



Sustainable through **GENERATIONS**

IREX ENERGY JOINT STOCK COMPANY

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Factory: No. 1A Street, Phu My 1 Industrial Zone,
Tan Thanh District, Ba Ria - Vung Tau Province, Vietnam
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Prominent projects & Activities



Green One House United Nations Headquarters - Hanoi (Vietnam)
Capacity: 110 kWp

BINH DUONG POLITICAL ADMINISTRATION CENTER
Capacity: 31.2 kWp (Phase 1)

SOLAR FARM
Khanh Son, Da Nang (in progress)
Capacity: 4.4 MWp

ENERGY GLOBE
The world award for sustainability



2012, 2016

Over **50** islands
in the Spratly Islands
are now powered **by IREX**



**TAN CANG SONG THAN ICD
JOINT STOCK COMPANY**
Capacity: 500.96 kWp (Phase 1)
1.155 MWp (Phase 2 - In progress)



**IREX PARTICIPATED
IN INTERSOLAR 2014, 2015, 2016**



**IREX PARTICIPATED IN
SOLAR POWER INTERNATIONAL (SPI) 2017**

#1 Vietnamese PV Manufacturer in VietNam



100% Vietnam made solar cells & modules

500 MW/year of production capacity

Established in 2012, IREX inherited the foundation from Viet Nam-based SolarBK – the leading smart renewable energy corporation in Viet Nam – with 40 years of research & development in renewable energy.

IREX owned a self- manufacturing Photovoltaic (PV) factory, producing directly solar cells and solar panels under international quality standard that have pleased even the most demand difficult European and American clients.

With automatic machineries and modern facilities, the production line has reached a capacity of 500 MW/year including 200 MW for solar cells and 300 MW for PV module. The solar cell production line is 100% automatic.

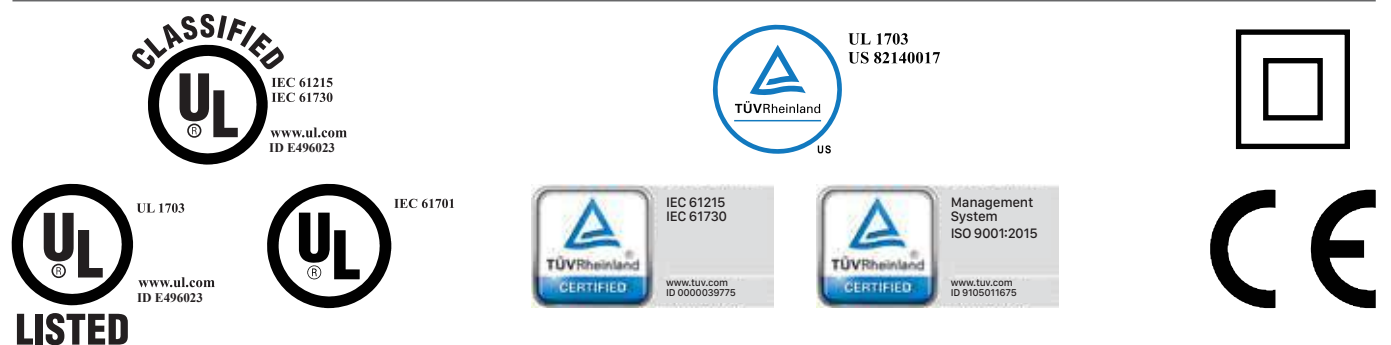
IREX’s PV module efficiency exceeds 19% in standard conditions, complied with IEC 61215, IEC 61730, UL 1703, IEC 61701 quality standard, issued by TÜV Rheinland and UL, warranty 12 years for material, workmanship and 25 years for linear power output.

We mainly exported our PV module to Europe, US, and deployed in many green buildings in Vietnam, as well as showcased in Singapore, The Netherlands, Turkey, Tunisia and Myanmar.

International Certificates

Manufacturing process aligned with international standards:

- IEC 61215 - Crystalline silicon terrestrial PV modules - Design qualification and type approval
- IEC 61730 | 1 and 2 - PV module safety qualification
- IEC 61701:2011 - Salt mist corrosion testing of PV modules
- UL 1703 - Standard for Flat - Plate Photovoltaic Modules and Panels
- Class A Spread of flame and Class C Burning brand according to UL 790 and fire performance type 1 according to UL 1703
- CE Marking
- ISO 9001:2015 - Quality Management System for manufacture and sales of PV Modules



IREX'S PRODUCTS

FEATURES

IREX provides highly-efficient and highly-trusted Products which will be easily installed and handled

- Solar Cell Poly 4BB, 5BB / PERC
 - Poly 15 Wp
 - Poly 30 Wp | 35 Wp
 - Poly 70 Wp | 75 Wp
 - 36P156: 145 - 185 Wp
 - 48P156: 205 - 245 Wp
 - 54P156: 230 - 270 Wp
 - 60P156: 265 - 305 Wp
 - 72P156: 310 - 350 Wp
 - 60P156-DG: 265 - 305 Wp
 - 72P156-DG: 310 - 350 Wp
- Solar Cell Mono 4BB, 5BB / PERC
 - Mono 80 Wp
 - 72M125: 180 - 220 Wp
 - 36M156: 150 - 190 Wp
 - 48M156: 210 - 250 Wp
 - 54M156: 245 - 285 Wp
 - 60M156: 275 - 315 Wp
 - 72M156: 340 - 380 Wp
 - 60M156-DG: 275 - 315 Wp
 - 72M156-DG: 340 - 380 Wp

- **Cell Efficiency:** IREX uses only A-grade solar cells with 22% conversion efficiency.
- **PID Performance:** Excellent anti-PID performance.
- **Frame:** Aluminum frame designed for heavy load up to 5400 Pa.
- **Power:** In Low light or high temperature conditions, outstanding power could be created.
- **Material:** Resistant against salt mist, ammonia, blowing sand, water and hail.
- **Warranty:**
 - Twelve years for product warranty.
 - Twenty-five years guaranteed peak power output limited.



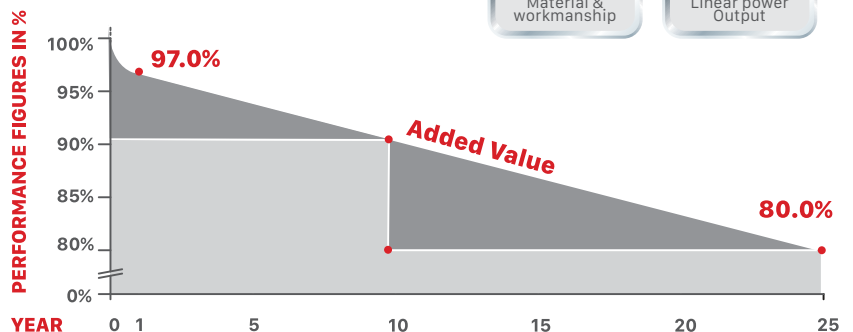
EFFICIENCY
High Module Conversion Efficiencies

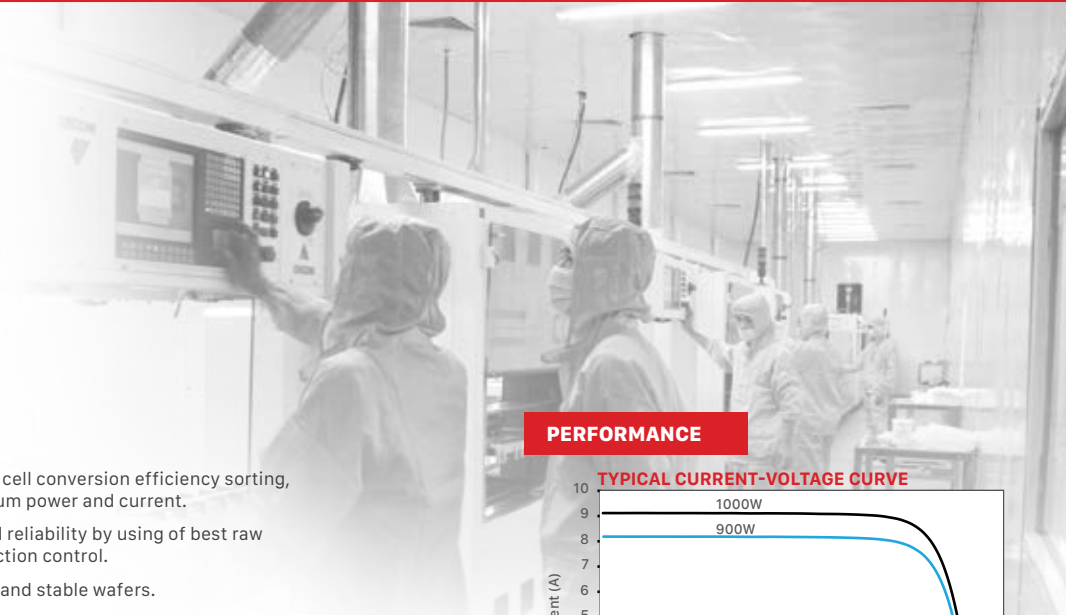
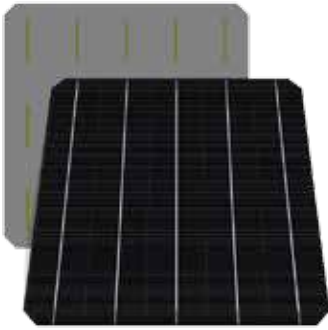


EASY & QUICK
Easy Installation and Handling



MECHANICAL LOAD
Heavy snow load up to 5400 Pa
Wind load up to 2400 Pa





FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Imp (A)	Uoc (V)	Isc (A)	FF (%)
01	21.40	5.23	0.571	9.156	0.671	9.675	80.53
02	21.30	5.20	0.570	9.129	0.670	9.654	80.45
03	21.20	5.18	0.569	9.104	0.671	9.646	80.03
04	21.10	5.16	0.567	9.097	0.667	9.636	80.25
05	21.00	5.13	0.565	9.084	0.666	9.626	80.06
06	20.90	5.11	0.563	9.071	0.665	9.616	79.86
07	20.80	5.08	0.561	9.059	0.663	9.608	79.78
08	20.70	5.06	0.559	9.051	0.661	9.598	79.75
09	20.60	5.03	0.557	9.041	0.659	9.587	79.71
10	20.40	4.98	0.552	9.031	0.654	9.572	79.63
11	20.20	4.94	0.547	9.027	0.648	9.570	79.62

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20 μm
Front (-)	0.7 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

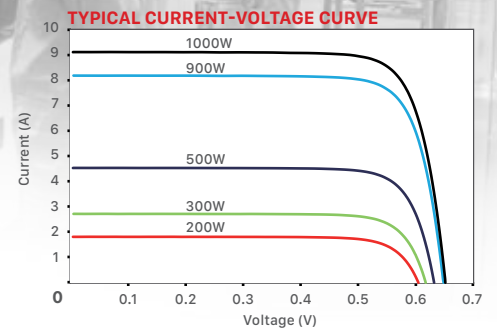
TEMPERATURE COEFFICIENTS

α (Isc)	+0.043%/K
β (Voc)	-0.300%/K
γ (Pmpp)	-0.380%/K

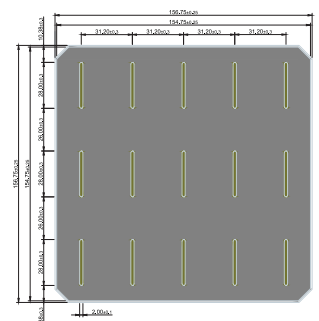
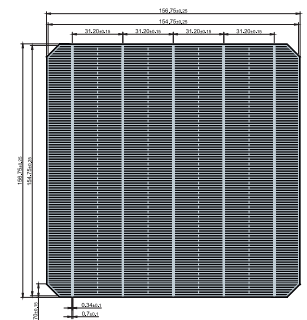
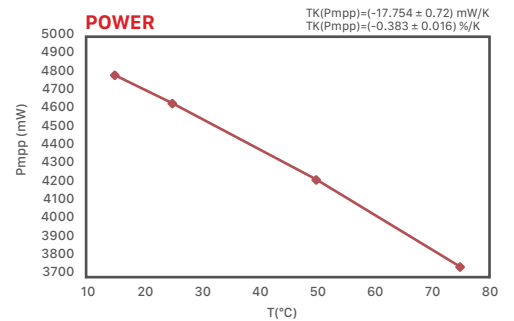
PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000

PERFORMANCE

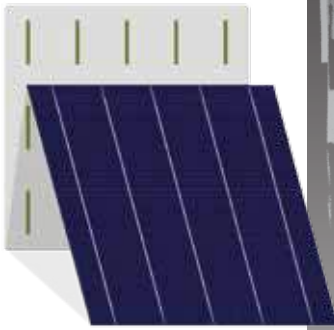


CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference

IR - P156 - 5BB - PERC POLYCRYSTALLINE SILICON SOLAR CELLS



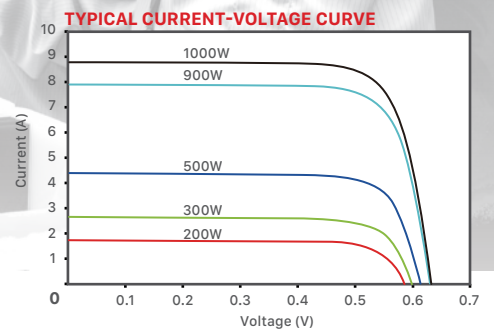
FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

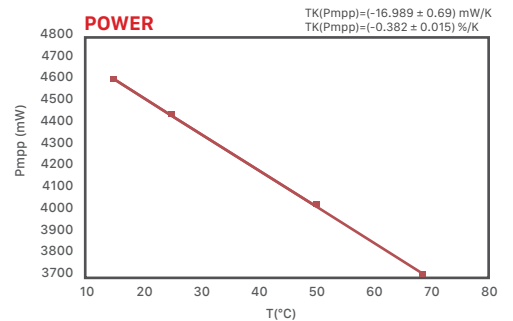
PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	19.60	4.82	0.558	8.634	0.658	9.187	79.70
02	19.40	4.77	0.554	8.600	0.654	9.147	79.64
03	19.20	4.72	0.550	8.575	0.649	9.114	79.73
04	19.00	4.67	0.546	8.554	0.645	9.088	79.68
05	18.80	4.62	0.543	8.501	0.642	9.033	79.60
06	18.60	4.57	0.540	8.461	0.639	8.985	79.58
07	18.40	4.52	0.537	8.421	0.635	8.936	79.69
08	18.20	4.47	0.533	8.397	0.626	8.923	80.12

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20μm
Front (-)	0.7 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

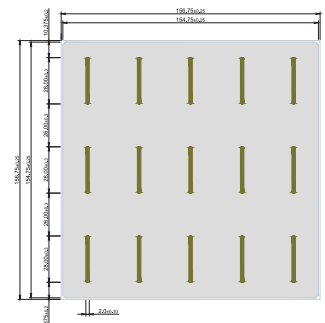
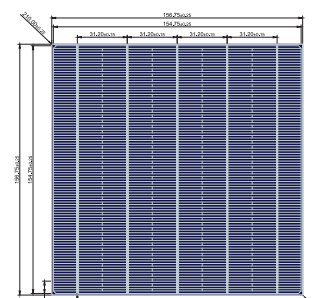
Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.30%/K
γ (Pmpp)	-0.37%/K

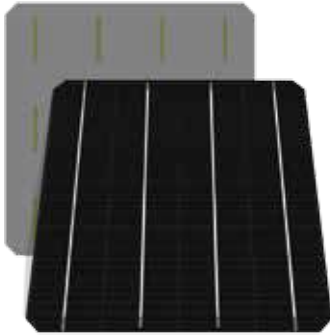
PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000



Drawing Only for Reference

IR - M156 - 4BB - PERC MONOCRYSTALLINE SILICON SOLAR CELLS



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	21.40	5.23	0.569	9.185	0.670	9.701	80.41
02	21.30	5.20	0.568	9.162	0.669	9.688	80.29
03	21.20	5.18	0.567	9.139	0.668	9.667	80.24
04	21.10	5.16	0.565	9.122	0.666	9.652	80.18
05	21.00	5.13	0.563	9.105	0.665	9.639	79.97
06	20.90	5.11	0.562	9.092	0.663	9.630	80.03
07	20.80	5.08	0.560	9.081	0.662	9.622	79.84
08	20.70	5.06	0.557	9.072	0.660	9.614	79.64
09	20.60	5.03	0.555	9.063	0.658	9.605	79.59
10	20.40	4.98	0.551	9.053	0.654	9.595	79.49
11	20.20	4.94	0.546	9.033	0.650	9.578	79.22
12	20.00	4.89	0.542	9.008	0.646	9.553	79.11

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20μm
Front (-)	1.1 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2.1 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

