

2026 Solar Ürün Kataloğu

İnverter - Güneş Paneli - Akü Grupları - Montaj Malzemeleri

SMART ENERGY CONTROLLER

Model: SUN2000-2/3/3.68/4/4.6/5/6KTL-L1



Active Safety
Active Arcing Protection



Higher Yields
Up to 30% More Energy
with Optimizer



Battery Ready
Plug & Play, Whole-house
Power Backup

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1 **Technical Specification**

Technical Specification	SUN2000 -2KTL-L1	SUN2000 -3KTL-L1	SUN2000 -3.68KTL-L1	SUN2000 -4KTL-L1	SUN2000 -4.6KTL-L1	SUN2000 -5KTL-L1	SUN2000 -6KTL-L1
Efficiency							
Max. efficiency	98.2%	98.3%	98.4%	98.4%	98.4%	98.4%	98.4%
European weighted efficiency	96.7%	97.3%	97.3%	97.5%	97.7%	97.8%	97.8%
Input (PV)							
Recommended max. PV power ¹	3,000 Wp	4,500 Wp	5,520 Wp	6,000 Wp	6,900 Wp	7,500 Wp	9,000 Wp
Max. input voltage	600 V						
Startup voltage	100 V						
MPPT operating voltage range	90–560 V						
Rated input voltage	360 V						
Max. input current per MPPT	12.5 A						
Max. short-circuit current	18 A						
Number of MPP trackers	2						
Max. inputs per MPP tracker	1						
Input (DC Battery)							
Compatible battery	LUNA2000-5/10/15-S0, LUNA2000-7/14/21-S1 ¹						
Operating voltage range	350–560 V DC						
Max. operating current	15 A						
Max. charge power	5,000 W						
Max. discharge power	2,200 W	3,300 W	3,680 W	4,400 W	4,600 W	5,000 W	5,000 W
Output (On Grid)							
Grid connection	Single-phase						
Rated output power	2,000 W	3,000 W	3,680 W	4,000 W	4,600 W	5,000 W	6,000 W
Max. apparent power	2,200 VA	3,300 W	3,680 W	4,400 VA	5,000 VA	5,500 W	6,000 VA
Rated output voltage	220 V AC/230 V AC/240 V AC						
Rated AC grid frequency	50 Hz/60 Hz						
Max. output current	10 A	15 A	16 A	20 A	23 A	25 A	27.3 A
Adjustable power factor	0.8 leading ... 0.8 lagging						
Max. total harmonic distortion	≤ 3%						
Backup power output	Yes (via Backup Box - B0, SmartGuard-63A-S0)						
Protection Feature							
Anti-islanding protection	Yes						
DC reverse polarity protection	Yes						
Insulation monitoring	Yes						
DC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11						
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11						
Residual current monitoring	Yes						
AC overcurrent protection	Yes						
AC short-circuit protection	Yes						
AC overvoltage protection	Yes						
Over-heat protection	Yes						
Arc fault protection	Yes						
Battery charging from grid	Yes						
General Specification							
Operating temperature range	–25°C to +60°C (Derated above 45°C @ Rated output power)						
Relative operating humidity	0%–100% RH						
Operating altitude	0–4,000 m (Derated above 2,000 m)						
Cooling	Natural convection						
Display	LED indicators; integrated WLAN + FusionSolar app						
Communication	RS485, WLAN via inverter built-in WLAN module, Ethernet via Smart Dongle-WLAN-FE (Optional); 4G/3G/2G via Smart Dongle-4G (Optional)						
Weight (incl. mounting brackets)	12.0 kg (26.5 lb)						
Dimensions (incl. mounting brackets)	365 mm x 375 mm x 156 mm						
IP rating	IP65						
Nighttime power	< 2.5 W						
Optimizer Compatibility							
DC MBUS compatible optimizer	SUN2000-450W-P2, SUN2000-600W-P						
Standards Compliance (More Available Upon Request)							
Safety	EN/IEC 62109-1, EN/IEC 62109-2						
Grid connection standards	G98, G99, EN 50549-1, CEI 0-21, VDE-AR-N-4105, AS 4777.2, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, IEC61727, IEC62116						

*1 The inverter max input PV power is 10,000 Wp when long strings are designed and fully connected with optimizers.

Disclaimer: The preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

SMART ENERGY CONTROLLER

Model: SUN2000-3/4/5/6/8/10KTL-M1
(High Current Version)



Active Safety
AFCI Active Arcing
Protection



Higher Yields
Up to 30% More Energy
with Optimizer ¹



Battery Ready
Plug & Play Battery
Port ²

Technical Specification	SUN2000 -3KTL-M1	SUN2000 -4KTL-M1	SUN2000 -5KTL-M1	SUN2000 -6KTL-M1	SUN2000 -8KTL-M1	SUN2000 -10KTL-M1
Efficiency						
Max. efficiency	98.2%	98.3%	98.4%	98.6%	98.6%	98.6%
European weighted efficiency	96.7%	97.1%	97.5%	97.7%	98.0%	98.1%
Input (PV)						
Recommended max. PV power ¹	4,500 Wp	6,000 Wp	7,500 Wp	9,000 Wp	12,000 Wp	15,000 Wp
Max. input voltage ²	1,100 V					
Operating voltage range ³	140–980 V					
Startup voltage	200 V					
Rated input voltage	600 V					
Max. input current per MPPT	13.5 A					
Max. short-circuit current	19.5 A					
Number of MPP trackers	2					
Max. input number per MPP tracker	1					
Input (DC Battery)						
Compatible battery	LUNA2000-5/10/15-S0, LUNA2000-7/14/21-S1					
Operating voltage range	600–980 V					
Max. operating current	16.7 A					
Max. charge power	10,000 W					
Max. discharge power	3300 W	4400 W	5500 W	6600 W	8800 W	10000 W
Output (On Grid)						
Grid connection	Three-phase					
Rated output power	3000 W	4000 W	5000 W	6000 W	8000 W	10,000 W
Max. apparent power	3300 VA	4400 VA	5500 VA	6600 VA	8800 VA	11,000 VA ⁴
Rated output voltage	220 V AC/380 V AC, 230 V AC/400 V AC, 3W/N+PE					
Rated AC grid frequency	50 Hz/60 Hz					
Max. output current	5.1 A	6.8 A	8.5 A	10.1 A	13.5 A	16.9 A
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤ 3%					
Output (Off Grid)						
BackupBox	BackupBox-B1					
Max. apparent power	3000 VA	3300 VA	3300 VA	3300 VA	3300 VA	3300 VA
Rated output voltage	220 V/230 V					
Max. output current	13.6 A	15 A	15 A	15 A	15 A	15 A
Power factor range	0.8 leading ... 0.8 lagging					
Protection Feature						
Input-side disconnection device	Yes					
Anti-islanding protection	Yes					
DC reverse polarity protection	Yes					
Insulation monitoring	Yes					
DC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
Residual current monitoring	Yes					
AC overcurrent protection	Yes					
AC short-circuit protection	Yes					
AC overvoltage protection	Yes					
Arc fault protection	Yes					
Ripple receiver control	Yes					
Battery charging from grid	Yes					
General Specification						
Operating temperature range	–25°C to +60°C (–13°F to +140°F)					
Relative operating humidity	0%–100% RH					
Max. operating altitude	4,000 m (13,123 ft.) (Derated above 2000 m)					
Cooling	Natural convection					
Display	LED Indicators; Integrated WLAN + FusionSolar app					
Communication	RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE; 4G/3G/2G via Smart Dongle-4G (Optional)					
Weight (incl. mounting brackets)	17 kg (37.5 lb)					
Dimensions (incl. mounting brackets)	525 mm x 470 mm x 146.5 mm (20.7 in. x 18.5 in. x 5.8 in.)					
IP rating	IP65					
Nighttime power	< 5.5 W					
Optimizer Compatibility						
DC MBUS compatible optimizer	SUN2000-450W-P2, SUN2000-600W-P					
Standards Compliance (More Available Upon Request)						
Safety	EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116					
Grid connection standards	G98, G99, EN 50438, CEI 0-21, VDE-AR-N-4105, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, NRS 097-2-1, IEC61727, IEC62116, DEWA					

*1 The inverter max input PV power is 20,000 Wp when long strings are designed and connected to SUN2000-450W-P2 or SUN2000-600W-P power optimizers.

*2 The max. input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter.

*3 Any DC input voltage beyond the operating voltage range may result in inverter malfunction.

*4 C10/11: 10,000 VA

Disclaimer: The preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

SUN2000-12/15/17/20/25KTL-M5 Smart PV Controller



Active Safety

AI Powered Arcing Protection



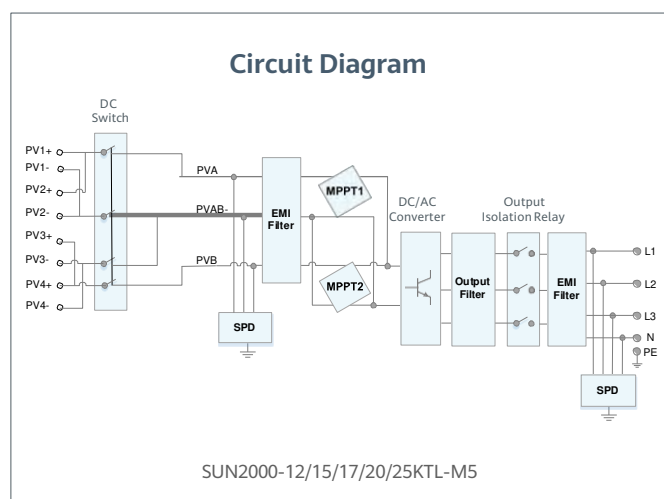
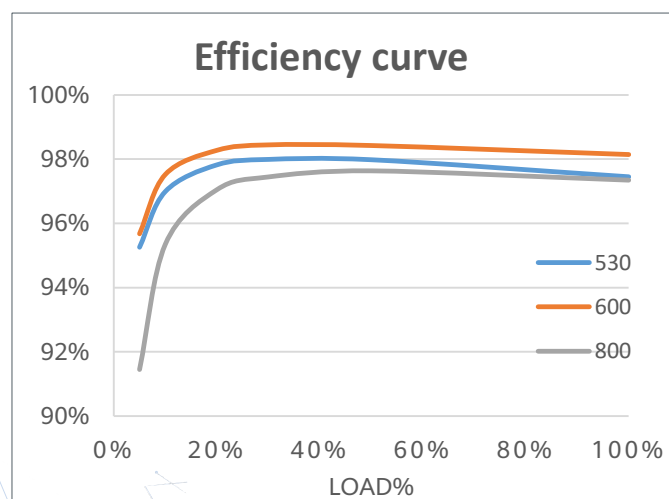
Higher Yields

Up to 30% More Energy with Optimizer



Flexible Communication

WLAN, Fast Ethernet, 4G
Communication Supported



SUN2000-12/15/17/20/25KTL-M5

Technical Specification

Technical Specification	SUN2000 -12KTL-M5	SUN2000 -15KTL-M5	SUN2000 -17KTL-M5	SUN2000 -20KTL-M5	SUN2000 -25KTL-M5
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Efficiency

Max. efficiency	98.4%	98.4%	98.4%	98.4%	98.4%
European weighted efficiency	97.9%	98.0%	98.1%	98.1%	98.2%

Input

Recommended max. PV power ¹	18,000 Wp	22,500 Wp	25,500 Wp	30,000 Wp	37,500 Wp
Max. input voltage ²	1100 V				
Full-load MPPT voltage range	370V~800V	410V~800V	440V~800V	480V~800V	530~800V
MPPT Operating voltage range ³	200 V ~ 1000 V				
Start-up voltage	200 V				
Rated input voltage	600 V				
Max. input current per MPPT	30 A (two string) / 20 A (single string)				
Max. short-circuit current	40 A				
Number of MPP trackers	2				
Max. number of inputs	4				

Output

Grid connection	Three phase				
Rated output power	12,000 W	15,000 W	17,000 W	20,000 W	25,000 W
Max. apparent power	13,200 W	16,500 VA	18,700 VA	22,000 VA	27,500 VA
Rated output voltage	220 Vac / 380 Vac, 230 Vac / 400 Vac, 239.6 Vac / 415Vac, 3W + N + PE				
Rated AC grid frequency	50 Hz / 60 Hz				
Max. output current	18.2A/380Vac 17.3A/400Vac 16.7A/415Vac	25.2A/380Vac 23.9A/400Vac 23.1A/415Vac	28.6A/380Vac 27.1A/400Vac 26.1A/415Vac	33.6A/380Vac 31.9A/400Vac 30.8A/415Vac	42.0A/380Vac 39.9A/400Vac 38.5A/415Vac
Adjustable power factor	0.8 leading ... 0.8 lagging				
Max. total harmonic distortion	≤ 3 %				

Features & Protections

Overvoltage Category	PV II/AC III
Input-side disconnection device	Yes
Anti-islanding protection	Yes
AC over-current protection	Yes
DC reverse-polarity protection	Yes
String fault detection	Yes
DC surge protection	TYPE II
AC surge protection	CLASS II
Residual current monitoring unit	Yes
Arc fault protection	Yes
Ripple control	Yes
Integrated PID recovery ⁴	Yes

General Data

Operation temperature range	-25 ~ + 60 °C (-13 °F ~ 140 °F)
Relative humidity	0 % RH ~ 100% RH
Max. operating altitude	0 ~ 4,000 m (13,123 ft.) (Derating above 2000 m)
Cooling	Smart air cooling
Display	LED Indicators; Integrated WLAN + FusionSolar App
Communication	RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)
Weight (with mounting plate)	21kg (46.4 lb)
Dimensions (W x H x D) (incl. mounting plate)	546 x 460 x 228mm (21.5 x 18.1 x 9.0 inch)
Degree of protection	IP66

Optimizer Compatibility

DC MBUS compatible optimizer	SUN2000-450W-P, SUN2000-450W-P2, SUN2000-600W-P, SUN2000-1300W-P, SUN2000-1100W-P
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Standard Compliance (more available upon request)

Safety	EN/IEC 62109-1, EN/IEC 62109-2
Grid connection standards	G99, EN 50549, CEI 0-21, CEI 0-16, VDE-AR-N-4105, VDE-AR-N-4110, C10/11, ABNT, VFR 2019, UNE 217001, UNE 217002, RD 244, TOR D4, IEC61727, IEC62116

^{*1} Inverter max input PV power is 40,000 Wp when long strings are designed and fully connected with SUN2000-450W-P power optimizers.

^{*2} The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

^{*3} Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

^{*4} SUN2000-12~20KTL-M2 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly)

SMART ENERGY CONTROLLER

Model: SUN2000-12/15/17/20/25K-MB0



Active Safety
AFCI Active Arcing
Protection



Higher Yields
Up to 30% More Energy
with Optimizer ¹



Battery Ready
2 Battery Terminals;
Compatible with LUNA2000-S0

SUN2000-12/15/17/20/25K-MB0 Technical Specification

Technical Specification ¹	SUN2000-12K-MB0	SUN2000-15K-MB0	SUN2000-17K-MB0	SUN2000-20K-MB0	SUN2000-25K-MB0
Efficiency					
Max. efficiency	98.4%	98.4%	98.4%	98.4%	98.4%
European weighted efficiency	97.9%	98.0%	98.1%	98.1%	98.2%
DC Input					
Recommended max. PV power	18,000 Wp	22,500 Wp	22,500 Wp	30,000 Wp	37,500 Wp
Max. input voltage ²	1,100 V				
Max. input current per MPPT	30 A (two strings) / 20 A (single string)				
Max. short-circuit current	40 A				
Start-up voltage	200 V				
MPPT operating voltage range ³	200 V~1000 V				
Full-load MPPT voltage range	370 V~800 V	410 V~800 V	440 V~800 V	480 V~800 V	530 V~800 V
Rated input voltage	600 V				
Max. number of inputs	4				
Number of MPP trackers	2				
Smart String Energy Storage System Terminal					
Compatible Smart String ESS	LUNA2000-5/10/15-S0, LUNA2000-7/14/21-S1				
Number of terminals	2				
Max. charging power	21 kW (Single string) / 25 kW (Two strings)				
Max. discharge power	13.2 kW	16.5 kW	18.7 kW	22.0 kW	25.0 kW
Max. operating current	26.25 A (per string)				
Operating voltage range	600 V ~ 980 V				
Output					
Rated output power	12,000 W	15,000 W	17,000 W	20,000 W	25,000 W
Max. apparent power	13,200 VA	16,500 VA	18,700 VA	22,000 VA	27,500 VA
Max. active power (cosφ = 1)	13,200 W	16,500 W	18,700 W	22,000 W	27,500 W
Rated output voltage	220 V AC/380 V AC, 230 V AC/400 Vac, 240 V AC/415 V AC; 3 W/N + PE				
Rated output current	18.2 A/380 V AC	22.8 A/380 V AC	25.8 A/380 V AC	30.4 A/380 V AC	38.0 A/380 V AC
	17.3 A/400 V AC	21.7 A/400 V AC	24.5 A/400 V AC	28.9 A/400 V AC	36.1 A/400 V AC
	16.7 A/415 V AC	20.9 A/415 V AC	23.7 A/415 V AC	27.8 A/415 V AC	34.8 A/415 V AC
Max. output current	20.2 A/380 V AC	25.2 A/380 V AC	28.6 A/380 V AC	33.6 A/380 V AC	42.0 A/380 V AC
	19.1 A/400 V AC	23.9 A/400 V AC	27.1 A/400 V AC	31.9 A/400 V AC	39.9 A/400 V AC
	18.5 A/415 V AC	23.1 A/415 V AC	26.1 A/415 V AC	30.8 A/415 V AC	38.5 A/415 V AC
Rated AC grid frequency	50 Hz/60 Hz				
Adjustable power factor	0.8 leading ... 0.8 lagging				
Max. total harmonic distortion	≤ 3%				
Feature & Protection					
Overvoltage category	PV II/AC III				
Input-side disconnection device	Yes				
Anti-islanding protection	Yes				
AC over-current protection	Yes				
DC reverse-polarity protection	Yes				
DC surge protection	TYPE II				
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11				
DC insulation resistance detection	Yes				
Residual current monitoring unit	Yes				
Arc fault protection	Yes				
General Specification					
Operating temperature range	-25 °C to +60 °C (-13 °F to 140 °F)				
Relative humidity	0 % RH~100 % RH				
Max. operating altitude	4,000 m (13,123 ft.) (Derated above 2,000 m)				
Cooling	Smart air cooling				
Display	LED indicators, Integrated WLAN + FusionSolar APP				
Communication	RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G/3G/2G via Smart Dongle-4G (Optional); EMMA (Optional)				
Weight	21 kg				
Dimensions (W x H x D)	546 mm x 460 mm x 228 mm (21.5 x 18.1 x 9.0 inch)				
Protection level	IP66				
Max. number of paralleled unit (with Smart String ESS)	3				
Optimizer Compatibility					
Compatible optimizer	SUN2000-450W-P2, SUN2000-600W-P, MERC-1100W-P, MERC-1300W-P				
Standards Compliance (More Available Upon Request)					
Certificates	EN/IEC62109-1, EN/IEC62109-2				
Grid connection standards	IEC61727, IEC62116, IEC61683, EN50530, ABNT NBR 16149/16150, MEA/PEA, G99, IRR-DCC-MV/IRR-TIC, Philippine Grid Code Resolution No. 07, NRS 097-2-1, EN50549-1, VDE4105, UTE15-712-1/VFR 2019, UNE217002, NTS631, RD244(UNE217001), PPDS, ROGA, TOR Erzeuger, CEI 0-21:2020-12 V1, CEI-016, C10/C11, EN50549-2, VDE4110				

*1 For Thailand, only SUN2000-12K-MB0 & SUN2000-15K-MB0 & SUN2000-20K-MB0 are available.

*2 The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter.

*3 Any DC input voltage beyond the operating voltage range may result in inverter malfunction.

