10000VA, 60s	12000VA, 60s	16000VA, 60s	20000VA, 60s	22000VA, 60s	22000VA, 60s
Max. output current	8A	10A	13A	16A	24A	32A
Peak output current, Duration	15A, 60s	18A, 60s	24A, 60s	30A, 60s	32A, 60s	32A, 60s
Nominal output voltage	3/N/PE, 220/380Vac, 230/400Vac					
Nominal output frequency	50/60Hz					
Output THDv (@Liner load)	<3%					
Switch time	<10ms					
Efficiency						
Max. discharge efficiency	97.6%				97.8%	
Max. charge efficiency	97.6%				97.8%	
Protection						
Output over current protection	Yes					
Output over voltage 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					
Feature						
DC terminal	MC4					
Grid AC terminal	5P Connector					
Back-up AC terminal	5P Connector					
Display	LCD Display					
Monitoring interfaces	Bluetooth / RS485 / WIFI / GPRS / 4G (optional)					
Parallel operation	Yes					
Standard warranty	5 years					
General Data						
Dimension	586.6*515*261.2mm					
Weight	30kg				34kg	
Inverter topology	Transformerless					
Standby self consumption	<15W					
Operating temperature range	-30℃~60℃					
Relative humidity	0~100%					
Noise	<45dB					
Operating altitude	<4000m					
Cooling	Natural				Forced airflow	
Protection degree	IP65					
Certifications & Standards						
EMC	EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, EN61000-6-2, EN61000-6-3					
Safety	IEC62109-1, IEC62109-2, IEC62040-1					
Grid	AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN50438/EN50549, G83/G59/G98/G99, UTE C15-712-1, UNE206 007-1					



HYD 3K~6K-ES

3000/3600/4000/4600/5000/6000

Single-Phase Energy storage integrated inverter



Outdoor IP65 design



A variety of work modes are optional



Built-in zero export function



Integrated fanless self-recognition heat dissipation design



Compatible with on grid and off grid



EPS function, switching time is less than 10ms



Flexible configuration of lead acid or lithium battery

Datasheet	HYD 3000-ES	HYD 3600-ES	HYD 4000-ES	HYD * 4600-ES	HYD 5000-ES	HYD 6000-ES
Battery Parameters						
Battery Type	Lithium-ion, Lead-acid					
Nominal battery voltage	48V					
Battery voltage range	42-58V					
Battery Capacity	50-2000Ah					
Maximum Charging / Discharging Power	3000W					
Maximum Charging Current	65A (Programmable)					
Maximum Discharging Current	70A (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	3990Wp	4790Wp	5320Wp	6120Wp	6650Wp	7980Wp
Max DC power for single MPPT	2000W	2400W	2600W	2800W	3000W	3500W
Max. input voltage	600V					
Start-up voltage	120V					
Nominal DC Voltage	360V					
MPPT operating voltage range	90-580V					
Full power MPPT voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	300V-520V
MPPT number	2					
The max DC input current	12A/12A					
The max DC input short current	15A/15A					
Output AC(Grid side)						
Rated Power	3000W	3680W	4000W	4600W	5000W	6000W
Max. Output Power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal Grid Voltage	L/N/PE, 220, 230, 240					
Operation phase	Single (L-N-PE)					
Max. Input / Output current	13.7A	16A	18.2A	21.0A	22.8A	27.3A
AC voltage Range	180V~276V (According to local standard)					
Grid Frequency range	44-55Hz/54-66Hz (According to local standard)					
THD	< 3%					
Power factor	1 default (+/-0.8 adjustable)					
Output AC(Emergency Power Supply)						
EPS rated power	3000VA					
Operation phase	Single (L-N-PE)					
EPS rated voltage,Frequency	230V, 50/60Hz					
EPS rated current	13.2A					
Peak Output Apparent Power	4000VA, 10s					
THD	< 3%					
Switch time	10ms default					
Efficiency						
MPPT efficiency	99.9%					
Max efficiency of solar Inverter	97.6%	97.6%	97.6%	97.8%	97.8%	98.0%
European efficiency of solar Inverter	97.2%	97.2%	97.2%	97.3%	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					
Over current protection	Yes					
Over voltage protection	Yes					
Battery soft start protection	Yes					
SPD protection	III					
General Data						
Ambient temperature range	-25℃~+60℃ (Above 45℃ Derating)					
Standby Losses	< 10W					
Topology	High frequency insolation (for bat)					
DC-Switch	Yes					
Degree Of Protection	IP65					
Allowable Relative Humidity Range	0~100%					
Communication	RS485, Wifi/Ethernet/GPRS/4G, SD, CAN2.0					
Protective class	Class I					
Max. Operating Altitude	2000m					
Current Sensor Connection	External					
Noise	<25dB					
Weight	20.5kg					
Cooling	Natural					
Dimension (W*H*D)	566*394*173 mm					
Display	LCD display					
Warranty	5 Years or more					
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	IEC62109-1/2, IEC62040-1, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)					
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, 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 3000/3600/4000/4600/5000/6000-ES_EN_202105_V1		



