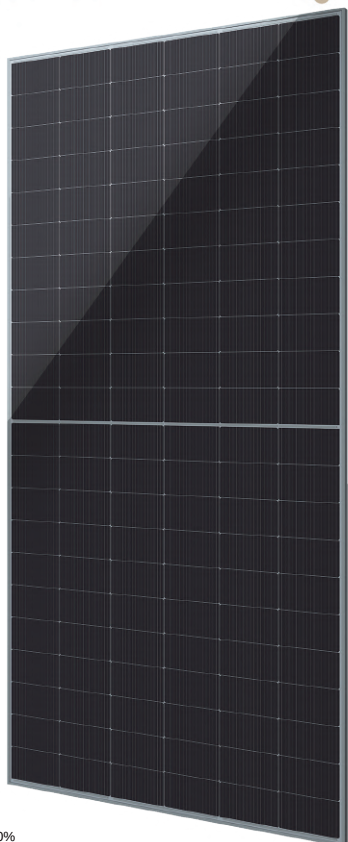


SOLAR MODULE 690 - 715 W



**G12 - TOPCON
HALF CUT PV MODULE
HIGH EFFICIENCY
DUAL GLASS**



N-TYPE TOPCON CELL TECHNOLOGY

Based on G12-210mm wafer with multi-busbar
N-Type wafer and TOPCon technology



MODULE TECHNOLOGY

Double-sided power generation
Low breakage rate; Annual power degradation 0.4%
Less power loss by minimizing the shading impact



HOT SPOT LOSS

Optimized electrical design and lower operating current
Reduced hot spot loss and better temperature coefficient



FAST & SAFE

Easy installation and handling
Environmentally friendly



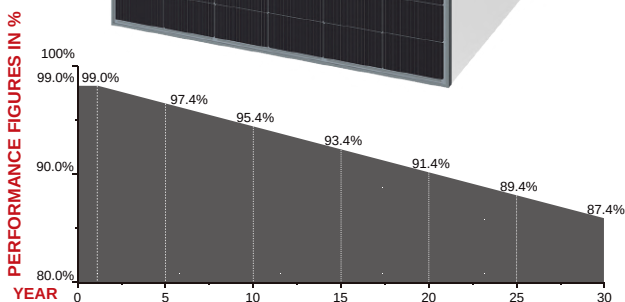
MODULE DURABILITY

Mechanical load test Front side 5400Pa/Rear side 2400Pa
Ideal for PV rooftops, ground mount, floating



THE #1 DOMESTIC PV MANUFACTURER IN VIETNAM

100% Automatic production line
International quality PV technology



GUARANTEED MODULE PERFORMANCE FROM IREX ENERGY JSC

CERTIFICATES



ISO 9001:2015: Quality Management System
ISO 14001:2015: Environmental Management System
IEC 61215: Terrestrial Photovoltaic (PV) Modules – Design
Qualification and Type Approval*
IEC 61730: Photovoltaic (PV) Module Safety Qualification*

* in progress

HIGH QUALITY FOR PROSPERITY

IREX Energy Joint Stock Company produces the #1 Vietnamese-Made Photovoltaic (PV) modules, internationally certified with excellent performance and flexible in customization per demand.

Going solar requires a long-term commitment. You can sit back, relax and enjoy the sunshine; as our company will **always be with you in 30 years!**

With the **finest price and customer service** can only be found at IREX Joint Stock Company, we look forward to working with you soon!

IREX ENERGY JOINT STOCK COMPANY

Head Office: No. 47, Le Van Thinh Street, Quarter 5, Binh Trung Ward, HCMC, Vietnam.
Factory Address: Road No. 1A, Phu My 1 Industrial Zone, Tan Phuoc Ward, HCMC, Vietnam.
Tel: +84 (0)28 7300 1559 | **Email:** info@irex.vn | **Website:** www.irex.vn