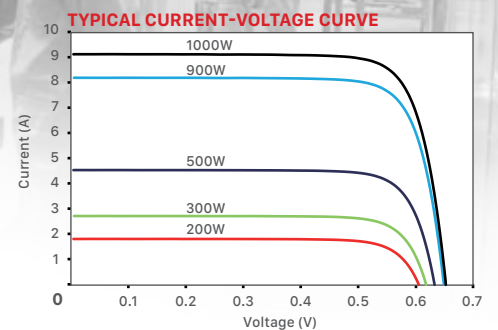
TEMPERATURE COEFFICIENTS

α (Isc)	+0.043%/K
β (Voc)	-0.300%/K
γ (Pmpp)	-0.380%/K

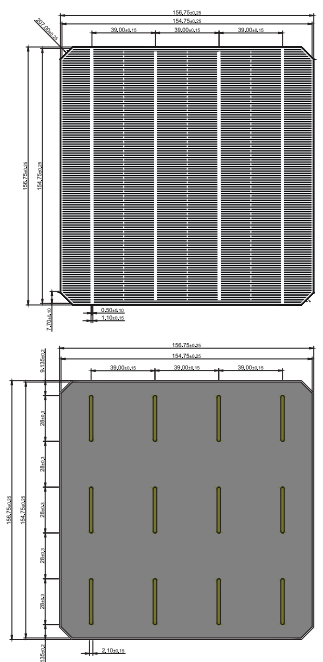
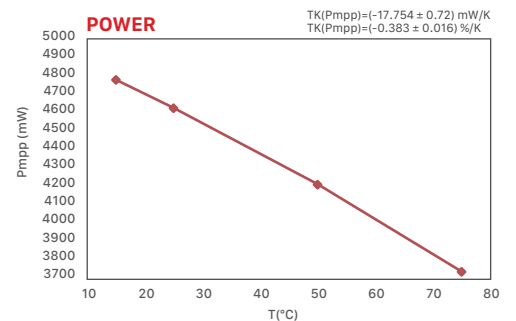
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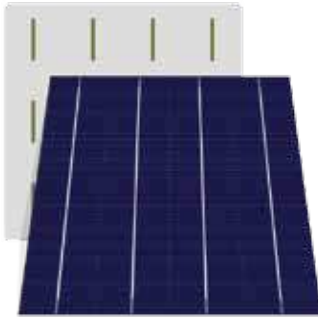
PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



IR - P156 - 4BB - PERC POLYCRYSTALLINE SILICON SOLAR CELLS



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
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- 100% screened for reverse current and shunt resistance.
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PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	19.60	4.82	0.554	8.688	0.658	9.211	79.41
02	19.50	4.79	0.553	8.664	0.657	9.188	79.37
03	19.40	4.77	0.551	8.643	0.655	9.169	79.30
04	19.30	4.74	0.550	8.624	0.654	9.150	79.26
05	19.20	4.72	0.548	8.605	0.652	9.131	79.21
06	19.10	4.69	0.547	8.585	0.651	9.110	79.18
07	19.00	4.67	0.545	8.566	0.649	9.089	79.14
08	18.80	4.62	0.541	8.539	0.645	9.062	79.04
09	18.60	4.57	0.538	8.499	0.641	9.020	79.08
10	18.40	4.52	0.534	8.459	0.637	8.982	78.95

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
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Light intensity	1000 W/m ²
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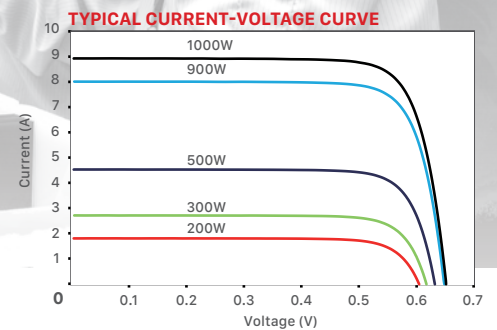
TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.30%/K
γ (Pmpp)	-0.37%/K

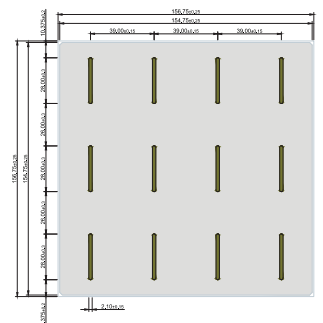
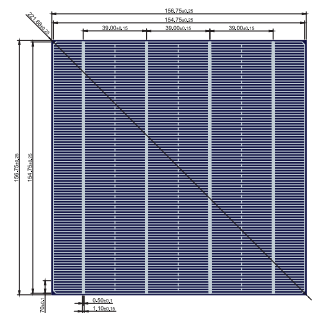
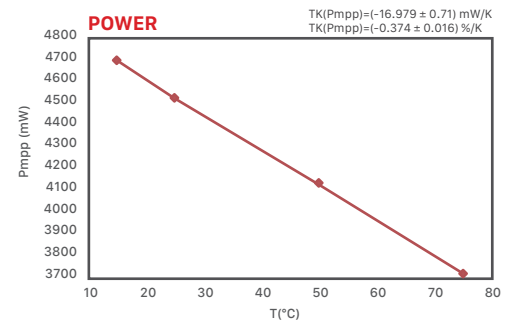
PACKING INFORMATION

Container	20' GP	40' GP
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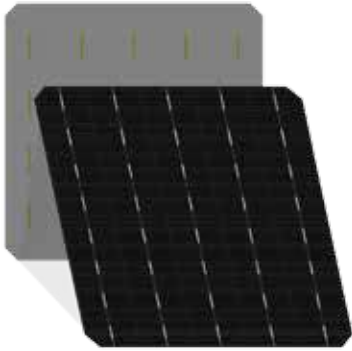
PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
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- Regular light source AAA class calibration for stable conversion efficiency.
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ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	20.20	4.94	0.557	8.853	0.649	9.359	81.18
02	20.10	4.91	0.555	8.848	0.646	9.346	81.33
03	20.00	4.89	0.553	8.839	0.644	9.336	81.30
04	19.90	4.86	0.551	8.818	0.642	9.313	81.26
05	19.80	4.84	0.550	8.793	0.641	9.289	81.22
06	19.70	4.81	0.549	8.769	0.640	9.267	81.17
07	19.60	4.79	0.548	8.732	0.640	9.243	80.89
08	19.40	4.74	0.546	8.689	0.637	9.199	80.96
09	19.20	4.69	0.542	8.661	0.633	9.179	80.79
10	19.00	4.64	0.538	8.632	0.626	9.159	80.99
11	18.80	4.59	0.534	8.602	0.624	9.089	80.99

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20µm
Front (-)	0.8 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	1.3 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

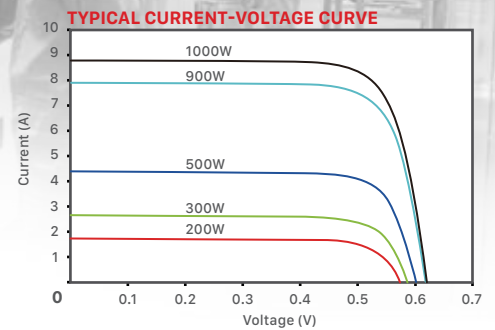
TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.33%/K
γ (Pmpp)	-0.42%/K

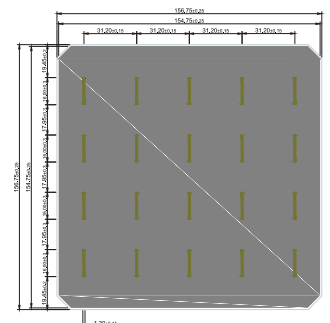
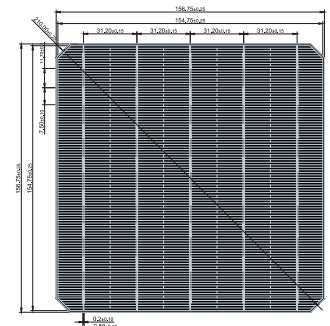
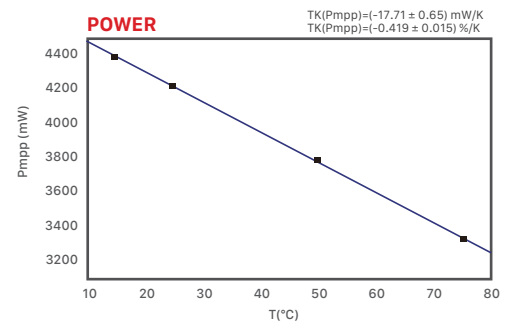
PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000

PERFORMANCE

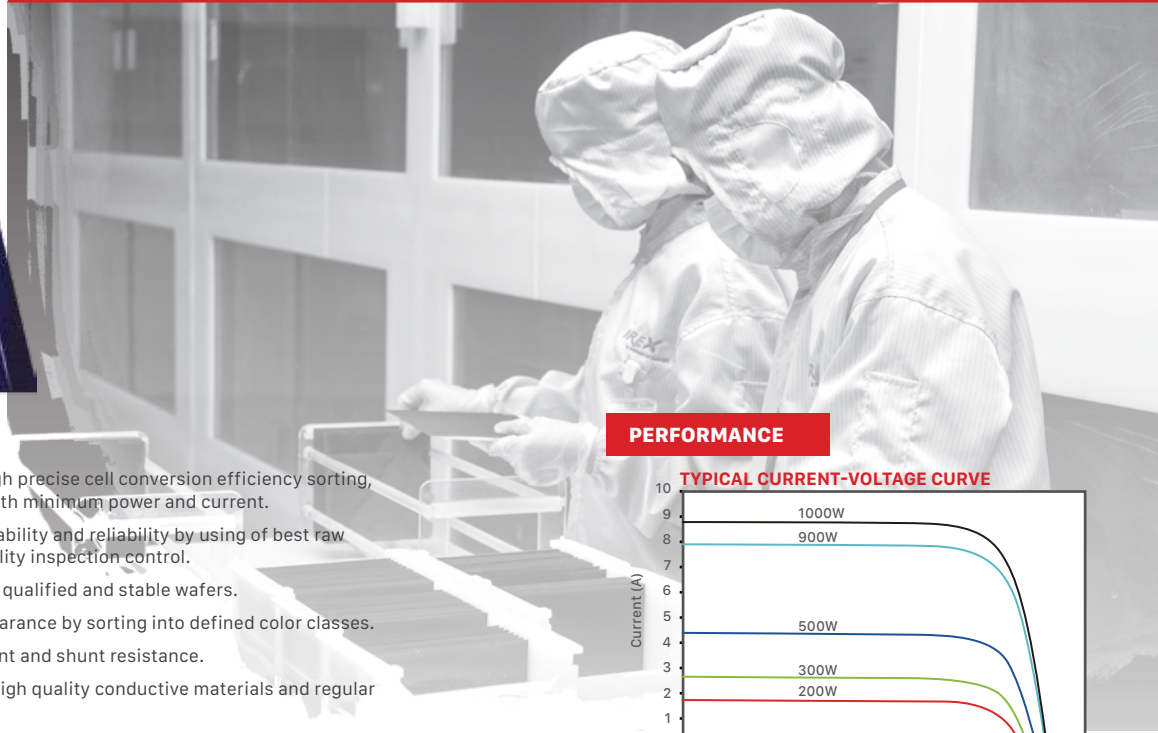
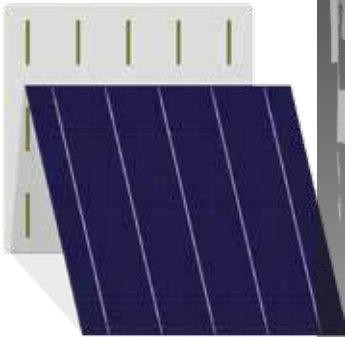


CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference

IR - P156 - 5BB POLYCRYSTALLINE SILICON SOLAR CELLS



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

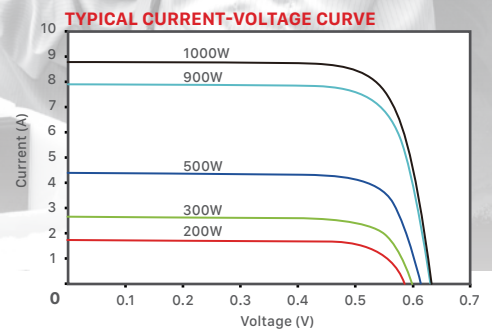
PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

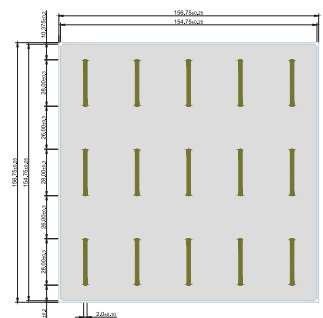
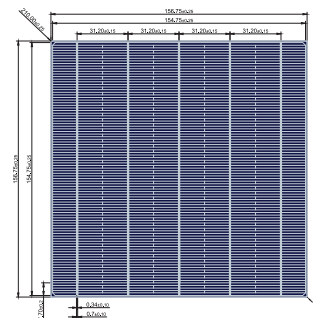
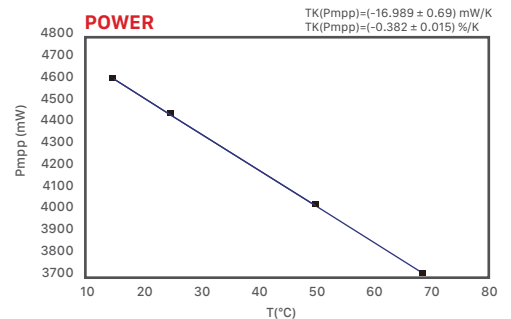
ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	18.80	4.62	0.544	8.494	0.640	8.955	80.62
02	18.70	4.59	0.543	8.469	0.638	8.932	80.85
03	18.60	4.57	0.541	8.444	0.637	8.908	80.51
04	18.50	4.55	0.540	8.422	0.635	8.888	80.58
05	18.40	4.52	0.538	8.398	0.634	8.863	80.41
06	18.30	4.50	0.537	8.376	0.633	8.844	80.34
07	18.20	4.47	0.535	8.362	0.632	8.830	80.17
08	18.00	4.42	0.530	8.345	0.627	8.772	80.41
09	17.80	4.37	0.529	8.273	0.620	8.713	81.01
10	17.60	4.32	0.526	8.214	0.617	8.695	80.54

PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20μm
Front (-)	0.7 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

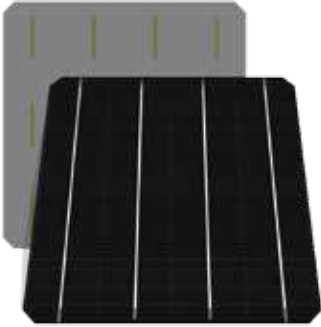
Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.31%/K
γ (Pmpp)	-0.38%/K

PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	20.20	4.94	0.550	8.966	0.647	9.426	80.86
02	20.10	4.91	0.549	8.948	0.645	9.412	80.92
03	20.00	4.89	0.547	8.926	0.643	9.393	80.84
04	19.90	4.86	0.547	8.886	0.643	9.353	80.82
05	19.80	4.84	0.546	8.856	0.642	9.326	80.76
06	19.60	4.79	0.543	8.825	0.638	9.297	80.79
07	19.40	4.74	0.539	8.796	0.635	9.276	80.49
08	19.20	4.69	0.534	8.784	0.632	9.279	79.99
09	19.00	4.64	0.530	8.765	0.630	9.273	79.52
10	18.80	4.59	0.527	8.708	0.629	9.247	78.90

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.25 mm
Thickness	200 ± 20 μm
Front (-)	1.1 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2.1 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

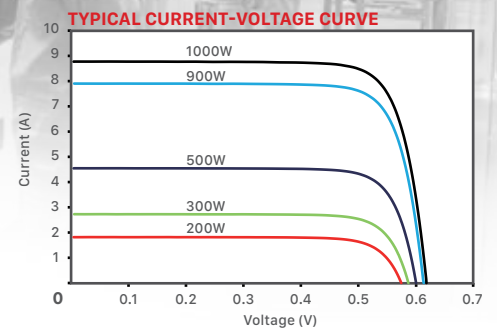
TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.33%/K
γ (Pmpp)	-0.42%/K

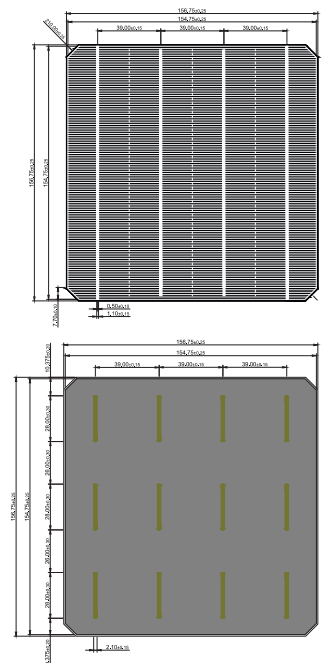
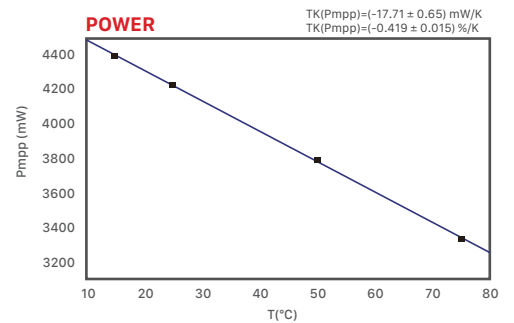
PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000