HYD 3K~6K-EP

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

Single-Phase Energy storage integrated inverter



Outdoor IP65 design



A variety of work modes are optional



Built-in zero export function



EPS function, switching time is less than 10ms



Parallel operation with up to 10 units



Compatible with on grid and off grid



Flexible configuration of lead acid or lithium battery



Integrated fanless self-recognition heat dissipation design

Datasheet	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD * 5000-EP (Australia)	HYD 5500-EP	HYD 6000-EP
Battery Parameters							
Battery type	Lithium-ion, Lead-acid						
Nominal battery voltage	48V						
Battery voltage range	42-58V						
Battery capacity	50-2000Ah						
Maximum charging / Discharging power	3750W	4000W	4250W	5000W	5000W	5000W	5000W
Maximum charging current	75A	80A	85A	100A	100A	100A	100A
Maximum discharging current	75A	80A	85A	100A	100A	100A	100A
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	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max DC power for single MPPT	3500W	3500W	3500W	3500W	3750W	3750W	4500W
Max. input voltage	600V						
Start-up voltage	100V						
Rated input voltage	360V						
MPPT operating voltage range	90-580V						
Full power MPPT voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	250V-520V	300V-520V
Number of MPP trackers	2						
Max. input current per MPPT	13A/13A						
Max. input short circuit current per MPPT	18A/18A						
Output / Input AC (Grid side)							
Nominal AC power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5000VA	5500VA	6000VA
Max. AC power from utility grid	6000VA	7360VA	8000VA	9200VA	10000VA	10000VA	12000VA
Max. AC current output to utility grid	15A	16A	20A	20.9A	21.7A	25A	27.3A
Max. AC current from utility grid	27.3A	32A	36.4A	41.8A	43.4A	43.4A	54.6A
Nominal grid voltage	L/N/PE, 220V, 230V, 240V						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz / 60Hz						
Output THDi (@Nominal output)	<3%						
Power factor	1 default (+/-0.8 adjustable)						
Output AC (Emergency Power Supply)							
Max. apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	5000VA
Peak output power,Duration	3600VA, 60s	4400VA, 60s	4800VA, 60s	5520VA, 60s	6000VA, 60s	6000VA, 60s	6000VA, 60s
Max. output current	13.6A	16A	18.2A	20.9A	22.7A	22.7A	22.7A
Nominal voltage, Frequency	220V/230V, 50/60Hz						
THDv (@Liner load)	<3%						
Switch time	10ms default						
Efficiency							
Max efficiency of solar inverter	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	98.0%
European efficiency of solar inverter	97.2%	97.2%	97.2%	97.3%	97.3%	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						
Over current protection	Yes						
Over voltage protection	Yes						
DC switch	Yes						
Firm frequency response function	Optional						
SPD protection	MOV: Type III standard						
General Data							
Ambient temperature range	-30℃~+60℃ (Above 45℃ Derating)						
Standby self-consumption	< 10W						
Topology	High frequency insolation (for bat)						
Max. parallel operation	10						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Communication	RS485, Wifi/Ethernet/GPRS/4G, CAN2.0						
Protective class	Class I						
Max. operating altitude	4000m						
Current sensor connection	External						
Noise	<25dB						
Weight	21.5kg						
Cooling	Natural						
Dimension	482*503*183mm						
Display	LCD & APP+Bluetooth						
Warranty	5 Years or more						
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	IEC62109-1/2, IEC62040-1, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)						
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, 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 3000/3680/4000/4600/5000/5500/6000-EP_EN_202105_V1			



HYD 3K~6K-HV

3000/3680/4000/4600/5000/6000

Single-Phase Energy storage integrated inverter



Outdoor IP65 design



A variety of work modes are optional



Built-in zero export function



EPS function, switching time is less than 10ms



Parallel operation with up to 10 units



Compatible with on grid and off grid



Flexible configuration of lead acid or lithium battery



Integrated fanless self-recognition heat dissipation design



Datasheet	HYD 3000-HV	HYD 3680-HV	HYD 4000-HV	HYD 4600-HV	HYD 5000-HV-A	HYD 5000-HV	HYD 6000-HV
Battery Parameters							
Battery type	Lithium-ion, Lead-acid						
Battery voltage range	85-450V						
Battery capacity	50-2000Ah						
Maximum charging / Discharging power	3000W	4680W	4000W	4600W	5000W	5000W	6000W
Maximum charging current	25A						
Maximum discharging current	25A						
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	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max DC power for single MPPT	3500W	3500W	3500W	3500W	3750W	3750W	4500W
Max. input voltage	600V						
Start-up voltage	100V						
Rated input voltage	360V						
MPPT operating voltage range	85-550V						
Full power MPPT voltage range	125V-500V	150V-500V	195V-500V	195V-500V	208V-500V	208V-500V	250V-500V
Number of MPP trackers	2						
Max. input current per MPPT	18A/18A						
Max. input short circuit current per MPPT	22.5A/22.5A						
Output / Input AC (Grid side)							
Nominal AC power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5000VA	5500VA	6600VA
Max. AC power from utility grid	6000VA	7360VA	8000VA	9200VA	10000VA	10000VA	12000VA
Max. AC current output to utility grid	15A	16A	20A	20.9A	21.7A	25A	30A
Max. AC current from utility grid	27.3A	32A	36.4A	41.8A	45.4A	45.4A	54.6A
Nominal grid voltage	L/N/PE, 220V, 230V, 240V						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz / 60Hz						
THDi	< 3%						
Power factor	1 default (+/-0.8 adjustable)						
Output AC (Emergency Power Supply)							
Max. apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	6000VA
Peak output power, Duration	4500VA, 10s	5520VA, 10s	6000VA, 10s	6900VA, 10s	7500VA, 10s	7500VA, 10s	9000VA, 10s
Max. output current	13.6A	16.7A	18.2A	20.9A	22.7A	22.7A	27.3A
Nominal voltage, Frequency	220V/230V, 50/60Hz						
THDv	< 3%						
Switch time	10ms default						
Efficiency							
MPPT efficiency	99.9%						
Max efficiency of solar inverter	97.7%	97.7%	97.8%	97.8%	97.8%	97.8%	98.0%
European efficiency of solar inverter	97.27%						
Max. charging efficiency of battery(PV to battery)	98.0%						
Max. charging efficiency of battery(AC to battery)	96.6%						
Max. discharging efficiency of battery(Battery to AC)	96.6%						
Protection							
PV reverse polarity protection	Yes						
PV insulation detection	Yes						
Ground fault monitoring	Yes						
Over current protection	Yes						
Over voltage protection	Yes						
Battery soft start protection	Yes						
DC switch	Yes						
Firm frequency response function	Optional						
AFCL protection	Optional						
SPD protection	PV: Type III standard, AC: Type II standard						
General Data							
Ambient temperature range	-30℃~+60℃ (Above 45℃ Derating)						
Standby self-consumption	< 10W						
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Communication	RS485/Bluetooth/CAN2.0/ Ethernet, Optional: WiFi/GPRS						
Protective class	Class I						
Max. operating altitude	4000m						
Current sensor connection	External						
Noise	< 35dB						
Weight	17kg						
Cooling	Natural						
Dimension	480*398*160mm						
Display	LCD & APP+ Bluetooth						
Warranty	5 years, Optional: 7&10 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, IEC 62040-1, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30)						
Grid standards	VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, G98/G99, TR321, TR322, EN 50438/EN50549, UTE C15-712-1, NRS 097-2-1, UNE 206 007-1						



