

Dear Homeowner,

EnergyBuild would like to congratulate you on your new home and solar system!

This Handover Pack Includes:

- ✓ Product information
- ✓ Our contact details
- ✓ Start-Up & Shut Down Procedures

When you are organising your electricity account for your new home, make sure to inform them you have solar installed!

We are here to assist from the moment you begin generating solar power.

If at any time you have queries regarding your solar system, need advice on how to best maximise solar production or want to improve usage through battery storage, please give us a call on [07 3002 1900](tel:0730021900) or email service.energy@energybuild.com.au.

In the meantime, we wish you all the best with your new solar system.

Kind regards,

EnergyBuild

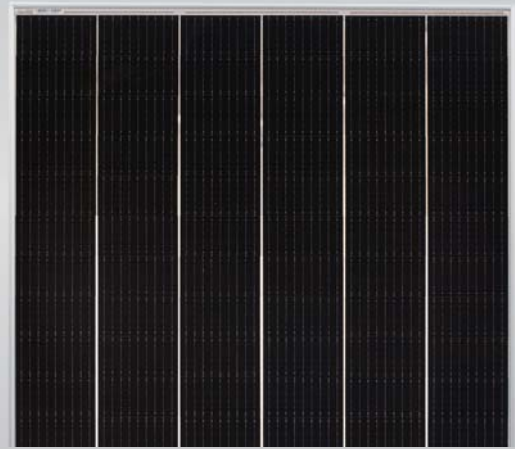
Tiger Mono-facial 375-395 Watt

Tiling Ribbon (TR) Technology

Positive power tolerance of 0~+3%

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

IEC61215, IEC61730 certified product



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 20.69%)