Disclaimer: The preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

SUN2000-30/36/40KTL-M3 Smart PV Controller



Smart

8 strings intelligent monitoring



Efficient

Max. efficiency 98.7%



Safe

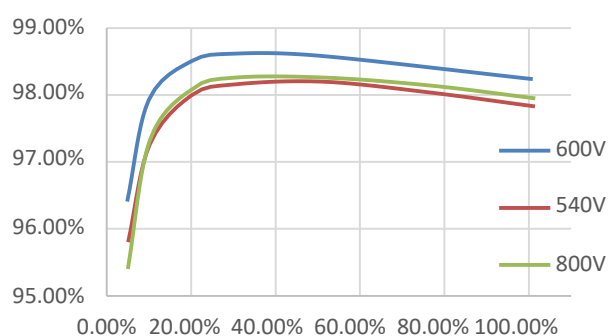
Fuse free design



Reliable

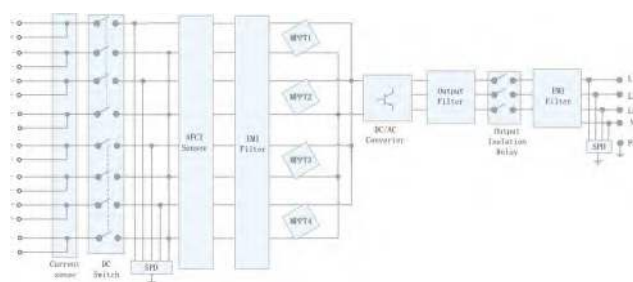
Type II surge arresters for DC & AC

Efficiency Curve



SUN2000-30/36/40KTL-M3

Circuit Diagram



SUN2000-30/36/40KTL-M3
Technical Specification

Technical Specification	SUN2000-30KTL-M3	SUN2000-36KTL-M3	SUN2000-40KTL-M3
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Efficiency			
Max. Efficiency	98.7%		
European Efficiency	98.4%		

Input			
Max. Input Voltage ¹	1,100 V		
Max. Current per MPPT	27 A (per MPPT) / 20 A (per Input)		
Max. Short Circuit Current per MPPT	40 A		
Start Voltage	200 V		
MPPT Operating Voltage Range ²	200 V ~ 1000 V		
Rated Input Voltage	600 V		
Number of Inputs	8		
Number of MPP Trackers	4		

Output			
Rated AC Active Power	30,000 W	36,000 W	40,000 W
Max. AC Apparent Power	33,000 VA ³	40,000 VA	44,000 VA
Rated Output Voltage	230 Vac / 400 Vac / 480 Vac, 3W/N+PE		
Rated AC Grid Frequency	50 Hz / 60 Hz		
Rated Output Current	43.3 A	52.0 A	57.8 A
Max. Output Current	47.9 A	58.0 A	63.8 A
Adjustable Power Factor Range	0.8 LG ... 0.8 LD		
Max. Total Harmonic Distortion	< 3%		

Protection			
Input-side Disconnection Device	Yes		
Anti-islanding Protection	Yes		
AC Overcurrent Protection	Yes		
DC Reverse-polarity Protection	Yes		
PV-array String Fault Monitoring	Yes		
DC Surge Arrester	Yes		
AC Surge Arrester	Yes		
DC Insulation Resistance Detection	Yes		
Residual Current Monitoring Unit	Yes		
Arc Fault Protection	Yes		
Ripple Receiver Control	Yes		
Integrated PID Recovery ³	Yes		

Communication			
Display	LED Indicators, Integrated WLAN + FusionSolar APP		
RS485	Yes		
Smart Dongle	WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)		

General Data			
Dimensions (W x H x D)	640 x 530 x 270 mm (25.2 x 20.9 x 10.6 inch)		
Weight (with mounting plate)	43 kg (94.8 lb)		
Operating Temperature Range	-25 ~ + 60 °C (-13 °F ~ 140 °F)		
Cooling Method	Natural Convection		
Max. Operating Altitude	4,000 m (13,123 ft.) (Derating above 2000 m)		
Relative Humidity	0% RH ~ 100% RH		
DC Connector	Amphenol Helios H4		
AC Connector	Waterproof Connector + OT/DT Terminal		
Protection Degree	IP 66		
Topology	Transformerless		
Nighttime Power Consumption	≤ 5.5W		

Optimizer Compatibility			
DC MBUS Compatible Optimizer	SUN2000-450W-P2, SUN2000-600W-P, MERC-1100W/1300W-P		

Standard Compliance (more available upon request)			
Safety	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683		
Grid Connection Standards	IEC 61727, VDE-AR-N4105, VDE 0126-1-1, BDEW, G59/3, UTE C 15-712-1, CEI 0-16, CEI 0-21, RD 661, RD 1699, P.O. 12.3, RD 413, EN-50438-Turkey, EN-50438-Ireland, C10/11, MEA, Resolution No.7, NRS 097-2-1, AS/NZS 4777.2, DEWA		

1. The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
2. Any DC input voltage beyond the operating voltage range may result in inverter improper operating.
3. SUN2000-30~40KTL-M3 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly)

SUN2000-50KTL-M3 Smart PV Controller



Higher Yields

Up to 30% More Energy
with Optimizer



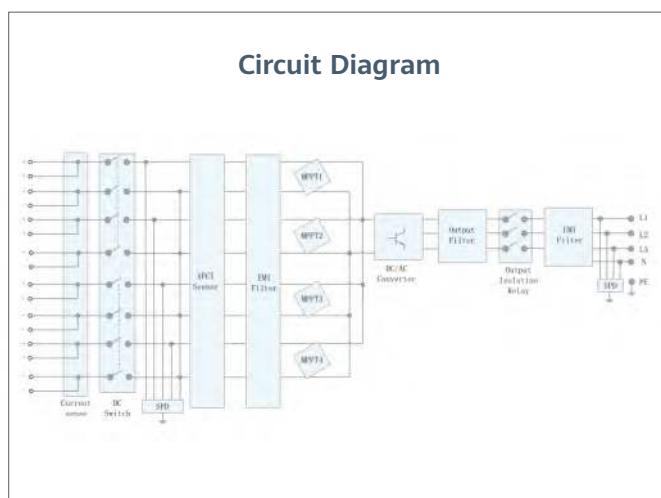
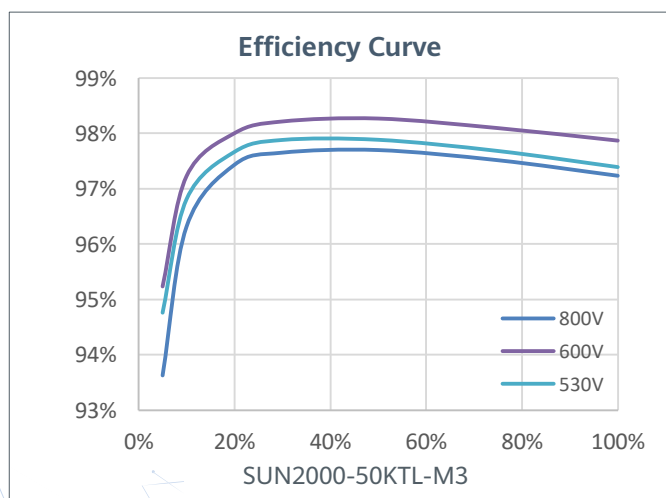
Active Safety

AI Powered
Active Arcing Protection



Flexible Communication

WLAN, Fast Ethernet, 4G
Communication Supported



SUN2000-50KTL-M3

Technical Specification

Technical Specification	SUN2000-50KTL-M3
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Efficiency	
Max. Efficiency	98.5%
European Efficiency	98.0%

Input	
Max. Input Voltage ¹	1,100 V
Max. Current per MPPT	30 A
Max. Current per Input	20 A
Max. Short Circuit Current per MPPT	40 A
Start Voltage	200 V
MPPT Operating Voltage Range ²	200 V ~ 1,000 V
Rated Input Voltage	600 V
Number of Inputs	8
Number of MPP Trackers	4

Output	
Rated AC Active Power	50,000 W
Max. AC Apparent Power	55,000 VA
Max. AC Active Power (cosφ=1)	55,000 W
Rated Output Voltage	400 Vac / 480 Vac, 3W+(N) + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	72.2 A @ 400Vac, 60.1 A @ 480Vac
Max. Output Current	79.8 A @ 400Vac, 66.5 A @ 480Vac
Adjustable Power Factor Range	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	<3%

Protection	
Input-side Disconnection Device	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Arc Fault Protection	Yes
Ripple Receiver Control	Yes
Integrated PID Recovery ³	Yes

Communication	
Display	LED Indicators, WLAN + APP
RS485	Yes
Smart Dongle	WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)
Monitoring BUS (MBUS)	Yes (Isolation Transformer required)

Optimizer Compatibility	
DC MBUS Compatible Optimizer ⁴	MERC-1100/1300W-P

General Data	
Dimensions (W x H x D)	640 x 530 x 270 mm (25.2 x 20.9 x 10.6 inch)
Weight (with mounting plate)	49 kg (108.1 lb)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Smart Air Cooling
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0% RH ~ 100% RH
DC Connector	Amphenol HH4
AC Connector	Waterproof Connector + OT/DT Terminal
Protection Degree	IP 66
Topology	Transformerless
Nighttime Power Consumption	≤ 5.5W

Standard Compliance (more available upon request)	
Safety	EN 62109-1/-2, IEC 62109-1/-2, IEC 62116, IEC 60068, IEC 61683
Grid Connection Standards	IEC 61727, VDE-AR-N4105, VDE 0126-1-1, BDEW, G59/3, UTE C 15-712-1, CEI 0-16, CEI 0-21, RD 661, RD 1699, P.O. 12.3, RD 413, EN-50438-Turkey, EN-50438-Ireland, C10/11, MEA, Resolution No.7, NRS 097-2-1, DEWA

1. The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
2. Any DC input voltage beyond the operating voltage range may result in inverter improper operating.
3. SUN2000-30~50KTL-M3 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly), N-type (nPERT, HIT)

SUN2000-100KTL-M2
Smart PV Controller



10
MPP Trackers



98.8% (@480V)
Max. Efficiency



String-level
Management



Smart I-V Curve Diagnosis
Supported



MBUS
Supported



Support AFCI &
Smart String Level
Disconnect



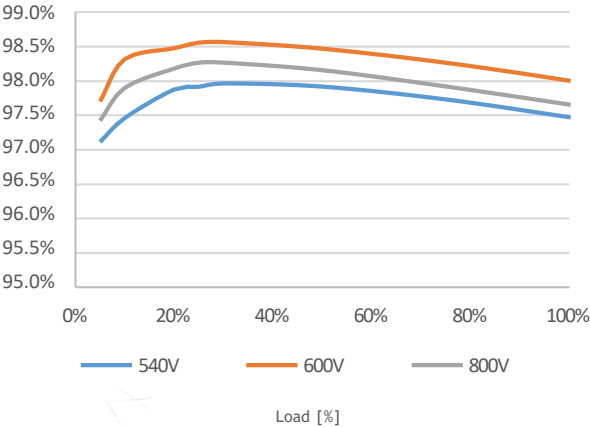
Surge Arresters for
DC & AC



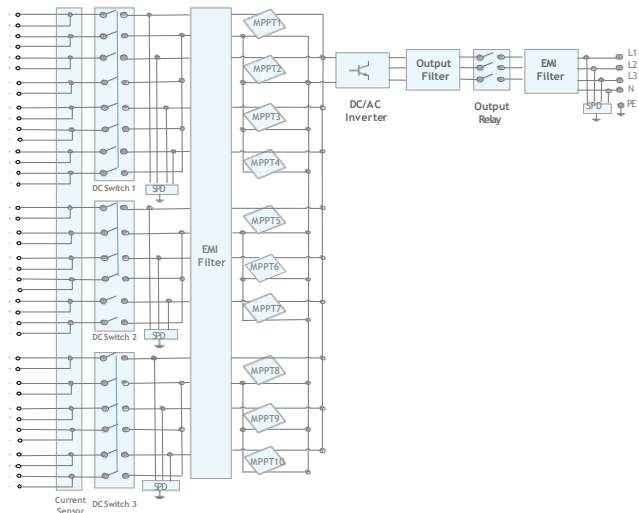
IP66
Protection

Efficiency Curve

SUN2000-100KTL-M2 @400 V



Circuit Diagram



Technical Specification

SUN2000-100KTL-M2

Efficiency

Max. efficiency	98.6% @ 400 V, 98.8% @ 480 V
European efficiency	98.4% @ 400 V, 98.6% @ 480 V

Input

Max. Input Voltage ¹	1,100 V
Max. Current per MPPT	30 A
Max. Current per Input ³	20 A
Max. Short Circuit Current per MPPT	40 A
Start Voltage	200 V
MPPT Operating Voltage Range ²	200 V ~ 1,000 V
Nominal Input Voltage	600 V @ 400 Vac, 720 V @ 480 Vac
Number of MPP trackers	10
Max. input number per MPP tracker	2

Output

Nominal AC Active Power	100,000 W
Max. AC Apparent Power	110,000 VA
Max. AC Active Power (cosφ=1)	110,000 W
Nominal Output Voltage	380 V / 400 V / 480 V, 3W+(N)+PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Nominal Output Current	144.4 A @ 400 V, 120.3 A @ 480 V
Max. Output Current	160.4 A @ 400 V, 133.7 A @ 480 V
Adjustable Power Factor Range	0.8 leading... 0.8 lagging
Max. Total Harmonic Distortion	< 3%

Protection

Input-side Disconnection Device	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Arc Fault Protection	Yes
Smart String Level Disconnecter	Yes

Communication

Display	LED indicators; WLAN adaptor + FusionSolar APP
RS485	Yes
USB	Yes
Smart Dongle-4G	Smart Dongle - 4G / WLAN (Optional)
Monitoring BUS (MBUS)	Yes (isolation transformer required)

General Data

Dimensions (W x H x D)	1,035 x 700 x 365 mm
Weight (with mounting plate)	93 kg
Operating Temperature Range	-25°C ~ 60°C
Cooling Method	Smart Air Cooling
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol Helios H4
AC Connector	Waterproof Connector + OT/DT Terminal
Protection Degree	IP66
Topology	Transformerless
Nighttime Power Consumption	< 3.5 W

Standard Compliance (more available upon request)

Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683
Grid Connection Standards	VDE-AR-N4105, EN 50549-1, EN 50549-2, RD 661, RD 1699, C10/11

^{*1} The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
^{*2} Any DC input voltage beyond the operating voltage range may result in inverter improper operating.
^{*3} Single-string access.

SUN2000-150K-MG0

Smart PV Controller



Arc Fault Protection



PV Ground-Fault Protection



PID Recovery



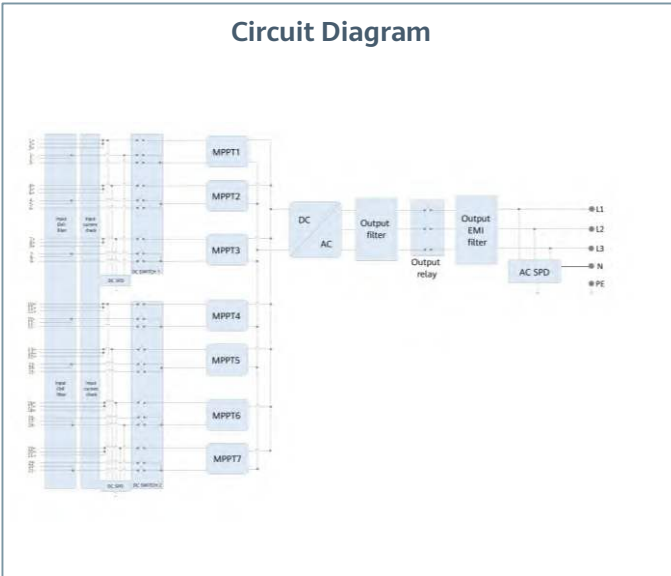
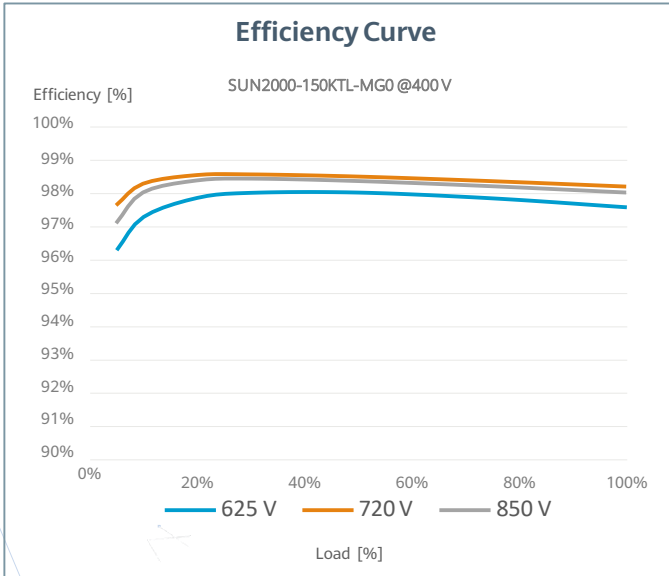
Smart String Level Disconnecter



Smart Connector Temperature Detector



MBUS



• This datasheet only shows Preliminary Version, the information may change. Please contact with HW local supplier for the latest version

Technical Specification

SUN2000-150K-MG0

Efficiency

Max. efficiency	98.6% @400V, 98.8% @480V
European efficiency	98.4%

Input

Max. Input Voltage ¹	1,100 V
Max. Current per MPPT	48A
Max. Current per Input	23A
Max. Short Circuit Current per MPPT	66A
Start Voltage	200 V
MPPT Operating Voltage Range ²	200 V ~ 1,000 V
Number of MPP trackers	7
Max. input number per MPP tracker	3

Output

Nominal AC Active Power	150,000 W
Max. AC Apparent Power	165,000 VA
Max. AC Active Power (cosφ=1)	165,000 W
Nominal Output Voltage	380 V/400 V/480Vac
Rated AC Grid Frequency	50 Hz / 60 Hz
Nominal Output Current	227.9 A @380 V, 216.5 A @400 V, 180.4A @480Vac
Max. Output Current	253.2 A @380 V, 240.5 A @400 V, 200.5A @480Vac
Adjustable Power Factor Range	0.8 leading... 0.8 lagging
alternating current THDi	<1%

Protection

Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Smart String Level Disconnecter	Yes
Arc Fault Protection	Yes
Terminal Temperature Detection	Yes
PID Recovery	Yes
PV Ground-Fault Protection	Yes

Communication

Display	LED indicators; WLAN adaptor + FusionSolar APP
RS485	Yes
USB	Yes
Smart Dongle-4G	Smart Dongle – 4G / WLAN (Optional)
Monitoring BUS (MBUS)	Yes (isolation transformer required)

General Data

Dimensions (W x H x D)	1,000 x 710 x 395 mm
Weight (with mounting plate)	102 kg
Operating Temperature Range	-25°C ~ 60°C
Cooling Method	Smart Air Cooling
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol HH4
AC Connector	Waterproof Connector + OT/DT Terminal
Protection Degree	IP66
Topology	Transformerless

Standard Compliance (more available upon request)

Certificate	EN 62109-1/-2, IEC 62109-1/-2, IEC 62116, IEC 61727, IEC 60068, IEC 61683
Grid Connection Standards	VDE-AR-N4105, EN 50549-1, EN 50549-2, RD 661, RD 1699, C10/11

* This datasheet only shows Preliminary Version, the information may change. Please contact with HW local supplier for the latest version

* 1 The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

* 2 Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

SMART DONGLE-WLAN-FE



Smart

WLAN & Fast Ethernet (FE)
Communication, Support 3rd-
Party Monitoring System ¹



Simple

Plug-and-play, with a
Maximum of 10 Devices
Connected



Reliable

IP65 Protection

Smart Dongle-WLAN-FE Technical Specifications

Technical Specification	SDongleA-05 (AP+STA)
General Specification	
Max. devices supported	10
Max. inverters supported	10
Connection interface	USB
Ethernet interface	10/100M Ethernet
Installation	Plug-and-play
Indicator	LED Indicator
Dimensions (W x H x D)	146 mm x 48 mm x 33 mm (5.1 in. x 1.9 in. x 1.3 in.)
Weight	90 g (0.2 lb.)
IP rating	IP65
Power (typical)	2.5 W
Working mode	AP + STA
Security	Security protocol: WPA/WPA2 Encryption: TKIP/CCMP/AES
Radio Specification	
Supported standards & frequencies	802.11b/g/n (2.412–2.484 GHz)
Environment	
Operating temperature range	–30°C to +65°C (–22°F to +149°F)
Relative humidity range	5%–95% RH
Storage temperature range	–40°C to +70°C (–40°F to +158°F)
Max. operating altitude	4,000 m (13,123 ft.)
Standards Compliance (More Available Upon Request)	
Certificate	SRRC, CE, RCM
Inverter Compatibility	
Inverter model	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-8/10K-LC0, SUN2000-3/4/5/6/8/10KTL-M1, SUN2000-12/15/17/20/25KTL-M5, SUN2000-12/15/17/20/25K-MB0, SUN2000-5/6/8/10/12K-MAP0, SUN5000-8/12K-MAP0, SUN5000-17/25K-MB0

1: 3rd-party management system shall support the communication protocol used on Huawei Smart Dongle.

Disclaimer: The preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

GOODWE

DNS G3 Serisi

3-6kW | Tek Faz | 2 MPPT

GoodWe DNS G3 serisi inverter, tek fazlı konut uygulamaları için özel olarak tasarlanmıştır. Yüksek akım girişi ve DC girişi aşırı boyutlandırma yetenekleriyle entegre edilen seri, size optimize edilmiş güç üretimi sağlayabilir ve önemli getiriler sağlayabilir. Daha hafif ve fansız, kompakt tasarımıyla DNS G3 inverter, güvenilir bir güç kaynağı sağlar, 25 dB'nin altında süper sessiz çalışır. İnverter ayrıca, garantili güvenlik için sistemi aşırı ortamlarda elektrik yangını ve yıldırım tehlikelerinden korumak için isteğe bağlı Ark Hatası Arızası Kesici (AFCI) ve Tip II Aşırı Gerilim Koruma Cihazı (SPD) dahil olmak üzere güvenlik önlemleri alır.



Akıllı Kontrol ve İzleme

- 7/24 yük tüketimi izleme¹
- Çoklu iletişim protokolleri desteklenir



Üstün Güvenlik ve Güvenilirlik

- Elektrik yangınlarını önleyen opsiyonel AFCI¹
- Opsiyonel AC & DC Tip II SPD & SPD arıza alarmı¹



Optimum Üretim

- Maks. dize başına 16A giriş akımı
- %150 DC giriş aşırı boyutlandırma ve %110 AC çıkış aşırı yükleme



Dost canlısı ve Düşünceli Tasarım

- IP66 giriş koruması
- Fansız soğutma sayesinde düşük gürültü düzeyi

¹: İsteğe bağlı işlevler veya cihazlar ayrıca satın alınır.

Teknik Veriler	GW3000-DNS-30	GW3600-DNS-30	GW4200-DNS-30	GW5000-DNS-30	GW6000-DNS-30
Giriş					
Maks. Giriş Voltajı (V) ^{*3}			600		
MPPT Çalışma Voltaj Aralığı (V) ^{*4}			40 ~ 560		
Çalıştırma Voltajı (V)			50		
Nominal Giriş Voltajı (V)			360		
MPPT Başına Maks. Giriş Akımı (A)			16		
MPPT Başına Maks. Kısa Devre Akımı (A)			23		
MPPT Sayısı			2		
MPPT Başına String Sayısı			1		
Çıkış					
Nominal Çıkış Gücü (W)	3000	3600	4200 ^{*1}	5000	6000
Nominal Çıkış Görünür Güç (VA)	3000	3600	4200 ^{*1}	5000	6000
Maks. AC Aktif Güç (W)	3300	3960 ^{*2}	4620 ^{*1*2}	5500	6600
Maks. AC Görünür Güç (VA)	3300	3960 ^{*2}	4620 ^{*1*2}	5500	6600
Nominal Çıkış Voltajı (V)			220 / 230 / 240		
Çıkış Voltajı Aralığı (V) (Yerel standarda göre)			196 ~ 311		
Nominal AC Şebeke Frekansı (Hz)			50 / 60		
AC Şebeke Frekans Aralığı (Hz)			45 ~ 55 / 55 ~ 65		
Maks. Çıkış Akımı (A)	14.4	17.3 ^{*2}	20.1 ^{*2}	24.0	28.8
Çıkış Gücü Faktörü			~1 (0.8 öndeden 0.8 gecikmeye ayarlanabilir)		
Maks. Toplam Armonik Bozulma			<3%		
Verimlilik					
Maks. Verimlilik			97.9%		
Avrupa Verimliliği	97.0%	97.0%	97.2%	97.3%	97.4%
Koruma					
PV String Akımı İzleme			Birleşik		
PV İzolasyon Direnci Tespiti			Birleşik		
Artık Akım İzleme			Birleşik		
DC Ters Kutup Koruması			Birleşik		
Anti Ada Koruması			Birleşik		
AC Aşırı Akım Koruması			Birleşik		
AC Kısa Devre Koruması			Birleşik		
AC Aşırı Voltaj Koruması			Birleşik		
DC Şalteri			Birleşik		
DC Parafudr			Tip III (Tip II Opsiyonel)		
AC Parafudr			Tip III (Tip II Opsiyonel)		
Ark hatası devre kesici (AFCI)			İsteğe bağlı		
Uzaktan kapatma			İsteğe bağlı		
Gece Güç Beslemesi			İsteğe bağlı		
Genel Veriler					
Çalışma Sıcaklığı Aralığı (°C)			-25 ~ +60		
Bağıl Nem			0 ~ 100%		
Maks. Çalışma Rakımı (m)			4000		
Soğutma Yöntemi			Doğal konveksiyon		
Ekran			LED, LCD (Opsiyonel), WLAN + APP		
İletişim			WiFi, RS485 veya LAN veya 4G		
İletişim Protokolleri			Modbus RTU, Modbus TCP		
Ağırlık (kg)	12.8	12.8	12.8	12.8	13.4
Boyutlar (G x U x D mm)			350 x 410 x 143		
Gürültü Emisyonu (dB)			<25		
Topoloji			İzole edilmemiş		
Gece Güç Tüketimi (W)			<1		
Giriş Koruması Derecesi			IP66		
DC Konektörü			MC4 (4 ~ 6mm ²)		
AC Konektörü			Tak ve çalıştır konektörü (Maks. 6mm ²)		

*1: Malezya için GW4200-DNS-30 Nominal Çıkış Gücü (W) ve Nominal Çıkış Görünür Güç (VA) ve Maks. AC Aktif Güç (W) ve Maks. AC Görünür Güç (VA) 4000'dir.