HYD

5K~20KTL-3PH

5000/6000/8000/10000/15000/20000

Three-Phase Energy storage integrated inverter

2
MPPT

2 MPPT inputs, more flexible configuration



Parallel operation with up to 10 units



Diversified work patterns and rapid gains

APF

Maximum two battery inputs



Full digital control, higher control accuracy



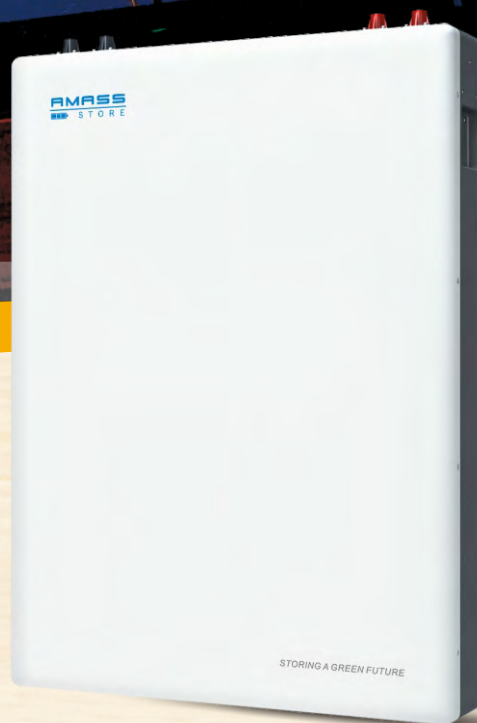
Multiple parallel systems, more flexible system solutions



Off-grid output can be connected to unbalanced load, three-phase separate output is supported



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	1	1	2	2	2
Battery voltage range	180V-800V					
Battery voltage range for full load	200V-800V	240V-800V	320V-800V	200V-800V	300V-800V	400V-800V
Nominal charging/discharging power	5000W	6000W	8000W	10000W	15000W	20000W
Max. charging/discharging current	25A	25A	25A	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)
Peak charging/discharging current, Duration	40A, 60s	40A, 60s	40A, 60s	70A(35A/35A), 60s	70A(35A/35A), 60s	70A(35A/35A), 60s
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN(RS485)					
PV String Input Data						
Recommended Max. PV input power	7500Wp(6000Wp/6000Wp)	9000Wp(6600Wp/6600Wp)	12000Wp(6600Wp/6600Wp)	15000Wp(7500Wp/7500Wp)	22500Wp(11250Wp/11250Wp)	30000Wp(15000Wp/15000Wp)
Max. DC voltage	1000V					
Start-up operating voltage	200V					
MPPT voltage range	180V-960V					
Nominal DC voltage	600V					
Full power MPPT voltage range	250V-850V	320V-850V	360V-850V	220V-850V	350V-850V	450V-850V
Max. input current	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	25A/25A	25A/25A	25A/25A
Max. short current	15A/15A	15A/15A	15A/15A	30A/30A	30A/30A	30A/30A
No. of MPP trackers	2					
No. of strings per MPP tracker	1	1	1	2	2	2
AC Output Data (On-grid)						
Nominal AC power	5000W	6000W	8000W	10000W	15000W	20000W
Max. AC power output to utility grid	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Max. AC power from utility grid	10000VA	12000VA	16000VA	20000VA	30000VA	40000VA
Max. AC current output to utility grid	8A	10A	13A	16A	24A	32A
Max. AC current from utility grid	15A	17A	24A	29A	44A	58A
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac					
Grid voltage range	184Vac~276Vac					
Nominal grid frequency	50/60Hz					
Grid frequency range	45Hz~55Hz/55Hz~65Hz					
Output power factor	~1(0.8 leading to 0.8 lagging)					
Output THDi (@Nominal output)	<3%					
AC Output Data (Back-up)						
Nominal output power	5000W	6000W	8000W	10000W	15000W	20000W
Max. output power	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Peak output power, Duration	10000VA, 60s	12000VA, 60s	16000VA, 60s	20000VA, 60s	22000VA, 60s	22000VA, 60s
Max. output current	8A	10A	13A	16A	24A	32A
Peak output current, Duration	15A, 60s	18A, 60s	24A, 60s	30A, 60s	32A, 60s	32A, 60s
Nominal output voltage	3/N/PE, 220/380Vac, 230/400Vac					
Nominal output frequency	50/60Hz					
Output THDv (@Liner load)	<3%					
Switch time	<10ms					
Efficiency						
Euro efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%
Max. efficiency	98.0%	98.0%	98.0%	98.2%	98.2%	98.2%
Max. battery charge/discharge efficiency	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%
Protection						
DC switch	Yes					
PV reverse polarity protection	Yes					
Output over current protection	Yes					
Output over voltage protection	Yes					
Anti-islanding protection	Yes					
Residual current detection	Yes					
Insulation resistor detection	Yes					
Surge protection level	PV: type II standard, AC: type II standard					
Battery reverse protection	Yes					
General Data						
Dimension	571.4*515*264.1mm					
Weight	33kg	33kg	33kg	37kg	37kg	37kg
Inverter topology	Transformerless					
Max. parallel operation	10					
Standby self-consumption	<15W					
Operating temperature range	-30℃~+60℃					
Relative humidity	0~100%					
Noise	<45dB					
Operating altitude	<4000m					
Cooling	Natural	Natural	Natural	Forced airflow	Forced airflow	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	Bluetooth / RS485 / WiFi / GPRS/4G(optional)					
Parallel operation	Yes					
Standard warranty	5 years					
Certifications & Standards						
EMC	EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, EN61000-6-2, EN61000-6-3					
Safety	IEC62109-1, IEC62109-2, IEC62040-1					
Grid	AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-16/CEI 0-21, EN50549, G98/G99, UTE C15-712-1					
HYD 5K/6K/8K/10K/15K/20KTL-3PH EN 202108_V1						