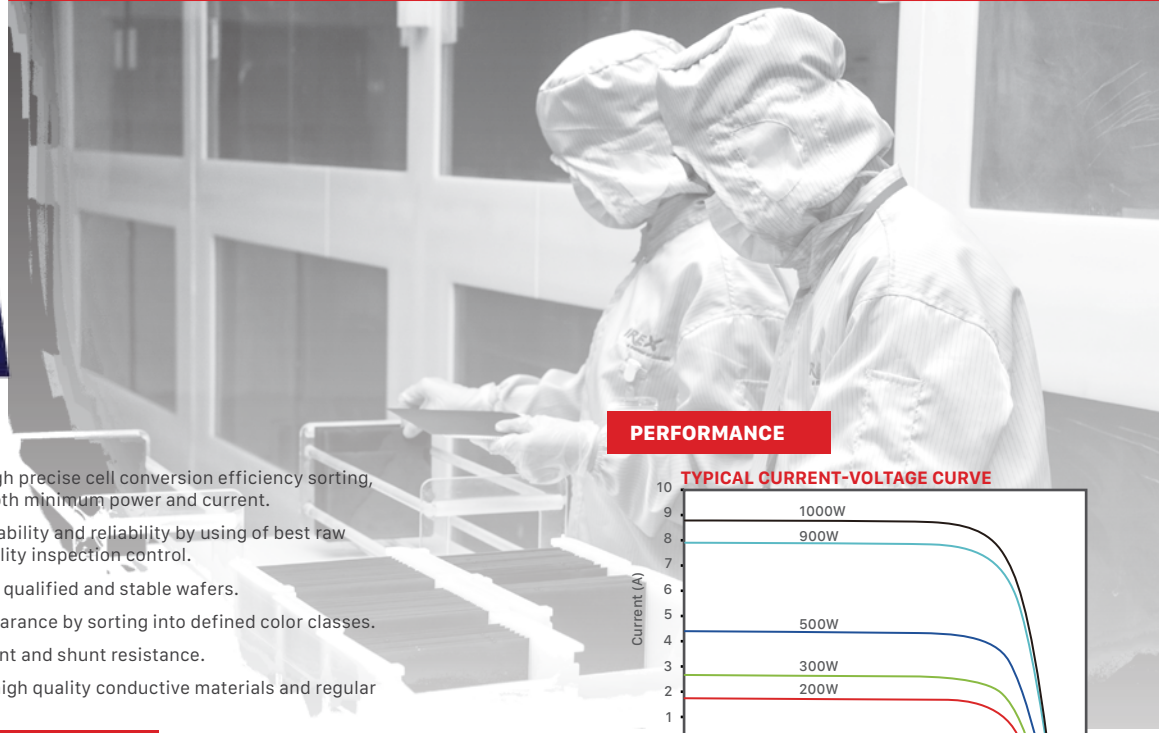
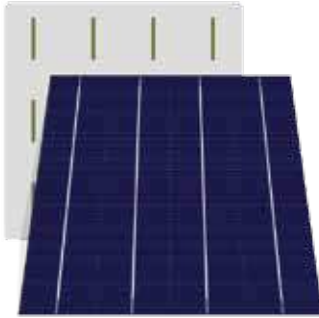
PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference



FEATURES

- High Cell-to-module ratio through precise cell conversion efficiency sorting, classified efficiency grade by both minimum power and current.
- Excellent electrical long-term stability and reliability by using of best raw materials and through strict quality inspection control.
- Low breakage rate by using high qualified and stable wafers.
- High quality homogeneous appearance by sorting into defined color classes.
- 100% screened for reverse current and shunt resistance.
- Excellent solderability through high quality conductive materials and regular monitor soldering properties.

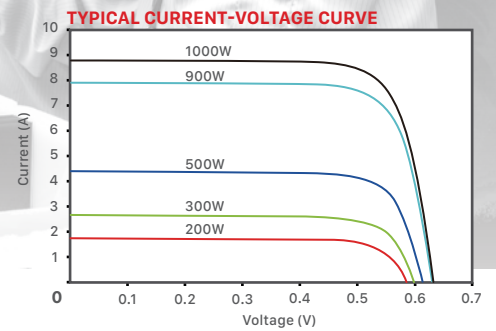
PRODUCTION AND QUALITY CONTROL

- Regular calibration of test equipment using Fraunhofer ISE reference cell.
- Environmental friendly due to REACH-SVHC and RoHS compliances.
- Professional on-site service and support for module certification.
- Regular light source AAA class calibration for stable conversion efficiency.
- Lowest LID by periodic monitoring and superior wafer incoming control.

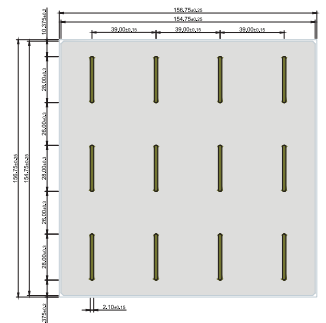
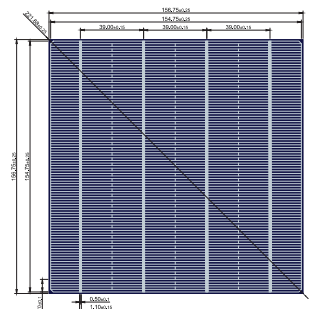
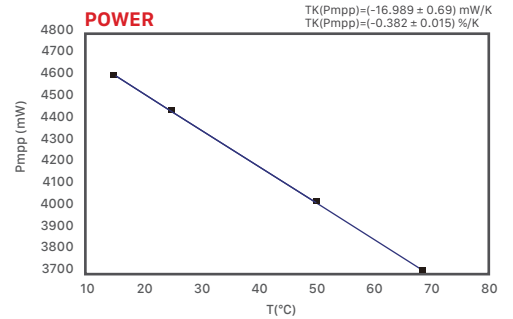
ELECTRICAL CHARACTERISTIC

No.	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Uoc (V)	Isc (A)	FF (%)
01	18.80	4.62	0.543	8.509	0.640	8.989	80.31
02	18.70	4.59	0.541	8.490	0.638	8.973	80.23
03	18.60	4.57	0.540	8.471	0.636	8.957	80.30
04	18.50	4.55	0.538	8.456	0.635	8.941	80.13
05	18.40	4.52	0.536	8.441	0.633	8.924	80.09
06	18.30	4.50	0.534	8.426	0.631	8.908	80.05
07	18.20	4.47	0.532	8.412	0.630	8.892	79.89
08	18.00	4.42	0.529	8.365	0.629	8.836	79.62
09	17.80	4.37	0.525	8.338	0.628	8.817	79.06
10	17.60	4.32	0.524	8.223	0.627	8.692	79.06
11	17.40	4.28	0.523	8.170	0.626	8.637	79.03
12	17.20	4.23	0.523	8.117	0.624	8.582	79.27

PERFORMANCE



CALCULATED TEMPERATURE COEFFICIENTS



Drawing Only for Reference

MECHANICAL DATA AND DESIGN

Format	156.75 mm × 156.75 mm ± 0.5 mm
Thickness	200 ± 20 μm
Front (-)	1.1 mm busbars (silver), dark blue/ blue/ sky blue, anti-reflecting coating (silicon nitride)
Back (+)	2.1 mm wide soldering pads (silver) back surface field (aluminum)

STANDARD TEST CONDITIONS (STC)

Light intensity	1000 W/m ²
Spectrum	AM1.5
Temperature	25°C

TEMPERATURE COEFFICIENTS

α (Isc)	+0.05%/K
β (Voc)	-0.31%/K
γ (Pmpp)	-0.38%/K

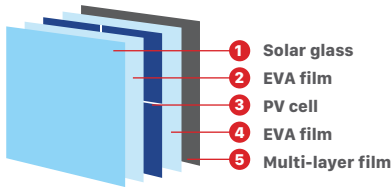
PACKING INFORMATION

Container	20' GP	40' GP
Pallets Per Container	14	28
Pieces per Container	224000	448000

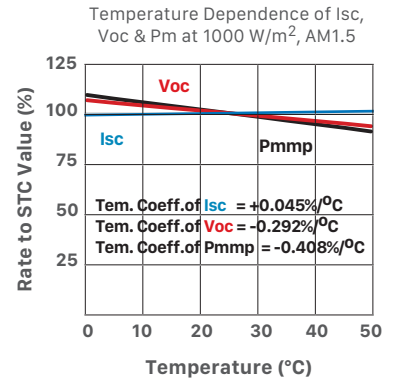
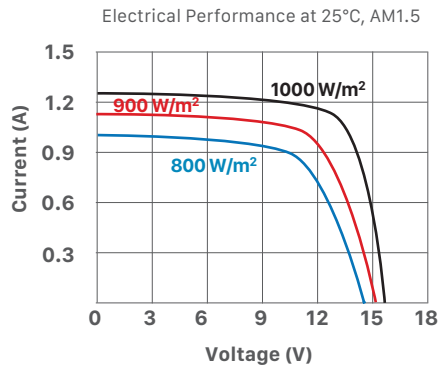
156 SERIES

21 x 156 POLYCRYSTALLINE

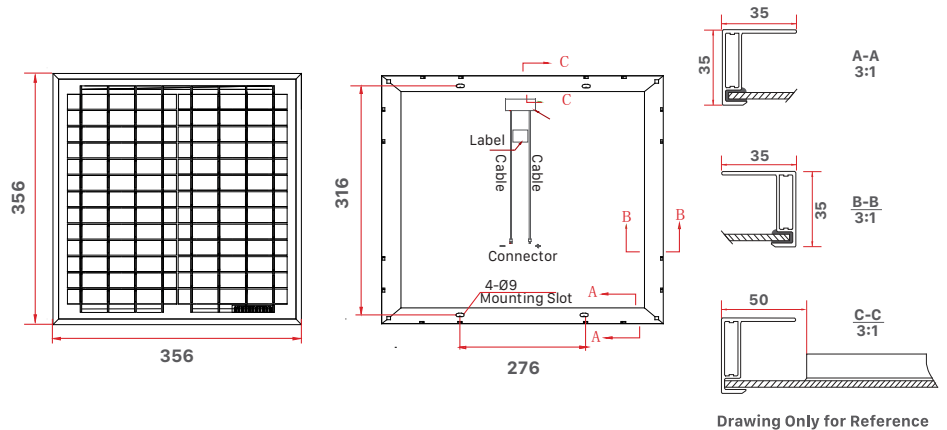
SOLAR MODULE: 15 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

IR015PC6-26

Maximum Power (Pmax)	15 W
Power Tolerance	0 ~ 3%
Module Efficiency	12.1%
Maximum Power Current (Imp)	1.18 A
Maximum Power Voltage (Vmp)	12.72 V
Short Circuit Current (Isc)	1.25 A
Open Circuit Voltage (Voc)	15.76 V

Values at Standard Test Conditions

(STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

IR015PC6-26

Maximum Power (Pmax)	11.00 W
Maximum Power Current (Imp)	0.94 A
Maximum Power Voltage (Vmp)	11.70 V
Short Circuit Current (Isc)	1.00 A
Open Circuit Voltage (Voc)	14.62 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind speed 1 m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	21 x 156.75 mm Polycrystalline, 26 (2x13) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67, TUV & UL
Dimension	356 x 356 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	2.2 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

Container	20' GP	40' GP	40' HQ
Pallets per Container	44	88	88
Pieces per Container	1320	2640	2728

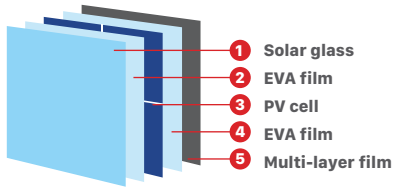
WORKING CONDITIONS

Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 ± 2
Application Class	Class C

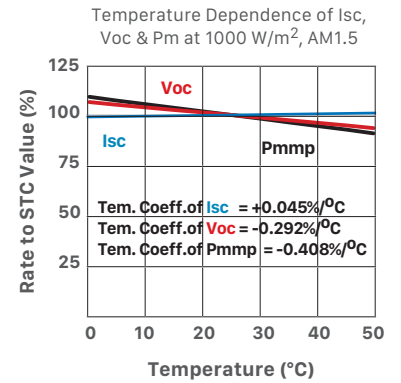
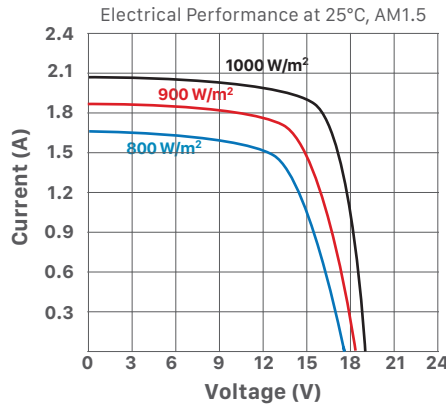
156 SERIES

34 x 156 POLYCRYSTALLINE

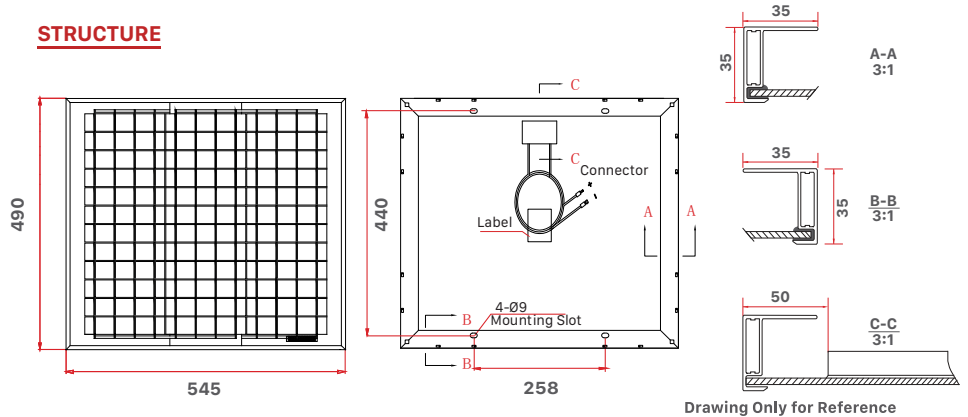
SOLAR MODULE: 30 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

IR030PC4-36

Maximum Power (Pmax)	30 W
Power Tolerance	0 ~ 3%
Module Efficiency	11.2%
Maximum Power Current (Imp)	1.96 A
Maximum Power Voltage (Vmp)	15.32 V
Short Circuit Current (Isc)	2.08 A
Open Circuit Voltage (Voc)	19.00 V

Values at Standard Test Conditions

(STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

IR030PC4-36

Maximum Power (Pmax)	21.60 W
Maximum Power Current (Imp)	1.55 A
Maximum Power Voltage (Vmp)	13.94 V
Short Circuit Current (Isc)	1.66 A
Open Circuit Voltage (Voc)	17.48 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind speed 1 m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	34 x 156.75 mm Polycrystalline, 36 (3x12) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67, TUV & UL
Dimension	490 x 545 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	4.0 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

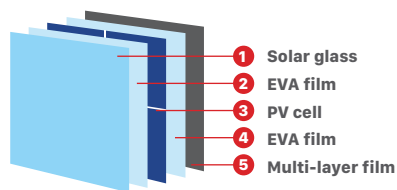
Container	20' GP	40' GP	40' HQ
Pallets per Container	44	88	132
Pieces per Container	1320	2640	3960

WORKING CONDITIONS

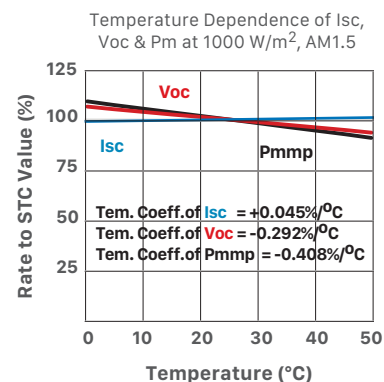
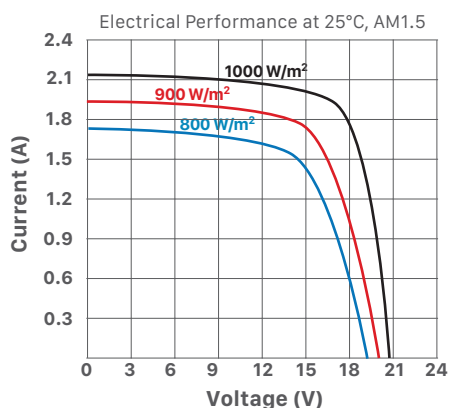
Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 ± 2
Application Class	Class C