*2: Hollanda için Maks. AC Aktif Güç (W) ve Maks. AC Görünür Güç (VA) GW3600-DNS-30 3600, GW4200-DNS-30 4200'dür; Maks. Çıkış Akımı (A) ve Nominal Çıkış Akımı (A) GW3600-DNS-30 15.7, GW4200-DNS-30 18.3'tür.

*3: Giriş voltajı 560V ile 600V arasında olduğunda inverter bekleme moduna geçer. Giriş voltajı MPPT çalışma voltaj aralığı olan 40V ~ 560V aralığına geri döndüğünde inverter normal çalışma durumuna geri döner.

*4: Nominal güçteki MPPT voltaj aralığı için lütfen kullanım kılavuzuna bakınız.

*: En son sertifikalar için lütfen GoodWe web sitesini ziyaret edin.

*: Gösterilen tüm resimler sadece referans içindir. Gerçek görünüm değişebilir.

GOODWE

DNS G4 Series

3-6kW | Single Phase | 2 MPPTs

As the fourth generation of GoodWe's proven single-phase, dual-MPPT residential inverter, the DNS G4 series delivers enhanced performance, reliability, functionality, and safety-offering homeowners a more powerful and versatile solution for solar needs.



Wide Compatibility

- Compatible with mainstream modules
- 20A per string & 200% PV oversizing



Friendly & Thoughtful Design

- Quiet operation <25dB
- Easy installation, 31% lighter



Superb Safety & Reliability

- Built-in rapid shutdown transmitter
- AI-driven AFCI 3.0 for safety¹



Flexible & Adaptable Applications

- Flexible paralleling with GoodWe MS G4 inverter
- Easy paralleling via GoodWe smart dongle Ezlink3000

1: Optional functions or devices are purchased separately.

Technical Data	GW3K-DNS-G40	GW3.6K-DNS-G40	GW4.2K-DNS-G40	GW5K-DNS-G40	GW6K-DNS-G40
Input					
Max.Input Voltage (V) ²	600				
MPPT Operating Voltage Range (V) ³	40 ~ 560				
Start-up Voltage (V)	50				
Nominal Input Voltage (V)	360				
Max. Input Current per MPPT (A)	20				
Max. Short Circuit Current per MPPT (A)	26				
Number of MPP Trackers	2				
Number of Strings per MPPT	1				
Output					
Nominal Output Power (W)	3000	3600	4200	5000	6000
Nominal Output Apparent Power (VA)	3000	3600	4200	5000	6000
Max. AC Active Power (W)	3000	3600	4200	5000	6000
Max. AC Apparent Power (VA)	3000	3600	4200	5000	6000
Nominal Output Voltage (V)	220 / 230 / 240, L / N / PE				
Output Voltage Range (V)	196 ~ 311 (according to local standard)				
Nominal AC Grid Frequency (Hz)	50 / 60				
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65				
Max. Output Current (A)	13.7	16.4 ^{*1}	19.1	22.8	27.3
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	<3%				
Efficiency					
Max. Efficiency	98.1%				
European Efficiency	97.2%	97.2%	97.3%	97.4%	97.4%
Protection					
PV String Current Monitoring	Integrated				
PV Insulation Resistance Detection	Integrated				
Residual Current Monitoring	Integrated				
PV Reverse Polarity Protection	Integrated				
Anti-islanding Protection	Integrated				
AC Overcurrent Protection	Integrated				
AC Short Circuit Protection	Integrated				
AC Overvoltage Protection	Integrated				
DC Switch	Integrated (PV II Optional)				
DC Surge Protection	Type II				
AC Surge Protection	Type II				
AFCI	Optional				
Emergency Power Off	Optional				
Rapid Shutdown	Optional				
Remote Shutdown	Optional				
Power Supply at Night	Optional				
General Data					
Operating Temperature Range (°C)	-25 ~ +60				
Relative Humidity	0 ~ 100%				
Max. Operating Altitude (m)	<4000				
Cooling Method	Natural Convection				
User Interface	LED + LCD / WiFi + APP / Bluetooth + APP				
Communication	RS485, WIFI, LAN, Bluetooth, 4G				
Communication Protocols	Modbus, Sunspec				
Weight (kg)	9.2				
Dimension (W × H × D mm)	358 × 323 × 165				
Noise Emission (dB)	25				
Topology	Non-isolated				
Self-consumption at Night (W)	<1				
Ingress Protection Rating	IP66				
DC Connector	MC4 (4 ~ 6mm ²)				
AC Connector	Plug and play connector (Max. 6mm ²)				

*1: About GW3.6K-DNS-G40 for the UK market, both nominal output current and max. output current are 16A.

*2: When the input voltage ranges from 560V to 600V, the inverter will enter the standby state. When the input voltage returns to the MPPT operating voltage range of 40V to 560V, the inverter will resume normal operating state.

*3: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*: Please visit GoodWe website for the latest certificates.

*: All pictures shown are for reference only. Actual appearance may vary.

GOODWE

SDT G2 PLUS+ Series

4-20kW I Three Phase
2 MPPTs

The GoodWe 4-20kW SDT G2 PLUS+ Series inverter is specially designed for three-phase residential and small commercial projects. The integrated features of high efficiency allow for optimized power generation during the inverter's service cycle. With its lightweight and easy-to-install design, the SDT G2 inverter offers comfort and great convenience for operators and installers. Users can also take all-around smart control of energy management utilizing the featuring 24-hour load consumption monitoring enabled by GoodWe HK3000^{**1}. Meet the perfect choice of maximum energy yield for residential and small-scale commercial usage.



Smart Control & Monitoring

- Smart Shadow Scan with adjustable scan interval^{**1}
- Multi-protocol compatibility for smart home integration



High Generation to Cut Bills

- Up to 200% DC input oversizing & 110% AC output overloading
- Up to 16 A max. DC input current per string



Superb Safety & Reliability

- Optional AFCI^{**2}
- Optional exchangeable DC Type II SPD & SPD failure alarm^{**2}



Friendly & Thoughtful Design

- Fanless design for quiet operations^{**3}
- Elegant and compact design

^{**1}: For SDT G2 Plus+ 8-20kW only.

^{**2}: Optional functions or devices are purchased separately.

^{**3}: For SDT G2 Plus+ 4-10kW only.

Technical Data	GW4000-SDT-20	GW5000-SDT-20	GW6000-SDT-20	GW8000-SDT-20	GW10K-SDT-20	GW12K-SDT-20	GW12KLV-SDT-20	GW15K-SDT-20	GW17K-SDT-20	GW20K-SDT-20
Input										
Max.Input Voltage (V)	1000	1000	1000	1100	1100	1100	800	1100	1100	1100
MPPT Operating Voltage Range (V)	180 ~ 850	180 ~ 850	180 ~ 850	140 ~ 950	140 ~ 950	140 ~ 950	140 ~ 650	140 ~ 950	140 ~ 950	140 ~ 950
Start-up Voltage (V)	180	180	180	180	180	180	180	180	180	180
Nominal Input Voltage (V)	620	620	620	620	620	620	370	620	620	620
Max. Input Current per MPPT (A)	16	16	16	15	15	30	30	30	30	30
Max. Short Circuit Current per MPPT (A)	20.0	20.0	20.0	18.7	18.7	37.5	37.5	37.5	37.5	37.5
Number of MPP trackers	2	2	2	2	2	2	2	2	2	2
Number of Strings per MPPT	1	1	1	1	1	2	2	2	2	2
Output										
Nominal Output Power (W)	4000	5000	6000	8000	10000	12000	12000	15000	17000	20000
Nominal Output Apparent Power (VA)	4000	5000	6000	8000	10000	12000	12000	15000	17000	20000
Max. AC Active Power (W) ^{*1}	4400	5500	6600	8800	11000	13200	12000	16500	18700	22000
Max. AC Apparent Power (VA) ^{*1}	4400	5500	6600	8800	11000	13200	12000	16500	18700	22000
Nominal Output Voltage (V)	400, 3L / N / PE			380 / 400 / 415, 3L / N / PE			220 / 127, 3L / N / PE	380 / 400 / 415, 3L / N / PE		
Output Voltage Range (V) (according to local standard)	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270	180 ~ 270
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	60	50 / 60	50 / 60	50 / 60
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65									
Max. Output Current (A)	6.4	8.0	9.6	12.8	16.0	19.1	31.9	24.0	27.1	32.0
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)									
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Efficiency										
Max. Efficiency	98.2%	98.2%	98.2%	98.3%	98.3%	98.4%	96.9%	98.4%	98.4%	98.4%
European Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.8%	96.4%	97.8%	97.8%	97.8%
Protection										
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
DC Switch	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Type III (Type II Optional)									
AC Surge Protection	Tpye III			Type III (Type II Optional)						
AFCI	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Emergency Power Off	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Remote Shutdown	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
General Data										
Operating Temperature Range (°C)	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60	-30 ~ +60
Relative Humidity	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%
Max. Operating Altitude (m) ^{*2}	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Cooling Method	Natural Convection					Smart Fan Cooling				
Display	LED, LCD (Optional), WLAN + APP									
Communication	WiFi, RS485 or LAN or 4G (Optional)									
Weight (kg)	15.0	15.0	15.0	20.5	20.5	23.5	26.0	26.0	26.0	26.0
Dimension (W x H x D mm)	354 x 433 x 147			415 x 511 x 175			415 x 511 x 198			
Noise Emission (dB)	<34	<34	<34	<25	<25	<50	<50	<50	<50	<50
Topology	Non-isolated									
Self-consumption at Night (W)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ingress Protection Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
DC Connector	MC4 (4 ~ 6mm ²)									
AC Connector	Plug and play connector			OT Terminal						

*1: For Chile Max. AC Active Power (W) & Max. Output Apparent Power (VA): GW4000-SDT-20 is 4000, GW5000-SDT-20 is 5000, GW6000-SDT-20 is 6000, GW8000-SDT-20 is 8000, GW10K-SDT-20 is 10000, GW12K-SDT-20 is 12000, GW12KLV-SDT-20 is 12000, GW15K-SDT-20 is 15000, GW17K-SDT-20 is 17000, GW20K-SDT-20 is 20000.

*2: For Australia, Max. Operating Altitude (m) is 3000.

*: Please visit GoodWe website for the latest certificates.

*: All pictures shown are for reference only. Actual appearance may vary.

GOODWE

SDT G3 Series

4-30kW | Three Phase | 2 MPPTs

The GoodWe SDT G3 Series, with a power range of 4-30kW, is specifically engineered to cater to the energy needs of three-phase residential and small commercial projects. The inverter boasts an impressive 150% DC oversizing and 110% AC overloading capabilities, allowing for maximum performance and output even in challenging environments. In addition, the SDT G3 Series inverter's lightweight and easy-to-install design offers exceptional convenience for operators and installers alike.



Smart Control & Monitoring

- 24/7 load consumption monitoring
- Export power limit



Friendly & Thoughtful Design

- Fanless cooling for quiet operation²
- Elegant and compact design



Superb Safety & Reliability

- Optional AFCI¹
- IP66 ingress protection
- Optional Type II SPD on both AC and DC sides¹



Flexible & Adaptable Applications

- Up to 150% DC input oversizing & 110% AC output overloading
- Max. 22A DC input current per string
- Optional PID recovery¹

¹: Optional functions or devices are purchased separately.
²: For SDT G3 4-15kW only.

Technical Data	GW4000-SDT-30	GW5000-SDT-30	GW6000-SDT-30	GW8000-SDT-30	GW10K-SDT-30	GW10K-SDT-EU30	GW12K-SDT-30
Input							
Max. Input Voltage (V) ^{*1}				1100			
MPPT Operating Voltage Range (V) ^{*2}				140 ~ 1000			
Start-up Voltage (V)				160			
Nominal Input Voltage (V)				600			
Max. Input Current per MPPT (A)				22			
Max. Short Circuit Current per MPPT (A)				27.5			
Number of MPP Trackers				2			
Number of Strings per MPPT				1			
Output							
Nominal Output Power (kW)	4.0	5.0	6.0	8.0	10.0	10.0	12.0
Nominal Output Apparent Power (kVA)	4.0	5.0	6.0	8.0	10.0	10.0	12.0
Max. AC Active Power (kW)	4.4	5.5	6.6	8.8	11.0	10.0	13.2
Max. AC Apparent Power (kVA)	4.4	5.5	6.6	8.8	11.0	10.0	13.2
Nominal Output Voltage (V)	220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE						
Output Voltage Range (V)	180 ~ 280 (according to local standard)						
Nominal AC Grid Frequency (Hz)	50 / 60						
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65						
Max. Output Current (A)	6.7	8.4	10.0	13.4	16.7 ^{*3}	15.2	20.0
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
Max. Total Harmonic Distortion	<3%						
Efficiency							
Max. Efficiency	98.4%	98.4%	98.4%	98.5%	98.5%	98.5%	98.5%
European Efficiency	97.7%	97.7%	97.7%	98.0%	98.0%	98.0%	98.2%
Protection							
PV String Current Monitoring				Integrated			
PV Insulation Resistance Detection				Integrated			
Residual Current Monitoring				Integrated			
PV Reverse Polarity Protection				Integrated			
Anti-islanding Protection				Integrated			
AC Overcurrent Protection				Integrated			
AC Short Circuit Protection				Integrated			
AC Overvoltage Protection				Integrated			
DC Switch				Integrated			
DC Surge Protection				Type III (Type II Optional)			
AC Surge Protection				Type III (Type II Optional)			
AFCI				Optional			
Rapid Shutdown				Optional			
Remote Shutdown				Integrated			
PID Recovery				Optional			
Power Supply at Night				Optional			
General Data							
Operating TemperatureRange (°C)				-30 ~ +60			
Relative Humidity				0 ~ 100%			
Max. Operating Altitude (m)				4000			
Cooling Method				Natural Convection			
User Interface				LED, LCD (Optional), WLAN + APP			
Communication				RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)			
Communication Protocols				Modbus-RTU (SunSpec Compliant), Modbus-TCP			
Weight (kg)	15.1	15.1	15.1	15.1	15.1	15.1	16.6
Dimension (W × H × D mm)				491 × 392 × 210			
Noise Emission (dB)				<30			
Topology				Non-isolated			
Self-consumption at Night (W)				<1			
Ingress Protection Rating				IP66			
DC Connector				MC4 (4 ~ 6mm²)			
AC Connector				OT / DT terminal (Max. 10mm²)			
				OT / DT terminal (Max. 16mm²)			

*1: When the input voltage is 1000V-1100V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.

*2: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*3: For Jordan, Max. Output Current is 16A.

*: Please visit GoodWe website for the latest certificates.

Technical Data	GW15K-SDT-30	GW17K-SDT-30	GW20K-SDT-30	GW20K-SDT-31	GW25K-SDT-C30	GW25K-SDT-30	GW25K-SDT-P31
Input							
Max. Input Voltage (V) ^{*1}				1100			
MPPT Operating Voltage Range (V) ^{*2}				140 ~ 1000			
Start-up Voltage (V)				160			
Nominal Input Voltage (V)				600			
Max. Input Current per MPPT (A)	22	32 / 22	32 / 22	40 / 40	42 / 22	40 / 40 / 40	40 / 40
Max. Short Circuit Current per MPPT (A)	27.5	40 / 27.5	40 / 27.5	52.5 / 52.5	52.5 / 27.5	50 / 50 / 50	52.5 / 52.5
Number of MPP Trackers	2	2	2	2	2	3	2
Number of Strings per MPPT	1	2 / 1	2 / 1	2 / 2	2 / 1	2	2 / 2
Output							
Nominal Output Power (kW)	15.0	17.0	20.0	20.0	25.0	25.0	25.0
Nominal Output Apparent Power (kVA)	15.0	17.0	20.0	20.0	25.0	25.0	25.0
Max. AC Active Power (kW)	16.5	18.7	22.0	22.0 ^{*3}	27.5	25.0	27.5 ^{*3}
Max. AC Apparent Power (kVA)	16.5	18.7	22.0	22.0 ^{*3}	27.5	25.0	27.5 ^{*3}
Nominal Output Voltage (V)	220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE						
Output Voltage Range (V)	180 ~ 280 (according to local standard)						
Nominal AC Grid Frequency (Hz)	50 / 60						
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65						
Max. Output Current (A)	25.0	28.3	33.3	30.3	41.7	37.9	37.9
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
Max. Total Harmonic Distortion	<3%						
Efficiency							
Max. Efficiency	98.5%	98.5%	98.5%	98.5%	98.6%	98.7%	98.5%
European Efficiency	98.2%	98.2%	98.2%	97.9%	98.2%	98.3%	97.9%
Protection							
PV String Current Monitoring				Integrated			
PV Insulation Resistance Detection				Integrated			
Residual Current Monitoring				Integrated			
PV Reverse Polarity Protection				Integrated			
Anti-islanding Protection				Integrated			
AC Overcurrent Protection				Integrated			
AC Short Circuit Protection				Integrated			
AC Overvoltage Protection				Integrated			
DC Switch				Integrated			
DC Surge Protection	Type III (Type II Optional)					Type II	Type III (Type II Optional)
AC Surge Protection	Type III (Type II Optional)					Type II	Type III (Type II Optional)
AFCI				Optional			
Rapid Shutdown				Optional			
Remote Shutdown				Integrated			
PID Recovery				Optional			
Power Supply at Night				Optional			
General Data							
Operating TemperatureRange (°C)				-30 ~ +60			
Relative Humidity				0 ~ 100%			
Max. Operating Altitude (m)				4000			
Cooling Method	Natural Convection	Smart Fan Cooling					
User Interface	LED, LCD (Optional), WLAN + APP						
Communication	RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)						
Communication Protocols	Modbus-RTU (SunSpec Compliant), Modbus-TCP			Modbus RTU, Modbus TCP	Modbus-RTU (SunSpec Compliant), Modbus-TCP	Modbus RTU, Modbus TCP	
Weight (kg)	16.6	18.8	18.8	16.6	20.8	30.0	17.7
Dimension (W x H x D mm)	491 x 392 x 210	530 x 413 x 227				585 x 483 x 230	530 x 413 x 221
Noise Emission (dB)	<30	<45	<45	<45	<45	<45	<45
Topology	Non-isolated						
Self-consumption at Night (W)	<1						
Ingress Protection Rating	IP66						
DC Connector	MC4 (4 ~ 6mm²)						
AC Connector	OT / DT terminal (Max. 16mm²)	OT terminal (Max. 25mm²)	OT / DT terminal (Max. 16mm²)			OT terminal (Max. 25mm²)	OT / DT terminal (Max. 16mm²)

*1: When the input voltage is 1000V-1100V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.

*2: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*3: For Sri Lanka, Max. AC Active Power and Max. AC Apparent Power are same as Nominal Output Power.

*: Please visit GoodWe website for the latest certificates.

Technical Data	GW12KLV-SDT-C31	GW12KLV-SDT-C30	GW17KLV-SDT-C30	GW23KLV-SDT-BR30	GW30KLV-SDT-C30
Input					
Max. Input Voltage (V) ^{*1}			850		
MPPT Operating Voltage Range (V) ^{*2}			140 ~ 700		
Start-up Voltage (V)			160		
Nominal Input Voltage (V)			420		
Max. Input Current per MPPT (A)	40 / 40	32 / 22	42 / 32	42 / 42 / 32	40 / 40 / 40 / 40
Max. Short Circuit Current per MPPT (A)	52.5 / 52.5	40.0 / 27.5	52.5 / 40.0	52.5 / 52.5 / 40.0	52 / 52 / 52 / 52
Number of MPP Trackers	2	2	2	3	4
Number of Strings per MPPT	2/2	2/1	2	2	2
Output					
Nominal Output Power (kW)	12.0	12.0	17.0	23.0	30.0
Max. AC Active Power (kW)	13.2	13.2	18.7	25.3	33.0
Max. AC Apparent Power (kVA)	13.2	13.2	18.7	25.3	33.0
Nominal Output Voltage (V)			127 / 220, 3L / N / PE or 3L / PE		
Output Voltage Range (V)			114 ~ 139 (according to local standard)		
Nominal AC Grid Frequency (Hz)			60		
AC Grid Frequency Range (Hz)			59.5 ~ 60.2		
Max. Output Current (A)	31.5	33.3	50.0	60.4	78.8
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion			<3%		
Efficiency					
Max. Efficiency	98.2%	98.2%	97.5%	97.8%	98.0%
European Efficiency	97.2%	97.2%	96.9%	97.0%	97.1%
Protection					
PV String Current Monitoring			Integrated		
PV Insulation Resistance Detection			Integrated		
Residual Current Monitoring			Integrated		
Anti-islanding Protection			Integrated		
AC Overcurrent Protection			Integrated		
AC Short Circuit Protection			Integrated		
AC Overvoltage Protection			Integrated		
DC Switch			Integrated		
DC Surge Protection			Type II		
AC Surge Protection		Type III (Type II Optional)			Type II
AFCI			Optional		
Rapid Shutdown			Optional		
Remote Shutdown			Integrated		
PID Recovery			Optional		
Power Supply at Night			Optional		
General Data					
Operating Temperature Range (°C)			-30 ~ +60		
Relative Humidity			0 ~ 100%		
Cooling Method			Smart Fan Cooling		
User Interface			LED, LCD (Optional), WLAN + APP		
Communication			RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)		
Communication Protocols			Modbus RTU, Modbus TCP		
Weight (kg)	16.6	18.8	21.1	28.0	33.0
Dimension (W × H × D mm)			530 × 413 × 221		
Noise Emission (dB)	<45	<45	<45	<45	<50
Topology			Non-isolated		
Self-consumption at Night (W)			<1		
Ingress Protection Rating			IP66		
DC Connector			MC4 (4 ~ 6mm ²)		
AC Connector	OT / DT terminal (Max. 16mm ²)	OT / DT terminal (Max. 16mm ²)	OT / DT terminal (Max. 16mm ²)	OT / DT terminal (Max. 35mm ²)	OT / DT terminal (Max. 70mm ²)

*1: When the input voltage is 700V-850V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.

