



N-type Half-cell Monofacial Module (54)

TW415~440MGT

M10 TNC-108-H-S

PRODUCT FEATURES



High Power Output
Low LCOE



Maximum Power
440W*



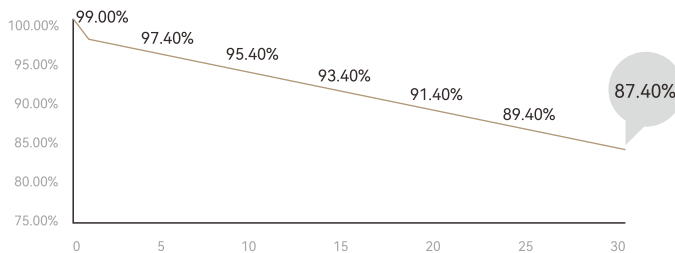
High
Reliability



Low
LID

POWER WARRANTY

1st year <1%, 0.4% power degradation per year from 2 to 30 years



12-year warranty for materials



30-year warranty for linear power output

MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

ISO45001: 2018/Occupational Health and Safety Management System

ISO14001: 2015/Environment Management System

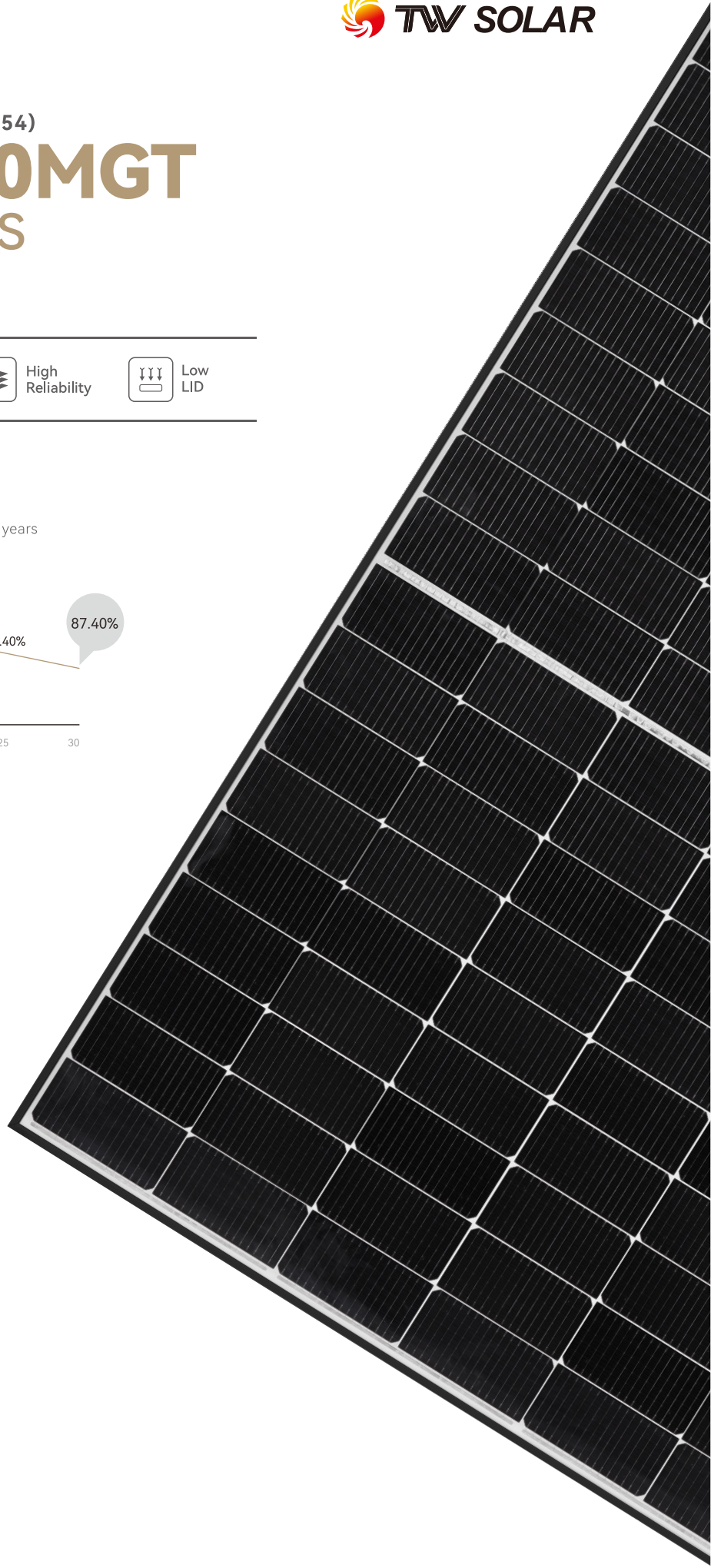
ISO9001: 2015/Quality Management System



Front



Rear



Electrical Characteristics (STC)

