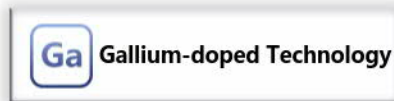
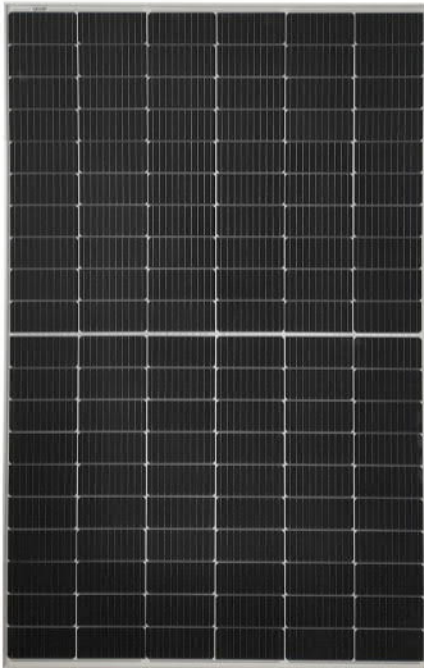
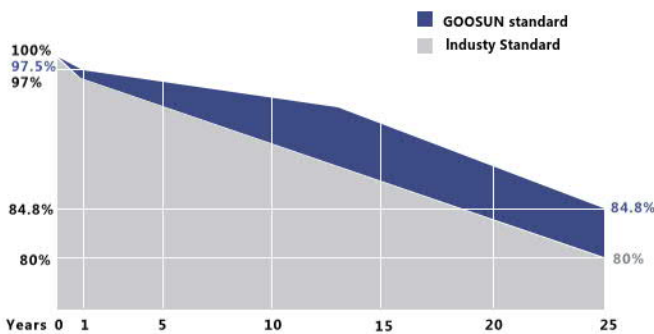


GOOSUN SERIES 5 440-460W Mono 10BB/182mm Cell 120 Half-Cell Layout

GOOSUN Series 5 solar modules stand out with the breakthrough innovation of M10 size (182mm) solar cells for the highest power generation and the lowest LCOE, which makes Series 5 the optimal choice for large solar power plants. The gallium-doped wafer technology empowers significantly the performance against LID and the latest integrated segmented ribbon technology increases the power output and enhances the module reliability for long-term use.



Linear performance Warranty



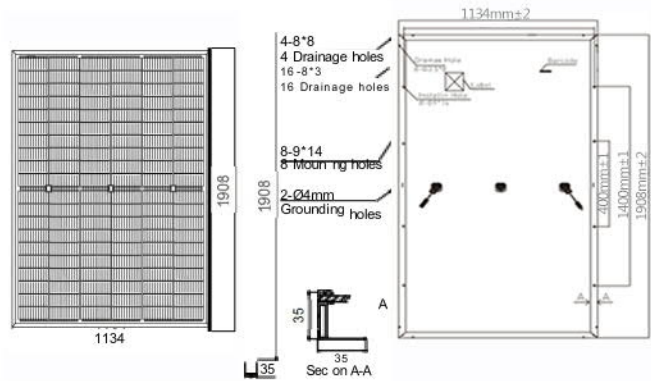
Comprehensive Certificates

- ISO9001:2015 QMS
- ISO14001:2015 EMS
- ISO45001:2018 OHSMS
- IEC61215/IEC61730 Standard quality



MECHANICAL CHARACTERISTICS

Solar Cells	Mono
No. of Cells	120 (6x20)
Dimensions	1908 x 1134 x 30mm
Weight	24.0kgs
Front Glass	3.2mm coated tempered glass
Frame	Anodized aluminium alloy
Junc on Box	Ip68 rated (3 by pass diodes)
	4.0mm ²
Output Cables	300mm (+) / 400mm (-)
	Length can be customized
Connectors	Mc4 compa ble
Mechanical load test	5400Pa



ELECTRICAL PARAMETERS

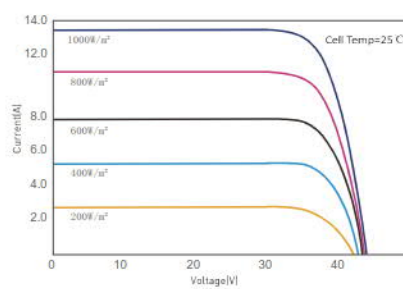
POWER CLASS	GC-440-60MDH		GC-445-60MDH		GC-450-60MDH		GC-455-60MDH		GC-460-60MDH	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power (Pmax)	440W	327W	445W	331W	450W	335W	455W	339W	460W	342W
Open Circuit Voltage (Voc)	41.44V	39.12V	41.50V	39.17V	41.56V	39.23V	41.62V	39.29V	41.68V	39.35V
Short Circuit Current (Isc)	13.55A	10.94A	13.67A	11.04A	13.81A	11.15A	13.95A	11.26A	14.09A	11.37A
Voltage at Maximum power (Vmpp)	34.21V	31.83V	34.26V	31.87V	34.31V	31.92V	34.36V	31.97V	34.41V	32.02V
Current Maximum Power (Impp)	12.87A	10.29A	12.99A	10.39A	13.12A	10.49A	13.25A	10.60A	13.38A	10.71A
MODULE EFFICIENCY(%)	20.4%		20.6%		20.8%		21%		21.2%	

STC: Irradiance 1000W/m², cell temperature 25°C, AM1.5G NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G

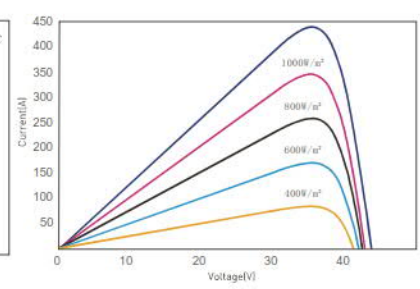
PACKING CONFIGURATION

Container	20'GP	40'HQ
Pieces per pallet	36	36
Pallets per container	5	24
Pieces per container	180	864

I-V CURVE



GC-460-60MDH/I-V



OPERATING CHARACTERISTICS

Operating Module Temperature	-40°C to + 85°C
Maximum System Voltage	1500 DC (IEC)
Maximum Series Fuse Rating	25A
Power Tolerance	0/+5W

TEMPERATURE CHARACTERISTICS

Nominal Operating Temperature (Noct)	45±2°C
Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.28%/°C
Temperature Coefficient of Isc	+0.05%/°C

Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. GOOSUN SOLAR have the sole right to make such modification at anytime without further notice.