*2: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*: Please visit GoodWe website for the latest certificates.

GOODWE

SMT Serisi

50-60kW | 3 Fazlı | 6 MMPT

GoodWe SMT 50-60kW Serisi invertör, orta ve büyük ölçekli ticari kurulumlar için idealdir. Ticari PV sisteminizle yüksek verimlerin getirdiği yüksek yatırım getirisi için güneş enerjisi hasat edin ve çevre dostu güç üretin. Eşsiz sigortasız tasarımı, operatörler için bakımı son derece kolaydır, zamandan ve paradan tasarruf sağlar. Mükemmel güvenlik tasarımı, dış mekan kurulumunda güvenilir koruma sağlar ve zorlu koşullarda bile istikrarlı kullanım ve üretimi garanti eder. SMT 50-60kW Serisi, işiniz ve değeriniz için öncü bir invertördür.



Akıllı Kontrol ve İzleme

- Uzaktan veri izleme
- Çoklu protokol uyumluluğu



Dost canlısı ve Düşünceli Tasarım

- 200V-950V geniş giriş çalışma voltajı aralığı
- Sigorta gerektirmeyen tasarım



Üstün Güvenlik ve Güvenilirlik

- Hem DC hem de AC için Tip II Aşırı Gerilim Koruması
- IP65 giriş koruması



Yüksek Geri Dönüş için Yüksek Güç Üretimi

- String başına maksimum 15 A DC giriş akımı
- %150 DC giriş aşırı boyutlandırma ve %110 AC çıkış aşırı yükleme

Teknik Veriler		GW50KS-MT	GW60KS-MT
Giriş			
Maks. Giriş Voltajı (V)		1100	
MPPT Çalışma Voltaj Aralığı (V)		200 ~ 950	
Çalıştırma Voltajı (V)		180	
Nominal Giriş Voltajı (V)		600	
MPPT Başına Maks. Giriş Akımı (A)		30	
MPPT Başına Maks. Kısa Devre Akımı (A)		37.5	
MPPT Sayısı	5		6
MPPT Başına String Sayısı		2	
Çıkış			
Nominal Çıkış Gücü (kW)	50		60
Nominal Çıkış Görünür Güç (kVA)	50		60
Maks. AC Aktif Güç (kW)	55 ^{*1}		66 ^{*1}
Maks. AC Görünür Güç (kVA)	55 ^{*2}		66 ^{*2}
Nominal Çıkış Voltajı (V)		230 / 400 ^{*3} , 3L / N / PE veya 3L / PE	
Çıkış Voltajı Aralığı (V)		320 ~ 460	
Nominal AC Şebeke Frekansı (Hz)		50 / 60	
AC Şebeke Frekans Aralığı (Hz)		45 ~ 55 / 55 ~ 65	
Maks. Çıkış Akımı (A)	80.0		96.0
Çıkış Gücü Faktörü		~1 (0.8 öndeden 0.8 gecikmeye ayarlanabilir)	
Maks. Toplam Armonik Bozulma		<3%	
Verimlilik			
Maks. Verimlilik		98.6%	
Avrupa Verimliliği		98.1%	
Koruma			
PV String Akımı İzleme		Birleşik	
PV İzolasyon Direnci Tespiti		Birleşik	
Artık Akım İzleme		Birleşik	
DC Ters Kutup Koruması		Birleşik	
Anti Ada Koruması		Birleşik	
AC Aşırı Akım Koruması		Birleşik	
AC Kısa Devre Koruması		Birleşik	
AC Aşırı Voltaj Koruması		Birleşik	
DC Şalteri		Birleşik ^{*4}	
DC Parafudr		Tip II (Tip I + II Opsiyonel)	
AC Parafudr		Tip II	
Ark hatası devre kesici (AFCI)		İsteğe bağlı	
Uzaktan kapatma		İsteğe bağlı	
PID Geri Kazanımı		İsteğe bağlı	
Genel Veriler			
Çalışma Sıcaklığı Aralığı (°C)		-30 ~ +60	
Bağıl Nem		0 ~ 100%	
Maks. Çalışma Rakımı (m)		3000	
Soğutma Yöntemi		Akıllı Fan Soğutma	
Ekran		LED, LCD (İsteğe bağlı), WLAN + APP	
İletişim		RS485, WiFi veya 4G veya PLC (İsteğe bağlı) ^{*5}	
İletişim Protokolleri		Modbus-RTU (SunSpec Uyumlu)	
Ağırlık (kg)		55.0	
Boyutlar (G × U × D mm)		520 × 660 × 220	
Topoloji		İzole edilmemiş	
Gece Güç Tüketimi (W)		<1	
Giriş Koruması Derecesi		IP65	
DC Konektörü		MC4 (4 ~ 6mm ²)	
AC Konektörü		OT / DT terminali (Maks. 50mm ²)	

*1: Brezilya ve Şili için, Maks. AC Aktif Güç (kW): GW50KS-MT 50, GW60KS-MT 60'dir.

*2: Brezilya ve Şili için, Maks. AC Görünür Güç (kVA): GW50KS-MT 50, GW60KS-MT 60'dir.

*3: Brezilya ve Tayland (PEA) için, Nominal Çıkış Voltajı (V): 380, 3L / N / PE veya 3L / PE.

*4: Avustralya için DC Şalteri PV2'dir.

*5: Brezilya için İletişim RS485, WiFi, USB, PLC (İsteğe bağlı) dir.

*6: Kore için DC Konektörü QC'dir.

*: En son sertifikalar için lütfen GoodWe web sitesini ziyaret edin.

*: Gösterilen tüm resimler sadece referans içindir. Gerçek görünüm değişebilir.

** : Nominal güçteki MPPT voltaj aralığı için lütfen kullanım kılavuzuna bakınız.

GOODWE

ES G2 Serisi

3-6kW | Tek Fazlı | 2 MPPT
Hibrit invertör (AG)

3 ila 6kW arasında deęiřen GoodWe ES G2 invertör, enerji akışını akıllı bir şekilde kontrol etme yeteneęi ile üretilen güneř enerjisinin öz tüketimini artırmak için tasarlanmış tek fazlı bir hibrit invertördür. Invertör, klimalar gibi ağır yüklere dayanacak güçlü yedekleme yeteneęiyle UPS düzeyinde yedekleme moduna geçiři otomatik olarak 10 ms'den daha kısa sürede gerçekleřtirebilir. Akıllı tasarımı, güvenilir yedek güç kaynaęı için paralel baęlantıyı da destekledięi için zorlu senaryolar için büyük esneklik sunar. Tak ve çalıştır özellięi, kompakt tasarım ve minimum aęırlıkla öne çıkan PV kurulumları, her zamankinden daha hızlı ve tamamlanması daha kolaydır. Daha da önemlisi, ES G2, GoodWe Lynx Home U akü gibi çok çeřitli düşük voltajlı akülerle uyumludur. Yüksek derecede enerji özerkliği, güvenilir güç kaynaęı ve uygun enerji fiyatları elde etmek isteyen ev sahipleri için ES G2 doęru seçimdir.



Akıllı Kontrol ve İzleme

- Kuru kontaklarla akıllı yük kontrolü
- Çok protokollü iletişim ile akıllı ev entegrasyonu



Üstün Güvenlik ve Güvenilirlik

- DC tarafında isteęe baęlı AFCI¹
- Uzaktan Kapatma



Kullanıcı Dostu Tasarım

- Tak ve Çalıştır
- Zarif ve kompakt tasarım



Esnek ve Uyarlanabilir Uygulamalar

- String başına maksimum 16A DC giriş akımı ve yüksek güç modülü uyumluluęu
- Güçlü yedek güç kaynaęı

1: İsteęe baęlı işlevler veya cihazlar ayrıca satın alınır.

Teknik Veriler	GW3000-ES-20	GW3600-ES-20	GW3600M-ES-20	GW5000-ES-20	GW5000M-ES-20	GW6000-ES-20	GW6000M-ES-20
Akü Giriş Verileri							
Akü Türü	Li-Ion / Lead-acid	Li-Ion / Lead-acid	Li-Ion	Li-Ion / Lead-acid	Li-Ion	Li-Ion / Lead-acid	Li-Ion
Nominal Akü Voltajı (V)				48			
Akü Voltaj Aralığı (V)				40 ~ 60			
Maks. Sürekli Şarj Akımı (A)*1	60	75	60	120	60	120	60
Maks. Sürekli Deşarj Akımı (A)*1	60	75	60	120	60	120	60
Maks. Şarj Gücü (W)*1,2	3000	3600	3000	5000	3000	6000	3000
Maks. Deşarj Gücü (W)*2	3200	3900	3200	5300	3200	6300	3200
PV String Giriş Verileri							
Maks. Giriş Gücü (W)*3	4500	5400	5400	7500	7500	9000	9000
Maks. Giriş Voltajı (V)*4				600			
MPPT Çalışma Voltaj Aralığı (V)				60 ~ 550			
Çalıştırma Voltajı (V)				58			
Nominal Giriş Voltajı (V)				360			
MPPT Başına Maks. Giriş Akımı (A)				16			
MPPT Başına Maks. Kısa Devre Akımı (A)				23			
MPPT Sayısı	1	2	2	2	2	2	2
MPPT Başına String Sayısı				1			
AC Çıkış Verileri (Şebeke üzerinde)							
Kamusal Şebekeye Nominal Görünür Güç Çıkışı (VA)	3000	3680	3680	5000 ⁵	5000 ⁵	6000 ⁵	6000 ⁵
Kamusal Şebekeye Maks. Görünür Güç Çıkışı (VA)	3000	3680	3680	5000 ⁵	5000 ⁵	6000 ⁵	6000 ⁵
Kamusal Şebekeden Maks. Görünür Güç (VA)	6000	7360	3680	10000	5000	10000	6000
Nominal Çıkış Voltajı (V)				220 / 230 / 240			
Nominal AC Şebeke Frekansı (Hz)				50 / 60			
Kamusal Şebekeye Maks. AC Akım Çıkışı (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Kamusal Şebekeden Maks. AC Akım (A)	27.3	33.5	16.7	43.5	22.7	43.5	27.3
Çıkış Gücü Faktörü			~1 (0.8 öndeden 0.8 gecikmeye ayarlanabilir)				
Maks. Toplam Armonik Bozulma				<3%			
AC Çıkış Verileri (Yedek)							
Yedek Nominal Görünür Güç (VA)	3000	3680	3680	5000	5000	6000	6000
Maks. Çıkış Görünür Güç (VA)	3000 (6000@10saniye)	3680 (7360@10saniye)	3680	5000 (10000@10saniye)	5000	6000 (10000@10saniye)	6000
Maks. Çıkış Akımı (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Nominal Çıkış Voltajı (V)				220 / 230 / 240			
Kamusal Şebekeye Maks. AC Akım Çıkışı (A)				50 / 60			
Çıkış THDv (Doğrusal Yükte)				<3%			
Verimlilik							
Maks. Verimlilik				97.6%			
Avrupa Verimliliği				96.7%			
Maks. Akü İla Yük Verimliliği				95.5%			
MPPT Verimliliği				99.9%			
Koruma							
PV String Akımı İzleme				Birleşik			
PV İzolasyon Direnci Tespiti				Birleşik			
Kaçak akım izleme				Birleşik			
DC Ters Kutup Koruması				Birleşik			
Anti Ada Koruması				Birleşik			
AC Aşırı Akım Koruması				Birleşik			
AC Kısa Devre Koruması				Birleşik			
AC Aşırı Voltaj Koruması				Birleşik			
DC Şalteri				Birleşik			
DC Parafudr				Tip II			
AC Parafudr				Tip III			
Ark hatası devre kesici (AFCL)				İsteğe bağlı			
Uzaktan Kapatma				Birleşik			
Genel Veriler							
Çalışma Sıcaklığı Aralığı (°C)				-25 ~ +60			
Bağıl Nem				0 ~ 95%			
Maks. Çalışma Rakımı (m)				3000 (>2000 Derating)			
Soğutma Yöntemi				Doğal konveksiyon			
Kullanıcı Arayüzü				LED, WLAN + APP			
BMS ile İletişim				CAN			
Meter ile İletişim				RS485			
Portal ile İletişim				WiFi / WiFi + LAN / 4G			
Ağırlık (kg)	19.6	20.8	20.0	21.5	20.0	21.5	20.0
Boyutlar (G x U x D mm)				505.9 x 434.9 x 154.8			
Topoloji				İzole edilmemiş			
Gece Güç Tüketimi (W)				<10			
Giriş Koruması Derecesi				IP65			
Monte Yöntemi / methodu				Duvara Monte			

*1: Gerçek şarj ve deşarj akımı / gücü de aküye bağlıdır.

*2: PV giriş voltajı 490V'un üzerine çıktığında, bataryanın şarj ve deşarj gücü kademeli olarak sınırlandırılır ve giriş voltajı düştüğünde bu sınırlama kaldırılır.

*3: Maksimum güç, PV'nin gerçek gücüdür. Avustralya'da çoğu fotovoltaik modül için Maks. Giriş Gücü 2Pn'ye ulaşabilir. Örneğin, GW3000-ES-20'nin Maks. Giriş Gücü 6000W'a ulaşabilir.

*4: Giriş gerilimi 560V'un üzerine çıktığında invertör bekleme moduna geçer. Gerilim 550V'un altına düştüğünde invertör normal çalışma durumuna geri döner.

*5: VDE-AR-N4105 ve NRS 097-2-1 için 4600.

*: En son sertifikaları için lütfen GoodWe web sitesini ziyaret edin.

*: Gösterilen tüm resimler sadece referans içindir. Gerçek görünüm değişebilir.

GOODWE

ES Uniq Series

3-12kW | Single Phase | 1/2 MPPTs
Hybrid Inverter (LV)

GoodWe's ES Uniq Series inverter, available in 3-12kW capacities, are specifically designed for residential PV installations. It offers flexible compatibility with both on-grid and off-grid systems and support parallel connection of up to 6 inverters for easy system expansion. The ES Uniq inverters feature a user-friendly touch-screen LCD display for intuitive operation and monitoring, and can be combined with a range of battery capacities and brands, including GoodWe's Lynx A and Lynx U batteries.



Flexible & Adaptable Applications

- 3-in-1 Port: generator & smart loads & on-grid inverter
- Micro-grid operation with PV inverter
- Supports on- and off-grid parallel operation of up to 6 units



Superb Safety & Reliability

- AI-driven AFCI¹
- IP66 ingress protection



Higher Power Generation

- Max. 20A DC input current per string
- 200% PV input oversizing



Smart Control & Monitoring

- Smart load control
- Seamless switching to backup <4ms

1: Optional functions or devices are purchased separately.

Technical Data		GW3000-ES-C10	GW3600-ES-C10	GW5000-ES-C10	GW6000-ES-C10	GW8000-ES-C10	GW10K-ES-C10	GW12K-ES-C10
Battery Input Data								
Battery Type	Li-Ion / Lead-acid							
Nominal Battery Voltage (V)	48							
Battery Voltage Range (V)	40 ~ 60							
Start-up Voltage (V)	44.2							
Number of Battery Input	1							
Max. Continuous Charging Current (A)	70	90	120	140	160	200	240	240
Max. Continuous Discharging Current (A)	70	90	120	140	160	200	240	240
Max. Charging Power (kW) ^{*1}	3.0	3.6	5.0	6.0	8.0	10.0	12.0	12.0
Max. Discharging Power (kW) ^{*1}	3.3	3.96	5.5	6.6	8.8	11.0	13.2	13.2
PV String Input Data								
Max. Input Power (kW)	6.0	7.2	10.0	12.0	16.0	20.0	24.0	24.0
Max. Input Voltage (V) ^{*2}	600							
MPPT Operating Voltage Range (V) ^{*3}	60 ~ 550							
Start-up Voltage (V)	58							
Nominal Input Voltage (V)	360							
Max. Input Current per MPPT (A)	20	20	20	20	32 / 16 ^{*4}	32 / 32 ^{*4}	32 / 32 ^{*4}	32 / 32 ^{*4}
Max. Short Circuit Current per MPPT (A)	26	26	26	26	48 / 24	48 / 48	48 / 48	48 / 48
Number of MPPT Trackers	1	2	2	2	2	2	2	2
Number of Strings per MPPT	1	1	1	1	2 / 1	2 / 2	2 / 2	2 / 2
AC Output Data (On-grid)								
Nominal Output Power (kW)	3.0	3.6	5.0	6.0	8.0	10.0	12.0	12.0
Nominal Apparent Power Output to Utility Grid (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	12.0	12.0
Max. AC Active Power (kW) ^{*5} ^{*6}	3.3	3.96 ^{*7}	5.5	6.6	8.8	11.0	13.2	13.2
Max. Apparent Power Output to Utility Grid (kVA) ^{*5} ^{*6}	3.3	3.96 ^{*7}	5.5	6.6	8.8	11.0	13.2	13.2
Max. Apparent Power from Utility Grid (kVA)	7.04	7.04	8.8	8.8	16.5	16.5	16.5	16.5
Nominal Output Voltage (V) ^{*8}	220 / 230 / 240							
Output Voltage Range (V)	170 ~ 280							
Nominal AC Grid Frequency (Hz)	50 / 60							
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65							
Max. AC Current Output to Utility Grid (A)	15	18 ^{*9}	25	30	40	50	60	60
Max. AC Current From Utility Grid (A)	32	32	40	40	75	75	75	75
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)							
Max. Total Harmonic Distortion	<3%							
AC Output Data (Back-up)								
Back-up Nominal Apparent Power (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	12.0	12.0
Max. Output Apparent Power without Grid (kVA)	3.3 (6.0, 10s)	3.96 (7.2, 10s)	5.5 (10.0, 10s)	6.6 (12.0, 10s)	8.8 (16.0, 10s)	11.0 (20.0, 10s)	13.2 (24.0, 10s)	13.2 (24.0, 10s)
Max. Output Apparent Power with Grid (kVA)	7.04	7.04	8.8	8.8	16.5	16.5	16.5	16.5
Max. Output Current without Grid (A)	15	18	25	30	40	50	60	60
Max. Output Current with Grid (A)	32	32	40	40	75	75	75	75
Nominal Output Voltage (V)	220 / 230 / 240							
Nominal Output Frequency (Hz)	50 / 60							
Output THDv (@Linear Load)	<3%							
AC Data (Generator)								
Nominal Apparent Power from AC generator (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	12.0	12.0
Max. Apparent Power from AC generator (kVA)	3.3	3.96	5.5	6.6	8.8	11.0	13.2	13.2
Nominal Input Voltage (V) ^{*8}	220 / 230 / 240							
Input Voltage Range (V)	170 ~ 280							
Nominal AC generator Frequency (Hz)	50 / 60							
AC generator Frequency Range (Hz)	45 ~ 55 / 55 ~ 65							
Max. AC Current From AC generator (A)	32.0	32.0	40.0	40.0	50.0	54.5	54.5	54.5
Nominal AC Current From AC generator (A)	13.7 at 220V	16.4 at 220V	22.8 at 220V	27.3 at 220V	36.4 at 220V	45.5 at 220V	54.5 at 220V	54.5 at 220V
	13.1 at 230V	15.7 at 230V	21.8 at 230V	26.1 at 230V	34.8 at 230V	43.5 at 230V	52.2 at 230V	52.2 at 230V
	12.5 at 240V	15.0 at 240V	20.9 at 240V	25.0 at 240V	33.3 at 240V	41.7 at 240V	50.0 at 240V	50.0 at 240V
Nominal Input Current (A)	13.7 at 220V	16.4 at 220V	22.8 at 220V	27.3 at 220V	36.4 at 220V	45.5 at 220V	54.5 at 220V	54.5 at 220V
	13.1 at 230V	15.7 at 230V	21.8 at 230V	26.1 at 230V	34.8 at 230V	43.5 at 230V	52.2 at 230V	52.2 at 230V
	12.5 at 240V	15.0 at 240V	20.9 at 240V	25.0 at 240V	33.3 at 240V	41.7 at 240V	50.0 at 240V	50.0 at 240V
Efficiency								
Max. Efficiency	97.6%							
European Efficiency	96.2%							
Max. Battery to AC Efficiency	95.5%							
MPPT Efficiency	99.9%							
Protection								
PV String Current Monitoring	Integrated							
PV Insulation Resistance Detection	Integrated							
Residual Current Monitoring	Integrated							
PV Reverse Polarity Protection	Integrated							
Anti-islanding Protection	Integrated							
AC Overcurrent Protection	Integrated							
AC Short Circuit Protection	Integrated							
AC Overvoltage Protection	Integrated							
DC Switch	Integrated							
DC Surge Protection	Type III							
AC Surge Protection	Type III							
AFCI	Optional							
Rapid Shutdown	Optional							
Remote Shutdown	Integrated							
General Data								
Operating Temperature Range (°C)	-35 ~ +60							
Relative Humidity	0 ~ 95%							
Max. Operating Altitude (m)	3000							
Cooling Method	Natural Convection				Smart Fan Cooling			
User Interface	LCD, WLAN + APP							
Communication with BMS	CAN							
Communication	RS485, WiFi + LAN + Bluetooth							
Communication Protocols	Modbus-RTU, Modbus-TCP							
Weight (kg)	14.5	15.5	15.5	15.5	27.0	29.0	29.0	29.0
Dimension (W x H x D mm)	560 x 415 x 204				560 x 444.5 x 226			
Topology	Non-isolated							
Ingress Protection Rating	IP66							
Mounting Method	Wall Mounted							

*1: When the PV input voltage is higher than 490V, the battery charging and discharging power will be gradually limited, and the power limitation will be lifted after the input voltage is lowered.

*2: When the input voltage is 580V-600V, the inverter will enter standby mode, and the voltage returns to 580V to enter the normal operation state.

*3: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*4: The maximum input current per string is 16A. Or For the MPPT with two strings, the current of each string is 16A.

*5: For Sri Lanka, Max. Output Power (kW) is 3.0kW for GW3000-ES-C10, 3.6kW for GW3600-ES-C10, 5.0kW for GW5000-ES-C10, 6.0kW for GW6000-ES-C10, 8.0kW for GW8000-ES-C10, 10.0kW for GW10K-ES-C10, and 12.0kW for GW12K-ES-C10.