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



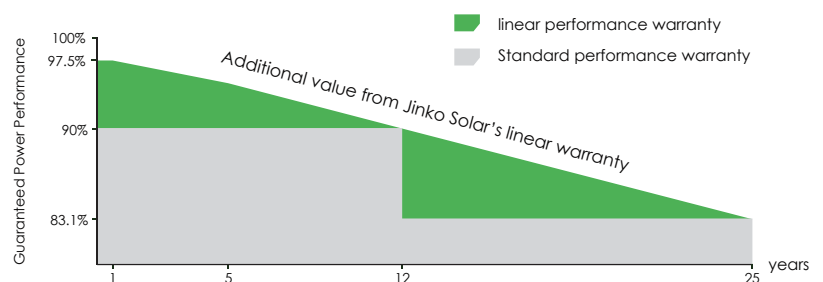
Severe Weather Resilience

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

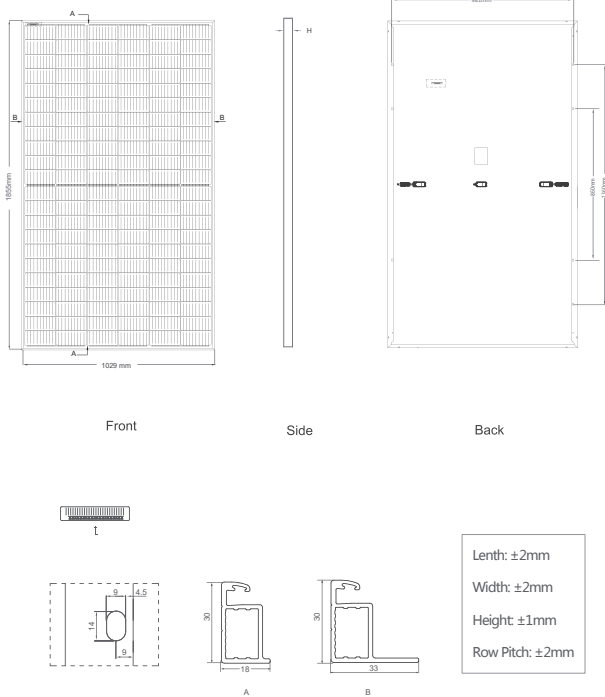


LINEAR PERFORMANCE WARRANTY

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



Engineering Drawings

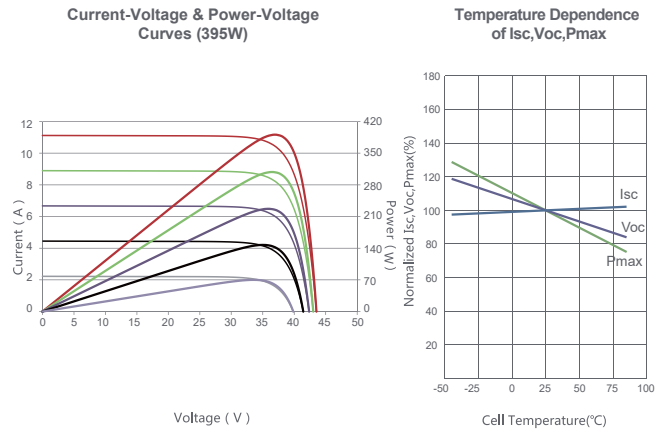


Packaging Configuration

(Two pallets = One stack)

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

Electrical Performance & Temperature Dependence



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	JKM375M-6RL3		JKM380M-6RL3		JKM385M-6RL3		JKM390M-6RL3		JKM395M-6RL3	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	375Wp	279Wp	380Wp	283Wp	385Wp	286Wp	390Wp	290Wp	395Wp	294Wp
Maximum Power Voltage (Vmp)	36.20V	33.21V	36.30V	33.34V	36.39V	33.50V	36.49V	33.66V	36.58V	33.82V
Maximum Power Current (Imp)	10.36A	8.40A	10.47A	8.48A	10.58A	8.55A	10.69A	8.62A	10.80A	8.69A
Open-circuit Voltage (Voc)	43.49V	41.05V	43.58V	41.13V	43.66V	41.21V	43.75V	41.29V	43.93V	41.47V
Short-circuit Current (Isc)	11.12A	8.98A	11.21A	9.05A	11.30A	9.13A	11.39A	9.20A	11.48A	9.27A
Module Efficiency STC (%)	19.65%		19.91%		20.17%		20.43%		20.69%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000/1500VDC (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%

Energy of the Future, Today

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SOLAX STRING INVERTER

ENGINEERED FOR SOLAR



X1-BOOST (SINGLE PHASE)

	X1-3.0T	X1-3.3T	X1-3.6T	X1-4.2T	X1-4.6T	X1-5.0T
INPUT (DC)						
Max.PV array power [Wp]	3250	3500	4000	4600	5200	5200
Max.DC voltage [V]	600	600	600	600	600	600
Nominal DC operating voltage [V]	360	360	360	360	360	360
Max. input current [A]	12/12	12/12	12/12	12/12	12/12	12/12
Max. short circuit current [A]	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8
MPPT voltage range[V]	70-580	70-580	70-580	70-580	70-580	70-580
Start operating voltage[V]	100	100	100	100	100	100
No. of MPP trackers	2	2	2	2	2	2
Strings per MPP tracker	1	1	1	1	1	1
OUTPUT AC						
Nominal AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Max. AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Nominal grid voltage(AC voltage range) [V]	220/230/240; 180~280					
Nominal grid frequency/range [Hz]	50/60; ±5					
Nominal AC current [A]	13	14.3	16	18.3	20	21.7 (20 for VDE4105)
Max. AC current [A]	14	15	16.8(16 for G98)	19	21	22.7 (21.7 for AS4777)
Displacement power factor	0.8 leading ~ 0.8 lagging					
THDi, rated power [%]	<2					
EFFICIENCY						
MPPT efficiency [%]	99.9					
Euro efficiency [%]	97.0					
Max. efficiency [%]	97.8					
POWER CONSUMPTION						
Standby consumption (Night) [W]	<1					
STANDARD						
Over voltage protection	YES					
Over current protection	YES					
DC isolation impedance monitoring	YES					
Ground fault current monitoring	YES					
DC injection monitoring	YES					
RCD protection	YES					
Safety	IEC62109-1/-2					
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					
Certification	VDE4105 /G98 / G99/ AS4777 / EN50549 / CEI0-21					
ENVIRONMENT LIMIT						
Degree of protection(according to IEC60529)	IP65					
Operating temperature range [°C]	-25~+60(derating at 45)					
Max. operation altitude [m]	2000					
Humidity [%]	0~100 (condensation)					
Storage temperature [°C]	-25~+60					
Typical noise emission [dB]	25					
DIMENSION AND WEIGHT						
Dimensions(WxHxD) [mm]	341.5*430*143					
Weight[kg]	13.5	13.5	13.5	14.5	14.5	14.5
Cooling concept	Natural					
Topology	Non-isolated					
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade					
LCD display	Yes					
Standard warranty [years]	5-10					



