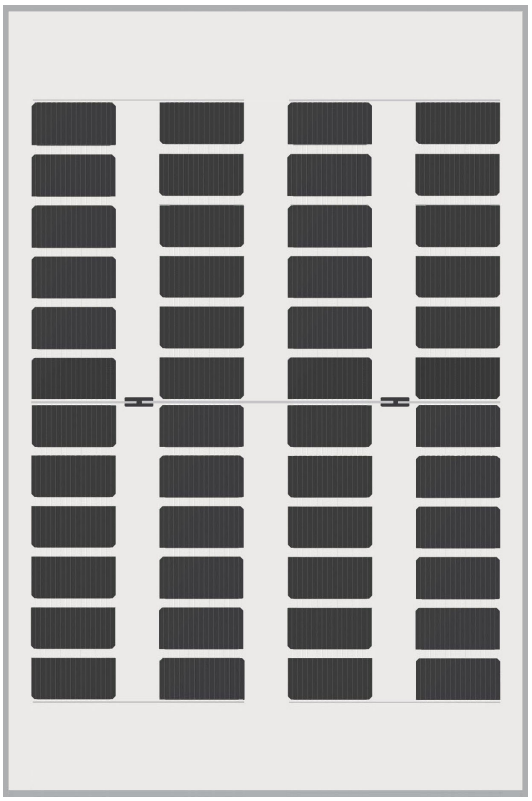
XN24SERIES HALF-CUT PV MODULES

PEAK POWER: 185-195 Wp

FEATURES INCLUDE:

- 24 N-Topcon cells comprised by double layers of glasses.
- Positive power tolerance of 0~+3% improves system performance.
- Industry-leading module e ficiency: maximum efficiency of 9.99%.
- Tested up to 5400Pa for maximum load resistance.
- Verified resistance against PID effects.
- Progressive Power Warranty guarantees 87.4% of rated power at 30 years.
- Manufactured globally with world-class quality standards

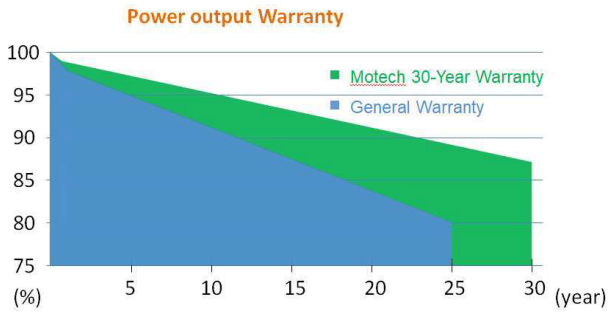


QUALITY, RELIABILITY, AND KWH YIELD

MOTECH modules are powered by industry acknowledged high performance, reliable silicon cells. 20 years of experience in solar module engineering and design, along with rigorous durability and performance tests, ensure reliable lifetime performance and maximum kWh yield.

30-YEAR PROGRESSIVE WARRANTY*

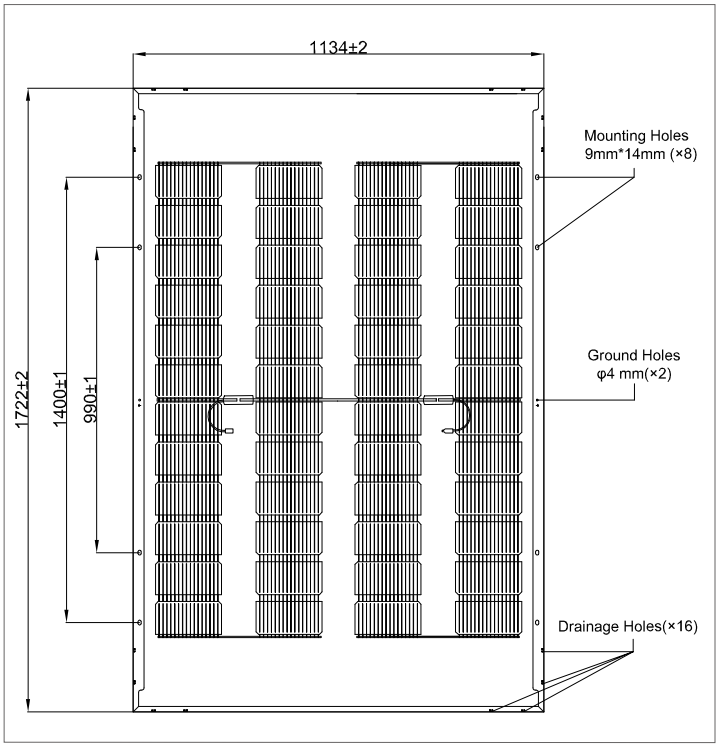
- 30-year progressive power warranty
- 12-year warranty on materials and workmanship