*6: For Brazil and Chile, the max. AC output power is P_n, such as the max. AC output power of GW8000-ES-C10 is 8000W (VA).

*7: For Jordan, UK G98, Max. AC Active Power and Max. Apparent Power Output to Utility Grid are 3.6kW/kVA for GW3600-ES-C10.

*8: In South America, back-up output does not support relative phase (F-F) connections and 110-127V loads; Only supports relative neutral wire (F-N) 208-240V connection and 208-240V load.

*9: For Jordan, UK G98, Max. AC Current Output to Utility Grid is 15.7A for GW3600-ES-C10.

*: Please visit GoodWe website for the latest certificates.

GOODWE

ET PLUS+ Serisi

5-10kW | 3 Faz | Hibrit İnverter

ET PLUS+ Serisi, esnek konut ihtiyaçları için piyasadaki en uyarlanabilir seçeneklerden biri olmasını sağlayan teknik güçleri bütünleştirir. Seri, optimum enerji hasadı için yüksek güç üretimi ve şarj gücü, akıllı yük kontrolü ve %100 dengesiz çıktı ile sağlanan esnek uygulamalar ve sürdürülebilir sistem güvenilirliği ve güvenliği değerleri getiriyor. Uygulama senaryolarını genişleten ve öz tüketim oranlarını en üst düzeye çıkaran gerçekten çok yönlü kaliteli bir yatırım parçasıdır.



Akıllı Enerji için Akıllı Kontrol

- Akıllı yük kontrolü
- <10ms UPS düzeyinde anahtarlama



Üstün Güvenlik ve Güvenilirlik

- DC tarafında yerleşik Tip II SPD
- IP66 giriş koruması



Dost Canlısı ve Düşünceli Tasarım

- Sessiz çalışma için fansız soğutma
- Zarif ve kompakt tasarım



Esnek ve Uyarlanabilir Uygulamalar

- Pil hazır seçeneği
- %100 dengesiz çıkış

Teknik Veriler	GW5K-ET	GW6.5K-ET	GW8K-ET	GW10K-ET
Akü Giriş Verileri				
Akü Türü	Li-Ion	Li-Ion	Li-Ion	Li-Ion
Nominal Akü Voltajı (V)	500	500	500	500
Akü Voltaj Aralığı (V)	180 ~ 600	180 ~ 600	180 ~ 600	180 ~ 600
Çalıştırma Voltajı (V)	180	180	180	180
Pil Giriş Sayısı	1	1	1	1
Maks. Sürekli Şarj Akımı (A)	25	25	25	25
Maks. Sürekli Deşarj Akımı (A)	25	25	25	25
Maks. Şarj Gücü (W)	7500	8450	9600	10000
Maks. Deşarj Gücü (W)	7500	8450	9600	10000
PV String Giriş Verileri				
Maks. Giriş Gücü (W)	7500	9700	12000	15000
Maks. Giriş Voltajı (V) ¹	1000	1000	1000	1000
MPPT Çalışma Voltaj Aralığı (V) ²	200 ~ 850	200 ~ 850	200 ~ 850	200 ~ 850
Çalıştırma Voltajı (V)	180	180	180	180
Nominal Giriş Voltajı (V)	620	620	620	620
MPPT Başına Maks. Giriş Akımı (A)	12.5	12.5	12.5	12.5
MPPT Başına Maks. Kısa Devre Akımı (A)	15.2	15.2	15.2	15.2
MPPT Sayısı	2	2	2	2
MPPT Başına String Sayısı	1	1	1	1
AC Çıkış Verileri (Şebeke üzerinde)				
Nominal Çıkış Gücü (W)	5000	6500	8000	10000
Kamusal Şebekeye Nominal Görünür Güç Çıkışı (VA)	5000	6500	8000	10000
Kamusal Şebekeye Maks. Görünür Güç Çıkışı (VA) ^{3,4}	5500	7150	8800	11000
Kamusal Şebekeden Maks. Görünür Güç (VA)	10000	13000	15000	15000
Nominal Çıkış Voltajı (V)	400 / 380, 3L / N / PE	400 / 380, 3L / N / PE	400 / 380, 3L / N / PE	400 / 380, 3L / N / PE
Çıkış Voltajı Aralığı (V)	0 ~ 300	0 ~ 300	0 ~ 300	0 ~ 300
Nominal AC Şebeke Frekansı (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
AC Şebeke Frekansı Aralığı (Hz)	45 ~ 65	45 ~ 65	45 ~ 65	45 ~ 65
Kamusal Şebekeye Maks. AC Akım Çıkışı (A)	8.5	10.8	13.5	16.5
Kamusal Şebekeden Maks. AC Akım (A)	15.2	19.7	22.7	22.7
Çıkış Gücü Faktörü	~1 (0.8 öndeden 0.8 gecikmeye ayarlanabilir)			
Maks. Toplam Armonik Bozulma	<3%	<3%	<3%	<3%
AC Çıkış Verileri (Yedek)				
Yedek Nominal Görünür Güç (VA)	5000	6500	8000	10000
Maks. Şebekesiz Çıkış Görünür Gücü (VA) ³	5000 (10000@60saniye)	6500 (13000@60saniye)	8000 (16000@60saniye)	10000 (16500@60saniye)
Maks. Şebeke ile Görünen Çıkış Gücü (VA) ³	5000	6500	8000	10000
Maks. Çıkış Akımı (A)	8.5	10.8	13.5	16.5
Nominal Çıkış Voltajı (V)	400 / 380	400 / 380	400 / 380	400 / 380
Kamusal Şebekeye Maks. AC Akım Çıkışı (A)	50 / 60	50 / 60	50 / 60	50 / 60
Çıkış THDv (Doğrusal Yükle)	<3%	<3%	<3%	<3%
Verimlilik				
Maks. Verimlilik	98.0%	98.0%	98.2%	98.2%
Avrupa Verimliliği	97.2%	97.2%	97.5%	97.5%
Maks. Akü ila Yük Verimliliği	97.5%	97.5%	97.5%	97.5%
MPPT Verimliliği	99.9%	99.9%	99.9%	99.9%
Koruma				
PV İzolasyon Direnci Tespiti	Birleşik	Birleşik	Birleşik	Birleşik
Kaçak akım izleme	Birleşik	Birleşik	Birleşik	Birleşik
DC Ters Kutup Koruması	Birleşik	Birleşik	Birleşik	Birleşik
Anti Ada Koruması	Birleşik	Birleşik	Birleşik	Birleşik
AC Aşırı Akım Koruması	Birleşik	Birleşik	Birleşik	Birleşik
AC Kısa Devre Koruması	Birleşik	Birleşik	Birleşik	Birleşik
AC Aşırı Voltaj Koruması	Birleşik	Birleşik	Birleşik	Birleşik
DC Şalteri	Birleşik	Birleşik	Birleşik	Birleşik
DC Parafudr	Tip II	Tip II	Tip II	Tip II
AC Parafudr	Tip III	Tip III	Tip III	Tip III
Uzaktan Kapatma	Birleşik	Birleşik	Birleşik	Birleşik
Genel Veriler				
Çalışma Sıcaklığı Aralığı (°C)	-35 ~ +60	-35 ~ +60	-35 ~ +60	-35 ~ +60
Bağıl Nem	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%
Maks. Çalışma Rakımı (m)	4000	4000	4000	4000
Soğutma Yöntemi	Doğal konveksiyon	Doğal konveksiyon	Doğal konveksiyon	Doğal konveksiyon
Kullanıcı Arayüzü	LED, APP	LED, APP	LED, APP	LED, APP
BMS ile İletişim ⁵	RS485, CAN	RS485, CAN	RS485, CAN	RS485, CAN
Meter ile İletişim	RS485	RS485	RS485	RS485
Portal ile İletişim	WiFi	WiFi	WiFi	WiFi
Ağırlık (kg)	24	24	24	24
Boyutlar (G x U x D mm)	415 x 516 x 180	415 x 516 x 180	415 x 516 x 180	415 x 516 x 180
Topoloji	İzole edilmemiş	İzole edilmemiş	İzole edilmemiş	İzole edilmemiş
Gece Güç Tüketimi (W) ⁶	<15	<15	<15	<15
Giriş Koruması Derecesi	IP66	IP66	IP66	IP66
Monte Yöntemi/methodu	Duvara Monte	Duvara Monte	Duvara Monte	Duvara Monte

* 1: 1000V sistem için Maks. Giriş Voltajı (V) 950V'dur.

*2: Yerel şebeke yönetmeliğine göre.

*3: Sadece PV ve pil gücü yeterliyse ulaşılabılır.

*4: Şili için Kamusal Şebekeye Nominal Görünür Güç Çıkışı (VA) ve Maks. Çıkış Gücü (W): GW5K(L)-ET, 5000'dir; GW6K(L)-ET, 6000'dir; GW6.5K-ET, 6500'dir; GW8K(L)-ET, 8000'dir; GW10K(L)-ET, 10000'dir.

*5: CAN iletişimi varsayılan olarak yapılandırılmıştır. RS485 iletişimi kullanılıyorsa, lütfen ilgili iletişim hattını değiştirin.

*6: Yedek Çıkış Yok.

*: En son sertifikalar için lütfen GoodWe web sitesini ziyaret edin.

*: Gösterilen tüm resimler sadece referans içindir. Gerçek görünüm değişebilir.

ET Serisi

15-30kW | Üç Fazlı 3 MPPT kadar | Hibrit Invertör (HV)

GoodWe ET 15-30kW Serisi Invertör, büyük konut veya küçük ticari ve endüstriyel uygulamalar için idealdir. Enerji depolama çözümünün temeli olan yüksek voltajlı invertörler optimize edilmiş özerklik ve düşük enerji maliyeti için güçlü enerji yedeklemeyi ve yük yönetimini kolaylaştırır. ET invertörler, ekstra şebeke talebini etkin bir şekilde azaltmak için güç talebini ve içe aktarılan şebeke gücünü dengeleyen pik azaltma özelliğine sahiptir. Dahası, invertördeki kuru kontak sayesinde ısı pompaları gibi harici yükler de enerji tüketimini optimize etmek için esnek bir şekilde etkinleştirilebilir. Seri, GoodWe Lynx Home F dahil olmak üzere çeşitli akü kapasiteleri ve markalarıyla birleştirilebilir.



Akıllı Kontrol ve İzleme

- Harici yükler için entegre kuru kontak
- Pik azaltma



Kullanıcı Dostu Tasarım

- Zarif ve kompakt tasarım
- Tak ve Çalıştır kurulum



Üstün Güvenlik ve Güvenilirlik

- DC tarafında Tip II SPD
- İsteğe bağlı ark hatası devre kesici¹



Esnek ve Uyarlanabilir Uygulamalar

- Dizi başına en fazla 15A DC giriş akımı
- %150'ye kadar DC girişi yükseltme

¹: İsteğe bağlı işlevler veya cihazlar ayrıca satın alınabilir.

Teknik Veriler		GW15K-ET	GW20K-ET	GW25K-ET	GW29.9K-ET	GW30K-ET
Akü Giriş Verileri						
Akü Türü				Li-Ion		
Nominal Akü Voltajı (V)				500		
Akü Voltaj Aralığı (V)				200 ~ 800		
Çalıştırma Voltajı (V)				200		
Pil Giriş Sayısı	1	1	2	2	2	
Maks. Sürekli Şarj Akımı (A)	50	50	50 x 2	50 x 2	50 x 2	
Maks. Sürekli Deşarj Akımı (A)	50	50	50 x 2	50 x 2	50 x 2	
Maks. Şarj Gücü (W)	15000	20000	25000	30000	30000	
Maks. Deşarj Gücü (W)	15000	20000	25000	30000	30000	
PV String Giriş Verileri						
Maks. Giriş Gücü (W) ¹	22500	30000	37500	45000	45000	
Maks. Giriş Voltajı (V) ²			1000			
MPPT Çalışma Voltaj Aralığı (V)			200 ~ 850			
Çalıştırma Voltajı (V)			200			
Nominal Giriş Voltajı (V)			620			
MPPT Başına Maks. Giriş Akımı (A)			30			
MPPT Başına Maks. Kısa Devre Akımı (A)			38			
MPPT Sayısı	2	2	3	3	3	
MPPT Başına String Sayısı			2 / 2			
AC Çıkış Verileri (Şebeke üzerinde)						
Nominal Çıkış Gücü (W)	15000	20000	25000	29900	30000	
Kamusal Şebekeye Nominal Görünür Güç Çıkışı (VA)	15000	20000	25000	29900	30000	
Kamusal Şebekeye Maks. Görünür Güç Çıkışı (VA) ^{3,11}	16500	22000	27500	29900	33000	
Kamusal Şebekeden Maks. Görünür Güç (VA) ⁹	15000	20000	25000	30000	30000	
Nominal Çıkış Voltajı (V)			380 / 400, 3L / N / PE			
Çıkış Voltajı Aralığı (V) (Yerel standarda göre) ⁴			0 ~ 300			
Nominal AC Şebeke Frekansı (Hz)			50 / 60			
AC Şebeke Frekans Aralığı (Hz)			45 ~ 65			
Kamusal Şebekeye Maks. AC Akım Çıkışı (A) ⁸	23.9	31.9	39.9	43.3	47.8	
Kamusal Şebekeden Maks. AC Akım (A) ¹⁰	22.7	30.3	37.9	45.3	45.5	
Çıkış Gücü Faktörü			~1 (0.8 öndeden 0.8 gecikmeye ayarlanabilir)			
Maks. Toplam Armonik Bozulma			≤3.05%			
AC Çıkış Verileri (Yedek)						
Yedek Nominal Görünür Güç (VA)	15000	20000	25000	29900	30000	
Maks. Şebekesiz Çıkış Görünür Gücü (VA) ⁵	15000 (18000@60s, 24000@3s)	20000 (24000@60s, 32000@3s)	25000 (30000@60s)	30000 (36000@60s)	30000 (36000@60s)	
Maks. Şebeke ile Görünen Çıkış Gücü (VA)	15000	20000	25000	29900	30000	
Maks. Çıkış Akımı (A)	22.7 (27.3@60s, 36.4@3s)	30.3 (36.4@60s, 48.5@3s)	37.9 (45.5@60s)	45.5 (54.5@60s)	45.5 (54.5@60s)	
Nominal Çıkış Voltajı (V)			380 / 400			
Nominal Çıkış Frekansı (Hz)			50 / 60			
Çıkış THDv (Doğrusal Yükte)			<3%			
Verimlilik						
Maks. Verimlilik			98.0%			
Avrupa Verimliliği			97.5%			
Maks. Akü ile Yük Verimliliği			97.5%			
MPPT Verimliliği			99.9%			
Koruma						
PV String Akımı İzleme			Birleşik			
PV İzolasyon Direnci Tespiti			Birleşik			
Kaçak akım izleme			Birleşik			
DC Ters Kutup Koruması			Birleşik			
Pil Ters Kutup Koruması			Birleşik			
Anti Ada Koruması			Birleşik			
AC Aşırı Akım Koruması			Birleşik			
AC Kısa Devre Koruması			Birleşik			
AC Aşırı Voltaj Koruması			Birleşik			
DC Şalteri ⁶			Birleşik			
DC Parafudr			Tip II			
AC Parafudr			Tip III			
Ark hatası devre kesici (AFCI)			İsteğe bağlı			
Hızlı Kapatma			İsteğe bağlı			
Uzaktan Kapatma			Birleşik			
Genel Veriler						
Çalışma Sıcaklığı Aralığı (°C)			-35 ~ +60			
Bağıl Nem			0 ~ 95%			
Maks. Çalışma Rakımı (m)			4000			
Soğutma Yöntemi			Akıllı Fan Soğutma			
Kullanıcı Arayüzü			LED, WLAN + APP			
BMS ile İletişim			RS485 / CAN			
Meter ile İletişim			RS485			
Portal ile İletişim			WiFi + LAN + Bluetooth			
Ağırlık (kg)	48	48	54	54	54	
Boyutlar (G x U x D mm)			520 x 660 x 220			
Gürültü Emisyonu (dB)	<45	<45	<45	<60	<60	
Topoloji			İzole edilmemiş			
Gece Güç Tüketimi (W) ⁷			<15			
Giriş Koruması Derecesi			IP66			
Monte Yöntemi / methodu			Duvara Monte			

*1: Avustralya'da çoğu fotovoltaik modül için Maks. Giriş Gücü 2Pn'ye ulaşabilir. Örneğin, GW15K-ET'nin Maks. Giriş Gücü 30000W'a ulaşabilir. Maks. Giriş Gücü (W), sürekli olarak 1.5normal güç değildir.

*2: 1000V sistemi için, Maksimum çalışma gerilimi 950V'dir.

*3: Yerel şebeke düzenlemelerine göre.

*4: Çıkış Voltajı Aralığı (V): faz gerilimi.

*5: Sadece PV ve batarya gücü yeterli ise ulaşılabilir.

*6: DC Şalteri: GHX6-55P (Avustralya için).

*7: Yedek Çıkış Yok.

*8: 380V şebeke için, Kamusal Şebekeye Maks. AC Akım Çıkışı (A) GW15K-ET için 25.0A, GW20K-ET için 33.3A, GW25K-ET için 41.7A, GW29.9K-ET için 49.8A, GW30K-ET için 50.0A'dır.

*9: Yük invertörün yedek bağlantı noktasına bağlandığında, GW15K-ET için Kamusal Şebekeden Maks. Görünür Güç 22.5K'a, GW20K-ET için 30K'a, GW25K-ET için 33K'a, GW29.9K-ET için 33K'a ve GW30K-ET için 33K'a ulaşabilir.

*10: Yük invertörün yedek bağlantı noktasına bağlandığında, GW15K-ET için Kamusal Şebekeden Maks. AC Akım 34A'a, GW20K-ET için 45A'a, GW25K-ET için 50A'a, GW29.9K-ET için 50A'a ve GW30K-ET için 50A'a ulaşabilir.

*11: Avusturya için, GW15K-ET için Maksimum Çıkış Gücü (W) 15K, GW20K-ET için 20K, GW25K-ET için 25K, GW29.9K-ET için 29.9K ve GW30K-ET için 30K'dır.

*: En son sertifikalar için lütfen GoodWe web sitesini ziyaret edin.

*: Gösterilen tüm resimler sadece referans içindir. Gerçek görünüm değişebilir.

Optimized performance and flexibility for C&I energy storage

- ✓ Optimised energy autonomy
- ✓ Smart and efficient operations
- ✓ Modern and compact design
- ✓ Highest safety standards

Powerful and compact, the GoodWe ET50 hybrid inverter is ideal for Commercial and Industrial (C&I) energy storage solutions. The inverter is compatible with a range of battery capacities, and leverages intelligent operating modes to optimize system performance across various scenarios such as self-consumption, peak shaving, time-of-use and grid support. Its parallel connection capability facilitates seamless expansion for both on-grid and off-grid setups. When coupled with the Static Transfer Switch (STS) Box, the system supports dependable UPS-level switching to backup mode. Paired with the GoodWe Lynx C battery system, GoodWe provides a complete energy storage solution.



Parallel connection



Peak shaving and grid support



Powerful back-up with STS box



Technical Data		GW40K-ET-10	GW50K-ET-10
Battery Input Data			
Battery Type ^{*4}		Li-Ion	
Nominal Battery Voltage (V)		500	
Battery Voltage Range (V)		200 ~ 800	
Start-up Voltage (V)		200	
Number of Battery Input		1	
Max. Continuous Charging Current (A)		100	
Max. Continuous Discharging Current (A)		100	
Max. Charging Power (W)	44000		55000
Max. Discharging Power (W)	44000		55000
PV String Input Data			
Max. Input Power (W) ^{*1}	60000		75000
Max. Input Voltage (V) ^{*3}		1000	
MPPT Operating Voltage Range (V) ^{*5}		165 ~ 850	
Start-up Voltage (V)		200	
Nominal Input Voltage (V)		620	
Max. Input Current per MPPT (A)	42 / 32 / 42		42 / 32 / 42 / 32
Max. Short Circuit Current per MPPT (A)	55 / 42 / 55		55 / 42 / 55 / 42
Number of MPP Trackers	3		4
Number of Strings per MPPT		2	
AC Output Data (On-grid)*requires additional STS box			
Nominal Output Power (W)	40000		50000
Nominal Apparent Power Output to Utility Grid (VA)	40000		50000
Max. Apparent Power Output to Utility Grid (VA)	40000		50000
Max. Apparent Power from Utility Grid (VA)	40000		50000
Nominal Output Voltage (V)		380 / 400, 3L / N / PE	
Output Voltage Range (V) ^{*1}		176 ~ 276	
Nominal AC Grid Frequency (Hz)		50 / 60	
AC Grid Frequency Range (Hz)		45 - 55 / 55 - 65	
Max. AC Current Output to Utility Grid (A)	60.6 @ 380V; 58.0 @ 400V		75.8 @ 380V; 72.5 @ 400V
Max. AC Current From Utility Grid (A)	60.6 @ 380V; 58.0 @ 400V		75.8 @ 380V; 72.5 @ 400V
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Max. Total Harmonic Distortion		<3%	
AC Output Data (Back-up)			
Back-up Nominal Apparent Power (VA)	40000		50000
Max. Output Apparent Power (VA)	44000 (48000 @ 60sec, 60000 @ 10sec)		55000 (60000 @ 60sec, 75000 @ 10sec)
Max. Output Current (A)	66.7 @ 380V; 63.8 @ 400V		83.3 @ 380V; 79.7 @ 400V
Nominal Output Voltage (V)		380 / 400, 3L / N / PE	
Nominal Output Frequency (Hz)		50 / 60	
Output THDv (@Linear Load)		< 3%	
Efficiency			
Max. Efficiency		98.1%	
European Efficiency		97.5%	
Max. Battery to AC Efficiency		97.7%	
MPPT Efficiency		99.0%	
Protection			
Residual Current Monitoring		Integrated	
PV Reverse Polarity Protection		Integrated	
Battery Reverse Polarity Protection		Integrated	
Anti-islanding Protection		Integrated	
AC Overcurrent Protection		Integrated	
AC Short Circuit Protection		Integrated	
AC Overvoltage Protection		Integrated	
DC Switch		Integrated	
DC Surge Protection		Type II (Type I + II Optional)	
AC Surge Protection		Type II	
AFCI		Optional	
Remote Shutdown		Integrated	
General Data			
Operating Temperature Range (°C)		-35 ~ +60	
Relative Humidity		0 ~ 95%	
Max. Operating Altitude (m)		4000	
Cooling Method		Smart Fan Cooling	
User Interface		LED, WLAN + APP	
Communication with BMS		CAN	
Communication with Meter		RS485	
Communication with Portal		RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)	
Weight (kg)	62		65
Dimension (W × H × D mm)		520 × 660 × 260	
Topology		Non-isolated	
Self-consumption at Night (W)		<15	
Ingress Protection Rating		IP66	
Mounting Method		Wall Mounted	

*1: For most of the PV module, the max. input power can achieve 2*P_n, Such as the max. input power of GW50K-ET can achieve 100kW.