X1-SMART (SINGLE PHASE)

	X1-6.0	X1-7.0	X1-8.0
INPUT (DC)			
Max.PV array power [Wp]	3000/4000	3000/5000	3000/6000
Max.DC voltage [V]	550	550	550
Nominal DC operating voltage [V]	360	360	360
Max. input current [A]	11/22	11/22	11/22
Max. short circuit current [A]	12/24	12/24	12/24
MPPT voltage range[V]	100-500	100-500	100-500
Start operating voltage[V]	120	120	120
No. of MPP trackers	2	2	2
Strings per MPP tracker	1/2	1/2	1/2
OUTPUT AC			
Nominal AC power [VA]	6000	7000	8000
Max. AC power [VA]	6000	7000	8000
Nominal grid voltage(AC voltage range) [V]	220/230/240; 160-285		
Nominal grid frequency/range [Hz]	50/60; ±5		
Nominal AC current [A]	28	32	35
Max. AC current [A]	45		
Displacement power factor	0.8 leading... 0.8 lagging		
THDi, rated power [%]	< 3		
EFFICIENCY			
MPPT efficiency [%]	99.90		
Euro efficiency [%]	96.80		
Max. efficiency [%]	97.40		
POWER CONSUMPTION			
Standby consumption (Night) [W]	<1		
STANDARD			
Over voltage protection	YES		
Over current protection	YES		
DC isolation impedance monitoring	YES		
Ground fault current monitoring	YES		
DC injection monitoring	YES		
RCD protection	YES		
Safety	IEC62109-1/IEC62109-2		
EMC	EN 61000-3-2 / EN 61000-3-3 / EN 61000-3-11 / EN 61000-3-12 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3		
Certification	AS/NZS4777		
ENVIRONMENT LIMIT			
Degree of protection(according to IEC60529)	IP65		
Operating temperature range [°C]	-25~+60 (derating at 45)		
Max. operation altitude [m]	2000		
Humidity [%]	0~100, non condensing		
Storage temperature [°C]	-25~+60		
Typical noise emission [dB]	40		
DIMENSION AND WEIGHT			
Dimensions(WxHxD) [mm]	450*401*190		
Weight[kg]	22		
Cooling concept	Natural		
Topology	Non-isolated		
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade		
LCD display	Backlight 20*4 character		
Standard warranty [years]	5-10		