CERTIFICATIONS & STANDARDS*

XN24TF-P4 PHOTOVOLTAIC MODULES

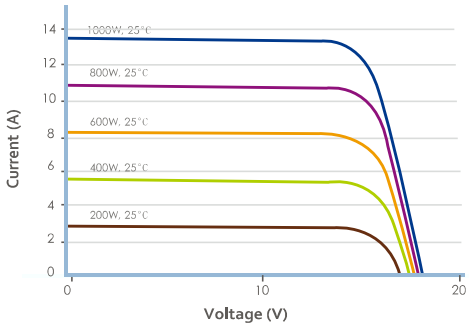
PHYSICAL CHARACTERISTICS



PHYSICAL DESIGN PROPERTIES

Dimension	1722×1134×30mm
Weight	24.5kg±5%
Front Glass	2.0 mm Semi-tempered Coated PV Glass
Back Glass	2.0 mm Glazed Glass
Junction Box	Protection class IP68
Output Cables	Φ4.0mm²,500mm/500mm, or customized length
Connectors	MC4 Compatible
Light transmittance	58.09%

IV CURVE



ELECTRICAL PERFORMANCE

Electrical Performance @ STC（Power Measurement Uncertainty±3%）	XN24TF-P4-185	XN24TF-P4-190	XN24TF-P4-195
Maximum Power Pmax[Wp]	185	190	195
Max. Power Voltage Vmpp(V)	14.61	14.88	15.13
Max. Power Current Impp(A)	12.67	12.77	12.89
Open Circuit Voltage Voc(V)	17.0	17.2	17.5
Short Circuit Current Isc(A)	13.38	13.44	13.56
Module Efficiency (%)	9.47%	9.73%	9.99%

Power Gain（Electrical Performance @ STC）「Power Measurement Uncertainty±3%」				
5%	Pmax[Wp]	194	199	204
	Module Efficiency (%)	9.94%	10.19%	10.45%
15%	Pmax[Wp]	212	218	224
	Module Efficiency (%)	10.86%	11.16%	11.47%
25%	Pmax[Wp]	231	237	243
	Module Efficiency (%)	11.83%	12.14%	12.44%

ELECTRICAL PERFORMANCE PARAMETERS

Isc Temperature Coefficient	α (%/°C)	+0.045	Maximum Series Fuse Rating	30A
Voc Temperature Coefficient	β (%/°C)	-0.25	Max. System Voltage (IEC)	1500V
Pmax Temperature Coefficient	γ (%/°C)	-0.29	Nominal Operating Cell Temp.(NOCT)	45°C ± 2°C

IV parameters are rated at Standard Test Conditions (Irradiance of 1000 W/m², AM 1.5, cell temperature 25°C). All measurements are guaranteed at the laminate leads.
NOCT is measured at 800 W/m², 20°C ambient, and 1 m/s windspeed. Specifications are subject to change without notice.
Motech reserves the rights of final interpretation and revision on this datasheet.