156 SERIES 34 x 156 POLYCRYSTALLINE

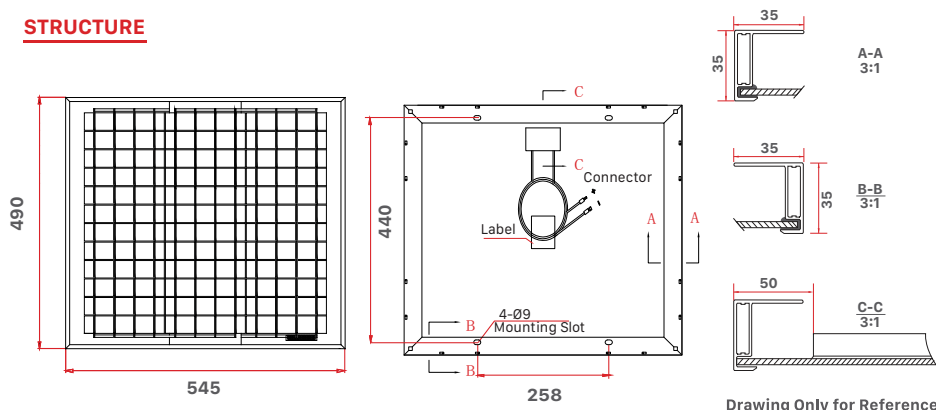
SOLAR MODULE: 35 W



PERFORMANCE



STRUCTURE



Drawing Only for Reference

ELECTRICAL CHARACTERISTICS STC

IR035PC4-36

Maximum Power (Pmax)	35 W
Power Tolerance	0 ~ 3%
Module Efficiency	13.1%
Maximum Power Current (Imp)	2.07 A
Maximum Power Voltage (Vmp)	16.92 V
Short Circuit Current (Isc)	2.19 A
Open Circuit Voltage (Voc)	20.87 V

Values at Standard Test Conditions

(STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

IR035PC4-36

Maximum Power (Pmax)	25.50 W
Maximum Power Current (Imp)	1.63 A
Maximum Power Voltage (Vmp)	15.64 V
Short Circuit Current (Isc)	1.74 A
Open Circuit Voltage (Voc)	19.38 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind speed 1 m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	34 x 156.75 mm Polycrystalline, 36 (3x12) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 -T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67, TUV & UL
Dimension	490 x 545 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	4.0 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

Container	20' GP	40' GP	40' HQ
Pallets per Container	44	88	132
Pieces per Container	1320	2640	3960

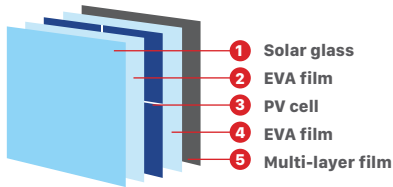
WORKING CONDITIONS

Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 ± 2
Application Class	Class C

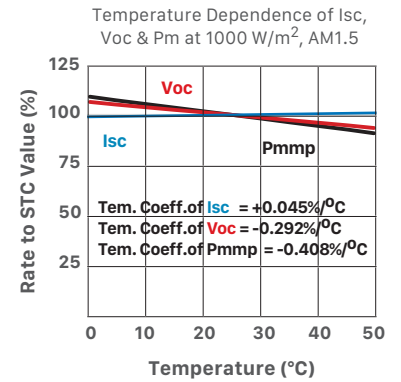
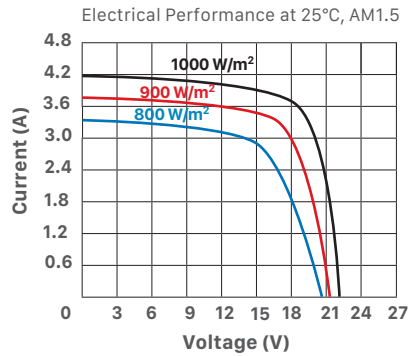
156 SERIES

78 x 156 POLYCRYSTALLINE

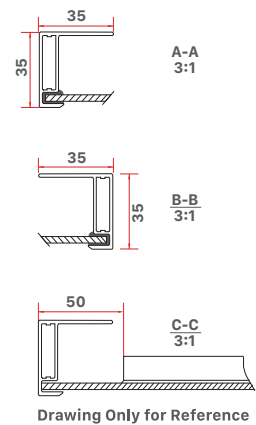
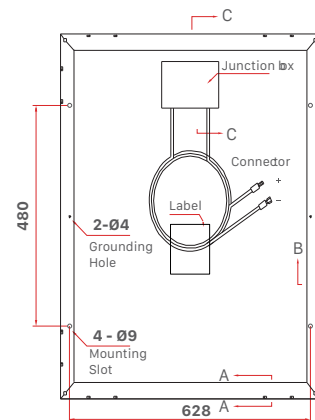
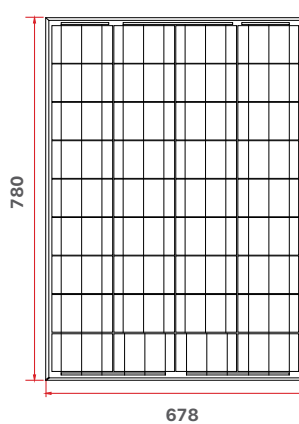
SOLAR MODULE: 70 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

IR070PC2-36

Maximum Power (Pmax)	70 W
Power Tolerance	0 ~ 3%
Module Efficiency	13.2%
Maximum Power Current (Imp)	3.88 A
Maximum Power Voltage (Vmp)	18.05 V
Short Circuit Current (Isc)	4.20 A
Open Circuit Voltage (Voc)	22.20 V
Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)	

ELECTRICAL CHARACTERISTICS NOCT

IR070PC2-36

Maximum Power (Pmax)	51.00 W
Maximum Power Current (Imp)	3.07 A
Maximum Power Voltage (Vmp)	16.62 V
Short Circuit Current (Isc)	3.36 A
Open Circuit Voltage (Voc)	20.65 V
Values at Nominal Operating Cell Temperature (NOCT: Wind speed 1 m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)	

MECHANICAL CHARACTERISTICS

Cell Type	78 x 156.75 mm Polycrystalline, 36 (4x9) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67, TUV & UL
Dimension	780 x 678 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	7.0 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

Container	20' GP	40' GP	40' HQ
Pallets per Container	28	56	84
Pieces per Container	840	1680	2520

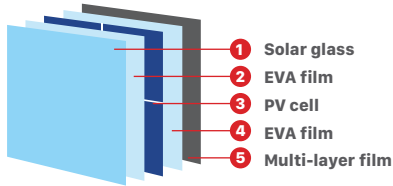
WORKING CONDITIONS

Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 ± 2
Application Class	Class C

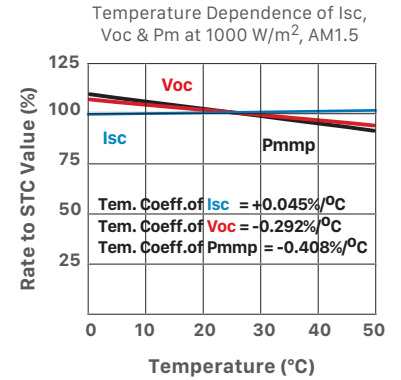
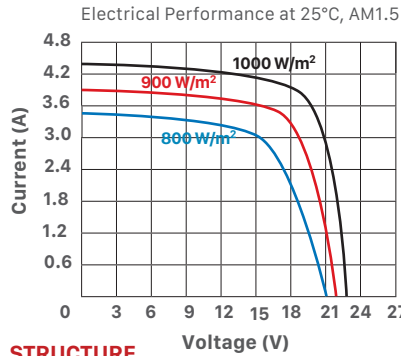
156 SERIES

78 x 156 POLYCRYSTALLINE

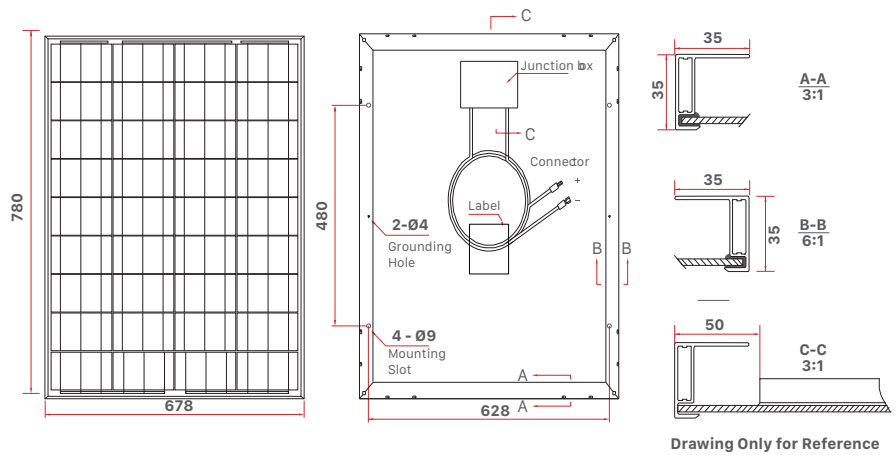
SOLAR MODULE: 75 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

IR075PC2-36

Maximum Power (P_{max})	75 W
Power Tolerance	0 ~ 3%
Module Efficiency	14.2%
Maximum Power Current (I_{mp})	4.13 A
Maximum Power Voltage (V_{mp})	18.17 V
Short Circuit Current (I_{sc})	4.36 A
Open Circuit Voltage (V_{oc})	22.62 V
Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m ² , Cell Temperature 25°C)	

ELECTRICAL CHARACTERISTICS NOCT

IR075PC2-36

Maximum Power (P_{max})	54.00 W
Maximum Power Current (I_{mp})	3.24 A
Maximum Power Voltage (V_{mp})	16.68 V
Short Circuit Current (I_{sc})	3.46 A
Open Circuit Voltage (V_{oc})	21.00 V
Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1m/s, Irradiance 800 W/m ² , Cell Temperature 45°C, Ambient Temperature 20°C)	

MECHANICAL CHARACTERISTICS

Cell Type	78 x 156.75 mm Polycrystalline, 36 (4x9) pcs in series
Solar glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67 , TUV & UL
Dimension	780 x 678 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	7.0 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

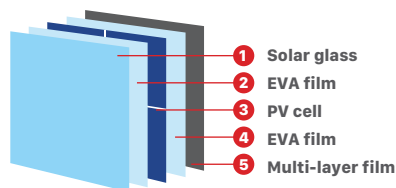
Container	20' GP	40' GP	40' HQ
Pallets per Container	28	56	84
Pieces per Container	840	1680	2520

WORKING CONDITIONS

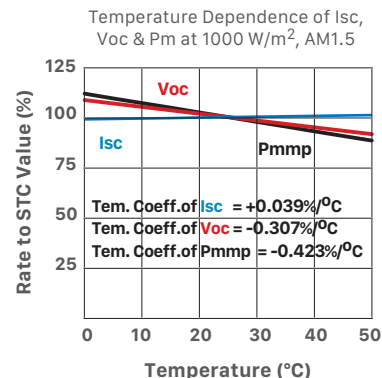
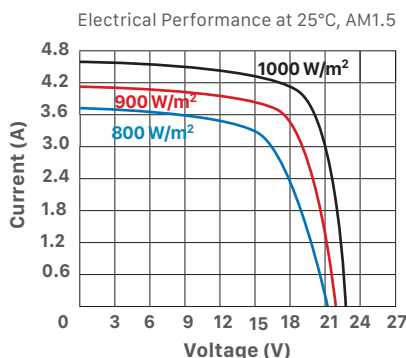
Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 \pm 2
Application Class	Class C

156 SERIES 78 x 156 MONOCRYSTALLINE

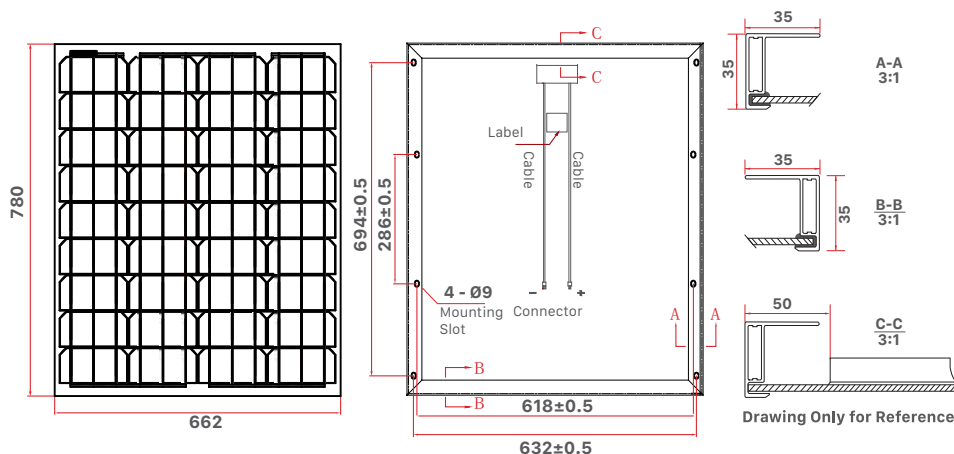
SOLAR MODULE: 80 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

IR080MC2-36

Maximum Power (Pmax)	80 W
Power Tolerance	0 ~ 3%
Module Efficiency	13.2%
Maximum Power Current (Imp)	4.35 A
Maximum Power Voltage (Vmp)	18.40 V
Short Circuit Current (Isc)	4.60 A
Open Circuit Voltage (Voc)	22.80 V
Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m ² , Cell Temperature 25°C)	

ELECTRICAL CHARACTERISTICS NOCT

IR080MC2-36

Maximum Power (Pmax)	58.00 W
Maximum Power Current (Imp)	3.44 A
Maximum Power Voltage (Vmp)	16.87 V
Short Circuit Current (Isc)	3.68 A
Open Circuit Voltage (Voc)	21.20 V
Values at Nominal Operating Cell Temperature (NOCT: Wind speed 1 m/s, Irradiance 800 W/m ² , Cell Temperature 45°C, Ambient Temperature 20°C)	

MECHANICAL CHARACTERISTICS

Cell Type	78 x 156.75 mm Monocrystalline, 36 (4x9) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 12 A, IP ≥ 67, TUV & UL
Dimension	780 x 662 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	7.0 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

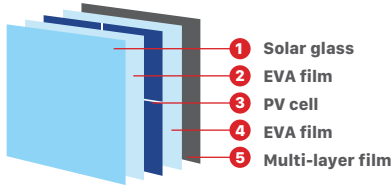
Container	20' GP	40' GP	40' HQ
Pallets per Container	28	56	84
Pieces per Container	840	1680	2520

WORKING CONDITIONS

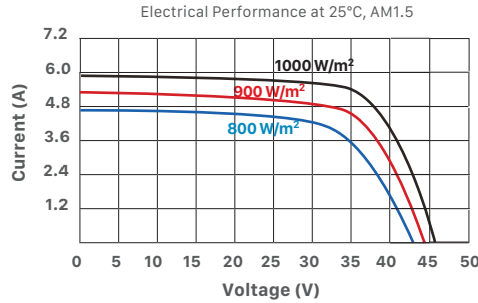
Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	600 VDC
Maximum Series Fuse Rating	12 A
NOCT	45 ± 2
Application Class	Class C

125 SERIES MONOCRYSTALLINE

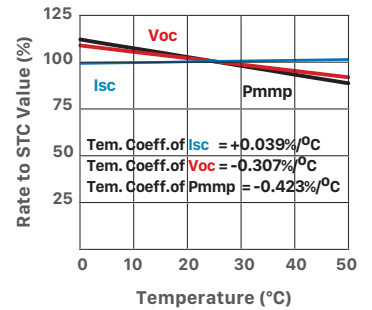
SOLAR MODULE: 180 W, 185 W, 190 W, 195 W, 200 W, 205 W, 210 W, 215 W, 220 W



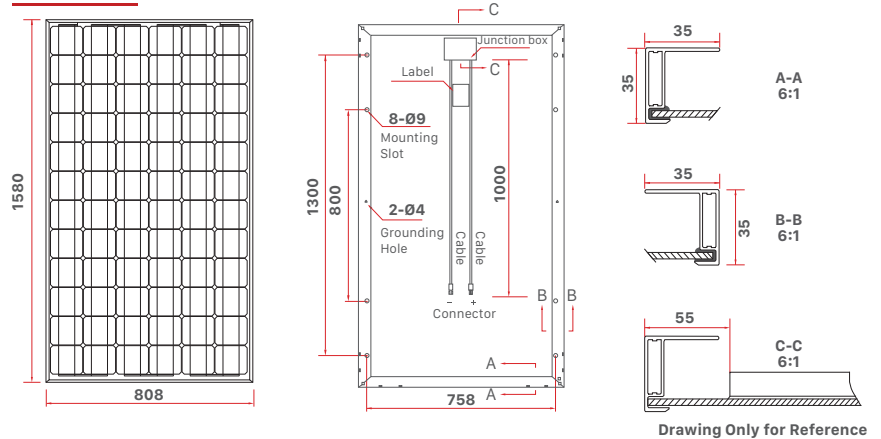
PERFORMANCE



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

	IR180M-72	IR185M-72	IR190M-72	IR195M-72	IR200M-72	IR205M-72	IR210M-72	IR215M-72	IR220M-72
Maximum Power (Pmax)	180 W	185 W	190 W	195 W	200 W	205 W	210 W	215 W	220 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	14.1%	14.5%	14.9%	15.3%	15.7%	16.1%	16.5%	16.9%	17.2%
Maximum Power Current (Imp)	5.08 A	5.21 A	5.34 A	5.41 A	5.52 A	5.62 A	5.68 A	5.78 A	5.86 A
Maximum Power Voltage (Vmp)	35.44 V	35.53 V	35.59 V	36.06 V	36.24 V	36.50 V	36.98 V	37.21 V	37.56 V
Short Circuit Current (Isc)	5.41 A	5.54 A	5.68 A	5.75 A	5.90 A	5.97 A	6.04 A	6.11 A	6.22 A
Open Circuit Voltage (Voc)	44.30 V	44.60 V	44.80 V	45.00 V	45.20 V	45.40 V	45.70 V	46.01 V	46.49 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

