

CONTRACTOR

VANTAGE HOME SOLAR, LLC

PHONE: (833) 473-3611
ADDRESS: 3600 NEW JERSEY 66, UNIT 150
NONE NEPTUNE CITY, NJ 07753

LIC.NO.: HIC:13VH09715800

HIC.NO.:

ELE.NO.:

UNAUTHORIZED USE OF THIS
DRAWING SET WITHOUT WRITTEN
PERMISSION FROM CONTRACTOR IS IN
VIOLATION OF U.S. COPYRIGHT LAWS
AND WILL BE SUBJECT TO CIVIL
DAMAGES AND PROSECUTIONS.

NEW PV SYSTEM: 12,750 KWP

BARONE RESIDENCE

31 SCUDDERS ROAD
SPARTA TOWNSHIP,
NJ 07871

APN: 1826001000000004

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

LINE DIAGRAM

DATE: 2024-01-22

DESIGN BY: A. SHAPOVALENKO

CHECKED BY: UKRDRAFTING

REVISIONS

E-601

(SHEET 1)

SYSTEM SUMMARY				
	BRANCH #1	BRANCH #2	BRANCH #3	BRANCH #4
INVERTERS PER BRANCH	8	8	8	10
MAX AC CURRENT	9.68A	9.68A	9.68A	12.10A
MAX AC OUTPUT POWER	2,320W	2,320W	2,320W	2,900W
ARRAY STC POWER	12,750W			
ARRAY PTC POWER	11,781W			
MAX AC CURRENT	41.14A			
MAX AC POWER	9,860W			
DERATED (CEC) AC POWER	9,860W			

MODULES										
REF.	QTY.	MAKE AND MODEL	PMAX	PTC	ISC	IMP	VOC	VMP	TEMP. COEFF. OF VOC	FUSE RATING
PM1-34	34	JINKO TIGER JKM375M-6RL3-B	375W	346.50W	11.01A	10.19A	44.12V	10.19V	-0.124V/°C (-0.28%/°C)	20A

INVERTERS										
REF.	QTY	MAKE AND MODEL	AC VOLTAGE	GROUND	OCPD RATING	RATED POWER	MAX OUTPUT CURRENT	MAX INPUT CURRENT	MAX INPUT VOLTAGE	CEC WEIGHTED EFFICIENCY
I1-34	34	ENPHASE IQ7PLUS-72-2-US	240A	FLOATING	20A	290W	1.21A	20A	60V	97.0%

DISCONNECTS				
REF.	QTY.	MAKE AND MODEL	RATED CURRENT	MAX RATED VOLTAGE
SW1	1	SQUARE D D222NRB	60A	240V

ASHRAE EXTREME LOW	33.7°C (92.7°F), SOURCE: ESSEX CO (-74.28°; 40.88°)
ASHRAE 2% HIGH	33.7°C (92.7°F), SOURCE: ESSEX CO (-74.28°; 40.88°)