M31-2404-016-A

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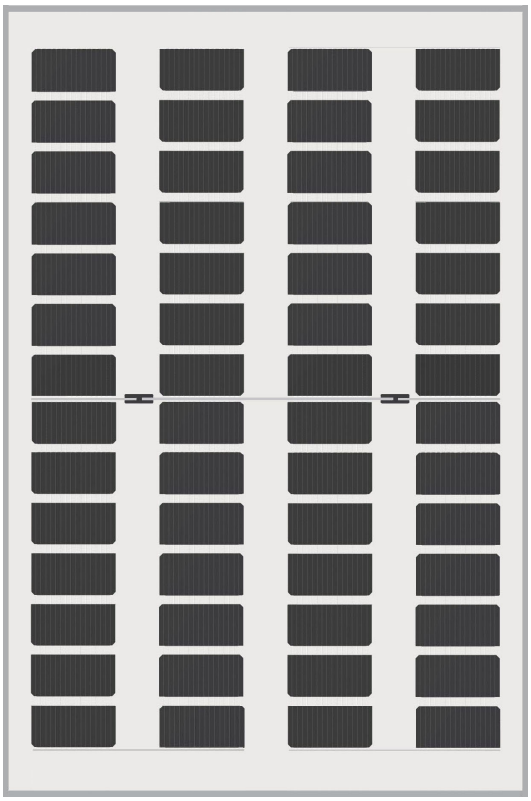
XN28SERIES HALF-CUT PV MODULES

PEAK POWER: 220-230 Wp



FEATURES INCLUDE:

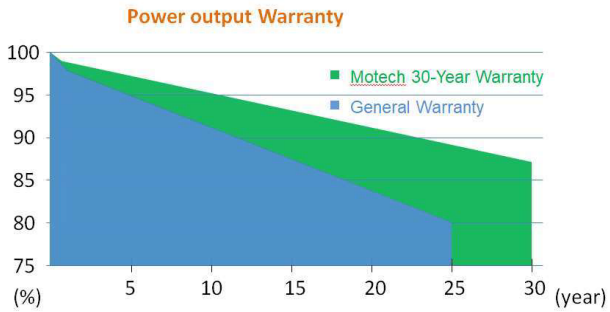
- 28 N-Topcon cells comprised by double layers of glasses.
- Positive power tolerance of 0~+3% improves system performance.
- Industry-leading module e ficiency: maximum efficiency of 11.78%.
- Tested up to 5400Pa for maximum load resistance.
- Verified resistance against PID effects.
- Progressive Power Warranty guarantees 87.4% of rated power at 30 years.
- Manufactured globally with world-class quality standards

QUALITY, RELIABILITY, AND KWH YIELD

MOTECH modules are powered by industry acknowledged high performance, reliable silicon cells. 20 years of experience in solar module engineering and design, along with rigorous durability and performance tests, ensure reliable lifetime performance and maximum kWh yield.

30-YEAR PROGRESSIVE WARRANTY*

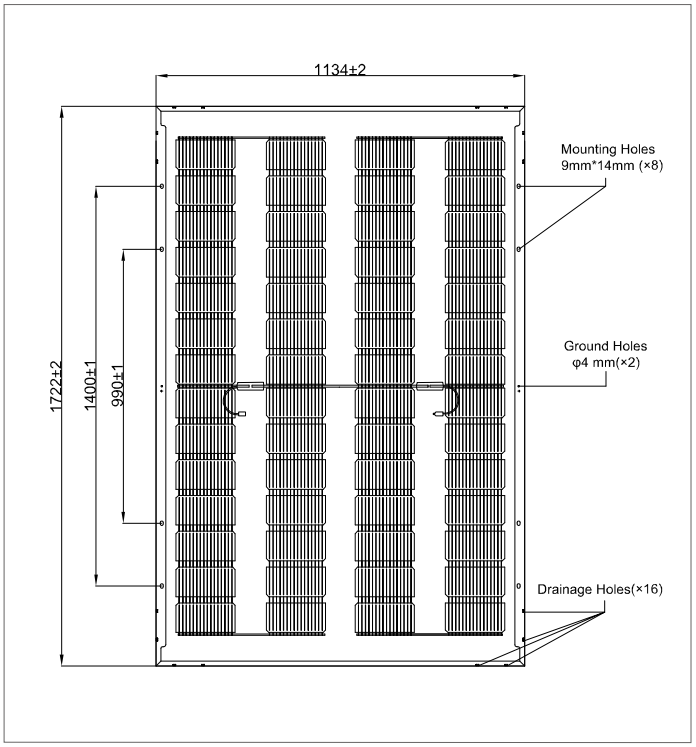
- 30-year progressive power warranty
- 12-year warranty on materials and workmanship