	IR180M-72	IR185M-72	IR190M-72	IR195M-72	IR200M-72	IR205M-72	IR210M-72	IR215M-72	IR220M-72
Maximum Power (Pmax)	131.40 W	135.05 W	138.70 W	142.35 W	146.00 W	149.65 W	153.30 W	157.00 W	161.00 W
Maximum Power Current (Imp)	4.01 A	4.12 A	4.22 A	4.27 A	4.36 A	4.47 A	4.49 A	4.58 A	4.65 A
Maximum Power Voltage (Vmp)	32.68 V	32.77 V	32.94 V	33.26 V	33.50 V	33.56 V	34.08 V	34.29 V	34.63 V
Short Circuit Current (Isc)	4.33 A	4.43 A	4.54 A	4.60 A	4.72 A	4.78 A	4.83 A	4.89 A	4.96 A
Open Circuit Voltage (Voc)	41.20 V	41.48 V	41.66 V	41.85 V	42.04 V	42.22 V	42.50 V	42.72 V	43.18 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1 m/s, Irradiance 800 W/m², Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	125 x 125 mm Monocrystalline, 72 (6x12) pcs in series
Solar glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL
Dimension	1580 x 808 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	14 Kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

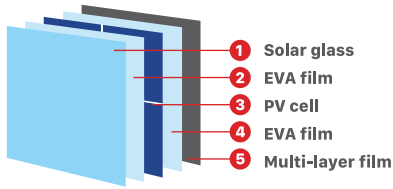
Container	20' GP	40' GP	40' HQ
Pallets per Container	14	28	28
Pieces per Container	420	840	896

WORKING CONDITIONS

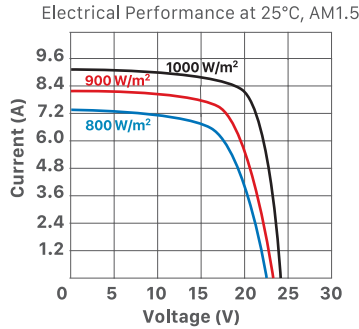
Operating Temperature	- 40°C to + 85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
NOCT	45 ± 2
Application Class	Class A

156 SERIES POLYCRYSTALLINE

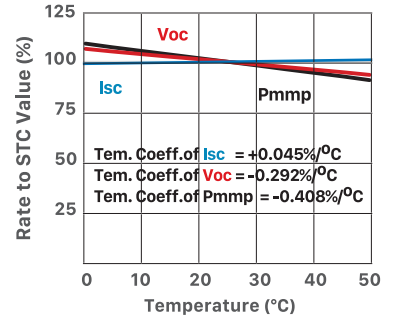
SOLAR MODULE: 145 W, 150 W, 155 W, 160 W, 165 W, 170 W, 175 W, 180 W, 185 W



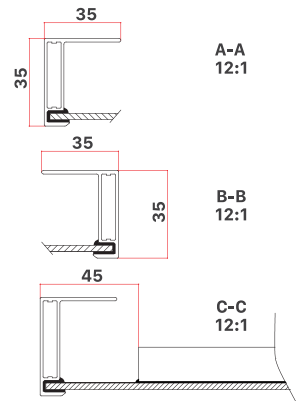
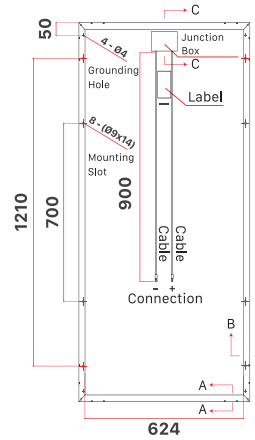
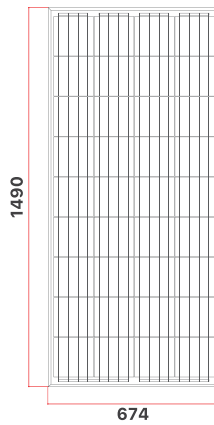
PERFORMANCE



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



Drawing Only for Reference

ELECTRICAL CHARACTERISTICS STC

	IR145P-36	IR150P-36	IR155P-36	IR160P-36	IR165P-36	IR170P-36	IR175P-36	IR180P-36	IR185P-36
Maximum Power (Pmax)	145 W	150 W	155 W	160 W	165 W	170 W	175 W	180 W	185 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	14.4%	14.9%	15.4%	15.9%	16.4%	16.9%	17.4%	17.9%	18.4%
Maximum Power Current (Imp)	8.08 A	8.24 A	8.32 A	8.42 A	8.60 A	8.68 A	8.76 A	8.82 A	8.90 A
Maximum Power Voltage (Vmp)	17.95 V	18.21 V	18.64 V	19.01 V	19.19 V	19.59 V	19.98 V	20.41 V	20.79 V
Short Circuit Current (Isc)	8.56 A	8.73 A	8.82 A	8.93 A	9.12 A	9.20 A	9.27 A	9.34 A	9.42 A
Open Circuit Voltage (Voc)	22.26 V	22.59 V	23.15 V	23.59 V	23.80 V	24.31 V	24.70 V	25.28 V	25.66 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

	IR145P-36	IR150P-36	IR155P-36	IR160P-36	IR165P-36	IR170P-36	IR175P-36	IR180P-36	IR185P-36
Maximum Power (Pmax)	104.00 W	108.00 W	112.00 W	115.00 W	120.00 W	124.00 W	128.00 W	131.00 W	135.00 W
Maximum Power Current (Imp)	6.33 A	6.46 A	6.54 A	6.61 A	6.77 A	6.85 A	6.90 A	6.97 A	7.05 A
Maximum Power Voltage (Vmp)	16.44 V	16.74 V	17.14 V	17.40 V	17.88 V	18.10 V	18.55 V	18.80 V	19.15 V
Short Circuit Current (Isc)	6.84 A	6.98 A	7.05 A	7.14 A	7.30 A	7.34 A	7.40 A	7.46 A	7.55 A
Open Circuit Voltage (Voc)	20.70 V	21.00 V	21.51 V	21.92 V	22.13 V	22.37 V	22.70 V	23.22 V	23.57 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75x156.75 mm Polycrystalline, 36 (4x9) pcs in series
Solar glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL
Dimension	1490 x 674 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	12 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

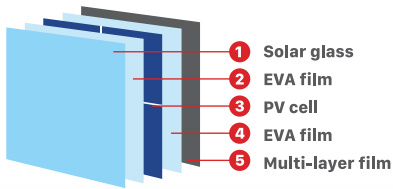
Container	20' GP	40' GP	40' HQ
Pallets per Container	14	30	30
Pieces per Container	420	900	960

WORKING CONDITIONS

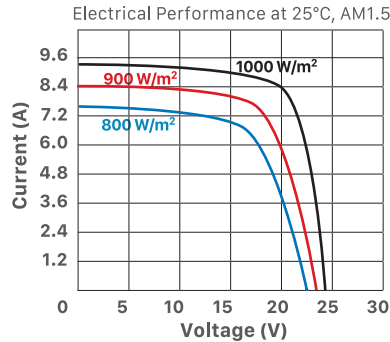
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES MONOCRYSTALLINE

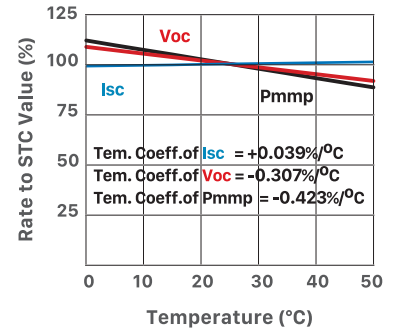
SOLAR MODULE: 150 W, 155 W, 160 W, 165 W, 170 W, 175 W, 180 W, 185 W, 190 W



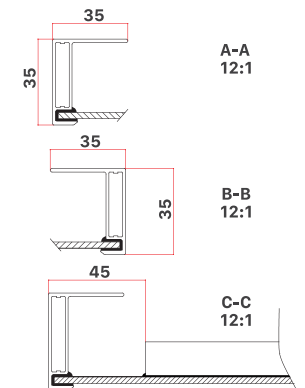
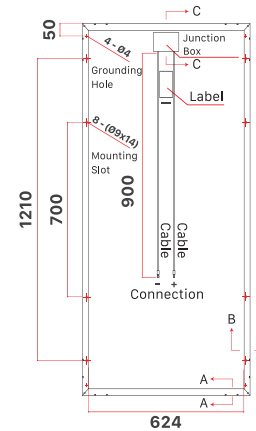
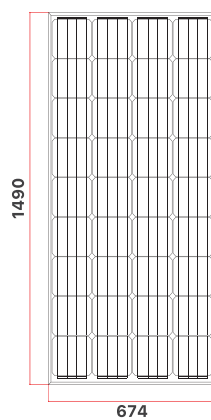
PERFORMANCE



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



Drawing Only for Reference

ELECTRICAL CHARACTERISTICS STC	IR150M-36	IR155M-36	IR160M-36	IR165M-36	IR170M-36	IR175M-36	IR180M-36	IR185M-36	IR190M-36
Maximum Power (Pmax)	150 W	155 W	160 W	165 W	170 W	175 W	180 W	185 W	190 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	14.9%	15.4%	15.9%	16.4%	16.9%	17.4%	17.9%	18.4%	18.9%
Maximum Power Current (Imp)	8.25 A	8.42 A	8.52 A	8.66 A	8.89 A	9.13 A	9.37 A	9.44 A	9.47 A
Maximum Power Voltage (Vmp)	18.19 V	18.42 V	18.78 V	19.06 V	19.13 V	19.17 V	19.22 V	19.60 V	20.07 V
Short Circuit Current (Isc)	8.74 A	8.91 A	9.03 A	9.19 A	9.42 A	9.67 A	9.93 A	10.00 A	10.03 A
Open Circuit Voltage (Voc)	22.56 V	22.84 V	23.29 V	23.64 V	23.72 V	23.77 V	23.82 V	24.28 V	24.72 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR150M-36	IR155M-36	IR160M-36	IR165M-36	IR170M-36	IR175M-36	IR180M-36	IR185M-36	IR190M-36
Maximum Power (Pmax)	110.00 W	113.00 W	117.00 W	120.00 W	124.00 W	128.00 W	131.00 W	135.00 W	139.00 W
Maximum Power Current (Imp)	6.52 A	6.65 A	6.73 A	6.84 A	7.02 A	7.21 A	7.40 A	7.46 A	7.48 A
Maximum Power Voltage (Vmp)	16.88 V	17.00 V	17.39 V	17.55 V	17.67 V	17.76 V	17.71 V	18.10 V	18.58 V
Short Circuit Current (Isc)	6.99 A	7.13 A	7.22 A	7.35 A	7.54 A	7.74 A	7.95 A	8.00 A	8.01 A
Open Circuit Voltage (Voc)	20.98 V	21.24 V	21.66 V	21.99 V	22.06 V	22.11 V	22.15 V	22.58 V	22.87 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75x156.75 mm Monocrystalline, 36 (4x9) pcs in series
Solar glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL
Dimension	1490 x 674 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	12 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

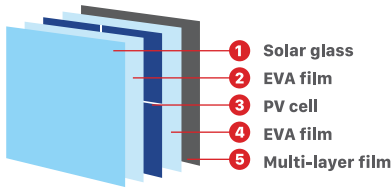
Container	20' GP	40' GP	40' HQ
Pallets per Container	14	30	30
Pieces per Container	420	900	960

WORKING CONDITIONS

Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

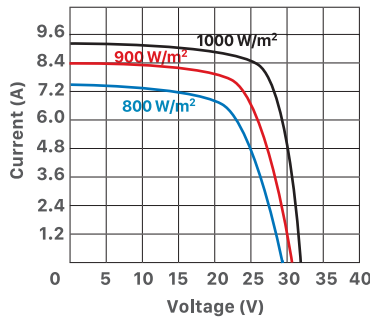
156 SERIES POLYCRYSTALLINE

SOLAR MODULE: 205 W, 210 W, 215 W, 220 W, 225 W, 230 W, 235 W, 240 W, 245 W

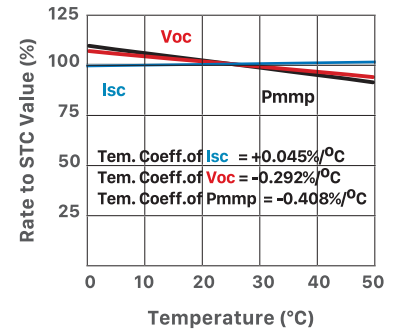


PERFORMANCE

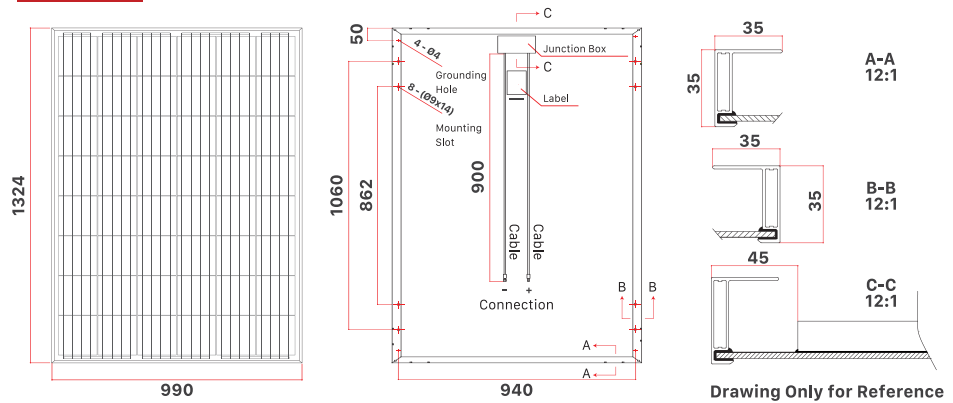
Electrical Performance at 25°C, AM1.5



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

	IR205P-48	IR210P-48	IR215P-48	IR220P-48	IR225P-48	IR230P-48	IR235P-48	IR240P-48	IR245P-48
Maximum Power (Pmax)	205 W	210 W	215 W	220 W	225 W	230 W	235 W	240 W	245 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	15.6%	16.0%	16.4%	16.8%	17.2%	17.6%	17.9%	18.3%	18.7%
Maximum Power Current (Imp)	8.30 A	8.36 A	8.44 A	8.60 A	8.74 A	8.88 A	9.03 A	9.20 A	9.36 A
Maximum Power Voltage (Vmp)	24.70 V	25.13 V	25.48 V	25.59 V	25.75 V	25.91 V	26.03 V	26.09 V	26.18 V
Short Circuit Current (Isc)	8.80 A	8.86 A	8.95 A	9.12 A	9.24 A	9.37 A	9.52 A	9.72 A	9.88 A
Open Circuit Voltage (Voc)	30.63 V	31.16 V	31.60 V	31.73 V	31.90 V	32.08 V	32.17 V	32.27 V	32.40 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

	IR205P-48	IR210P-48	IR215P-48	IR220P-48	IR225P-48	IR230P-48	IR235P-48	IR240P-48	IR245P-48
Maximum Power (Pmax)	148.00 W	151.00 W	155.00 W	161.00 W	164.00 W	168.00 W	172.00 W	175.00 W	179.00 W
Maximum Power Current (Imp)	6.56 A	6.60 A	6.67 A	6.84 A	6.92 A	7.02 A	7.15 A	7.25 A	7.37 A
Maximum Power Voltage (Vmp)	22.57 V	22.88 V	23.24 V	23.54 V	23.70 V	23.94 V	24.06 V	24.14 V	24.30 V
Short Circuit Current (Isc)	7.04 A	7.09 A	7.16 A	7.30 A	7.38 A	7.46 A	7.60 A	7.74 A	7.84 A
Open Circuit Voltage (Voc)	28.18 V	28.67 V	29.07 V	29.22 V	29.30 V	29.48 V	29.60 V	29.68 V	29.78 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 48 (6x8) pcs in series
Solar glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1324 x 990 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	15 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

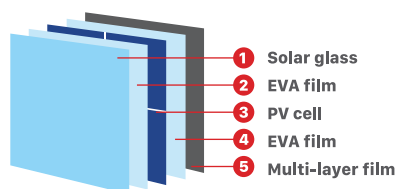
Container	20' GP	40' GP	40' HQ
Pallets per Container	16	32	32
Pieces per Container	480	960	1024