AMASSTORE BATTERY

GTX2000



Multi-level energy management, longer battery life



One-button switch machine, more convenient operation



Modular, ultra-thin wall hanging design, convenient installation



Multiple parallel support, high current charge and discharge



High BMS compatibility, perfect match of energy storage inverter



The adoption of high-performance processors, international brand devices, better stability

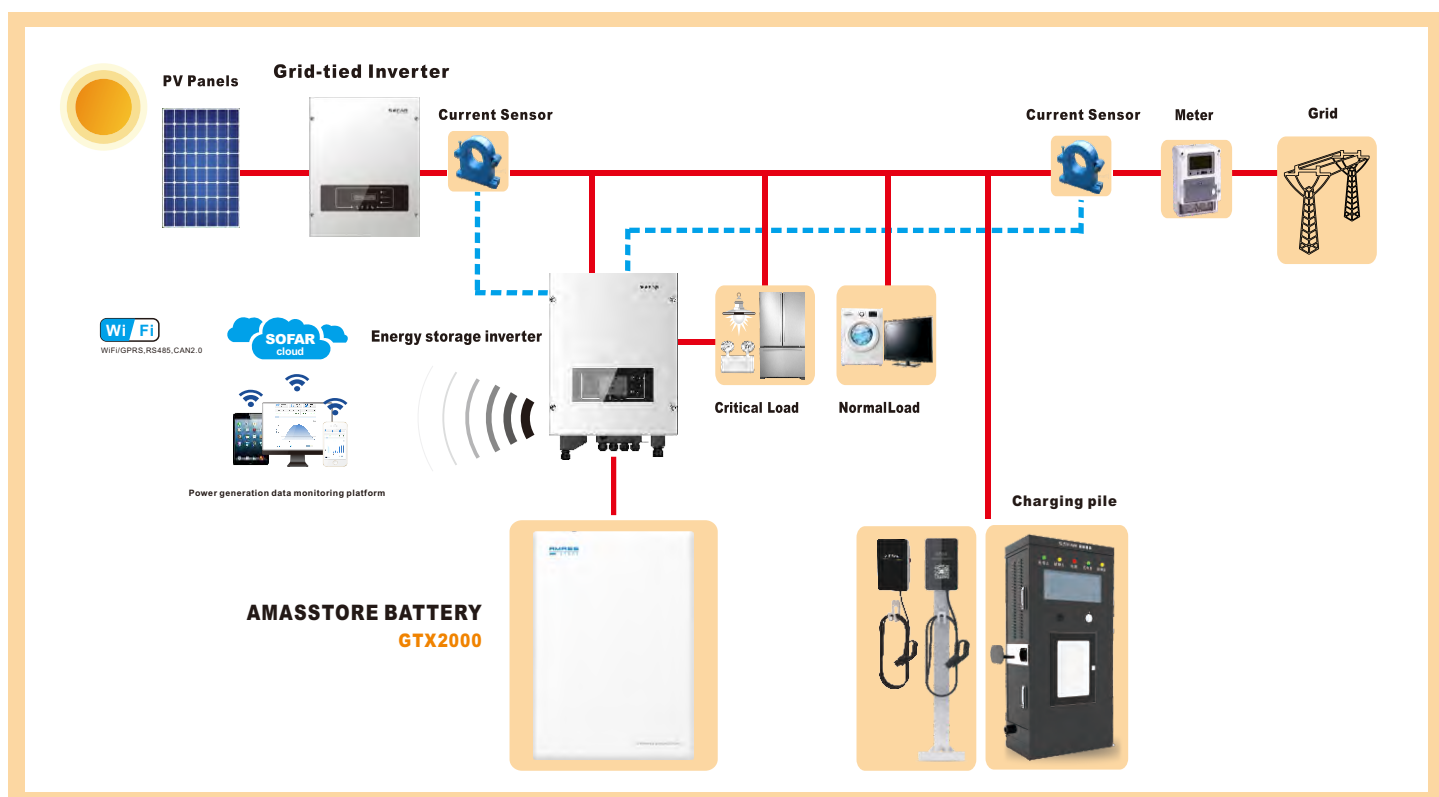
Datasheet

GTX2000

Basic Parameters

Total energy	2400Wh
Usable energy	2000Wh
Nominal voltage	48.0V
Depth of discharge (DOD)	80%
Cycle life (80%DOD)	> 6000, 25°C
Design life	10+ Years(25 °C 77 °F)
Discharge voltage	45V ~ 54.0V
Charge voltage	51.5V ~ 54.0V
Cont. Charge current	25A
Max. Charge current	25A
Cont. Discharge current	50A
Max. Discharge current	65A
Communication port	CANbus 2.0B+RS485
Storage temperature	5°C ~ +45°C
Altitude	< 4000m
Humidity	10%~90%
Scalable	Up to 4 units
Installation method	Wall-mounted
Protection rating	IP20
Operating temperature	-10°C ~ +50°C (discharge) 0°C ~ +50°C (charge)
Weight	31kg
Dimension	95mm*450mm*640mm
Certificates	CE / IEC62619 / RCM / SAA

AC Coupled Solar System





AMASSSTORE BATTERY

GTX2500

-  Compatible with multi-brand storage inverters
-  Remote diagnosis and real-time data monitoring
-  Supports parallel expansion, supports up to 8 parallels
-  Certification of IEC62619, UN38.3, IEC62040-1, SAA etc
-  Long cycle life energy storage battery (6000 times)
-  Simple stack installation, time and cost saving
-  Han's Laser automated PACK production line, stable and reliable production quality
-  One-button automatic assignment battery module ID, simple and convenient operation