OCPDS			
REF.	QTY	RATED CURRENT	MAX VOLTAGE
CB1-4	4	20A	240V
CB5	1	15A	240V
FU1-2	2	60A	240V

BILL OF MATERIAL							
CATEGORY	MAKE	MODEL NUMBER	REF	QTY	UNIT	QTY/UNIT	DESCRIPTION
PV MODULE	JINKO	TIGER JKM375M-6RL3-B	PM1-34	34	PIECE	1	JINKO TIGER JKM375M-6RL3-B, 375W, 132 (2×66) P TYPE MONO-CRYSTALLINE
INVERTER	ENPHASE	IQ7PLUS-72-2-US	I1-34	34	PIECE	1	ENPHASE IQ7PLUS-72-2-US 290W MICROINVERTER
DISCONNECT	SQUARE D	D222NRB	SW1	1	PIECE	1	SQUARE D D222NRB, FUSED, 2-POLE, 60A, 240VAC, NEMA 3R OR EQUIVALENT
AC COMBINER PANEL	ENPHASE	IQ COMBINER 3-ES	EP1	1	PIECE	1	ENPHASE IQ COMBINER 3-ES 125A COMBINER PANEL
PRODUCTION METER	GENERIC	GENERIC PV METER	PVM1	1	PIECE	1	GENERIC PV METER
MONITORING	ENPHASE	ENPHASE-ENVOY	ENV1	1	PIECE	1	ENPHASE ENVOY
WIRING	GENERIC	Q-12-10-240	WR1	145	FEET	1	ENPHASE Q-CABLE
WIRING	GENERIC	GEN-6-AWG-BARE-CU	WR1	145	FEET	1	6 AWG BARE, COPPER (GROUND)
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-RD	WR2	40	FEET	1	10 AWG THWN-2, COPPER, RED (LINE 1)
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-BLK	WR2	40	FEET	1	10 AWG THWN-2, COPPER, BLACK (LINE 2)
WIRING	GENERIC	GEN-8-AWG-THWN-2-CU-GR	WR2	40	FEET	1	8 AWG THWN-2, COPPER, GREEN (GROUND)
WIRING	GENERIC	GEN-6-AWG-THWN-2-CU-RD	WR3-5	30	FEET	1	6 AWG THWN-2, COPPER, RED (LINE 1)
WIRING	GENERIC	GEN-6-AWG-THWN-2-CU-BLK	WR3-5	30	FEET	1	6 AWG THWN-2, COPPER, BLACK (LINE 2)
WIRING	GENERIC	GEN-6-AWG-THWN-2-CU-GR	WR3-5	30	FEET	1	6 AWG THWN-2, COPPER, GREEN (GROUND)
WIRING	GENERIC	GEN-6-AWG-THWN-2-CU-WH	WR3-5	30	FEET	1	6 AWG THWN-2, COPPER, WHITE (NEUTRAL)
WIREWAY	GENERIC	GEN-EMT-0.5"-DIA	WW2	10	FEET	1	EMT CONDUIT 0.5" DIA
WIREWAY	GENERIC	GEN-EMT-0.75"-DIA	WW3-5	30	FEET	1	EMT CONDUIT 0.75" DIA
OCPD	GENERIC	GEN-CB-20A-240VAC	CB1-4	4	PIECES	1	CIRCUIT BREAKER, 20A, 240VAC
OCPD	GENERIC	GEN-CB-15A-240VAC	CB5	1	PIECE	1	CIRCUIT BREAKER, 15A, 240VAC
OCPD	GENERIC	GEN-FU-60A-240VAC	FU1-2	2	PIECES	1	FUSE, 60A, 240VAC
TRANSITION ENCLOSURE	GENERIC	GEN-AWB-TB-4-4X	JB1	1	PIECE	1	TRANSITION/PASS-THROUGH BOX, WITH 4 TERMINAL BLOCKS