MAXIMUM RATINGS

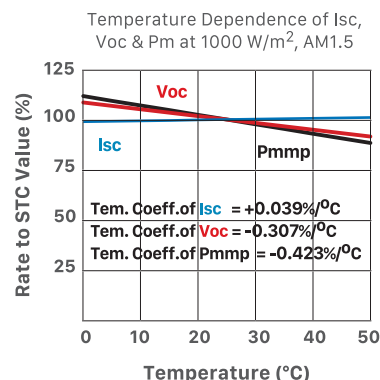
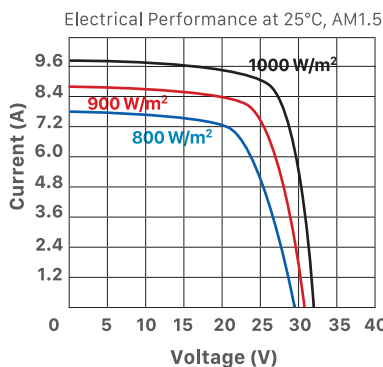
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES MONOCRYSTALLINE

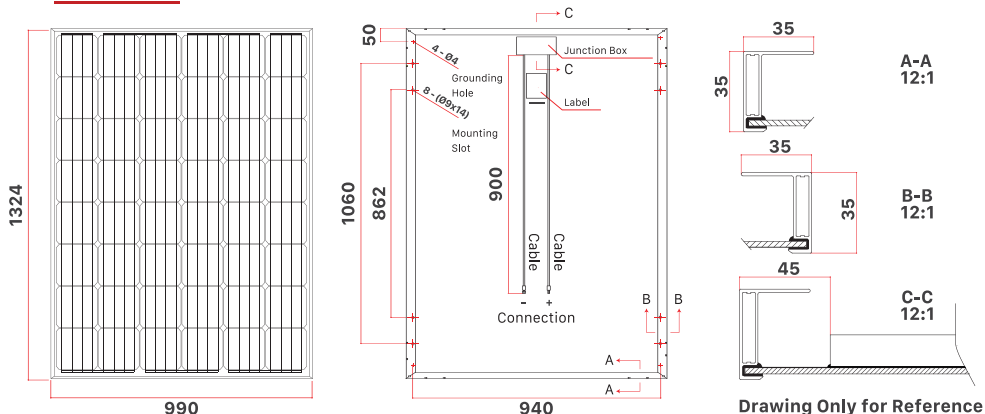
SOLAR MODULE: 210 W, 215 W, 220 W, 225 W, 230 W, 235 W, 240 W, 245 W, 250 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

	IR210M-48	IR215M-48	IR220M-48	IR225M-48	IR230M-48	IR235M-48	IR240M-48	IR245M-48	IR250M-48
Maximum Power (Pmax)	210 W	215 W	220 W	225 W	230 W	235 W	240 W	245 W	250 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.0%	16.4%	16.8%	17.2%	17.6%	17.9%	18.3%	18.7%	19.1%
Maximum Power Current (Imp)	8.48 A	8.56 A	8.66 A	8.85 A	9.03 A	9.21 A	9.32 A	9.44 A	9.47 A
Maximum Power Voltage (Vmp)	24.78 V	25.13 V	25.41 V	25.43 V	25.49 V	25.52 V	25.76 V	25.96 V	26.40 V
Short Circuit Current (Isc)	9.00 A	9.06 A	9.17 A	9.37 A	9.50 A	9.77 A	9.89 A	10.00 A	10.02 A
Open Circuit Voltage (Voc)	30.73 V	31.16 V	31.51 V	31.53 V	31.60 V	31.65 V	31.86 V	32.18 V	32.63 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

	IR210M-48	IR215M-48	IR220M-48	IR225M-48	IR230M-48	IR235M-48	IR240M-48	IR245M-48	IR250M-48
Maximum Power (Pmax)	153.00 W	157.00 W	161.00 W	164.00 W	168.00 W	172.00 W	175.00 W	178.00 W	182.00 W
Maximum Power Current (Imp)	6.71 A	6.79 A	6.89 A	7.01 A	7.16 A	7.33 A	7.39 A	7.45 A	7.47 A
Maximum Power Voltage (Vmp)	22.80 V	23.13 V	23.38 V	23.40 V	23.48 V	23.58 V	23.68 V	23.90 V	24.37 V
Short Circuit Current (Isc)	7.20 A	7.25 A	7.34 A	7.50 A	7.60 A	7.82 A	7.92 A	8.00 A	8.03 A
Open Circuit Voltage (Voc)	28.58 V	29.98 V	29.30 V	29.32 V	29.38 V	29.44 V	29.75 V	29.90 V	30.31 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 48 (6x8) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1324 x 990 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	15 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

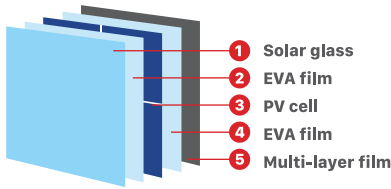
Container	20' GP	40' GP	40' HQ
Pallets per Container	16	32	32
Pieces per Container	480	960	1024

MAXIMUM RATINGS

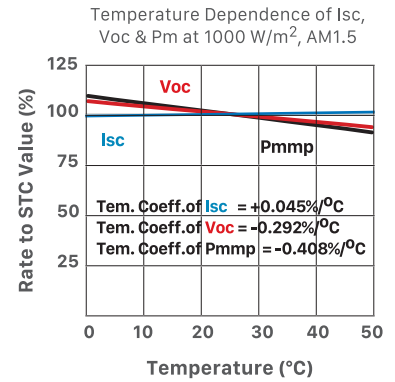
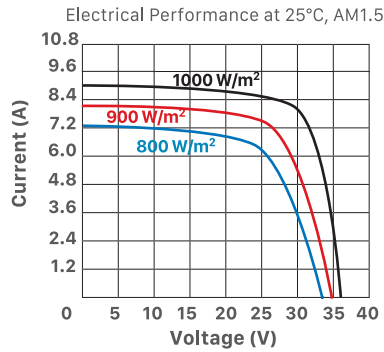
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES POLYCRYSTALLINE

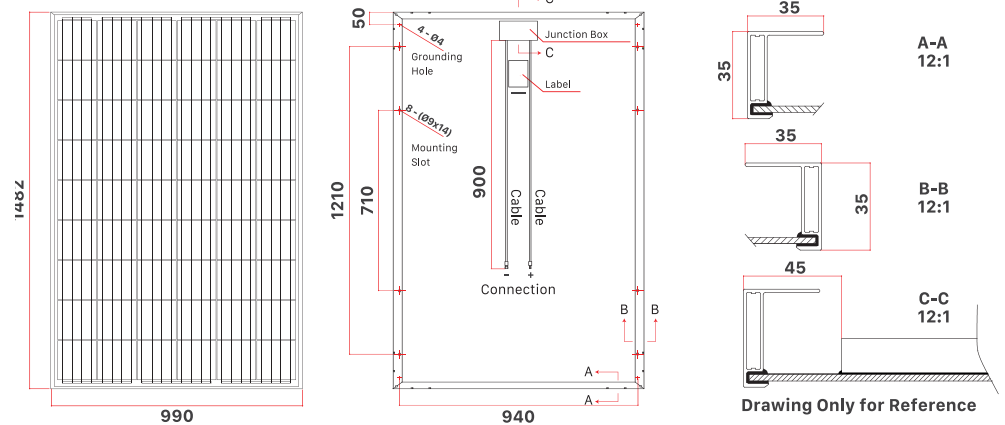
SOLAR MODULE: 230 W, 235 W, 240 W, 245 W, 250 W, 255 W, 260 W, 265 W, 270 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR230P-54	IR235P-54	IR240P-54	IR245P-54	IR250P-54	IR255P-54	IR260P-54	IR265P-54	IR270P-54
Maximum Power (Pmax)	230 W	235 W	240 W	245 W	250 W	255 W	260 W	265 W	270 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	15.9%	16.0%	16.4%	16.7%	17.1%	17.4%	17.7%	18.1%	18.4%
Maximum Power Current (Imp)	8.28 A	8.36 A	8.42 A	8.51 A	8.60 A	8.67 A	8.75 A	8.85 A	8.96 A
Maximum Power Voltage (Vmp)	27.78 V	28.12 V	28.52 V	28.80 V	29.08 V	29.42 V	29.72 V	29.95 V	30.14 V
Short Circuit Current (Isc)	8.78 A	8.86 A	8.93 A	9.02 A	9.09 A	9.15 A	9.28 A	9.40 A	9.48 A
Open Circuit Voltage (Voc)	34.45 V	34.87 V	35.37 V	35.71 V	36.06 V	36.51 V	36.75 V	37.10 V	37.26 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR230P-54	IR235P-54	IR240P-54	IR245P-54	IR250P-54	IR255P-54	IR260P-54	IR265P-54	IR270P-54
Maximum Power (Pmax)	166.00 W	169.00 W	173.00 W	179.00 W	181.00 W	185.00 W	190.00 W	194.00 W	197.00 W
Maximum Power Current (Imp)	6.57 A	6.61 A	6.67 A	6.76 A	6.80 A	6.86 A	6.92 A	7.02 A	7.10 A
Maximum Power Voltage (Vmp)	25.28 V	25.58 V	25.95 V	26.49 V	26.63 V	26.97 V	27.46 V	27.64 V	27.75 V
Short Circuit Current (Isc)	7.02 A	7.09 A	7.14 A	7.22 A	7.27 A	7.25 A	7.40 A	7.51 A	7.61 A
Open Circuit Voltage (Voc)	31.69 V	32.08 V	32.54 V	32.85 V	33.10 V	33.42 V	33.76 V	34.05 V	34.36 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 54 (6x9) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1482 x 990 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	18 Kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

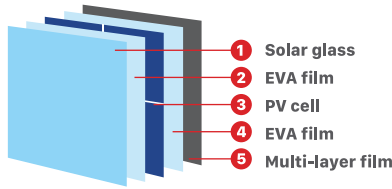
Container	20' GP	40' GP	40' HQ
Pallets per Container	14	30	30
Pieces per Container	420	900	960

MAXIMUM RATINGS

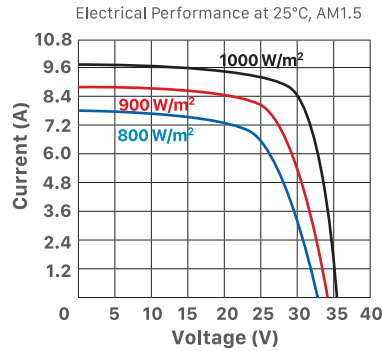
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES MONOCRYSTALLINE

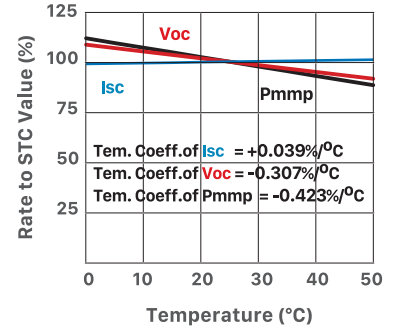
SOLAR MODULE: 245 W, 250 W, 255 W, 260 W, 265 W, 270 W, 275 W, 280 W, 285 W



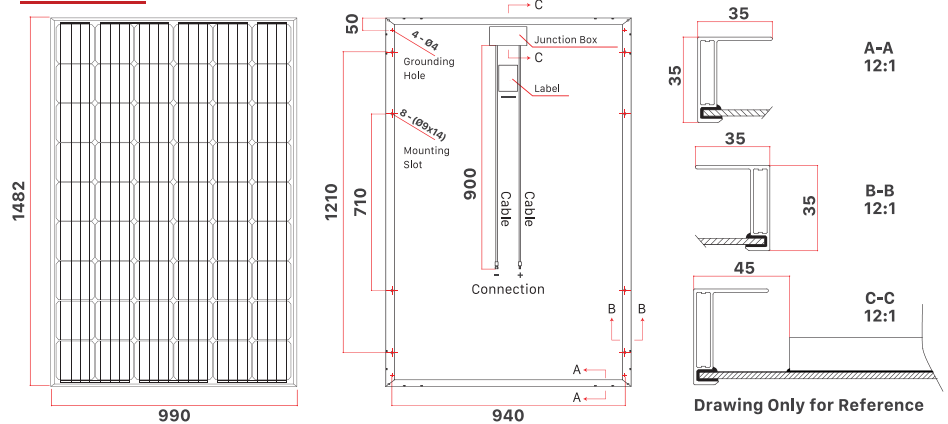
PERFORMANCE



Temperature Dependence of I_{sc} , V_{oc} & P_{mp} at 1000 W/m², AM1.5



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR245M-54	IR250M-54	IR255M-54	IR260M-54	IR265M-54	IR270M-54	IR275M-54	IR280M-54	IR285M-54
Maximum Power (Pmax)	245 W	250 W	255 W	260 W	265 W	270 W	275 W	280 W	285 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.7%	17.0%	17.4%	17.7%	18.1%	18.4%	18.8%	19.1%	19.4%
Maximum Power Current (Imp)	8.64 A	8.78 A	8.89 A	9.05 A	9.20 A	9.36 A	9.45 A	9.48 A	9.51 A
Maximum Power Voltage (Vmp)	28.37 V	28.48 V	28.69 V	28.74 V	28.81 V	28.85 V	29.11 V	29.54 V	29.97 V
Short Circuit Current (Isc)	9.16 A	9.31 A	9.42 A	9.58 A	9.75 A	9.90 A	10.00 A	10.03 A	10.07 A
Open Circuit Voltage (Voc)	34.97 V	35.24 V	35.40 V	35.57 V	35.68 V	35.73 V	36.05 V	36.35 V	36.92 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR245M-54	IR250M-54	IR255M-54	IR260M-54	IR265M-54	IR270M-54	IR275M-54	IR280M-54	IR285M-54
Maximum Power (Pmax)	179.00 W	183.00 W	186.00 W	190.00 W	193.00 W	197.00 W	200.00 W	204.00 W	208.00 W
Maximum Power Current (Imp)	6.83 A	6.94 A	7.04 A	7.14 A	7.27 A	7.40 A	7.48 A	7.48 A	7.51 A
Maximum Power Voltage (Vmp)	26.21 V	26.37 V	26.44 V	26.49 V	26.56 V	26.62 V	26.74 V	27.27 V	27.70 V
Short Circuit Current (Isc)	7.33 A	7.45 A	7.54 A	7.62 A	7.80 A	7.95 A	8.02 A	8.04 A	8.06 A
Open Circuit Voltage (Voc)	32.27 V	32.54 V	32.67 V	32.85 V	32.91 V	33.25 V	33.52 V	33.75 V	34.10 V

Values at Nominal Operating Cell Temperature
 (NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 54 (6x9) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1482 x 990 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	18 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

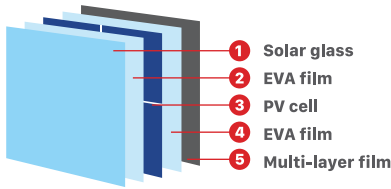
Container	20' GP	40' GP	40' HQ
Pallets per Container	14	30	30
Pieces per Container	420	900	960

MAXIMUM RATINGS

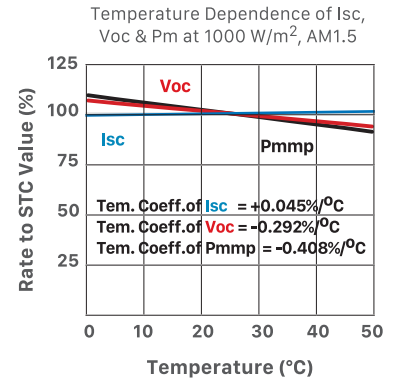
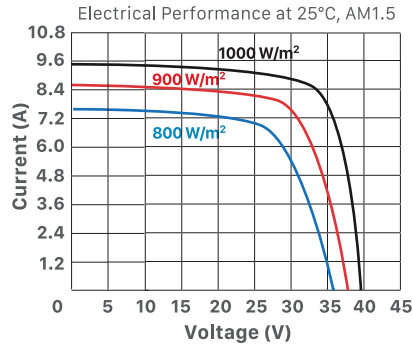
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES POLYCRYSTALLINE