CERTIFICATIONS & STANDARDS*

XN28TF-P4 PHOTOVOLTAIC MODULES

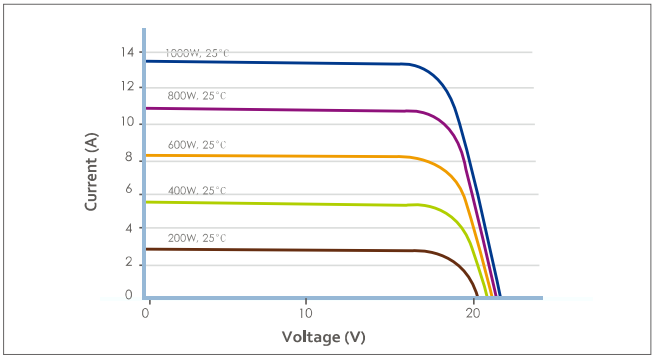
PHYSICAL CHARACTERISTICS



PHYSICAL DESIGN PROPERTIES

Dimension	1722×1134×30mm
Weight	24.5kg±5%
Front Glass	2.0 mm Semi-tempered Coated PV Glass
Back Glass	2.0 mm Glazed Glass
Junction Box	Protection class IP68
Output Cables	Φ4.0mm²,500mm/500mm, or customized length
Connectors	MC4 Compatible
Light transmittance	51.10%

IV CURVE



ELECTRICAL PERFORMANCE

Electrical Performance @ STC（Power Measurement Uncertainty±3%）	XN28TF-P4-220	XN28TF-P4-225	XN28TF-P4-230
Maximum Power Pmax[Wp]	220	225	230
Max. Power Voltage Vmpp(V)	17.25	17.54	17.76
Max. Power Current Impp(A)	12.76	12.83	12.95
Open Circuit Voltage Voc(V)	20.0	20.3	20.5
Short Circuit Current Isc(A)	13.43	13.51	13.61
Module Efficiency (%)	11.27%	11.52%	11.78%

Power Gain（Electrical Performance @ STC）「Power Measurement Uncertainty±3%」				
5%	Pmax[Wp]	231	236	241
	Module Efficiency (%)	11.83%	12.09%	12.34%
15%	Pmax[Wp]	253	258	264
	Module Efficiency (%)	12.96%	13.21%	13.52%
25%	Pmax[Wp]	275	281	287
	Module Efficiency (%)	14.08%	14.39%	14.70%

ELECTRICAL PERFORMANCE PARAMETERS

Isc Temperature Coefficient	α (%/°C)	+0.045	Maximum Series Fuse Rating	30A
Voc Temperature Coefficient	β (%/°C)	-0.25	Max. System Voltage (IEC)	1500V
Pmax Temperature Coefficient	γ (%/°C)	-0.29	Nominal Operating Cell Temp.(NOCT)	45°C ± 2°C

IV parameters are rated at Standard Test Conditions (Irradiance of 1000 W/m², AM 1.5, cell temperature 25°C). All measurements are guaranteed at the laminate leads.
NOCT is measured at 800 W/m², 20°C ambient, and 1 m/s windspeed. Specifications are subject to change without notice.
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M31-2404-015-A