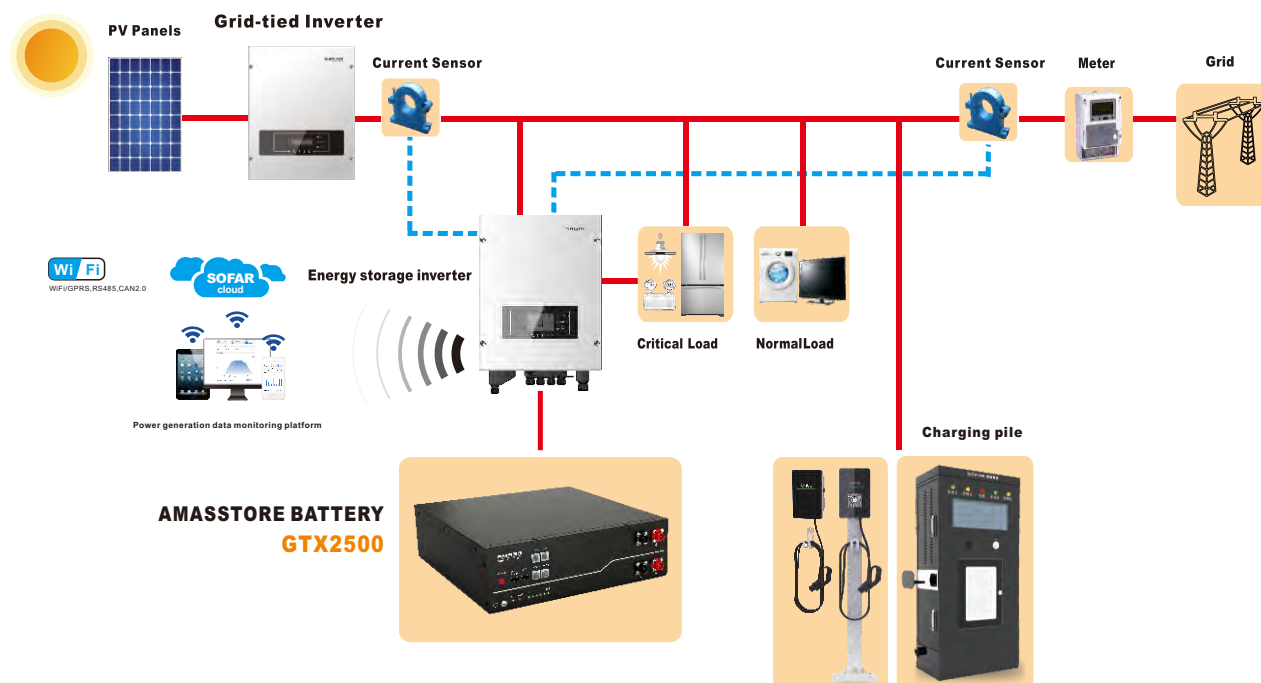
Datasheet

GTX2500

Basic Parameters

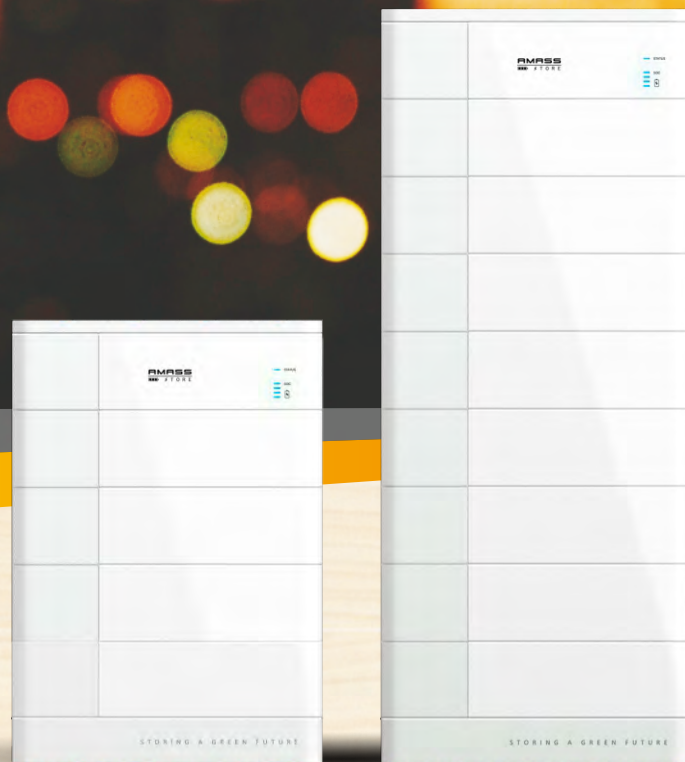
Battery Type	LiFePO ₄ , Lithium Iron Phosphate
Nominal Capacity (Ah)	50AH
Nominal Voltage (V)	51.2Vdc
Total Energy	2500Wh
Usable Energy (90% DOD)	2250Wh
Charge Voltage (V)	55.68~56.16Vdc
Discharge Voltage (V)	45.6~56.16Vdc
Nominal Charge Current (A)	25A
Max. Charge Current (A)	30A
Max. Charge Power (W)	1685W
Nominal Discharge Current (A)	25A
Nominal Discharge Power (W)	1280W
Max. Discharge Current (A)	30A
Max. Discharge Power (W)	1500W
Short Current (A)	350A
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	≤ 2000m
Scalable	Suggest Up to 4
Enclosure Protection Rating	IP20
Net Weight	27Kg
Dimension	400mm*417mm*120mm
Certification	IEC62619, UN38.3, IEC62040-1, SAA etc.
Cycle Life	6000 Cycles@ 80% DOD / 25 °C / 0.5C, 60% EOL

AC Coupled Solar System



AMASSTORE BATTERY

GTX3000



Remote diagnosis and real-time data monitoring



Support soft startup



Support battery system direct parallel, up to 4 parallels



Support charging activation



Long cycle life energy storage battery (6000 times)