*2: Output Voltage Range: phase voltage.

*3: When the input voltage is greater than 980V, the inverter will enter standby mode, and when the voltage returns to below 970V the inverter will return to normal operation.

*4: The Li-Ion battery usually contain two mainstream type: LFP and Ternary Lithium battery.

*5: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*: Please visit GoodWe website for the latest certificates.

Lynx A G3 Series

5kWh | Low Voltage Battery

Harnessing the reliability of lithium iron phosphate (LFP) battery cell technology, GoodWe's low-voltage Lynx A G3 Series is crafted to meet residential energy needs. Focused on optimizing self-consumption and providing reliable solar power backup, this battery offers homeowners a seamless energy storage solution. The battery presents high energy density, enabling effective storage of significant energy within a confined space. Each battery pack is designed as a standalone unit, incorporating a dedicated Battery Management System (BMS). It also allows for the connection of up to 30 units in parallel and supports different installation methods for system expansion. With its impressive battery cycle life, investing in this battery ensures enduring value for homes.

1.5C
Discharging



Flexible & Adaptable Applications

- Continuous discharge current of up to 150A
- Scalable up to 150kWh, 30 units in parallel



Superb Safety & Reliability

- Reliable LFP technology with high cycle stability
- Long life cycle, >6000 times (70% EOL)



Friendly & Thoughtful Design

- Compact and lightweight design
- Multiple installation methods supported for expansion



Smart Control

- Remote diagnosis & update via inverter
- Auto reboot after undervoltage

Technical Data	LX A5.0-30
Nominal Battery Energy (kWh)	5.12
Usable Energy (kWh) ^{*1}	5
Cell Type	LFP (LiFePO4)
Operating Voltage Range (V)	43.20 ~ 58.24
Nominal Charge Current (A) ^{*2}	60
Max. Continuous Charge Current (A) ^{*2,3}	90
Nominal Discharge Current (A) ^{*2}	100
Max. Continuous Discharge Current (A) ^{*2,3}	150
Max. Pulse Discharging Current (A) ^{*2,3}	<200 (30s)
Max. Continuous Discharging Power (W) ^{*2,3}	7200
Communication	CAN
Operating Temperature (°C)	Charge: 0<T≤55 Discharge: -20<T≤55
Max. Operating Altitude (m)	4000
Weight (kg)	44
Dimensions (W × H × D mm)	442 × 133 × 520 (Excluding hanger) 483 × 133 × 559 (Including hanger)
Ingress Protection Rating	IP20
Applications	On Grid / On Grid + Backup / off Grid
Scalability	Max. 30 in Parallel (150kWh) (Hand to hand / Combiner box / Busbar)
Mounting Method	19-inch standard rack, Floor-Mounted, Wall-Mounted
Round-trip Efficiency ^{*1}	≥96%
Safety	IEC62619, IEC63056, N140
EMC	EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4
Transportation	UN38.3, ADR
Environment	ROHS

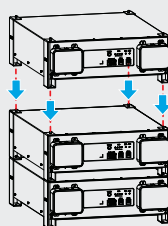
*1 Test conditions: 100% DOD, 0.2C charge & discharge at 25°C±2°C at the beginning of life.

*2 The system's working current and power values will be related to temperature and State of Charge (SOC).

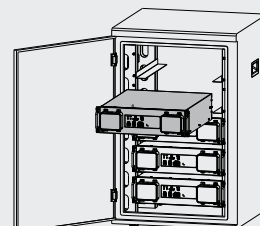
*3 Max charge / discharge current and power values may be variant with different inverter models.

*: Please visit GoodWe website for the latest certificates.

Installation Method (Excluding Hanger)

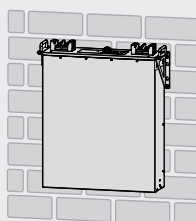


Method 1: Floor-mounted



Method 2: Cabinet

Installation Method (Including Hanger)



Method 3: Wall-mounted

Lynx U G3 Series

5kWh | Low Voltage Battery

The Lynx U G3 Series battery is specially designed for residential applications, delivering enhanced and dependable energy storage solutions. Its compact and lightweight design ensures easy integration into homes for both self-consumption and backup applications. Each battery pack is a standalone unit with an integrated Battery Management System (BMS), eliminating the need for a Power Control Unit (PCU). Featuring high-performance LFP battery technology, it boasts a maximum 90A charging/100A discharging rate. The battery's versatile installation options—floor or wall mounting—make it easy to set up, while its expandability allows for connection of up to 30 modules in parallel, reaching a total capacity of 150kWh.



High Power Efficiency

- Max. 90A charging/100A discharging rate
- Long cycle life, >6000 times @25°C±2°C, 0.5C, 70% EOL
- Heating film for ensured low-temperature performance¹



Superb Safety & Reliability

- Reliable LFP technology with high cycle stability
- Aerosol-based fire suppression optional¹
- IP65 protection for indoor & outdoor installation



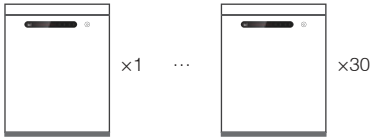
Friendly & Thoughtful Design

- Easy wall-mounting or floor installation
- Modular design simplifies installation and maintenance



Expandable & Flexible

- Up to 30 units in parallel, scalable from 5kWh to 150kWh
- Compatible with GoodWe hybrid inverters

Technical Data	LXU 5.0-30	
		
Nominal Battery Energy (kWh)	5.12	
Usable Energy (kWh) ^{*1}	5	
Cell Type	LiFePO4	
Nominal Voltage (V)	51.2	
Operating Voltage Range (V)	43.2 ~ 58.24	
Nominal Charge Current (A)	60	
Max. Continuous Charge Current (A) ^{*2,3}	90	
Nominal Discharge Current (A) ^{*4}	100	
Max. Continuous Discharge Current (A) ^{*2,3}	100	
Pulse Discharging Current (A) ^{*2,3}	<200A (30S)	
Max. Continuous Charging / Discharging Power (kW)	4.95	
Communication	CAN	
T _{chg} (Charging Temperature Range) (°C)	0<T≤55	
T _{Disch} (Discharging Temperature Range) (°C)	-20<T≤55	
Ambient Temperature (°C)	0<T≤40 (Recommend 10<T≤30)	
	Optional heating: -20<T≤40 (Recommend 10<T≤30)	
Relative Humidity	5 ~ 95%	
Maximum Storage Time	12 Months (Maintenance-free)	
Max. Operating Altitude (m)	4000	
Heating	Optional	
Fire Suppression	Optional, Aerosol	
Unit Weight (kg)	50	
Unit Dimensions (W × H × D mm)	460 × 580 × 160	
Enclosure Protection Rating	IP65	
Applications	On Grid / On Grid + Backup / Off Grid	
Scalability	30P	
Mounting Method	Wall Mounted / Grounded	
Round-trip Efficiency ^{*1}	≥96%	
Cycle Life	>6000 @ 25 ± 2 °C, 0.5 C, 70% SOH, 90% DOD	
Safety	VDE2510-50, IEC62619, IEC62040, N140, IEC63056	
EMC	EN IEC61000-6-1, EN IEC61000-6-2, EN IEC61000-6-3, EN IEC61000-6-4	
Transportation	UN38.3, ADR	
Environment	ROHS	

*1: Test conditions: 100% DOD, 0.2C charge & discharge at 25°C ± 2°C, at the beginning of life.

*2: The system's working current and power values will be related to temperature and State of Charge (SOC).

*3: Max. charge / discharge current values may be variant with different inverter models.

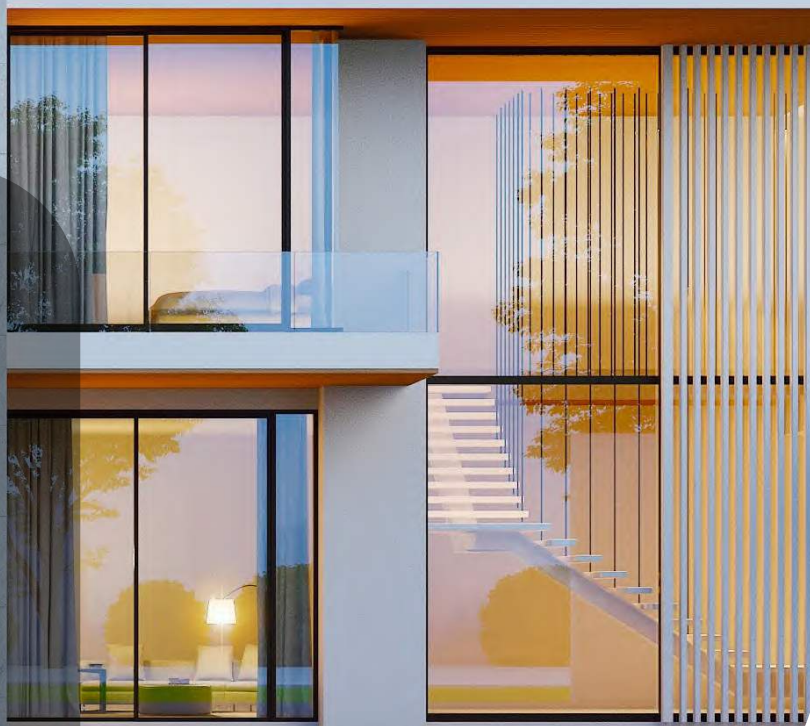
*4: For Australia, Nominal Discharge Current is 50A.

*: Please visit GoodWe website for the latest certificates.

Lynx D Series

5.0kWh | High Voltage Battery

GoodWe's Lynx D Series is a high-voltage lithium battery specially designed for residential applications with superior performance. Compatible with GoodWe residential energy storage inverters, Lynx D Series comes with one-stop-shop solutions saving you considerable time and effort. Each battery pack is designed as a standalone unit, incorporating a dedicated Battery Management System (BMS). This versatile system serves effectively in scenarios focused on self-consumption and backup power needs. With its sleek and modern design, it seamlessly blends into residential settings. The installation and commissioning have been made quicker and easier than ever with a user-friendly plug and play wiring system. Moreover, Lynx D batteries are engineered to support a mix of old and new battery packs, ensuring adaptable expansion and hassle-free replacement options.



Smart Control

- Remote diagnosis and update via inverter
- Auto reboot after undervoltage



Friendly & Thoughtful Design

- Sleek and modern design
- Plug and play wiring



Superb Safety & Reliability

- Reliable LFP technology with high cycle stability
- IP66 protection for outdoor installation safety



Flexible & Adaptable Applications

- Modular design for parallel connection
- Supports mixing new and old battery packs for flexible expansion

Technical Data		LX D5.0-10
Usable Energy (kWh) ^{*1}		5
Cell Type		LFP (LiFePO ₄)
Nominal Voltage (V)		Charge: 435; Discharge: 380
Output Voltage (V)		320 ~ 480
Nominal Power (kW) ^{*2}		3
Peak Power ^{*2}		5kW, 10s
Operating Temperature Range (°C)		Charge: 0 ~ +53; Discharge: -20 ~ +53
Relative Humidity		0 - 95%
Max. Operating Altitude (m)		4000
Communication		CAN
Weight (kg)		52
Dimensions (W x H x D mm)		700 x 380 x 170
Ingress Protection Rating		IP66
Mounting Method		Floor stacked / Wall-mounted
Standard and Certification	Safety	IEC62619, IEC60730, VDE2510-50, CE, CEC
	EMC	CE, RCM
	Transportation	UN38.3

*1: Test conditions, 100% DOD, 0.2C charge & discharge at +25 ±3°C for battery system at beginning life. System Usable Energy may vary with different Inverter.

*2: Power derating will occur related to Temperature and SOC.

*: Please visit GoodWe website for the latest certificates.

*: All pictures shown are for reference only. Actual appearance may vary.

GOODWE

BAT-C Series

60-112kWh | C&I Battery System

GoodWe's BAT-C Series high-voltage lithium batteries, available in 61.4kWh, 102.4kWh and 112.6kWh capacities, are specifically designed for small to medium-sized commercial and industrial (C&I) applications. Paired with GoodWe ET hybrid inverters, Static Transfer Switch (STS) box, the BAT-C battery system provides a complete, easy-to-install, and high-performance energy storage solution. This powerful system delivers efficient energy backup, peak shaving, and optimized load management.



Flexible & Adaptable Applications

- Max. Continuous 0.9C charging & 1.1C discharging
- Support 4 units in parallel, scaling up to 450kWh



Superb Safety & Reliability

- Pack-level humidity monitoring and automatic dehumidification
- Aerosol-based fire suppression system at pack- and cabinet-level



Friendly & Thoughtful Design

- Highly integrated cabinet for easy transportation and installation
- Modular design for easier O&M



Smart Control & Monitoring

- Remote monitoring & updates
- Cloud-based battery diagnosis and health prediction

Technical Data		GW61.4-BAT-AC-G10	GW102.4-BAT-AC-G10	GW112.6-BAT-AC-G10
Battery System				
Cell Type		LFP (LiFePO4)		
Cell Capacity (Ah)		100		
Rated Capacity (Ah)		200		
Pack Type / model		GW10.2-PACK-ACI-G10		
Pack Nominal Energy (kWh)		10.24		
Pack Configuration	2P96S	2P160S	2P176S	
Pack Weight (kg)		<90		
Number of Packs	6	10	11	
Nominal Energy (kWh)	61.4	102.4	112.6	
Usable Energy (kWh) ^{*1}	60	100	110	
Nominal Voltage (V)	307.2	512.0	563.2	
Operating Voltage Range (V)	275.52 ~ 346.56	459.2 ~ 577.6	505.12 ~ 635.36	
Charging Operating Temperature Range (°C)		-20 ~ +55		
Discharging Operating Temperature Range (°C)		-20 ~ +55		
Max. Charge / Discharge Current (A) ^{*2}		180 / 220		
Max. Charge / Discharge Rate ^{*2}		0.9C / 1.1C		
Max. Charge / Discharge Power (kW) ^{*2}	55.2 / 67.5	92.1 / 112.6	101.3 / 123.9	
Cycle Life		6000 (25 ± 2°C, 0.5C, 90%DOD, 70%EOL)		
Depth of Discharge ^{*3}		100%		
Efficiency				
Round-trip Efficiency ^{*3}		96%@100%DOD, 0.2C, 25 ± 2°C		
General Data				
Operating Temperature Range (°C)		-20 ~ +55		
Storage Temperature (°C)		+35 ~ +45 (<6 Months); -20 ~ +35 (<1 Year)		
Relative Humidity		0 ~ 100% (Condensationless)		
Max. Operating Altitude (m)		4000		
Cooling Method		Air Conditioner		
User Interface		LED		
Communication		CAN (RS485 Optional)		
Weight (kg)	<950	<1310	<1400	
Dimension (W × H × D mm)		1055 × 2000 × 1055		
Ingress Protection Rating		IP55		
Anti-corrosion Class		C4 (C5-M Optional)		
Fire Safety Equipment		Aerosol (Pack & Cabinet Level)		
Certification ^{*4}				
Safety Regulation		IEC62619 / IEC63056 / IEC60730 / IEC62477 / VDE2510 / ISO13849 IEC62040 / N140 / EU 2023 / 1542 / UN38.3		
EMC		IEC / EN61000-6-1 / 2 / 3 / 4		

*1: Test conditions, 100% DOD, 0.2C charge & discharge at +25 ± 2°C for battery system at beginning life. System Usable Energy may vary with system configuration.

*2: Actual Dis- / Charge Current and power derating will occur related to Cell Temperature and SOC. And, Max C-rate continuous time is affected by SOC, Cell Temperature, Atmosphere environment temperature.

*3: For Australia, DOD is 98%.

*4: Not all certifications & standards listed, check the official website for detail.

*: Please visit GoodWe website for the latest certificates.

Smart and scalable residential all-in-one energy storage solution

- ✓ Fast, hassle-free and lower cost installation
- ✓ Scalable and flexible solution
- ✓ Highest safety and optimized performance
- ✓ Smart, Seamless Energy Management

The GoodWe ESA Series is an all-in-one residential energy storage solution (ESS) that combines reliability and advanced functionality. It integrates the inverter, battery, UPS-grade switching, and battery enclosure in a pre-wired modular system-streamlining installation and reducing costs.

Compact, elegantly designed, and IP66-rated for durability, the unit operates reliably indoors or outdoors in any weather conditions. With smart controls, scalable storage, and flexible configurations, the ESA empowers homeowners to manage their energy needs with confidence and ease.

The innovative modular and stackable design ensures adaptability, growing alongside your household energy demands and making true energy independence simpler than ever.



AI-driven EMS and <4ms UPS-level switching



Smart home integration with multi-protocol communications



Allows different capacities of old and new batteries mixing



Supports 6 batteries per stack, scalable up to 48kWh

Technical Data		GW3K-EHA-G20	GW3.6K-EHA-G20	GW5K-EHA-G20	GW6K-EHA-G20	GW8K-EHA-G20	GW10K-EHA-G20
Battery Side							
Battery Type					LiFePO ₄		
Nominal Battery Voltage (V)					380		
Battery Voltage Range (V)					350 ~ 550		
Start-up Voltage (V) ¹					380		
Number of Battery Input					1		
Max. Continuous Charging Current (A)	11.9	14.3	19.8	23.7	31.6	35.6	
Max. Continuous Discharging Current (A)	8.7	10.5	14.5	17.4	23.2	29.0	
Max. Charging Power (kW)	4.5	5.4	7.5	9.0	12.0	13.5	
Max. Discharging Power (kW)	3.3	3.96	5.5	6.6	8.8	11.0	
PV Side							
Max. Input Power (kW)	6.0	7.2	10.0	12.0	16.0	20.0	
Max. Input Voltage (V) ²					600		
MPPT Operating Voltage Range (V) ³					40 ~ 560		
Start-up Voltage (V)					50		
Nominal Input Voltage (V)					400		
Max. MPPT Current (A)					20		
Max. MPPT Short Circuit Current (A)					26		
Number of MPPTs	2	2	2	2	4	4	
Number of Strings per MPPT	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1 / 1 / 1	1 / 1 / 1 / 1	
AC Side (On-grid)							
Nominal Power (kW)	3.0	3.6	5.0	6.0	8.0	10.0	
Nominal Apparent Power to Grid (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	
Max. Apparent Power to Grid (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	
Max. Apparent Power from Grid (kVA) ⁴	6.0	7.2	10.0	12.0	14.5	14.5	
Nominal Voltage (V)			220 / 230 / 240, L / N / PE				
Voltage Range (V)			170 ~ 280				
Nominal Frequency (Hz)			50 / 60				
Frequency Range (Hz)			45 ~ 55 / 55 ~ 65				
Max. Current to Grid (A)	13.7 @ 220V 13.1 @ 230V 12.5 @ 240V	16.4 @ 220V 15.7 @ 230V 15.0 @ 240V	22.8 @ 220V 21.8 @ 230V 20.9 @ 240V	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	36.4 @ 220V 34.8 @ 230V 33.4 @ 240V	43.5 @ 220V 43.5 @ 230V 41.7 @ 240V	
Max. Current From Grid (A) ⁴	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	32.8 @ 220V 31.4 @ 230V 30.0 @ 240V	45.5 @ 220V 43.5 @ 230V 41.7 @ 240V	50.0 @ 220V 50.0 @ 230V 50.0 @ 240V	63.0 @ 220V 63.0 @ 230V 60.5 @ 240V	63.0 @ 220V 63.0 @ 230V 60.5 @ 240V	
Power Factor	~ 1 (Adjustable from 0.8 leading to 0.8 lagging)						
THDi	<3%						
Back-up Side							
Nominal Output Apparent Power (kVA)	3.0	3.6	5.0	6.0	8.0	10.0	
Max. Output Apparent Power (kVA)	3.0 (6.0, 10s)	3.6 (7.2, 10s)	5.0 (10.0, 10s)	6.0 (12.0, 10s)	8.0 (16.0, 10s)	10.0 (20.0, 10s)	
Max. Output Apparent Power (Bypass) (kVA)	6.0	7.2	10.0	12.0	14.5	14.5	
Max. Output Current (A) ⁵	13.7 @ 220V 13.1 @ 230V 12.5 @ 240V	16.4 @ 220V 15.7 @ 230V 15.0 @ 240V	22.8 @ 220V 21.8 @ 230V 20.9 @ 240V	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	36.4 @ 220V 34.8 @ 230V 33.4 @ 240V	43.5 @ 220V 43.5 @ 230V 41.7 @ 240V	
Max. Output Current (Bypass) (A) ⁵	27.3	32.8	45.5	50.0	63.0	63.0	
Nominal Output Voltage (V)			220 / 230 / 240, L / N / PE				
Nominal Output Frequency (Hz)			50 / 60				
THDv (@Linear Load)			<3%				
Efficiency							
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.5%	97.5%	
European Efficiency	96.5%	96.5%	96.8%	97.0%	96.8%	96.8%	
Max. Battery to AC Efficiency	98.0%	98.0%	98.0%	98.0%	97.8%	97.8%	
Protection							
PV String Current Monitoring				Integrated			
PV Insulation Resistance Detection				Integrated			
Residual Current Monitoring				Integrated			
PV Reverse Polarity Protection				Integrated			
Battery Reverse Polarity Protection				Integrated			
Anti-islanding Protection				Integrated			
AC Overcurrent Protection				Integrated			
AC Short Circuit Protection				Integrated			
AC Overvoltage Protection				Integrated			
DC Surge Protection				Type II			
AC Surge Protection				Type II			
RSD				Optional			
AFCI				Integrated			
Remote Shutdown				Integrated			
General Data							
Operating Temperature Range (°C)				-35 ~ +60 (Derating at +40)			
Relative Humidity				0 ~ 95%			
Max. Operating Altitude (m)				4000 (>2000 derating)			
Cooling Method				Natural convection			
User Interface				LED, WLAN + APP			
Communication with BMS				CAN			
Communication				RS485, WiFi + LAN + Bluetooth			
Communication Protocols				Modbus-RTU, Modbus-TCP			
Weight (kg)	24	24	24	24	26	26	
Dimension (W x H x D mm)				800 x 300 x 270			
Noise Emission	≤30	≤30	≤30	≤30	≤35	≤35	
Topology				Non-isolated			
Ingress Protection Rating				IP66			
Mounting Method				Wall / Floor Mounted			

*1: If there's no PV, start-up voltage will be 380V.

*2: When the input voltage is 560V-600V, the inverter will enter standby mode, and the voltage returns to 560V to enter the normal operation state.

*3: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.