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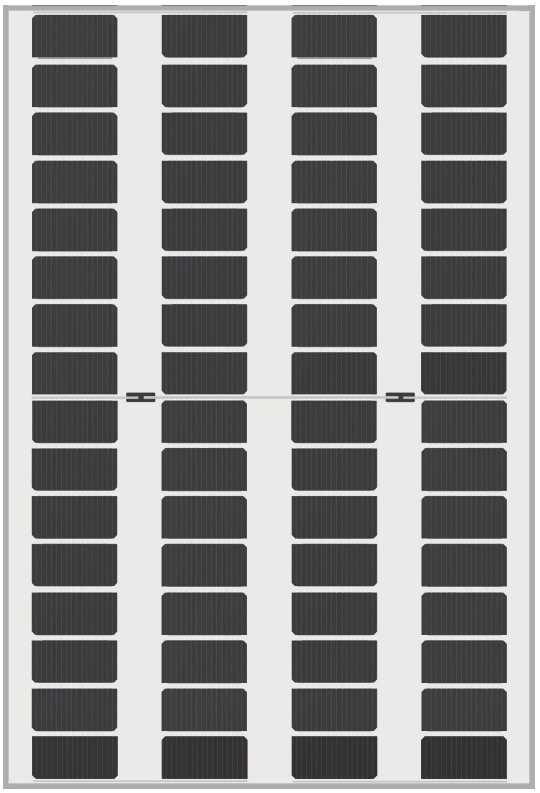
XN32SERIES HALF-CUT PV MODULES

PEAK POWER: 250-260 Wp

FEATURES INCLUDE:

- 32 N-Topcon cells comprised by double layers of glasses.
- Positive power tolerance of 0~+3% improves system performance.
- Industry-leading module e ficiency: maximum efficiency of 13.31%.
- Tested up to 5400Pa for maximum load resistance.
- Verified resistance against PID effects.
- Progressive Power Warranty guarantees 87.4% of rated power at 30 years.
- Manufactured globally with world-class quality standards

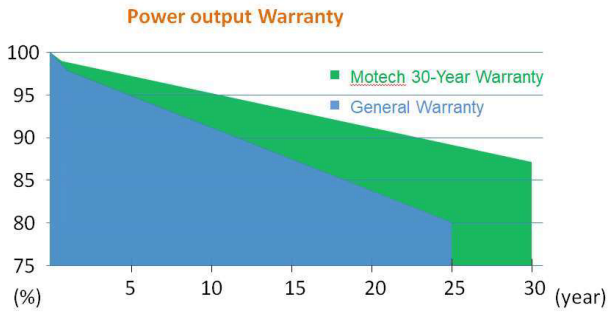


QUALITY, RELIABILITY, AND KWH YIELD

MOTECH modules are powered by industry acknowledged high performance, reliable silicon cells. 20 years of experience in solar module engineering and design, along with rigorous durability and performance tests, ensure reliable lifetime performance and maximum kWh yield.

30-YEAR PROGRESSIVE WARRANTY*

- 30-year progressive power warranty
- 12-year warranty on materials and workmanship