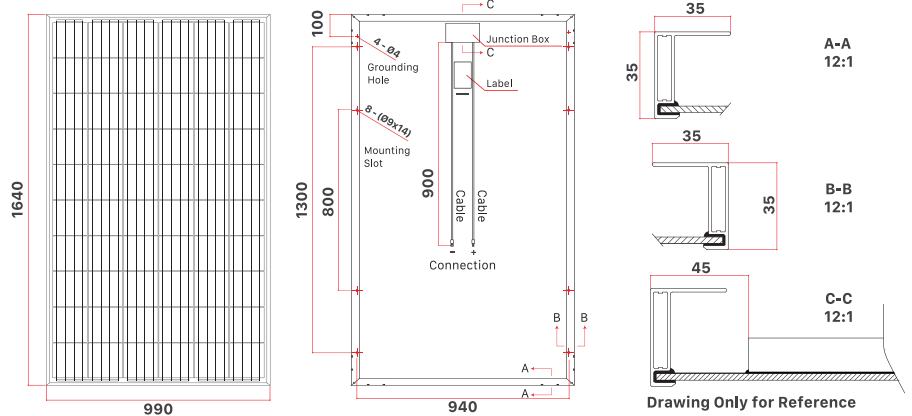
SOLAR MODULE: 265 W, 270 W, 275 W, 280 W, 285 W, 290 W, 295 W, 300 W, 305 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR265P-60	IR270P-60	IR275P-60	IR280P-60	IR285P-60	IR290P-60	IR295P-60	IR300P-60	IR305P-60
Maximum Power (Pmax)	265 W	270 W	275 W	280 W	285 W	290 W	295 W	300 W	305 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.3%	16.6%	16.9%	17.2%	17.6%	17.9%	18.2%	18.5%	18.8%
Maximum Power Current (Imp)	8.49 A	8.61 A	8.73 A	8.86 A	8.98 A	9.09 A	9.18 A	9.28 A	9.33 A
Maximum Power Voltage (Vmp)	31.23 V	31.36 V	31.50 V	31.61 V	31.75 V	31.91 V	32.14 V	32.33 V	32.69 V
Short Circuit Current (Isc)	9.00 A	9.12 A	9.26 A	9.40 A	9.51 A	9.62 A	9.71 A	9.82 A	9.90 A
Open Circuit Voltage (Voc)	38.73 V	38.89 V	39.03 V	39.15 V	39.29 V	39.58 V	39.78 V	39.97 V	40.45 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR265P-60	IR270P-60	IR275P-60	IR280P-60	IR285P-60	IR290P-60	IR295P-60	IR300P-60	IR305P-60
Maximum Power (Pmax)	191.00 W	194.00 W	198.00 W	204.00 W	208.00 W	212.00 W	215.00 W	219.00 W	223.00 W
Maximum Power Current (Imp)	6.71 A	6.76 A	6.86 A	7.03 A	7.11 A	7.22 A	7.29 A	7.38 A	7.46 A
Maximum Power Voltage (Vmp)	28.47 V	28.71 V	28.87 V	29.02 V	29.26 V	29.37 V	29.51 V	29.68 V	29.90 V
Short Circuit Current (Isc)	7.20 A	7.26 A	7.36 A	7.51 A	7.60 A	7.72 A	7.78 A	7.86 A	7.94 A
Open Circuit Voltage (Voc)	35.63 V	35.93 V	36.06 V	36.24 V	36.38 V	36.58 V	36.75 V	36.92 V	37.28 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 60 (6x10) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1640 x 990 x 35 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	19 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

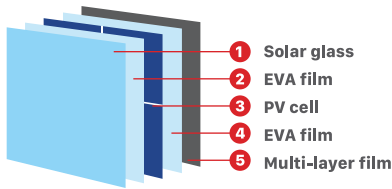
Container	20' GP	40' GP	40' HQ
Pallets per Container	12	28	28
Pieces per Container	360	840	896

MAXIMUM RATINGS

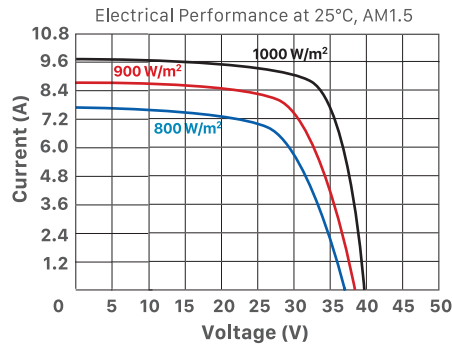
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES MONOCRYSTALLINE

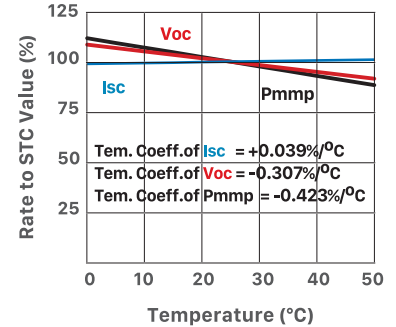
SOLAR MODULE: 275 W, 280 W, 285 W, 290 W, 295 W, 300 W, 305 W, 310 W, 315 W



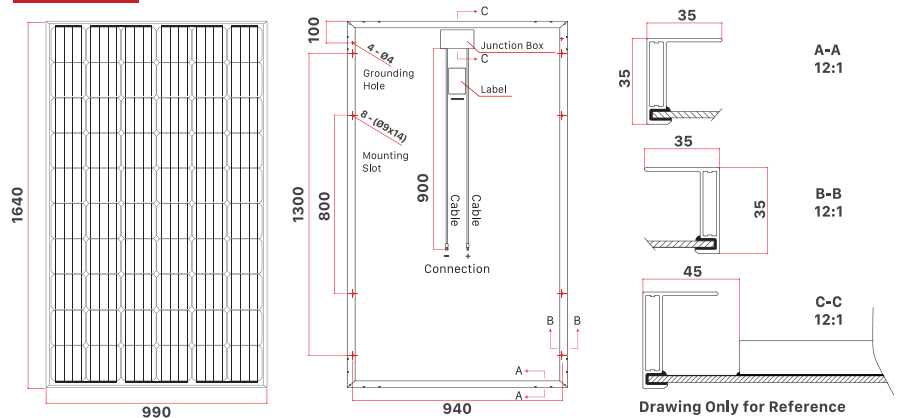
PERFORMANCE



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR275M-60	IR280M-60	IR285M-60	IR290M-60	IR295M-60	IR300M-60	IR305M-60	IR310M-60	IR315M-60
Maximum Power (Pmax)	275 W	280 W	285 W	290 W	295 W	300 W	305 W	310 W	315 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.9%	17.3%	17.6%	17.9%	18.2%	18.5%	18.8%	19.1%	19.4%
Maximum Power Current (Imp)	8.72 A	8.83 A	8.89 A	9.01 A	9.14 A	9.26 A	9.33 A	9.38 A	9.45 A
Maximum Power Voltage (Vmp)	31.54 V	31.72 V	32.06 V	32.20 V	32.29 V	32.40 V	32.70 V	33.05 V	33.43 V
Short Circuit Current (Isc)	9.24 A	9.36 A	9.42 A	9.52 A	9.68 A	9.80 A	9.88 A	9.92 A	9.99 A
Open Circuit Voltage (Voc)	38.89 V	39.02 V	39.75 V	39.85 V	39.95 V	40.08 V	40.55 V	40.71 V	41.07 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR275M-60	IR280M-60	IR285M-60	IR290M-60	IR295M-60	IR300M-60	IR305M-60	IR310M-60	IR315M-60
Maximum Power (Pmax)	201.00 W	204.00 W	208.00 W	212.00 W	215.00 W	219.00 W	223.00 W	226.00 W	230.00 W
Maximum Power Current (Imp)	6.92 A	6.96 A	7.06 A	7.16 A	7.24 A	7.34 A	7.38 A	7.41 A	7.46 A
Maximum Power Voltage (Vmp)	29.07 V	29.32 V	29.48 V	29.61 V	29.71 V	29.85 V	30.22 V	30.50 V	30.83 V
Short Circuit Current (Isc)	7.41 A	7.49 A	7.54 A	7.62 A	7.73 A	7.82 A	7.90 A	7.92 A	7.98 A
Open Circuit Voltage (Voc)	36.04 V	36.29 V	36.97 V	37.25 V	36.99 V	37.20 V	37.64 V	37.78 V	38.01 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 60 (6x10) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1640 x 990 x 35 mm
Output Cable	4 mm² (EU)/12 AWG (US), 900 mm
Weight	19 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

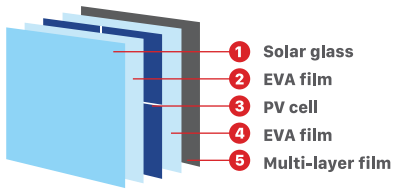
Container	20' GP	40' GP	40' HQ
Pallets per Container	12	28	28
Pieces per Container	360	840	896

MAXIMUM RATINGS

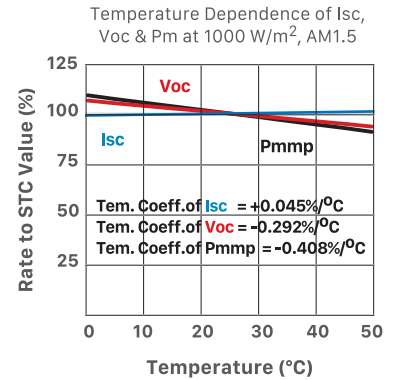
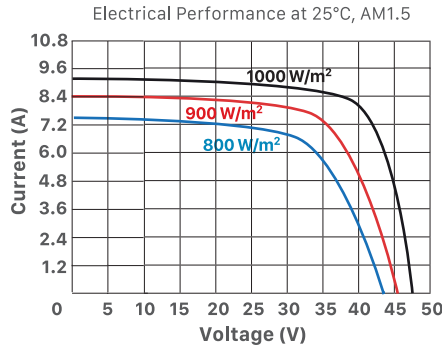
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES POLYCRYSTALLINE

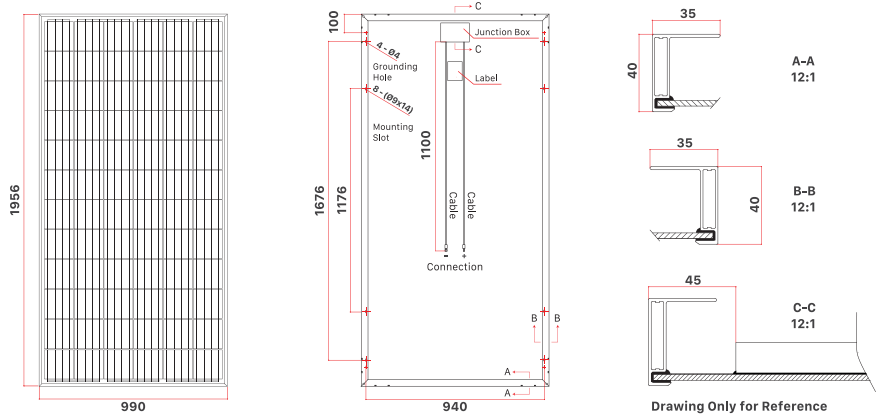
SOLAR MODULE: 310 W, 315 W, 320 W, 325 W, 330 W, 335 W, 340 W, 345 W, 350 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR310P-72	IR315P-72	IR320P-72	IR325P-72	IR330P-72	IR335P-72	IR340P-72	IR345P-72	IR350P-72
Maximum Power (Pmax)	310 W	315 W	320 W	325 W	330 W	335 W	340 W	345 W	350 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.1%	16.3%	16.6%	16.8%	17.1%	17.4%	17.6%	17.9%	18.1%
Maximum Power Current (Imp)	8.40 A	8.47 A	8.53 A	8.60 A	8.68 A	8.79 A	8.91 A	9.03 A	9.14 A
Maximum Power Voltage (Vmp)	36.91 V	37.20 V	37.52 V	37.80 V	38.02 V	38.12 V	38.17 V	38.21 V	38.30 V
Short Circuit Current (Isc)	8.90 A	8.98 A	9.04 A	9.12 A	9.23 A	9.31 A	9.45 A	9.56 A	9.69 A
Open Circuit Voltage (Voc)	45.77 V	46.23 V	46.62 V	46.78 V	47.02 V	47.29 V	47.41 V	47.52 V	47.60 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR310P-72	IR315P-72	IR320P-72	IR325P-72	IR330P-72	IR335P-72	IR340P-72	IR345P-72	IR350P-72
Maximum Power (Pmax)	226.00 W	230.00 W	234.00 W	237.00 W	241.00 W	245.00 W	248.00 W	252.00 W	256.00 W
Maximum Power Current (Imp)	6.66 A	6.71 A	6.77 A	6.81 A	6.90 A	6.98 A	7.05 A	7.15 A	7.25 A
Maximum Power Voltage (Vmp)	33.95 V	34.29 V	34.58 V	34.81 V	34.94 V	35.11 V	35.18 V	35.25 V	35.32 V
Short Circuit Current (Isc)	7.12 A	7.18 A	7.23 A	7.30 A	7.46 A	7.51 A	7.62 A	7.71 A	7.80 A
Open Circuit Voltage (Voc)	42.57 V	42.99 V	43.36 V	43.59 V	43.78 V	43.89 V	44.06 V	44.30 V	44.43 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 72 (6x12) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1956 x 990 x 40 mm
Output Cable	4 mm² (EU)/12 AWG (US), 1100 mm
Weight	22 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

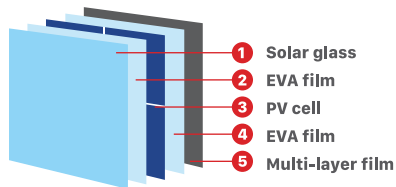
Container	20' GP	40' GP	40' HQ
Pallets per Container	10	24	24
Pieces per Container	260	624	672

MAXIMUM RATINGS

Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

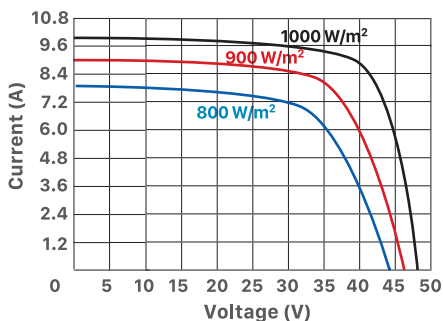
156 SERIES MONOCRYSTALLINE

SOLAR MODULE: 340 W, 345 W, 350 W, 355 W, 360 W, 365 W, 370 W, 375 W, 380 W

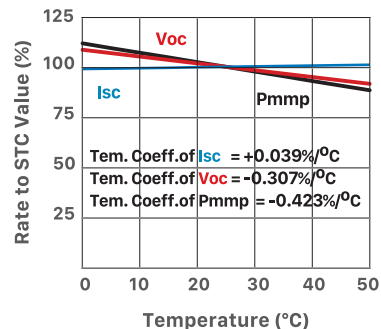


PERFORMANCE

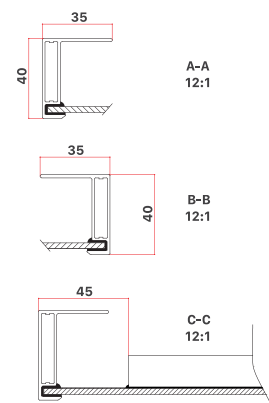
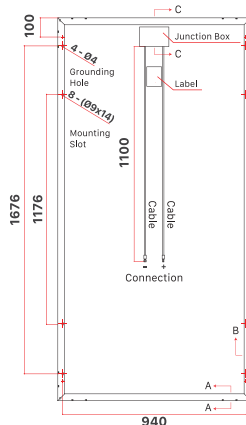
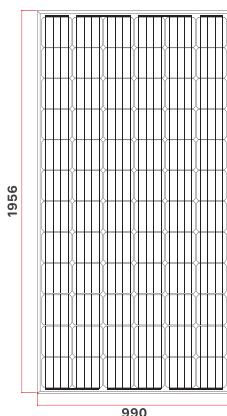
Electrical Performance at 25°C, AM1.5



Temperature Dependence of Isc, Voc & Pm at 1000 W/m², AM1.5



STRUCTURE



Drawing Only for Reference

ELECTRICAL CHARACTERISTICS STC	IR340M-72	IR345M-72	IR350M-72	IR355M-72	IR360M-72	IR365M-72	IR370M-72	IR375M-72	IR380M-72
Maximum Power (Pmax)	340 W	345 W	350 W	355 W	360 W	365 W	370 W	375 W	380 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	17.6%	17.9%	18.1%	18.4%	18.7%	18.9%	19.2%	19.4%	19.7%
Maximum Power Current (Imp)	8.93 A	9.04 A	9.18 A	9.25 A	9.34 A	9.40 A	9.45 A	9.48 A	9.52 A
Maximum Power Voltage (Vmp)	38.08 V	38.17 V	38.26 V	38.39 V	38.55 V	38.84 V	39.16 V	39.56 V	39.92 V
Short Circuit Current (Isc)	9.46 A	9.58 A	9.73 A	9.79 A	9.87 A	9.95 A	10.00 A	10.03 A	10.08 A
Open Circuit Voltage (Voc)	47.07 V	47.26 V	47.49 V	47.69 V	47.73 V	48.05 V	48.49 V	48.68 V	48.94 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR340M-72	IR345M-72	IR350M-72	IR355M-72	IR360M-72	IR365M-72	IR370M-72	IR375M-72	IR380M-72
Maximum Power (Pmax)	248.00 W	252.00 W	256.00 W	259.00 W	262.00 W	266.00 W	270.00 W	274.00 W	277.00 W
Maximum Power Current (Imp)	7.06 A	7.15 A	7.25 A	7.30 A	7.37 A	7.42 A	7.46 A	7.50 A	7.54 A
Maximum Power Voltage (Vmp)	35.15 V	35.27 V	35.39 V	35.49 V	35.56 V	35.85 V	36.20 V	36.53 V	36.74 V
Short Circuit Current (Isc)	7.57 A	7.63 A	7.78 A	7.81 A	7.88 A	7.95 A	8.00 A	8.03 A	8.06 A
Open Circuit Voltage (Voc)	43.56 V	43.78 V	43.98 V	44.25 V	44.42 V	44.64 V	45.03 V	45.14 V	45.36 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Speed 1m/s, Irradiance 800 W/m², Cell Temperature 45°C, Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 72 (6x12) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1956 x 990 x 40 mm
Output Cable	4 mm² (EU)/12 AWG (US), 1100mm
Weight	22 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