IREX - IRMSHIELD4 Series

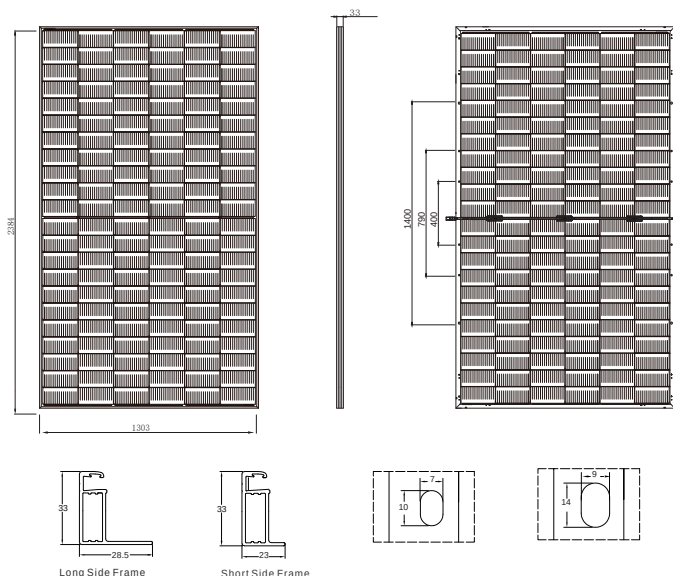
SOLAR MODULE

690 - 715 W



Mechanical Specifications

External Dimensions	2384 x 1303 x 33 mm
Weight	37.1 kg
Solar Cells	N-type TOPCon Mono 105 x 210 mm (132 pcs)
Glass	Front: 2.0 mm, AR coating, semi-tempered
	Rear: 2.0 mm, semi-tempered
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0 mm ² , 350 mm(+)/ 280 mm(-) or Customized Length
Mechanical Load	Front Side Maximum Static Loading 5400Pa
	Rear Side Maximum Static Loading 2400Pa



*Tolerance: Length: ±2mm Width: ±2mm Height: ±1mm Row Pitch: ±2mm

Electrical Characteristics

Module Type	IRM66HTBD4-690		IRM66HTBD4-695		IRM66HTBD4-700		IRM66HTBD4-705		IRM66HTBD4-710		IRM66HTBD4-715	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax)	690	521	695	525	700	529	705	532	710	536	715	540
Open Circuit Voltage (Voc)	47.30	44.79	47.50	45.01	47.90	45.36	48.68	46.20	48.91	46.38	49.14	46.56
Short Circuit Current (Isc)	18.02	14.53	18.05	14.56	18.08	14.58	18.11	14.61	18.15	14.65	18.19	14.68
Maximum Power Voltage (Vmp)	40.70	38.49	40.86	38.66	41.10	38.90	41.29	38.97	41.50	39.12	41.69	39.27
Maximum Power Current (Imp)	16.98	13.54	17.01	13.58	17.07	13.60	17.07	13.65	17.11	13.70	17.15	13.75
Module Efficiency at STC(ηm)	22.2		22.4		22.5		22.7		22.9		23.0	
Power Tolerance	(0 ~ +5 W)											
Maximum System Voltage	1500 VDC											
Maximum Series Fuse Rating	35 A											

STC: Irradiance 1000 W/m², cell temperature 25°C, spectrum AM1.5

NMOT: Irradiance 800 W/m², ambient temperature 20°C, spectrum AM1.5, wind speed 1m/s

Different Rearside Power Gain

	(Reference to 715 W)		
Rearside Power Gain	5%	10%	20%
Maximum Power at STC (P _{max})	750.8	786.5	858.0
Open-circuit Voltage (V _{oc} /V)	49.1	49.1	49.1
Short-circuit Current (I _{sc} /A)	19.1	20.0	21.8
Maximum Power Voltage (V _{mp} /V)	41.7	41.7	41.7
Maximum Power Current (I _{mp} /A)	18.0	18.9	20.6
Module Efficiency (%)	24.2	25.3	27.6

*The above data is for reference only. When signing a contract, the latest version of the product specification shall prevail.

Temperature Characteristics

P _{max} Temperature Coefficient	-0.290 %/°C
V _{oc} Temperature Coefficient	-0.250 %/°C
I _{sc} Temperature Coefficient	+0.045 %/°C
Operating Temperature	-40 ~ +85 °C
Nominal Module Operating Temperature (NMOT)	45 ± 2 °C

Packing Configuration

	2384 x 1303 x 33 mm
Container	40'HQ
Pieces per Pallet	33
Pallets per Container	18
Pieces per Container	594