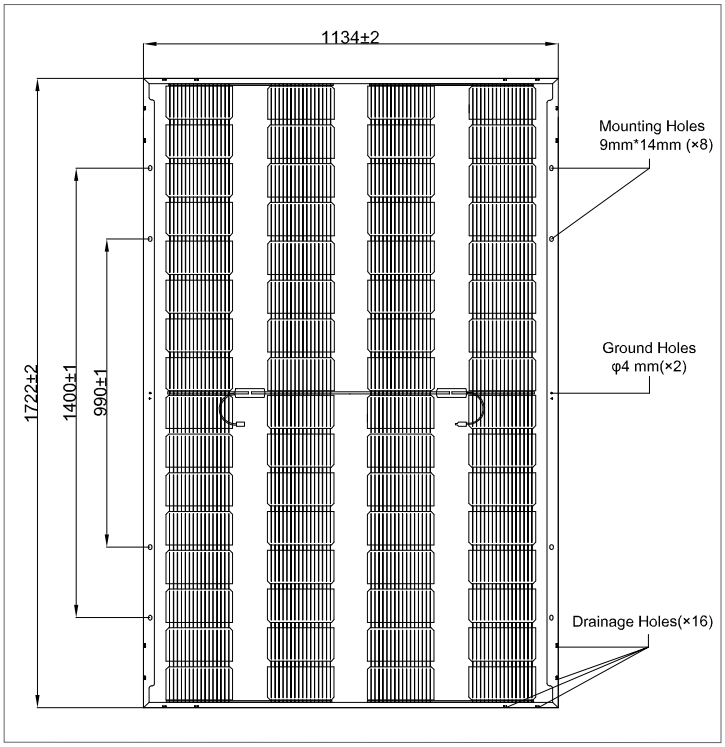
CERTIFICATIONS & STANDARDS*

CE

TÜV NORD Type Tested

XN32TF-P4 PHOTOVOLTAIC MODULES

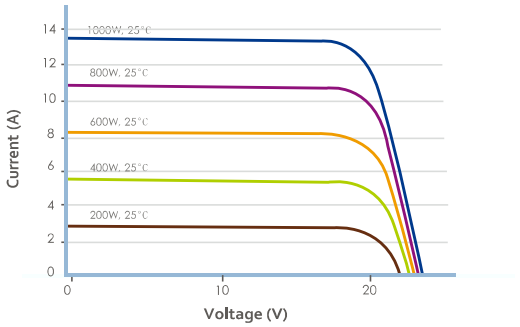
PHYSICAL CHARACTERISTICS



PHYSICAL DESIGN PROPERTIES

Dimension	1722×1134×30mm
Weight	24.5kg±5%
Front Glass	2.0 mm Semi-tempered Coated PV Glass
Back Glass	2.0 mm Glazed Glass
Junction Box	Protection class IP68
Output Cables	Φ4.0mm²,500mm/500mm, or customized length
Connectors	MC4 Compatible
Light transmittance	44.12%

IV CURVE



ELECTRICAL PERFORMANCE

Electrical Performance @ STC（Power Measurement Uncertainty±3%）	XN32TF-P4-250	XN32TF-P4-255	XN32TF-P4-260
Maximum Power Pmax[Wp]	250	255	260
Max. Power Voltage Vmpp(V)	19.64	19.94	20.17
Max. Power Current Impp(A)	12.73	12.79	12.90
Open Circuit Voltage Voc(V)	22.8	23.0	23.3
Short Circuit Current Isc(A)	13.41	13.47	13.56
Module Efficiency (%)	12.80%	13.06%	13.31%

Power Gain（Electrical Performance @ STC）「Power Measurement Uncertainty±3%」				
5%	Pmax[Wp]	262	267	273
	Module Efficiency (%)	13.42%	13.67%	13.98%
15%	Pmax[Wp]	287	293	299
	Module Efficiency (%)	14.70%	15.00%	15.31%
25%	Pmax[Wp]	312	318	325
	Module Efficiency (%)	15.98%	16.28%	16.64%

ELECTRICAL PERFORMANCE PARAMETERS

Isc Temperature Coefficient	α (%/°C)	+0.045	Maximum Series Fuse Rating	30A
Voc Temperature Coefficient	β (%/°C)	-0.25	Max. System Voltage (IEC)	1500V
Pmax Temperature Coefficient	γ (%/°C)	-0.29	Nominal Operating Cell Temp.(NOCT)	45°C ± 2°C

IV parameters are rated at Standard Test Conditions (Irradiance of 1000 W/m², AM 1.5, cell temperature 25°C). All measurements are guaranteed at the laminate leads.
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