Module type: TW***MGT-108-H-S

Maximum power: Pmax (W)	415	420	425	430	435	440
Open circuit voltage: Voc (V)	37.85	38.00	38.15	38.30	38.45	38.60
Short circuit current: Isc (A)	14.22	14.27	14.32	14.37	14.42	14.47
Voltage at maximum power point: Vmp (V)	31.25	31.41	31.57	31.73	31.89	32.05
Current at maximum power point: Imp (A)	13.28	13.37	13.46	13.55	13.64	13.73
Module efficiency: η (%)	21.3	21.5	21.8	22.0	22.3	22.5

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass1.5, Measuring tolerance: \pm 3%

Electrical Characteristics (NMOT)

Maximum power: Pmax (W)	312.0	316.0	320.0	324.0	328.0	332.0
Open circuit voltage: Voc (V)	35.98	36.14	36.30	36.46	36.62	35.92
Short circuit current: Isc (A)	11.51	11.57	11.63	11.69	11.75	11.25
Voltage at maximum power point: Vmp (V)	29.18	29.34	29.50	29.66	29.82	29.02
Current at maximum power point: Imp (A)	10.69	10.77	10.85	10.92	11.00	11.44

NMOT: Irradiance 800W/m², Ambient Temperature 20 °C, Air Mass1.5, Wind Speed 1m/s

Mechanical Parameters

Cells	N-TNC
Orientation	108 (6×18)
Size	1722±2×1134±2×30mm
Weight	20.5kg
Glass	3.2mm high transmittance, AR coated heat strengthened glass
Backsheet	White
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Cable	4.0mm ² , Landscape: 280mm, Portrait: 280mm, length can be customized
Connector	MC4 Compatible
Wind/Snow Load	2400Pa/5400Pa
Packaging	936pcs per 40HC

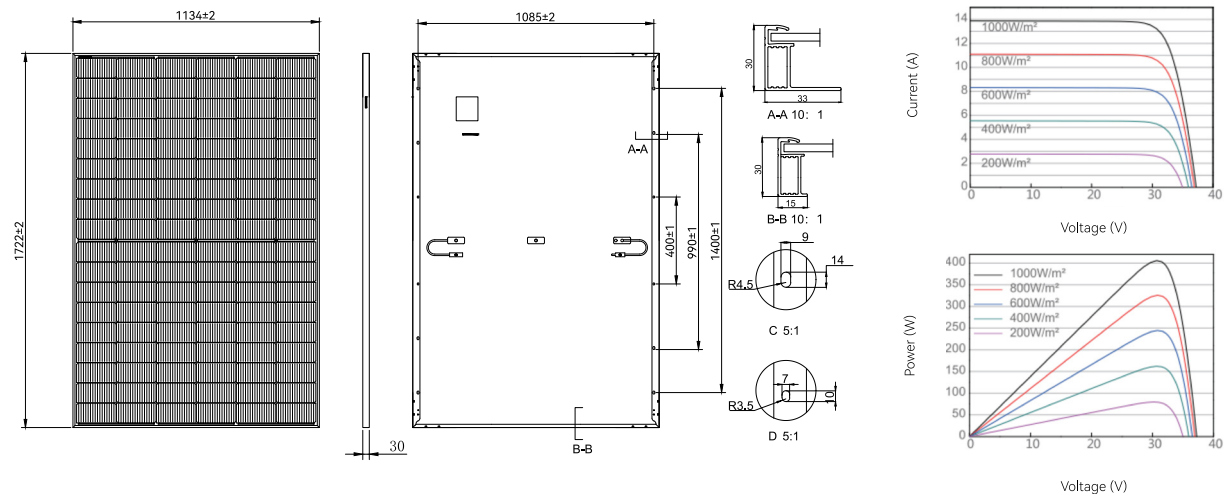
Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Power Output Tolerance	0~+5W

Temperature Ratings

Temperature Coefficient (Pmax)	-0.3%/°C
Temperature Coefficient (Voc)	-0.25%/°C
Temperature Coefficient (Isc)	+0.046%/°C
NMOT	43±2°C

Drawings (Unit: mm)



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