*4: GOODWE ESA series has internal bypass 63A passthrough ability to support whole home backup solution. If the customer don't want to do any breaker upgrade, the main breaker size in SolarGo (or SEMS+) can be set as previous breaker size.

*5: If the Back-up port is not used, select an appropriate circuit breaker based on the AC Max. Output Current.

*: Please visit GoodWe website for the latest certificates.

Technical Data		GW5.1-BAT-D-G20	GW8.3-BAT-D-G20
Battery Type		LFP (LiFePO ₄)	
Rated Energy (kWh)		5.12	8.32
Usable Energy (kWh)		5.0 ^{*1}	8.0 ^{*1}
Operating Voltage Range (V) (single phase system)		350 ~ 550	
Operating Voltage Range (V) (three phase system)		700 ~ 950	
Max. Input Current (System) (A)		12.0	19.0
Max. Output Current (System) (A)		13.2	21.0
Max. Input Power (System) (kW) ^{*2}		5.0	8.0
Max. Output Power (System) (kW) ^{*2}		5.0	8.0
Peak Output Power (System) (kW) ^{*2}		7.5 @10s	12 @10s
Charging Temperature Range (°C)		-18 ~ +55	-18 ~ +55
Discharging Temperature Range (°C)		-20 ~ +55	
Relative Humidity		4 ~ 100%	
Max. Operating Altitude (m)		4000	
Noise Emission (dB)		≤29	≤29
Communication		CAN	CAN
Weight (kg)		57.5 ± 1	79 ± 1
Ingress Protection		IP66	
Dimensions (W × H × D mm)		800 × 326 × 270	
Function Configuration		Heating (Integrated); Aerosol fire extinguishing (Integrated)	
Max. Storage time		12 months (-20°C ~ +35°C) 6 months (+35°C ~ +45°C)	
Scalability ^{*3}		12 pcs	
Mounting Method		Floor stacked / Wall-mounted	
Cycle Life ^{*4}		≥8000	≥8000
Standard and Certification	Safety	IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC, VDE2510	
	EMC	CE, RCM	
	Transportation	UN38.3, ADR	

^{*1}: Test conditions, 100% DOD (cell 2.85~3.6V voltage range), 0.2P charge & discharge at 25±2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge/discharge rate, environmental conditions (e.g. temperature), transport and storage factors.

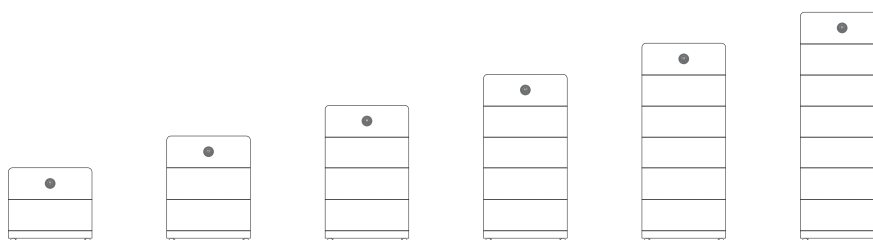
^{*2}: Max. Input Power /Max. Output Power/Peak Output Power derating will occur related to Temperature and SOC.

^{*3}: For single-column stacked installations, the maximum number of parallel units is 6.

^{*4}: Based on test data under specific laboratory conditions.

^{*}: Based on Lynx D G2 Series technology

^{*}: Please visit GoodWe website for the latest certificates.



Number of Battery Modules (pcs)	1	2	3	4	5	6
Total Energy Capacity (kWh, with 5.1 batt module)	5.12	10.24	15.36	20.48	25.60	30.72
Total Energy Capacity (kWh, with 8.3 batt module)	8.32	16.64	24.96	33.28	41.60	49.92

GOODWE

ESA Series

5-30kW/5-108kWh | Three Phase Energy Storage Solution (HV)

The GoodWe ESA Series 5-30kW/5-108kWh is a three-phase all-in-one energy storage solution that integrates the inverter, battery, and intelligent energy management into a single system. Its pre-wired, modular design unifies the inverter and battery, delivering an installation-friendly structure that streamlines setup and accelerates commissioning. With four battery module options-5, 6, 8, and 9kWh-up to 12 modules can be connected for a total storage capacity of 108kWh. Featuring simplified configuration, large expandable storage, and an AI-driven EMS for dynamic tariff optimization, the ESA Series 5-30kW/5-108kWh provides an efficient, flexible, and future-ready solution for both residential and small commercial use.



Optimized Performance

- Up to 200% DC oversizing & AC backup overload
- Up to 1C charge/discharge for rapid energy cycling
- Smart fan cooling for quiet operation, noise as low as 30dB*



Flexible & Adaptable Applications

- Dual-port design for whole-home backup
- Flexible battery mixing with different capacity or old & new batteries
- Supports on- and off-grid parallel operation



Superb Safety & Reliability

- Advanced 6-layer safety protection
- AI-driven AFCI 3.0 for safety
- Heating mode ensures reliable performance even in -20°C



Smart Control & Monitoring

- Ready for AI-driven EMS
- Seamless switching to backup <4ms
- One-click upgrade & one-click configuration

Technical Data											
GW5K- ETA-G20	GW6K- ETA-G20	GW8K- ETA-G20	GW9.999K- ETA-G20	GW10K- ETA-G20	GW12K- ETA-G20	GW15K- ETA-G20	GW20K- ETA-G20	GW25K- ETA-G20	GW29.999K- ETA-G20	GW30K- ETA-G20	
Battery Side											
Battery Type						LFP (LiFePO4)					
Nominal Voltage (V)						750					
Voltage Range (V)						700 ~ 950					
Start-up Voltage (V)						720					
Number of Battery Input						1					
Max. Continuous Charging Current (A)		6.7	8.1	10.7	13.4	13.4	16.1	20.1	26.7	33.3	40.0
Max. Continuous Discharging Current (A)		7.4	8.9	11.8	14.7	14.7	17.7	22.1	29.4	36.7	44.1
Max. Charging Power (kW)		5.0	6.0	8.0	10.0	10.0	12.0	15.0	20.0	25.0	30.0
Max. Discharging Power (kW)		5.5	6.6	8.8	11.0	11.0	13.2	16.5	22.0	27.5	33.0
PV Side											
Max. Input Power (kW)		10	12	16	20	20	24	30	40	50	60
Max. Input Voltage (V) ¹		1000									
MPPT Operating Voltage Range (V) ²		120 ~ 950									
Start-up Voltage (V)		150									
Nominal Input Voltage (V)		750									
Max. MPPT Current (A)		21 / 21 / 21			21 / 21 / 21 / 21				21 / 21 / 42 / 42		
Max. MPPT Short Circuit Current (A)		26 / 26 / 26			26 / 26 / 26 / 26				26 / 26 / 52 / 52		
Number of MPPTs		3			4				1 / 1 / 2 / 2		
Number of Strings per MPPT		1 / 1 / 1									
AC Side (Grid Port)											
Rated Power (kW)		5	6	8	9.999	10	12	15	20	25	29.999
Max. Power (kW)		5	6	8	9.999	10	12	15	20	25	29.999
Rated Apparent Power to Grid (kVA)		5	6	8	9.999	10	12	15	20	25	29.999
Rated Apparent Power from Grid (kVA)		5	6	8	9.999	10	12	15	20	25	29.999
Max. Apparent Power to Grid (kVA) ³		5	6	8	9.999	10	12	15	20	25	29.999
Max. Apparent Power from Grid (kVA) ⁴		43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	55.2	55.2
Nominal Voltage (V)		220 / 380, 230 / 400, 3L / N / PE									
Voltage Range (V) (According to local standard)		180 ~ 260									
Nominal Frequency (Hz)		50 / 60									
Frequency Range (Hz)		45 ~ 55 / 55 ~ 65									
Rated Current to Grid (A)		7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V
Rated Current from Grid (A)		7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V
Max. Current to Grid (A) ⁵		7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V
Max. Current from Grid (A) ^{4,5}		63	63	63	63	63	63	63	63	80	80
Power Factor		0.8 leading ... 0.8 lagging									
THDi		<3%									
AC Side (Back-up Port)											
Rated Apparent Power (kVA)		5	6	8	10	10	12	15	20	25	30
Max. Apparent Power (kVA) ⁶		Off-grid: 5.5 (10.0, 10s) on-grid: 43.5	Off-grid: 6.6 (12.0, 10s) on-grid: 43.5	Off-grid: 8.8 (16.0, 10s) on-grid: 43.5	Off-grid: 11.0 (20.0, 10s) on-grid: 43.5	Off-grid: 11.0 (20.0, 10s) on-grid: 43.5	Off-grid: 13.2 (24, 10s) on-grid: 43.5	Off-grid: 16.5 (30, 10s) on-grid: 43.5	Off-grid: 22.0 (30.0, 10s) on-grid: 43.5	Off-grid: 27.5 (45.0, 10s) on-grid: 55.2	Off-grid: 33.0 (45.0, 10s) on-grid: 55.2
Nominal Voltage (V)		220 / 380, 230 / 400, 3L / N / PE									
Nominal Frequency (Hz)		50 / 60									
Max. Current (A) ⁶		Off-grid: 11.4, on-grid: 63	Off-grid: 13.7, on-grid: 63	Off-grid: 18.2, on-grid: 63	Off-grid: 22.8, on-grid: 63	Off-grid: 22.8, on-grid: 63	Off-grid: 27.3, on-grid: 63	Off-grid: 33.4, on-grid: 63	Off-grid: 33.4, on-grid: 63	Off-grid: 50.0, on-grid: 80	Off-grid: 50.0, on-grid: 80
THDv (@Linear Load)		<3%									
On / Off-grid Switching Time (ms)		<4									
Efficiency											
Max. Efficiency		98.0%	98.0%	98.0%	98.1%	98.1%	98.1%	98.1%	98.1%	98.2%	98.2%
European Efficiency		96.4%	96.9%	97.1%	97.2%	97.2%	97.2%	97.3%	97.3%	97.4%	97.4%
Max. Battery to AC Efficiency		98.0%									
Protection											
PV String Current Monitoring						Integrated					
PV Insulation Resistance Detection						Integrated					
Residual Current Monitoring						Integrated					
PV Reverse Polarity Protection						Integrated					
Battery Reverse Polarity Protection						Integrated					
Anti-islanding Protection						Integrated					
AC Overcurrent Protection						Integrated					
AC Short Circuit Protection						Integrated					
AC Overvoltage Protection						Integrated					
DC Switch						Integrated					
DC Surge Protection						Type II (Type I + II optional)					
AC Surge Protection						Type II					
Rapid Shutdown						Optional					
AFCI						Optional					
Remote Shutdown						Integrated					
General Data											
Operating Temperature Range (°C)						-35 ~ +60					
Relative Humidity						0 ~ 100%					
Max. Operating Altitude (m)						4000 (>2000 derating)					
Cooling Method						Smart Fan Cooling					
User Interface						LED, WLAN + APP					
Communication with BMS						CAN					
Communication						RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)					
Communication Protocols						Modbus-RTU, Modbus-TCP					
Weight (kg)		34	34	34	34	34	34	34	38	38	38
Dimension (W x H x D mm)						800 x 340 x 270					
Ingress Protection Rating						IP66					
Mounting Method						Wall/Floor Mounted					

*1: When the input voltage ranges from 950V to 1000V, the inverter will enter the standby mode, and the voltage returns to 950V to enter the normal operation state.

*2: Please refer to the user manual for the MPPT Voltage Range at nominal Power.

*3: According to the local grid regulation.

*4: GOODWE ESA series has internal bypass 63A passthrough ability to support whole home backup solution. If the customer don't want to do any breaker upgrade, the main breaker size in SolarGo (or SEMS+) can be set as previous breaker size.

*5: If the backup port is not used, select an appropriate circuit breaker based on the AC maximum output current.

*6: "Off grid" means the energy of backup output only comes from PV and battery. "On grid" means the energy of the backup output includes the energy from grid or generator (on-grid) side.

*: Please visit GoodWe website for the latest certificates.

Technical Data		GW5.1-BAT-D-G20	GW8.3-BAT-D-G20	GW5.1-BAT-D-G21	GW8.3-BAT-D-G21	GW6.0-BAT-D-G20	GW9.0-BAT-D-G20
Battery Type		LFP (LiFePO ₄)					
Rated Energy (kWh)		5.12	8.32	5.12	8.32	6.0	9.0
Usable Energy (kWh)		5.0 ^{*1}	8.0 ^{*1}	5.0 ^{*1}	8.0 ^{*1}	5.8 ^{*2}	8.7 ^{*2}
Operating Voltage Range (V) (single phase system)		350 ~ 550					
Operating Voltage Range (V) (three phase system)		700 ~ 950					
Max. Input Current (System) (A)		12.0	19.0	12.0	19.0	7.1	10.7
Max. Output Current (System) (A)		13.2	21.0	13.2	21.0	7.9	11.8
Max. Input Power (System) (kW) ^{*3}		5.0	8.0	5.0	8.0	3.0	4.5
Max. Output Power (System) (kW) ^{*3}		5.0	8.0	5.0	8.0	3.0	4.5
Peak Output Power (System) (kW) ^{*3}		7.5 @10s	12 @10s	7.5 @10s	12 @10s	4.5 @ 10s	6.75 @ 10s
Charging Temperature Range (°C)		-18 ~ +55	-18 ~ +55	+2 ~ +55	+2 ~ +55	-20 ~ +55	-20 ~ +55
Discharging Temperature Range (°C)		-20 ~ +55					
Relative Humidity		4 ~ 100%					
Max. Operating Altitude (m)		4000					
Noise Emission (dB)		≤29	≤29	≤29	≤29	≤27	≤27
Communication		CAN	CAN	CAN	CAN	CAN & 485	CAN & 485
Weight (kg)		57.5 ± 1	79 ± 1	57.5 ± 1	79 ± 1	61 ± 1	77± 1
Ingress Protection		IP66					
Dimensions (W × H × D mm)		800 × 326 × 270					
Function Configuration		Heating (Integrated); Aerosol fire extinguishing (Integrated)		Aerosol fire extinguishing (Integrated)		Heating (Integrated); Aerosol fire extinguishing (Integrated)	
Max. Storage time		12 months (-20°C ~ +35°C) 6 months (+35°C ~ +45°C)					
Scalability ^{*4}		12 pcs					
Mounting Method		Floor stacked / Wall-mounted				Floor stacked / Wall-mounted / Grounded	
Cycle Life ^{*5}		≥8000	≥8000	≥8000	≥8000	≥10000	≥10000
Standard and Certification	Safety	IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC, VDE2510				IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC, Regulation 2023 / 1542, VDE2510-50	
	EMC	CE, RCM					
	Transportation	UN38.3, ADR					

*1: Test conditions, 100% DOD (cell 2.85~3.6V voltage range), 0.2P charge & discharge at 25±2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge/discharge rate, environmental conditions (e.g. temperature), transport and storage factors.

*2: Test conditions, 100% DOD (cell 2.87~3.61V voltage range), 0.4P charge & discharge at 25±2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge/discharge rate, environmental conditions (e.g. temperature), transport and storage factors.

*3: Max. Input Power /Max. Output Power/Peak Output Power derating will occur related to Temperature and SOC.

*4: For single-column stacked installations, the maximum number of parallel units is 6.

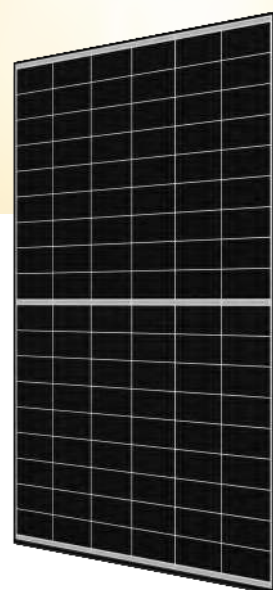
*5: Based on test data under specific laboratory conditions.

*: Based on Lynx D G2 Series technology

*: Please visit GoodWe website for the latest certificates.



Preliminary Technical
Information Sheet



TOPHiKu6

N-type TOPCon Technology

490 W ~ 520 W

CS6.2-54TM-490 | 495 | 500 | 505 | 510 | 515 | 520

MORE POWER



Module power up to 520 W
Module efficiency up to 23.4 %



Excellent anti-LeTID & anti-PID performance.
Low power degradation, high energy yield



Lower temperature coefficient (Pmax): $-0.29\%/^{\circ}\text{C}$,
increases energy yield in hot climate



Lower LCOE & system cost

MORE RELIABLE



Tested up to ice ball of 45 mm diameter
according to IEC 61215 standard



Minimizes micro-crack impacts



Heavy snow load up to 5400 Pa,
wind load up to 2400 Pa*



**Industry Leading Product Warranty on Materials
and Workmanship***



Linear Power Performance Warranty*

**1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.4%**

*Subject to the terms and conditions contained in the applicable Canadian Solar Limited Warranty Statement. Also this 25-year limited product warranty is available only for products installed and operating on rooftops in certain regions.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, it has successfully delivered over 133 GW of premium-quality solar modules across the world.

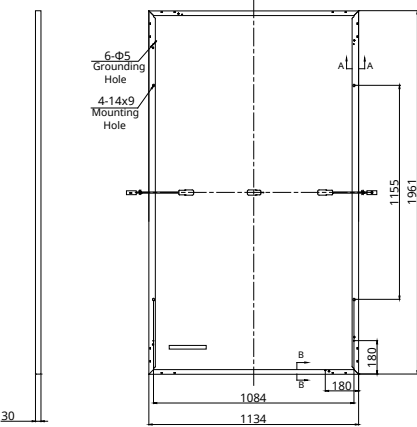
* For detailed information, please refer to the Installation Manual.

CSI Solar Co., Ltd.

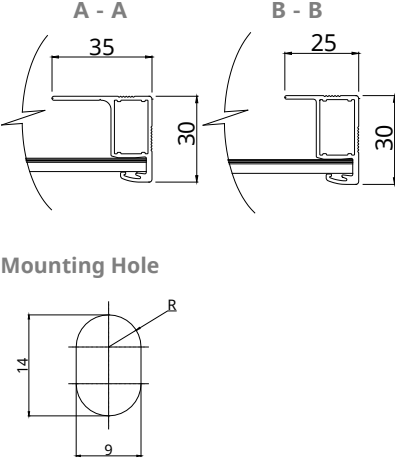
199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

ENGINEERING DRAWING (mm)

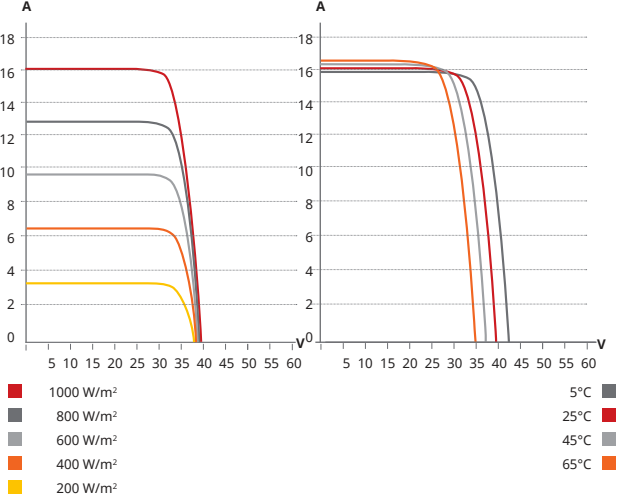
Rear View



Frame Cross Section



CS6.2-54TM-505 / I-V CURVES



ELECTRICAL DATA | STC*

CS6.2-54TM	490	495	500	505	510	515	520
Nominal Max. Power (Pmax)	490 W	495 W	500 W	505 W	510 W	515 W	520 W
Opt. Operating Voltage (Vmp)	33.0 V	33.2 V	33.4 V	33.6 V	33.8 V	34.0 V	34.2 V
Opt. Operating Current (Imp)	14.85 A	14.91 A	14.98 A	15.04 A	15.10 A	15.16 A	15.22 A
Open Circuit Voltage (Voc)	39.2 V	39.4 V	39.6 V	39.8 V	40.0 V	40.2 V	40.4 V
Short Circuit Current (Isc)	15.86 A	15.91 A	16.00 A	16.05 A	16.10 A	16.15 A	16.20 A
Module Efficiency	22.0%	22.3%	22.5%	22.7%	22.9%	23.2%	23.4%
Operating Temperature	-40°C ~ +85°C						
Max. System Voltage	1500V (IEC/UL)						
Module Fire Performance	TYPE 1 (UL 61730 1500V) or TYPE 2 (UL 61730 1000V) or CLASS C (IEC 61730)						
Max. Series Fuse Rating	30 A						
Protection Class	Class II						
Power Tolerance	0 ~ + 10 W						

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	108 [2 x (9 x 6)]
Dimensions	1961 × 1134 × 30 mm (77.2 × 44.6 × 1.18 in)
Weight	23.3 kg (51.4 lbs)
Front Glass	3.2 mm tempered glass with anti-ref-lective coating
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4 mm ² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	300 mm (11.8 in) (+) / 200 mm (7.9 in) (-) or customized length*
Connector	T6 or MC4-EVO2 or MC4-EVO2A
Per Pallet	36 pieces
Per Container (40' HQ)	864 pieces

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

ELECTRICAL DATA | NMOT*

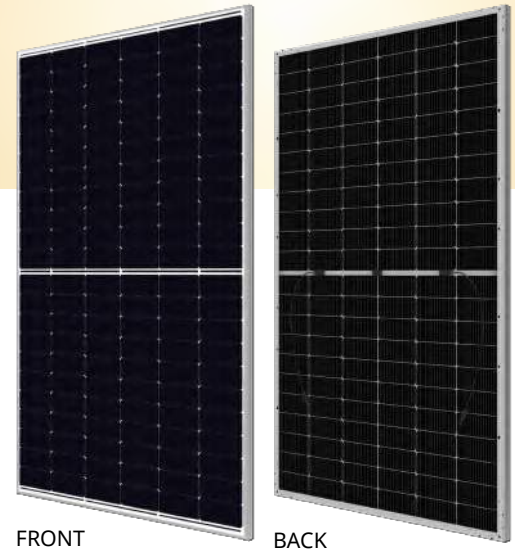
CS6.2-54TM	490	495	500	505	510	515	520
Nominal Max. Power (Pmax)	371 W	374 W	378 W	382 W	386 W	390 W	393 W
Opt. Operating Voltage (Vmp)	31.2 V	31.4 V	31.6 V	31.8 V	32.0 V	32.1 V	32.3 V
Opt. Operating Current (Imp)	11.88 A	11.93 A	11.98 A	12.03 A	12.07 A	12.12 A	12.17 A
Open Circuit Voltage (Voc)	37.1 V	37.3 V	37.5 V	37.7 V	37.9 V	38.1 V	38.3 V
Short Circuit Current (Isc)	12.78 A	12.82 A	12.89 A	12.93 A	12.97 A	13.01 A	13.05 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.045 % / °C
Nominal Module Operating Temperature	41 ± 3°C

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FRONT

BACK

TOPBiHiKu6

N-type Bifacial TOPCon Technology

595 W ~ 620 W

CS6.2-66TB-595 | 600 | 605 | 610 | 615 | 620

MORE POWER



Module power up to 620 W
Module efficiency up to 23.0 %



Up to 85% Power Bifaciality,
more power from the back side



Excellent anti-LeTID & anti-PID performance.
Low power degradation, high energy yield



Lower temperature coefficient (Pmax): $-0.29\%/^{\circ}\text{C}$,
increases energy yield in hot climate



Lower LCOE & system cost

MORE RELIABLE



Minimizes micro-crack impacts



Heavy snow load up to 5400 Pa,
wind load up to 2400 Pa*

12
Years

Enhanced Product Warranty on Materials
and Workmanship*

30
Years

Linear Power Performance Warranty*

1st year power degradation no more than 1%

Subsequent annual power degradation no more than 0.4%

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001: 2015 / Quality management system
ISO 14001: 2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC 62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730
UL 61730 / IEC 61701 / IEC 62716
Take-e-way



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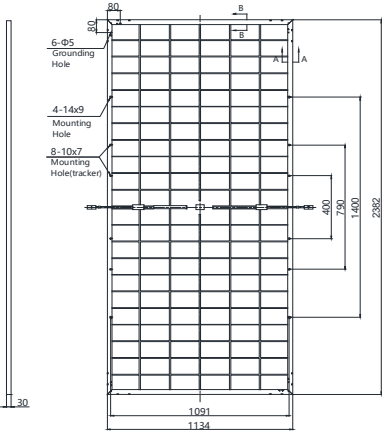
* For detailed information, please refer to the Installation Manual.

