GUO CHENG

Goosun Energy Construction Group Co., Ltd.

GC-144RN

430-450 Watt

MONO TOPCON

Picture quality
Multi bus, excellent electrical performance under low power consumption and lighting conditions

PID resistant
Excellent Pid tolerance at 96 hours (85 ° C/85%)

Crack resistance
Excellent micro-crack resistance, more uniform internal stress

The efficiency of the module is 22.50%
Semi-battery structure with low resistance characteristics has a higher lifetime power generation capacity

-0.24% C temperature coefficient
The power generation performance of the module is more stable, and the electrical performance is better under the high temperature environment

SMBB technology
Shorter current transfer distance, less resistance loss, higher battery efficiency

Maximum 90% two-sided rate
Natural double-sided symmetrical structure, the module back-side power generation gain is higher

Butyl rubber seal
Stronger water resistance, better air tightness, longer service life of components

Higher reliability
Industry-leading process and power quality assurance to ensure long-term high-performance components

Applicable to centralized power stations
Effectively reduce system BOS cost, LCOE lower

认证证书

EC61215、IEC61730、CE、CQC

·1S08001:2015 Quality Management System

·18014001:2015 Environmental Management System

·1S045001:2018 Occupational Health and safety management

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Electrical specifications

Module type	GC-144RN-430		GC-144RN-435		GC-144RN-440		GC-144RN-445		GC-144RN-450	
Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power(Pmax)	430	328	435	332	440	335	445	339	450	343
Open-circuit voltage(Voc)	51.40	48.70	51.80	49.10	52.20	49.40	52.60	49.80	52.90	50.10
Short Circuit Current(Isc/A)	10.59	8.53	10.64	8.57	10.67	8.60	10.71	8.63	10.74	8.65
Maximum power voltage(Vmpp)	43.20	40.40	43.60	40.70	44.0	41.0	44.30	41.30	44.60	41.60
Current maximum power	9.96	8.11	9.99	8.15	10.01	8.17	10.05	8.20	10.09	8.24
Module efficiency(%)	21.50%		21.80%		22.00%		22.30%		22.50%	
Power tolerance(W)	0~+5									

STC: light intensity 1000W/m, battery temperature 25°C, air quality 5.
Test conditions: irradiance 800W/m, ambient temperature 20°C, wind speed 1m/s.

Mechanical specifications

Battery type	MONO
Number of cells	144(6*24)
Size	1762*1134*30mm
Weight	21.8kg
Glass	3.2 mm low toughened glass
Framework	Anodic aluminum oxide alloy
Junction Box	IP683 diodes
Output Cable	4mm^2 length 300mm or custom made
The connector type	MC4 compatible

Packaging configuration

Per Pallet	36pcs
Per 40'HQ Container	936 pcs

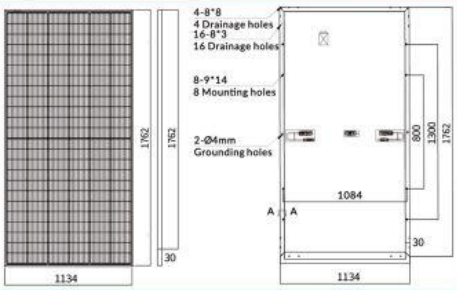
Temperature characteristics

NOCT temperature	43°C±2°C
Temperature coefficient (PMAX)	-0.300%/°C
Temperature coefficient (VOC)	-0.240%/°C
Temperature coefficient (ISC)	0.040%/°C

Maximum rated parameters

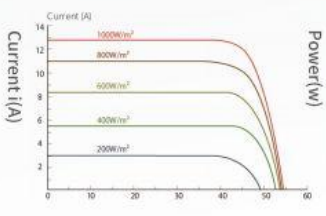
Maximum system voltage (IEC)	1500VDC(IEC)
Snow/wind	5400Pa/2400Pa
Operating temperature	-40°C~+85°C
Maximum series fuse rating	20A

Engineering drawings



L–V curve

I-VCURVE(440W)



Current-Voltage curves (440W)