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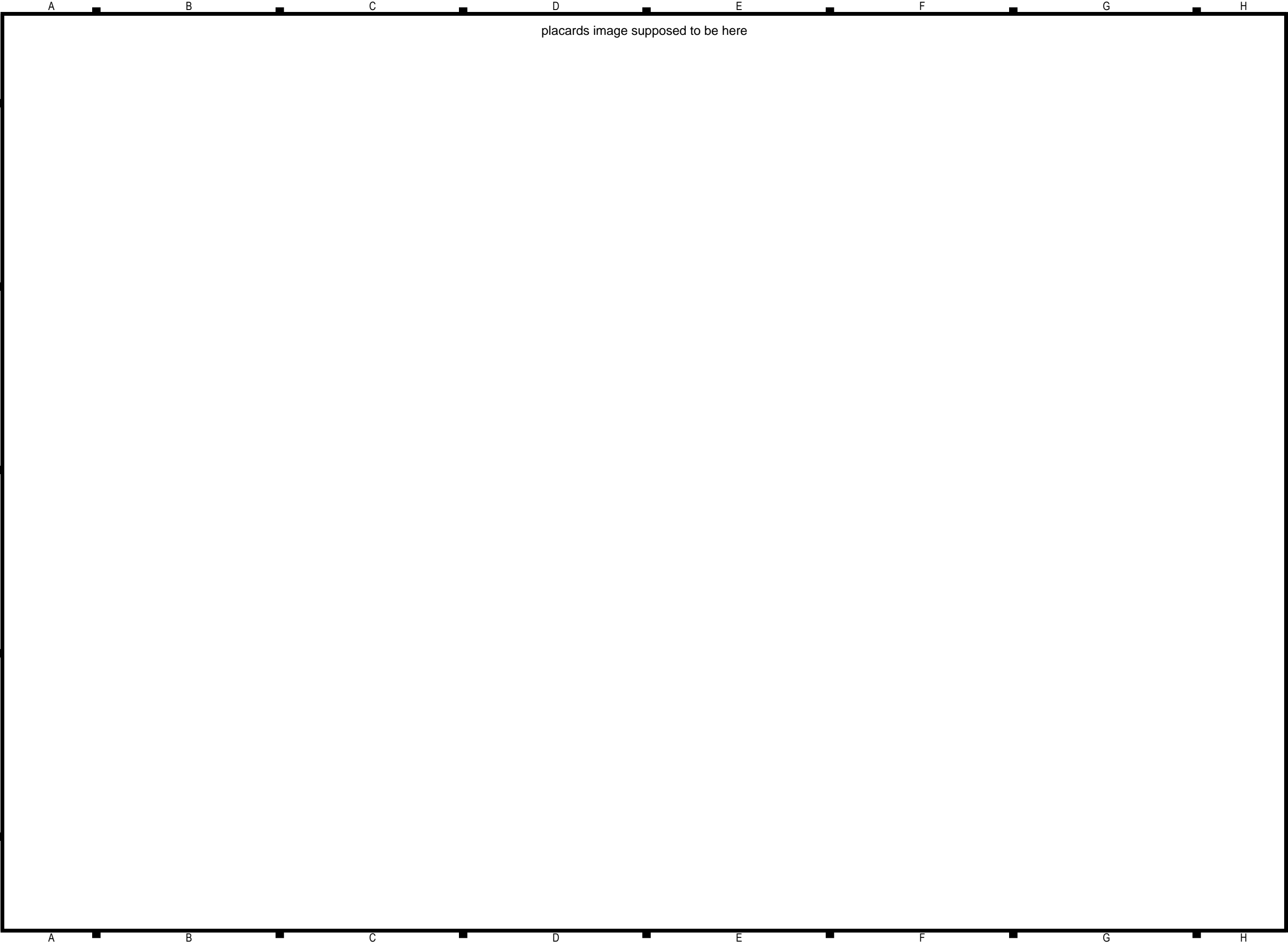
ELECTRICAL PLAN

DATE: 2024-01-22

DESIGN BY: A. SHAPOVALENKO

CHECKED BY: UKRDRAFTING

REVISIONS



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PLACARDS

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REVISIONS

E-603

(SHEET 3)

www.jinkosolar.com

Tiger Mono-facial All Black 360-380 Watt

Tiling Ribbon (TR) Technology

Positive power tolerance of 0~+3%

ISO9001:2015, ISO14001:2015, ISO45001:2018
certified factory
IEC61215, IEC61730 certified product

Jinko Solar
Building Your Trust in Solar

KEY FEATURES



TR technology + Half Cell

TR technology with Half cell aims to eliminate the cell gap to increase module efficiency (mono-facial up to 19.91%)



9BB instead of 5BB

9BB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



Higher lifetime Power Yield

2.5% first year degradation,
0.6% linear degradation



Best Warranty

12 year product warranty,
25 year linear power warranty



Avoid debris, cracks and broken gate risk effectively

9BB technology using circular ribbon that could avoid debris, cracks and broken gate risk effectively