X3-MIC (THREE PHASE) *(T For Dual MPPT S For Single MPPT)*

	X3-4.0-T	X3-5.0-T	X3-6.0-T	X3-7.0-T	X3-8.0-T	X3-9.0-T	X3-10.0-T	X3-4.0-S	X3-5.0-S
INPUT (DC)									
Max.PV array power [Wp]	5200	6500	7800	8400	9600	10800	12000	4800	6000
Max.DC voltage [V]	800	800	800	1000	1000	1000	1000	1000	1000
Nominal DC operating voltage [V]	600	600	600	600	600	600	600	600	600
Max. input current [A]	11/11	11/11	11/11	11/11	11/11	11/11	11/11	11	11
Max. short circuit current [A]	14/14	14/14	14/14	14/14	14/14	14/14	14/14	14	14
MPPT voltage range[V]	160-750	160-750	160-750	160-900	160-900	160-900	160-900	160-900	160-900
Start operating voltage[V]	180	180	180	180	180	180	180	180	180
No. of MPP trackers	2	2	2	2	2	2	2	1	1
Strings per MPP tracker	1	1	1	1	1	1	1	1	1
OUTPUT AC									
Nominal AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Max. AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Nominal grid voltage(AC voltage range) [V]	3/N/PE, 3/PE, 230/400(310-480)						3/N/PE, 3/PE, 230/400(310-480)		
Nominal grid frequency/range [Hz]	50/60;±5						50/60;±5		
Nominal AC current [A]	5.8	7.2	8.7	10.1	11.6	13.0	14.5	5.8	7.2
Max. AC current [A]	6.4	8.0	9.6	11.2	12.8	14.4	16.0	6.4	8.0
Displacement power factor	0.8leading-0.8lagging						0.8leading-0.8lagging		
THDi, rated power [%]	<2						<2		
EFFICIENCY									
MPPT efficiency [%]	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Euro efficiency [%]	97.8	97.8	97.8	98	98	98	98	97.8	97.8
Max. efficiency [%]	98.3	98.3	98.3	98.4	98.4	98.5	98.5	98.3	98.3
POWER CONSUMPTION									
Standby consumption (Night) [W]	<3						<3		
STANDARD									
Over voltage protection	YES						YES		
Over current protection	YES						YES		
DC isolation impedance monitoring	YES						YES		
Ground fault current monitoring	YES						YES		
DC injection monitoring	YES						YES		
RCD protection	YES						YES		
Safety	EN62109-1/-2						EN62109-1/-2		
EMC	EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3						EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3		
Certification	AS4777; VDE4105; G98; G99; EN50549; CEI0-21						AS4777; VDE4105; G98; G99; EN50549; CEI0-21		
ENVIRONMENT LIMIT									
Degree of protection(according to IEC60529)	IP65						IP65		
Operating temperature range [°C]	-25~+60(derating at 45)						-25~+60(derating at 45)		
Max. operation altitude [m]	2000						2000		
Humidity [%]	0~100,condensing						0~100,condensing		
Storage temperature [°C]	-25~60						-25~60		
Typical noise emission [dB]	35						35		
DIMENSION AND WEIGHT									
Dimensions(WxHxD) [mm]	534*419*201						534*419*201		
Weight[kg]	30	30	30	30	30	30	30	28	28
Cooling concept	Natural						Natural		
Topology	Non-isolated						Non-isolated		
Communication interfaces	RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade						RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade		
LCD display	Backlight 20*4 character						Backlight 20*4 character		
Standard warranty [years]	5-10						5-10		

Start-Up & Shutdown Procedure and Maintenance Guidelines

SHUTDOWN SYSTEM

1. Turn off main DC isolator (if system has a battery system).
2. Turn off the solar array AC main switch (located in switchboard or next to the inverter).
3. In the case you have 2 AC switches, turn both to the off position.
4. Turn off the Solar array DC Main switch located next to the inverter.
5. Check the shutdown procedure labelled on the inverter or in main switchboard.

RESTART THE SYSTEM

1. Turn on Solar Array DC main switch located next to the inverter.
2. Turn on Solar AC main switch located in the switchboard and/or next to the inverter.
3. Turn on the main battery isolator (if there is a battery system).

MAINTENANCE OF SOLAR ARRAY

- If the angle of the PV module is 10° or more, normal rainfall is sufficient to keep the module glass surface clean under typical weather conditions.
- There are no user serviceable parts in the system.
- We recommend that your system is inspected by a Clean Energy Council Accredited Installer every two years.
- To confirm the operation of your system, check inverter display while the PV array is in full sunlight.

If you have any other questions regarding maintenance, please call us on **07 3002 1900** or email service.energy@energybuild.com.au.

Turning on the SolaX inverter:



1. In the main switchboard, locate the circuit breaker titled “Main supply (inverter supply)”. If it isn’t already on, turn it on now.



2. Inside the inverter enclosure, you’ll find the DC isolator switch. Simply cut the cable tie and turn the switch on.



3. The inverter will start up, and the screen will say “checking”. After a few seconds, it will then countdown from 120. After the countdown, the inverter will show “normal”, and the PAC number will rise. This is the solar’s current production.

Turning on the SolaX inverter (continued):



Grid Loss Fault: This typically means that something is not switched on. Complete the shutdown procedure that is labelled on the inverter and then re-complete these steps.

If an error message continues, send through photos of the inverter and the switchboard to service.energy@energybuild.com.au or call 07 3002 1900.