CSI Solar Co., Ltd.

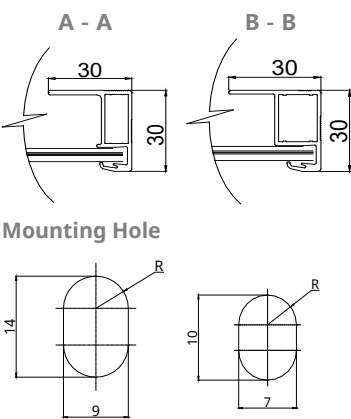
199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

ENGINEERING DRAWING (mm)

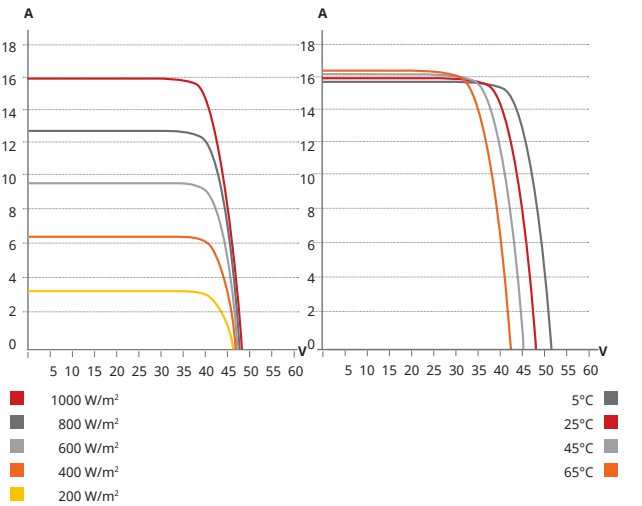
Rear View



Frame Cross Section



CS6.2-66TB-610 / I-V CURVES



ELECTRICAL DATA | STC*

		Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
CS6.2-66TB-595		595 W	40.2 V	14.81 A	47.4 V	15.79 A	22.0%
	Bifacial Gain**	5%	625 W	40.2 V	15.55 A	47.4 V	23.1%
		10%	655 W	40.2 V	16.29 A	47.4 V	24.2%
		20%	714 W	40.2 V	17.77 A	47.4 V	26.4%
CS6.2-66TB-600		600 W	40.4 V	14.86 A	47.6 V	15.85 A	22.2%
	Bifacial Gain**	5%	630 W	40.4 V	15.60 A	47.6 V	23.3%
		10%	660 W	40.4 V	16.35 A	47.6 V	24.4%
		20%	720 W	40.4 V	17.83 A	47.6 V	26.7%
CS6.2-66TB-605		605 W	40.6 V	14.91 A	47.8 V	15.91 A	22.4%
	Bifacial Gain**	5%	635 W	40.6 V	15.66 A	47.8 V	23.5%
		10%	666 W	40.6 V	16.40 A	47.8 V	24.7%
		20%	726 W	40.6 V	17.89 A	47.8 V	26.9%
CS6.2-66TB-610		610 W	40.8 V	14.96 A	48.0 V	15.97 A	22.6%
	Bifacial Gain**	5%	641 W	40.8 V	15.71 A	48.0 V	23.7%
		10%	671 W	40.8 V	16.46 A	48.0 V	24.8%
		20%	732 W	40.8 V	17.95 A	48.0 V	27.1%
CS6.2-66TB-615		615 W	41.0 V	15.01 A	48.2 V	16.02 A	22.8%
	Bifacial Gain**	5%	646 W	41.0 V	15.76 A	48.2 V	23.9%
		10%	677 W	41.0 V	16.51 A	48.2 V	25.1%
		20%	738 W	41.0 V	18.01 A	48.2 V	27.3%
CS6.2-66TB-620		620 W	41.2 V	15.06 A	48.4 V	16.08 A	23.0%
	Bifacial Gain**	5%	651 W	41.2 V	15.81 A	48.4 V	24.1%
		10%	682 W	41.2 V	16.57 A	48.4 V	25.2%
		20%	744 W	41.2 V	18.07 A	48.4 V	27.5%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL)
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC61730)
Max. Series Fuse Rating	35 A
Protection Class	Class II
Power Tolerance	0 ~ + 10 W
Power Bifaciality*	80 %

* Power Bifaciality = $P_{max_{rear}} / P_{max_{front}}$, both $P_{max_{rear}}$ and $P_{max_{front}}$ are tested under STC, Bifaciality Tolerance: $\pm 5\%$

ELECTRICAL DATA | NMOT*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
CS6.2-66TB-595	450 W	38.0 V	11.84 A	44.9 V	12.73 A
CS6.2-66TB-600	454 W	38.2 V	11.88 A	45.1 V	12.78 A
CS6.2-66TB-605	458 W	38.4 V	11.92 A	45.3 V	12.83 A
CS6.2-66TB-610	461 W	38.6 V	11.96 A	45.4 V	12.88 A
CS6.2-66TB-615	465 W	38.8 V	12.00 A	45.6 V	12.92 A
CS6.2-66TB-620	469 W	39.0 V	12.04 A	45.8 V	12.97 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	132 [2 x (11 x 6)]
Dimensions	2382 x 1134 x 30 mm (93.8 x 44.6 x 1.18 in)
Weight	33.6 kg (74.1 lbs)
Front Glass	2.0 mm heat strengthened glass with anti-reflective coating
Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	300 mm (11.8 in) (+) / 200 mm (7.9 in) (-) or customized length*
Connector	T6 or MC4-EVO2 or MC4-EVO2A
Per Pallet	36 pieces
Per Container (40' HQ)	720 pieces

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 $\pm$ 3°C

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Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.



Power the future

N-Type 182 BIFACIAL **585-600W**

High efficiency bifacial modules



Module efficiency

23.22%



Better leveled
cost of energy



Better high
temperature stability

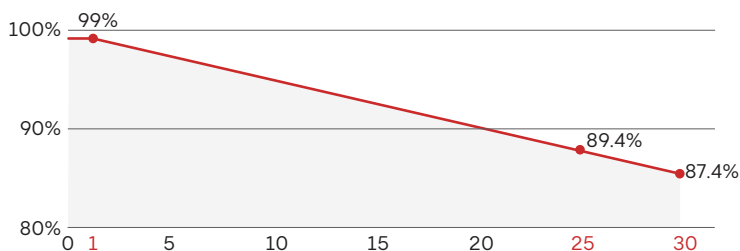


Improved low-light
performance



Excellent
bifacial performance

Linear performance guarantee for 30 years



WARRANTY

Extended warranty is available at additional cost

Quality
Guarantee **15**
years

Power
Warranty **30**
years

CERTIFICATE



ELECTRIC CHARACTERISTICS

SPDG (585/600W)-N144M10

Model of modules	SPDG585-N144M10		SPDG590-N144M10		SPDG595-N144M10		SPDG600-N144M10	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Power (Pmax/W)	585	437.30	590	441.00	595	444.60	600	448.4
Maximu power current (Vmp)	42.72	39.90	42.87	40.00	43.03	40.20	43.18	40.3
Maximu power current (Imp)	13.7	10.96	13.77	11.02	13.83	11.07	13.90	11.13
Open circuit voltage (Voc)	51.58	48.30	51.7	48.40	51.84	48.50	51.97	48.7
Short circuit current (Isc)	14.41	11.61	14.48	11.67	14.55	11.72	14.62	11.78
Module efficiency	22.64%		22.83%		23.02%		23.22%	

STC (Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature25°C)

NMOT (Irradiance 800W/m², Ambient Temperature 20°C , AM1.5,Wind Speed 1m/s)

ELECTRICAL CHARACTERISTICS WITH 15% REAR SIDE POWER GAIN

Front power Pmax/W	672.75	678.50	684.25	690.00
Maximu power voltage (Vmp)	42.72	42.87	43.03	43.18
Maximu power current (Imp)	15.75	15.83	15.90	15.98
Open circuit voltage (Voc)	51.58	51.70	51.84	51.97
Short circuit current (Isc)	16.57	16.65	16.73	16.81

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	2278x1134x30mm
Weight	31kg
Cell	144 cells, N type Mono-Crystalline , 182mm×91mm
Front glass	2.0mm , Anti-Reflection Coating
Back glass	2.0mm , Heat Strengthened Glass
Frame	Anodized aluminum alloy
Junction box	IP68 , 3 bypass diodes
Output wire	4mm ²
Wire length	Line length 1300mm/customized
Connector	Compatible MC4
Packing Specification	36pcs/Pallet ; 720 pcs/40' HQ

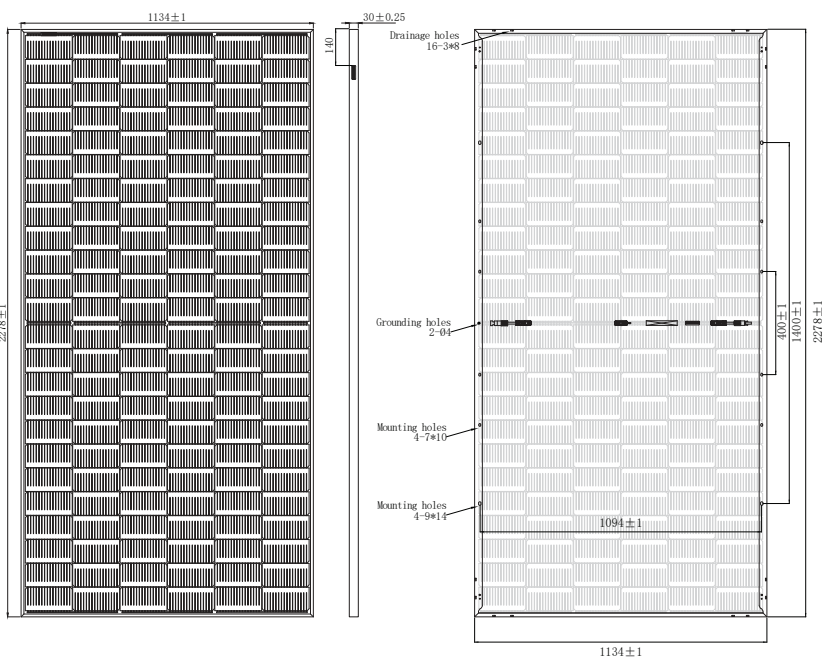
OPERATING PARAMETERS

Power tolerance (W)	(0~+5W)
Maximum system voltage (V)	1500V
Maximum rated fuse current (A)	30A
Current operating temperature (C)	-40~+85°C
Mechanical load	+5400Pa/-2400Pa

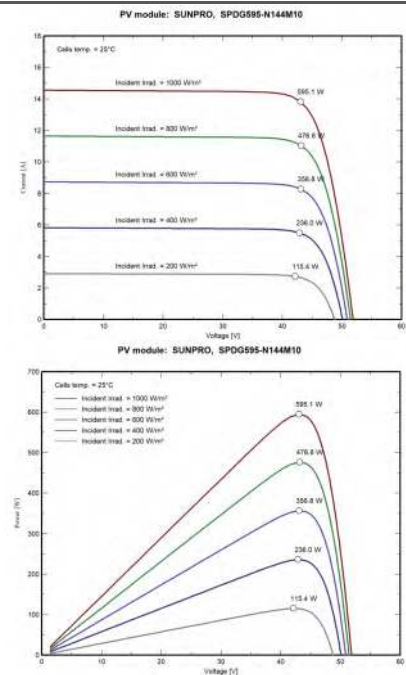
TEMPERATURE CHARACTERISTICS

Temp. Coeff. of Isc (TK Isc)	0.046% / °C
Temp. Coeff. of Voc (TK Voc)	-0.25% / °C
Temp. Coeff. of Pmax (TK Pmax)	-0.30% / °C
Normal Operting Cell Temperature	45±2°C

MODULE DIMENSIONS(MM)



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION

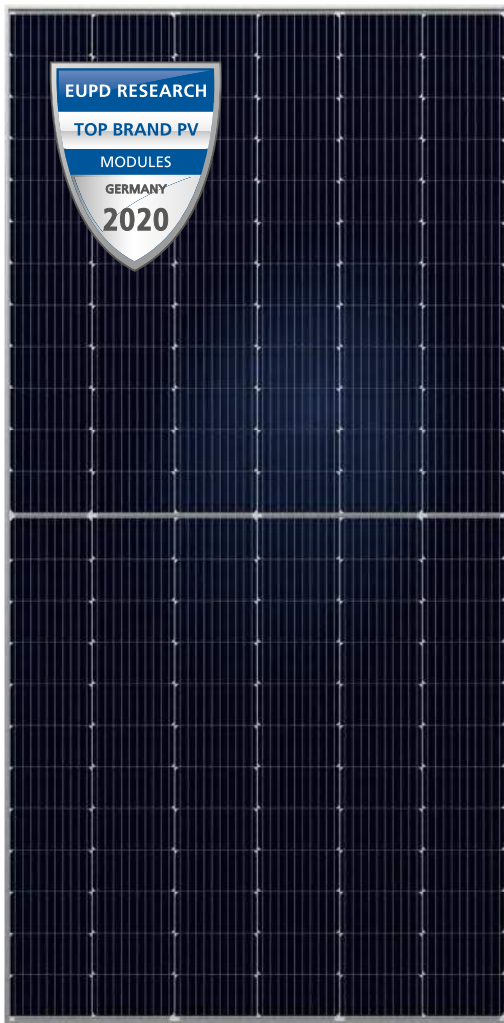


SUNPRO POWER NORTH AMERICA INC.

ADD: STE 2, 206 N Randolph St, Champaign, IL 61820

E-MAIL: info@sunpropower.com WEBSITE: www.sunpropower.us

*All data may have a lag, for reference only. Sunpro has the final right of interpretation.



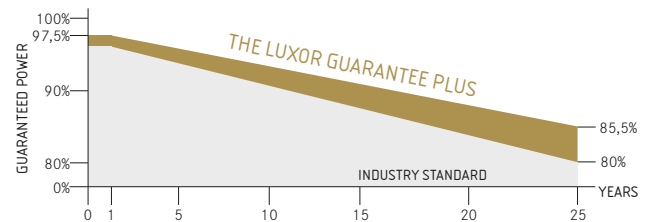
- + REDUCED LOSSES DURING PARTIAL SHADING
- + HIGHER YIELD: MORE REFLECTION ON CELL SURFACE
- + APPLICATIONS: ALL-ROUNDER FOR ALL SYSTEMS IN THE DIMENSIONS 1:2
- + ECO: ESPECIALLY ECONOMIC AND RELIABLE



product guarantee¹



linear performance guarantee¹



ECO LINE HALF CELL

M144 / 525 - 545 W

MONOCRYSTALLINE MODULE FAMILY



Longlife tested



Power proofed



Safety provided



Selection of components



Cross-linking degree test



Performance surplus of 0 Wp to 6.49 Wp



100% PID free cells



Special packing to avoid micro cracks in the cells



German warrantor

ECO LINE HALF CELL M144 / 525 - 545 W

Monocrystalline module family

Module type LX - XXXM/182-144+ | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	525.00	530.00	535.00	540.00	545.00
Pmpp range to	531.49	536.49	541.49	546.49	551.49
Rated current Impp [A]	12.92	13.00	13.07	13.15	13.22
Rated voltage Vmpp [V]	40.66	40.80	40.95	41.10	41.24
Short-circuit current Isc [A]	13.64	13.73	13.80	13.89	13.96
Open-circuit voltage Uoc [V]	48.75	48.92	49.10	49.28	49.45
Efficiency at STC up to	20.57%	20.76%	20.95%	21.15%	21.34%
Efficiency at 200 W/m ²	20.07%	20.27%	20.45%	20.65%	20.83%

Electrical data at NOCT

Power at Pmpp [Wp]	389.76	393.47	397.18	400.90	404.61
Rated current Impp [A]	10.44	10.50	10.56	10.62	10.68
Rated voltage Vmpp [V]	37.34	37.47	37.62	37.74	37.89
Short-circuit current Isc [A]	11.01	11.08	11.14	11.21	11.28
Open-circuit voltage Uoc [V]	44.99	45.17	45.35	45.53	45.71

Specification as per STC (Standard test conditions): irradiance 1000 W/m² | module temperature 25°C | Air Mass = 1.5
NOCT (nominal operating cell temperature): irradiance 800 W/m² | wind speed 1 m/sec | ambient temperature 20°C | cell operating temperature 45 +/- 2°C | Air Mass = 1.5

Limiting values

Max. system voltage [V]	1500 V
Max. return current [I]	25 A
Operating Temperature	-40 to 85°C
Safety class	II
Max. tested pressure load [Pa] ²	5400
Max. tested tensile load [Pa] ²	2400

Temperature coefficient

Temperature coefficient [V] [I] [P]	-0.285% / °C 0.049% / °C -0.360% / °C
---	---

Specifications

Number of cells (matrix)	144 (6 x 24) 182 mm x 91 mm
Module dimensions (L x W x H) ³ Weight	2279 mm x 1134 mm x 35 mm 29 kg
Front-side glass	3.2 mm tempered, highly transparent, anti-reflection solar glass
Frame	Stable, anodised aluminium frame
Junction Box	At least IP67
Cable	Symmetrical cable lengths > 1.4 m and 1.4 m, 4 mm ² solar cable
Diodes	3 Schottky Diodes
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	Ø 45 mm impact velocity 23 m/s ± 83 km/h

The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment: rated power +/- 3%, other values +/- 10%. All information given in this data sheet corresponds to DIN EN 50380. A potential light-induced degradation of the power after commissioning is not considered here. Further information in the installation manuals.

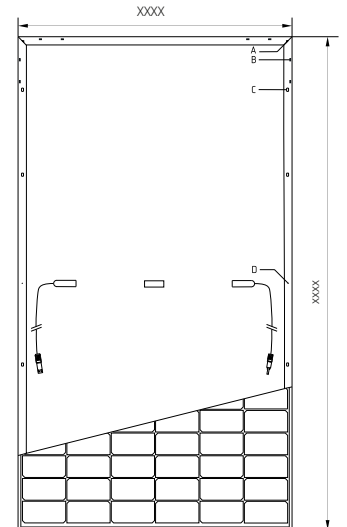
1 The specific warranty conditions are given under www.luxor.solar/downloads.html.

2 Horizontal mounted, for details please check mounting instruction

3 Tolerance L/W = +/- 3 mm. H +/- 2mm, the dimensions given in the order confirmation will be decisive

4 Location and dimensions of holes on request

Back - / Front - view³

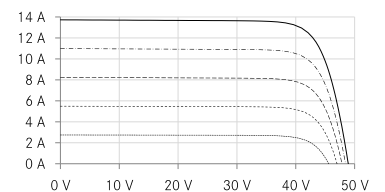


Drilled holes⁴

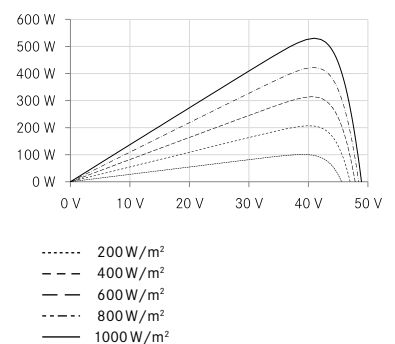
- A: 4 x drainage
- B: 16 x ventilation
- C: 8 x mounting
- D: 2 x earthing

Electrical characteristics

UI-diagram e.g. LX-530M/182-144+



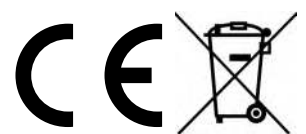
UP-diagram e.g. LX-530M/182-144+



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IEC
IEC 61215
IEC 61730



Guidelines:
93/68/EEC
2014/35/EU. (LVD)
2014/30/EU. (EMC)

The validity of the certificates/listings for a specific country has to be examined under:
www.luxor-solar.com/downloads.html

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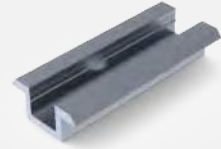
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Kiremit Kancası - Alüminyum



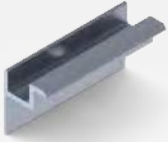
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Yuvarlak Kiremite Göre Saplama Kancası



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Clamp Orta (3&3.5 cm Vida ve Somun Dahil)



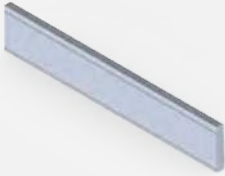
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Clamp Kenar (3&3.5 cm Vida ve Somun Dahil)



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Sandwich Panel Profili (Ejot Vida ve EPDM Bant Dahil)



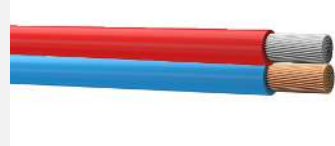
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Alüminyum Profil 7m



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Profil Eki



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1x4 mm2 Solar Kablo (Başoğlu/Solen)



Kablo & Konnektör
1x6 mm2 Solar Kablo (Başoğlu/Solen)



Kablo & Konnektör
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