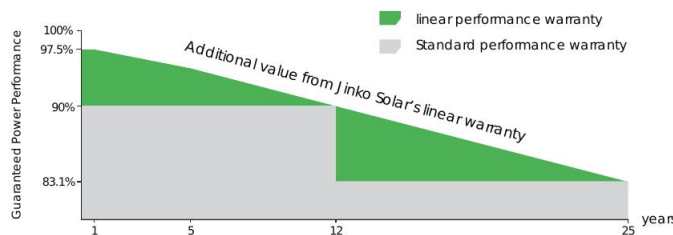


Severe Weather Resilience

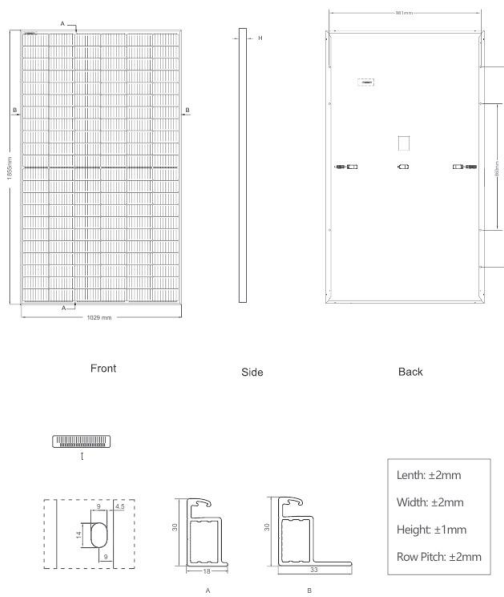
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty 25 Year Linear Power Warranty
0.6% Annual Degradation Over 25 years



Engineering Drawings



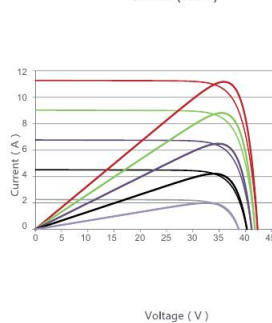
Packaging Configuration

(Two pallets = One stack)

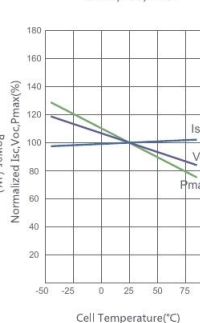
35pcs/pallets, 70pcs/stack, 840pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (380W)



Temperature Dependence of Isc, Voc, Pmax



Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	132 (2×66)
Dimensions	1855×1029×30mm (73.03×40.51×1.18 inch)
Weight	20.8 kg (45.86 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	TUV 1×4.0mm ² (+): 290mm, (-): 145 mm or Customized Length

SPECIFICATIONS

Module Type	JKM360M-6RL3-B		JKM365M-6RL3-B		JKM370M-6RL3-B		JKM375M-6RL3-B		JKM380M-6RL3-B	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	360Wp	268Wp	365Wp	272Wp	370Wp	275Wp	375Wp	279Wp	380Wp	283Wp
Maximum Power Voltage (Vmp)	36.51V	33.27V	36.61V	33.36V	36.71V	33.49V	36.80V	33.57V	36.90V	33.70V
Maximum Power Current (Imp)	9.86A	8.05A	9.97A	8.14A	10.08A	8.22A	10.19A	8.31A	10.30A	8.39A
Open-circuit Voltage (Voc)	43.82V	41.36V	43.92V	41.45V	44.02V	41.55V	44.12V	41.64V	44.22V	41.74V
Short-circuit Current (Isc)	10.68A	8.63A	10.79A	8.71A	10.90A	8.80A	11.01A	8.89A	11.12A	8.98A
Module Efficiency STC (%)	18.86%		19.12%		19.38%		19.65%		19.91%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000VDC (IEC)									
Maximum series fuse rating	20A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.35%/°C									
Temperature coefficients of Voc	-0.28%/°C									
Temperature coefficients of Isc	0.048%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

* STC: ☀ Irradiance 1000W/m² 📏 Cell Temperature 25°C ☁ AM=1.5
NOCT: ☀ Irradiance 800W/m² 📏 Ambient Temperature 20°C ☁ AM=1.5 🌀 Wind Speed 1m/s
* Power measurement tolerance: ± 3%

The company reserves the final right for explanation on any of the information presented hereby. TR JKM360-380M-6RL3-B-A1.1-EN



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REVISIONS

R-001
(SHEET 4)

Data Sheet
Enphase Microinverters
Region: AMERICAS

Enphase
IQ 7 and IQ 7+
Microinverters

The high-powered smart grid-ready
Enphase IQ 7 Micro™ and Enphase IQ 7+ Micro™
dramatically simplify the installation process while
achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and
IQ 7+ Microinverters integrate with the Enphase
IQ Envoy™, Enphase IQ Battery™, and the Enphase
Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability
standards set forth by previous generations and
undergo over a million hours of power-on testing,
enabling Enphase to provide an industry-leading
warranty of up to 25 years.