Certification of IEC62619, UN38.3, IEC62040-1, SAA etc



Simple stack installation, time and cost saving



Han's Laser automated PACK production line, stable and reliable production quality



One-button automatic assignment battery module ID, simple and convenient operation



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	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
MAX. Charge Voltage	230.4V	288V	345.6V	403.2V	460.8V	518.4V	576V
MIN. Discharge Voltage	182.4V	228V	273.6V	319.2V	364.8V	410.4V	456V
Nominal Energy	10kWh	12.5kWh	15kWh	17.5kWh	20kWh	22.5kWh	25kWh
Available Energy(90%DOD)	9kWh	11.25kWh	13.5kWh	15.75kWh	18kWh	20.25kWh	22.5kWh
Dimension(mm)	515*480*770	515*480*895	515*480*1020	515*480*1145	515*480*1270	515*480*1395	515*480*1520
Weight	138kg	168kg	198kg	228kg	258kg	288kg	318kg
Protection Class	IP65						
Cooling	Natural						
Nominal Charging Current	25A						
Max. Continuous Charging Current	30A						
Nominal Discharge Current	25A						
Max. Continuous Discharge Current	30A						
Working Temperature	-20°C ~ 60°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.

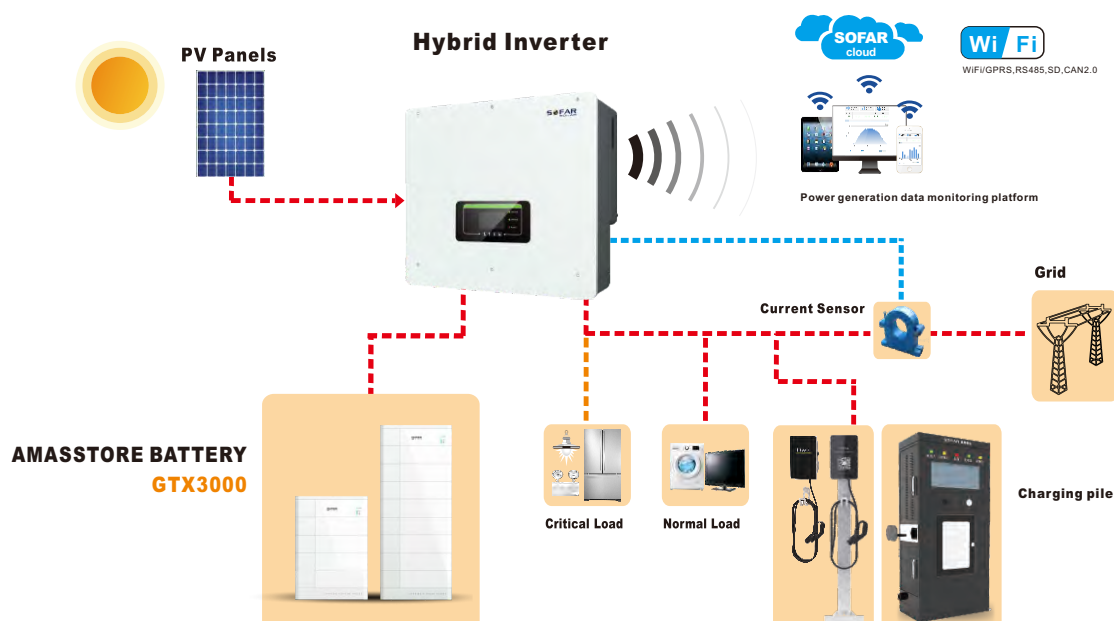
Cycle Life

6000 @ 80% DOD / 25°C / 0.5C / 60% EOL

Battery module parameters

Battery Type	LiFePO4, Lithium Iron Phosphate
Nominal Voltage	51.2V
Nominal Capacity	50AH
Weight	30kg
Dimension	515*478.8*125 mm
Protection	IP65

Hybrid Solar System





AMASSSTORE BATTERY

GTX5000



Compatible with multi-brand storage inverters



Remote diagnosis and real-time data monitoring



Supports parallel expansion, supports up to 4 parallels



Certification of IEC62619, UN38.3, IEC62040-1, SAA etc



CATL brand battery, long cycle life (6000 times)



Wall-mounted or floor-mounted installation, time and cost saving



Han's Laser automated PACK production line, stable and reliable production quality



One-button automatic assignment battery module ID, simple and convenient operation

Datasheet

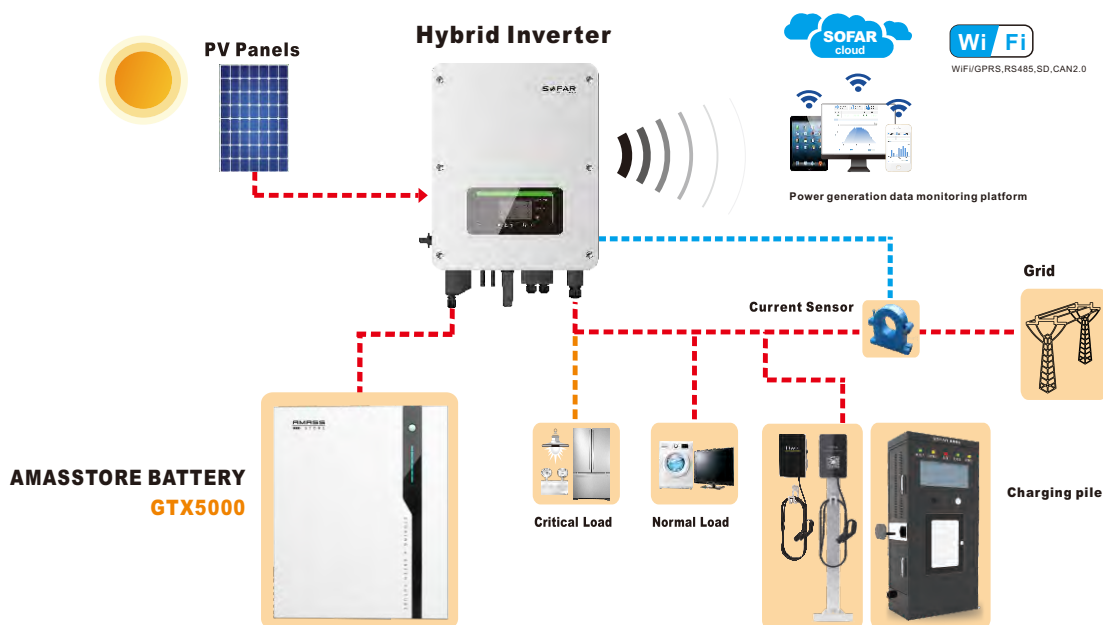
GTX5000

Basic Parameters

Battery Type	LiFePO4, Lithium Iron Phosphate
Nominal Capacity	100AH
Nominal Voltage	51.2Vdc
Total Energy	5120Wh
Usable Energy (90% DOD)	4600Wh
Charge Voltage	55.68~56.16Vdc
Discharge Voltage	45.6~56.16Vdc
Nominal Charge Current	50A
Max. Charge Current	50A
Max. Charge Power	2800W
Nominal Discharge Current	50A
Nominal Discharge Power	2560W
Max. Discharge Current	75A
Max. Discharge Power	3500W
Short Current	350A
Communication	RS232、RS485、CAN
Working Temperature	0℃~55℃
Storage Temperature	≤ 25℃, 12 months ≤ 35℃, 6 months ≤ 45℃, 3 months
Operating Humidity	< 95% RH
Storage Humidity	< 95% RH
Max. Operating Altitude	≤ 2000m
Scalable	Suggest up to 4
Enclosure Protection Rating	IP20
Net Weight	55Kg
Dimension (W*D*H)	480mm*211.5mm*600mm
Certificates	IEC62619、UN38.3、IEC62040-1、SAA etc
Cycle Life	6000 Cycles@ 80% DOD / 25℃ / 0.5C, 60% EOL

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

Hybrid Solar System





AMASSTORE BATTERY

GTX5000-PRO



Compatible with multi-brand storage inverters



Remote diagnosis and real-time data monitoring



Supports parallel expansion, supports up to 4 parallels



Certification of IEC62619, UN38.3, IEC62040-1, SAA etc



CATL brand battery, long cycle life (6000 times)



Wall-mounted or floor-mounted installation, time and cost saving



Han's Laser automated PACK production line, stable and reliable production quality



One-button automatic assignment battery module ID, simple and convenient operation

Datasheet

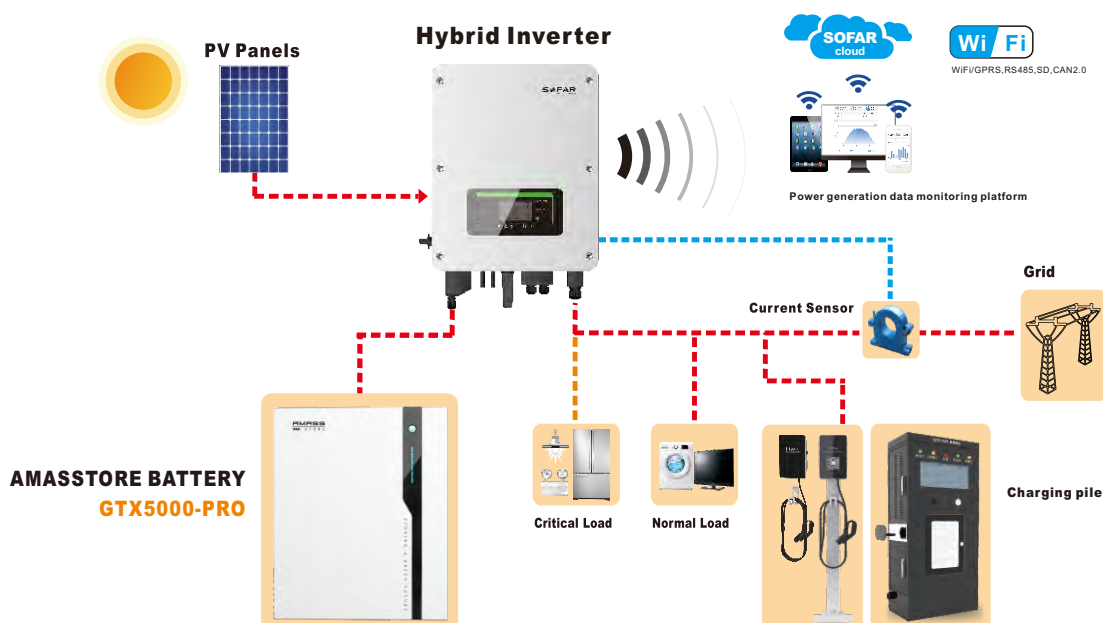
GTX5000-PRO

Basic Parameters

Battery Type	LiFePO4, Lithium Iron Phosphate
Nominal Capacity	100AH
Nominal Voltage	51.2Vdc
Total Energy	5120Wh
Usable Energy (90% DOD)	4600Wh
Charge Voltage	55.68~56.16Vdc
Discharge Voltage	45.6~56.16Vdc
Nominal Charge Current	50A
Nominal Charge Power	2560W
Max. Charge Current	100A
Max. Charge Power	5000W
Nominal Discharge Current	50A
Nominal Discharge Power	2560W
Max. Discharge Current	100A
Max. Discharge Power	5000W
Short Current	350A
Communication	RS232、RS485、CAN
Working Temperature	0℃~55℃
Storage Temperature	≤ 25℃, 12 months ≤ 35℃, 6 months ≤ 45℃, 3 months
Operating Humidity	< 95% RH
Storage Humidity	< 95% RH
Max. Operating Altitude	≤ 2000m
Scalable	Suggest up to 4
Enclosure Protection Rating	IP20
Net Weight	47Kg
Dimension (W*D*H)	480mm*606mm*171.5mm
Certificates	IEC62619、UN38.3、IEC62040-1、SAA etc
Cycle Life	6000 Cycles@ 80% DOD / 25℃ / 0.5C, 60% EOL