To learn more about Enphase offerings, visit enphase.com

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell/120 half-cell and 72-cell/144 half-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell/144 half-cell modules.



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REVISIONS

R-002

(SHEET 5)

www.jinkosolar.com

Tiger Mono-facial All Black 360-380 Watt

Tiling Ribbon (TR) Technology

Positive power tolerance of 0~+3%

ISO9001:2015, ISO14001:2015, ISO45001:2018
certified factory

IEC61215, IEC61730 certified product

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Building Your Trust in Solar

KEY FEATURES



TR technology + Half Cell

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9BB instead of 5BB

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Higher lifetime Power Yield

2.5% first year degradation,
0.6% linear degradation



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12 year product warranty,
25 year linear power warranty



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9BB technology using circular ribbon that could avoid debris, cracks and broken gate risk effectively

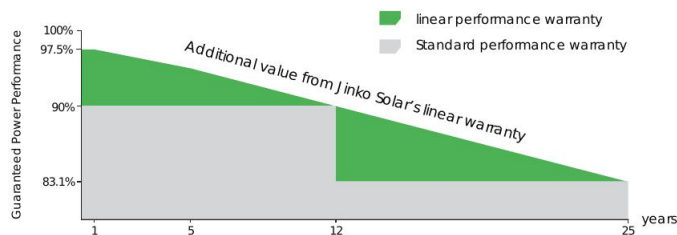


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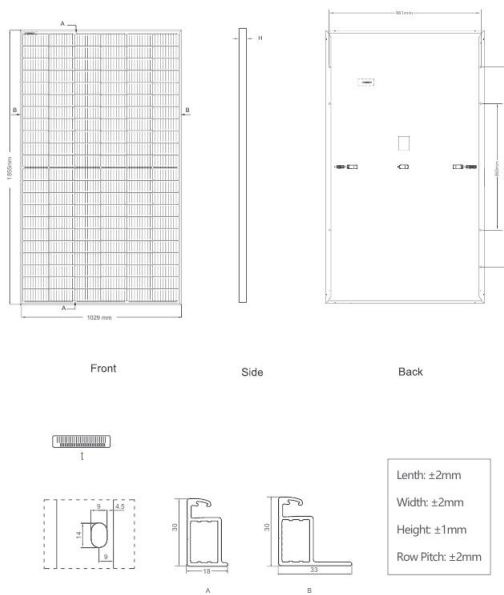
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Engineering Drawings



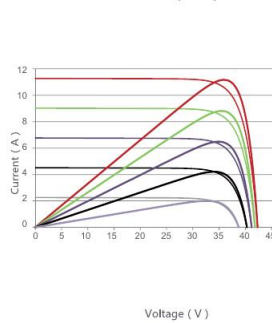
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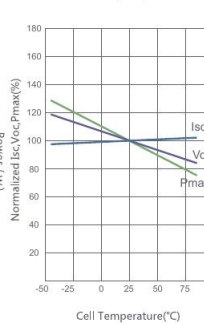
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Maximum system voltage	1000VDC (IEC)									
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R-001

(SHEET 6)

Data Sheet
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Region: AMERICAS

Enphase
IQ 7 and IQ 7+
Microinverters

The high-powered smart grid-ready
Enphase IQ 7 Micro™ and Enphase IQ 7+ Micro™
dramatically simplify the installation process while
achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and
IQ 7+ Microinverters integrate with the Enphase
IQ Envoy™, Enphase IQ Battery™, and the Enphase
Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability
standards set forth by previous generations and
undergo over a million hours of power-on testing,
enabling Enphase to provide an industry-leading
warranty of up to 25 years.



To learn more about Enphase offerings, visit enphase.com

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell/120 half-cell and 72-cell/144 half-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell/144 half-cell modules.



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