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

Hybrid Solar System





Inverter Logger

GPRS/WIFI&Ethernet



- ▶ Realtime alerts with immediate notification for fast troubleshooting
- ▶ Quick installation and easy operation with "Plug & Play" function
- ▶ Suitable for rural areas where no network connection is available (GPRS Version)
- ▶ High network coverage around the world
- ▶ Devices could be upgraded and debugged remotely for easy maintenance
- ▶ Check the system status anytime and anywhere via online portal or app, no additional software required

Global Data Service

SOFAR SOLAR provides global data service for users around the world. For project sites in rural areas or where no Internet is available, inverter logger ensures stable data transmission to remote server via mobile network, enabling remote monitoring at anytime and 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		
No. 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	850/900/1800/1900MHz	2.4GHz
Communication Range	-	400m (Open Space)
Transmitting Power	2W(Max.)/1W(Min.)	802.11b/g/n: +20dBm/+18dBm/15dBm(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	DC 5V(+/-5%)	DC 5V
Static Power Consumption	<2W	<1.6W
Max. Instantaneous Power Consumption	3W	<2.5W
Environmental Parameters		
Working Temperature	-25℃~+65℃	-10℃~+65℃
Working Humidity	10-90% (No Condensation)	
Storage Temperature	-25℃~+65℃	-10℃~+65℃
Storage Humidity	<40%	
Protection Class	IP21	
Physical Parameters		
Dimension(L*W*H)	110mm*80mm*24mm	110mm*80mm*26mm
Others		
Installation	Wall-Hanging/Flatwise	110mm*80mm*26mm



Stick Logger

GPRS / WIFI / 4G / ETHERNET / NB-IOT

- ▶ External light indicator, logging status at a glance
- ▶ External design, easier to replace faulty equipment
- ▶ IP65 water-proof design, resistant to bad weather, enhance stability
- ▶ Plug and play, pick power within inverter, no external power needed, easy to install
- ▶ Independent from inverter to protect parts inside inverter, eliminate potential problems
- ▶ End-user can monitor yields at any time with SOLARMAN APP



Datasheet	LSG-3	LSG-4	LSW-3	LS4G-3	LSE-3
Remote communication interface	GPRS	GPRS	WiFi	4G	LAN
Working frequency	GSM850/EGSM900 /DCS1800/ PCS1900MHz	GSM850/EGSM900 /DCS1800/ PCS1900MHz	2.142GHz~ 2.484GHz	704~960MHz 1710~2690MHz	Adaptive Network 10M / 100M
Satellite positioning	-	GPS / Beidou < 15m	-	-	-
Antenna	External GPRS Stick Antenna	External GPRS Stick Antenna	External WiFi Stick Antenna	External 4G Stick Antenna	- -
Data interface	RS232				
Working voltage	DC4.7V ~ DC15V				
Working power	3W	3W	1.5W	5W	1W
SIM card	Chip card/MicroSIM	Chip card/MicroSIM	-	MicroSIM	-
Mermory	2M Flash (2M-16M Optional)				
Working temperature	-40℃~ +85℃				
Working humidity	< 90% (No Condensing)				
No. of connections	One				
Serial communication rate	bps (1200-115200bps Configurable)				
Data acquisition interval	Default 5min (1-15min Configurable)				
Use configuration	AT + Instruction Set Remote server				
	Bluetooth	APP/Web	APP/Web	Local serial port	Web
Firmware upgrade	Remote Upgrade				
Others	Real-time Control, Data resuming				

Pro Logger

GPRS / WIFI / 4G / ETHERNET



- ▶ Multi-interfaces: RS485, RS232, RS422, CAN; supports connection of P1 meter;
- ▶ Support magnetic latching relay controlling 250VAC/16A circuit externally;
- ▶ Standard accessory: 8GB TF card; supports 20-year storage; data in Solarman platform will be saved permanently;
- ▶ Support multi-channel digital/analog input interface; support grid dispatching, sensor and multi-scenarios;
- ▶ SOLARMAN Pro version supports intelligent plant management.
- ▶ Dual SIM chips, supporting on-grid project that requires private network power supply;
- ▶ Support static page configuration or upgrade, local/remote multi-mode monitoring;
- ▶ Support importing data and error history via USB;
- ▶ Embedded super capacitor supports power-off reminder; Simplify plant O&M significantly;

Datasheet

LP-1

LP-2

Wireless Parameters

Remote Communication 1

GPRS

4G

Frequency

GSM850/EGSM900/
DCS1800/PCS1900MHz

LTE-FDD/LTE-TDD/WCDMA/
TD-SCDMA/CDMA/GSM

Remote Communication 2

GPRS / 4G

Remote Communication 3

-

WiFi

Antenna

Sucker Antenna

Hardware Parameters

Ethernet

Adaptive Network: 10 / 100M

Input Voltage

DC 15V~60V

Working Power

< 10W

Output Voltage

DC 12V 500mA

Indicator Light

LED x4

Memory

128MByte NAND FLASH

8GB TF Card (Optional)

8GB TF Card (Standard)

Analog / Digital Input

Analog Input x6 /
Digital Input x6

Analog Input x4 /
Digital Input x4

Digital Output

16A 250VAC Magnetic Latching Relay Output x2

USB

Mini USB x1

USB x1

S0 in

NA

2

Clock

Chip Internal Clock

RS 485

4

4

RS 232

1

1

CAN

1

1

PI

-

1

Power off Reminder

X

√

Operating Temperature

-20°C ~ +60°C

Operating Humidity

10-95% (No Condensing)

Dimension

240*118*49mm

IP Grade

IP20

Installation Method

35mm Din-Rail Mount

Software Parameters

No. of Connections

1-100

Data Acquisition Interval

Default: 5mins (1-15 mins Configurable)

User Configuration

AT + Instruction Set, Remote Server

Firmware Upgrade

SMS / Remote / Local

Others

Real-time Control, Data Resuming Transfer