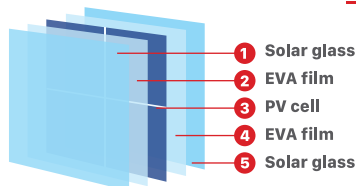
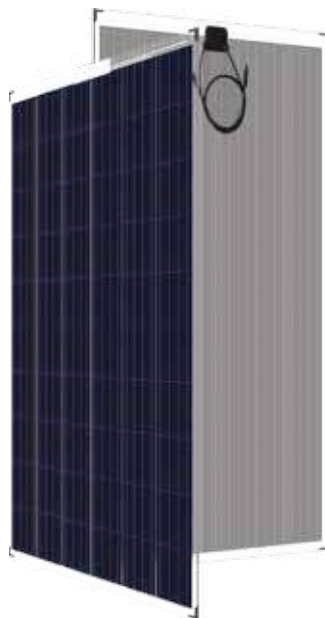
Container	20' GP	40' GP	40' HQ
Pallets per Container	10	24	24
Pieces per Container	260	624	672

MAXIMUM RATINGS

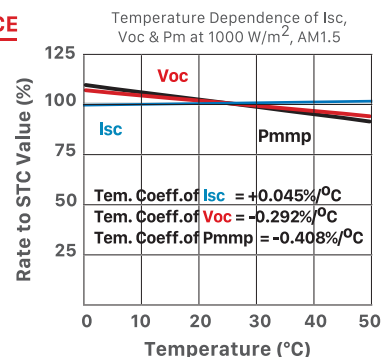
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A

156 SERIES POLYCRYSTALLINE - DOUBLE GLASS

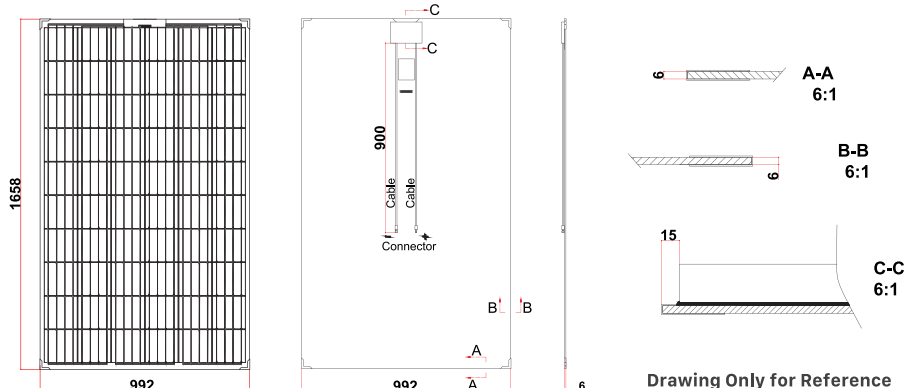
SOLAR MODULE: 265 W, 270 W, 275 W, 280 W, 285 W, 290 W, 295 W, 300 W, 305 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC

	IR265P-60DG	IR270P-60DG	IR275P-60DG	IR280P-60DG	IR285P-60DG	IR290P-60DG	IR295P-60DG	IR300P-60DG	IR305P-60DG
Maximum Power (Pmax)	265 W	270 W	275 W	280 W	285 W	290 W	295 W	300 W	305 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.1 %	16.4 %	16.7 %	17.0 %	17.3 %	17.6 %	17.9 %	18.2 %	18.5 %
Maximum Power Current (Imp)	8.49 A	8.61 A	8.73 A	8.86 A	8.98 A	9.09 A	9.18 A	9.28 A	9.33 A
Maximum Power Voltage (Vmp)	31.23 V	31.36 V	31.50 V	31.61 V	31.75 V	31.91 V	32.14 V	32.33 V	32.69 V
Short Circuit Current (Isc)	9.00 A	9.12 A	9.26 A	9.40 A	9.51 A	9.62 A	9.71 A	9.82 A	9.90 A
Open Circuit Voltage (Voc)	38.73 V	38.89 V	39.03 V	39.15 V	39.29 V	39.58 V	39.78 V	39.97 V	40.45 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT

	IR265P-60DG	IR270P-60DG	IR275P-60DG	IR280P-60DG	IR285P-60DG	IR290P-60DG	IR295P-60DG	IR300P-60DG	IR305P-60DG
Maximum Power (Pmax)	191.00 W	194.00 W	198.00 W	204.00 W	208.00 W	212.00 W	215.00 W	219.00 W	223.00 W
Maximum Power Current (Imp)	6.71 A	6.76 A	6.86 A	7.03 A	7.11 A	7.22 A	7.29 A	7.38 A	7.46 A
Maximum Power Voltage (Vmp)	28.47 V	28.71 V	28.87 V	29.02 V	29.26 V	29.37 V	29.51 V	29.68 V	29.90 V
Short Circuit Current (Isc)	7.20 A	7.26 A	7.36 A	7.51 A	7.60 A	7.72 A	7.78 A	7.86 A	7.94 A
Open Circuit Voltage (Voc)	35.63 V	35.93 V	36.06 V	36.24 V	36.38 V	36.58 V	36.75 V	36.92 V	37.28 V

Values at Nominal Operating Cell Temperature

(NOCT: Wind Velocity 1 m/s, Irradiance 800 W/m², Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 60(6x10) pcs in series
Front/Back	High Transmission, Low Iron, Tempered Glass
Frame	Frameless
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1658 x 992 x 6 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	20 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

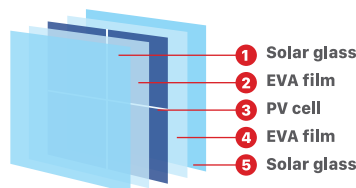
Container	20' GP	40' GP	40' HQ
Pallets per Container	6	13	13
Pieces per Container	228	494	494

WORKING CONDITIONS

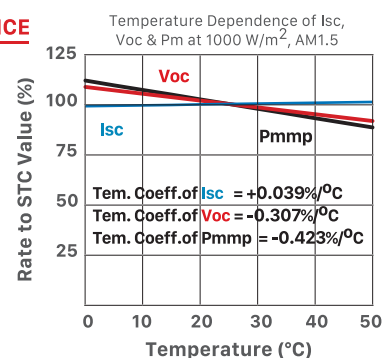
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
NOCT	45 ± 2
Application Class	Class A

156 SERIES MONOCRYSTALLINE - DOUBLE GLASS

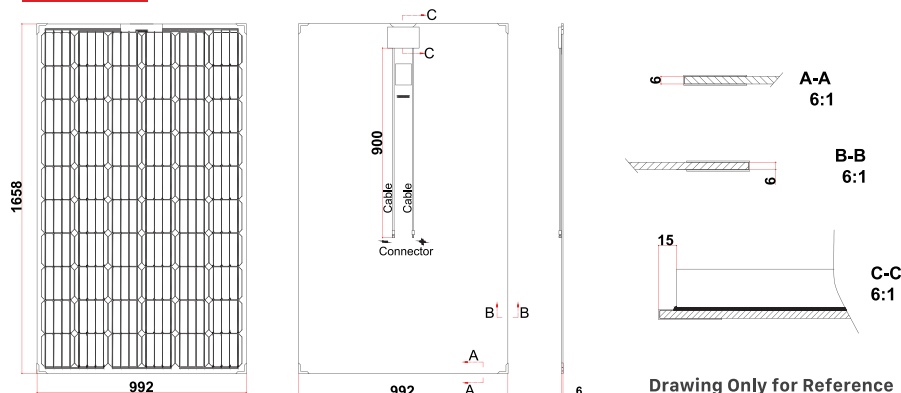
SOLAR MODULE: 275 W, 280 W, 285 W, 290 W, 295 W, 300 W, 305 W, 310 W, 315 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR275M-60DG	IR280M-60DG	IR285M-60DG	IR290M-60DG	IR295M-60DG	IR300M-60DG	IR305M-60DG	IR310M-60DG	IR315M-60DG
Maximum Power (Pmax)	275 W	280 W	285 W	290 W	295 W	300 W	305 W	310 W	315 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.7 %	17.0 %	17.3 %	17.6 %	17.9 %	18.2 %	18.5 %	18.9 %	19.2 %
Maximum Power Current (Imp)	8.72 A	8.83 A	8.89 A	9.01 A	9.14 A	9.26 A	9.33 A	9.38 A	9.45 A
Maximum Power Voltage (Vmp)	31.54 V	31.72 V	32.06 V	32.20 V	32.29 V	32.40 V	32.70 V	33.05 V	33.43 V
Short Circuit Current (Isc)	9.24 A	9.36 A	9.42 A	9.52 A	9.68 A	9.80 A	9.88 A	9.92 A	9.99 A
Open Circuit Voltage (Voc)	38.89 V	39.02 V	39.75 V	39.85 V	39.95 V	40.08 V	40.55 V	40.71 V	41.07 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR275M-60DG	IR280M-60DG	IR285M-60DG	IR290M-60DG	IR295M-60DG	IR300M-60DG	IR305M-60DG	IR310M-60DG	IR315M-60DG
Maximum Power (Pmax)	201.00 W	204.00 W	208.00 W	212.00 W	215.00 W	219.00 W	223.00 W	226.00 W	230.00 W
Maximum Power Current (Imp)	6.92 A	6.96 A	7.06 A	7.16 A	7.24 A	7.34 A	7.38 A	7.41 A	7.46 A
Maximum Power Voltage (Vmp)	29.07 V	29.32 V	29.48 V	29.61 V	29.71 V	29.85 V	30.22 V	30.50 V	30.83 V
Short Circuit Current (Isc)	7.41 A	7.49 A	7.54 A	7.62 A	7.73 A	7.82 A	7.90 A	7.92 A	7.98 A
Open Circuit Voltage (Voc)	36.04 V	36.29 V	36.97 V	37.25 V	36.99 V	37.20 V	37.64 V	37.78 V	38.01 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Velocity 1 m/s, Irradiance 800 W/m², Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 60(6x10) pcs in series
Front/Back	High Transmission, Low Iron, Tempered Glass
Frame	Frameless
Junction Box	Rated current ≥ 15A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1658 x 992 x 6 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 900 mm
Weight	20 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

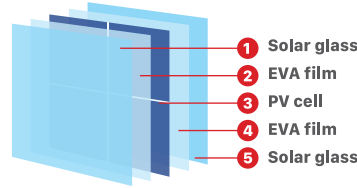
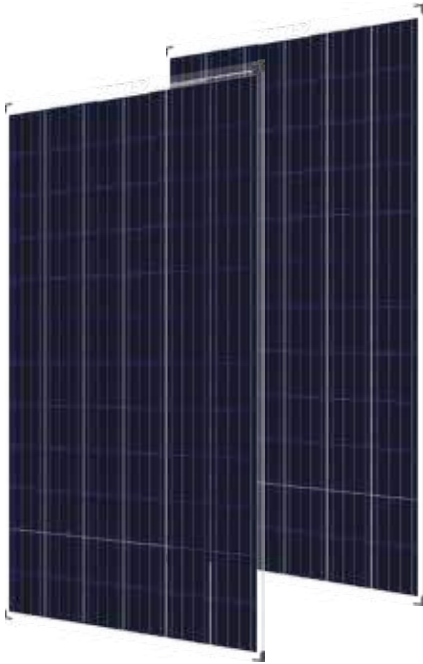
Container	20' GP	40' GP	40' HQ
Pallets per Container	6	13	13
Pieces per Container	228	494	494

WORKING CONDITIONS

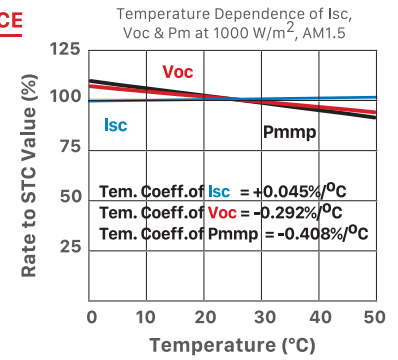
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
NOCT	45 ± 2
Application Class	Class A

156 SERIES POLYCRYSTALLINE - DOUBLE GLASS

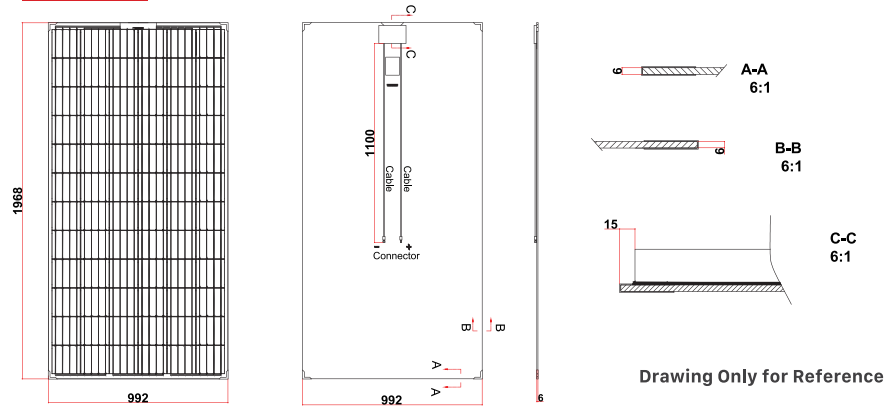
SOLAR MODULE: 310 W, 315 W, 320 W, 325 W, 330 W, 335 W, 340 W, 345 W, 350 W



PERFORMANCE



STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR310P-72DG	IR315P-72DG	IR320P-72DG	IR325P-72DG	IR330P-72DG	IR335P-72DG	IR340P-72DG	IR345P-72DG	IR350P-72DG
Maximum Power (Pmax)	310 W	315 W	320 W	325 W	330 W	335 W	340 W	345 W	350 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	15.9 %	16.1 %	16.4 %	16.7 %	16.9 %	17.2 %	17.4 %	17.7 %	17.9 %
Maximum Power Current (Imp)	8.40 A	8.47 A	8.53 A	8.60 A	8.68 A	8.79 A	8.91 A	9.03 A	9.14 A
Maximum Power Voltage (Vmp)	36.91 V	37.20 V	37.52 V	37.80 V	38.02 V	38.12 V	38.17 V	38.21 V	38.30 V
Short Circuit Current (Isc)	8.90 A	8.98 A	9.04 A	9.12 A	9.23 A	9.31 A	9.45 A	9.56 A	9.69 A
Open Circuit Voltage (Voc)	45.77 V	46.23 V	46.62 V	46.78 V	47.02 V	47.29 V	47.41 V	47.52 V	47.60 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR310P-72DG	IR315P-72DG	IR320P-72DG	IR325P-72DG	IR330P-72DG	IR335P-72DG	IR340P-72DG	IR345P-72DG	IR350P-72DG
Maximum Power (Pmax)	226.00 W	230.00 W	234.00 W	237.00 W	241.00 W	245.00 W	248.00 W	252.00 W	256.00 W
Maximum Power Current (Imp)	6.66 A	6.71 A	6.77 A	6.81 A	6.90 A	6.98 A	7.05 A	7.15 A	7.25 A
Maximum Power Voltage (Vmp)	33.95 V	34.29 V	34.58 V	34.81 V	34.94 V	35.11 V	35.18 V	35.25 V	35.32 V
Short Circuit Current (Isc)	7.12 A	7.18 A	7.23 A	7.30 A	7.46 A	7.51 A	7.62 A	7.71 A	7.80 A
Open Circuit Voltage (Voc)	42.57 V	42.99 V	43.36 V	43.59 V	43.78 V	43.89 V	44.06 V	44.30 V	44.43 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Velocity 1 m/s, Irradiance 800 W/m², Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Polycrystalline, 72(6x12) pcs in series
Front/Back	High Transmission, Low Iron, Tempered Glass
Frame	Frameless
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1968 x 992 x 6 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 1100 mm
Weight	23 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

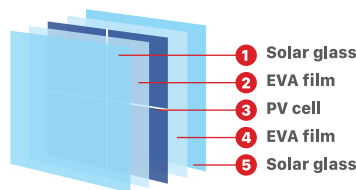
Container	20' GP	40' GP	40' HQ
Pallets per Container	5	11	11
Pieces per Container	190	418	418

WORKING CONDITIONS

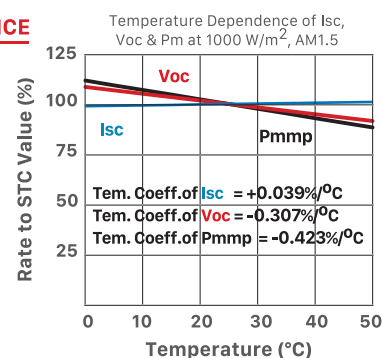
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
NOCT	45 ± 2
Application Class	Class A

156 SERIES MONOCRYSTALLINE - DOUBLE GLASS

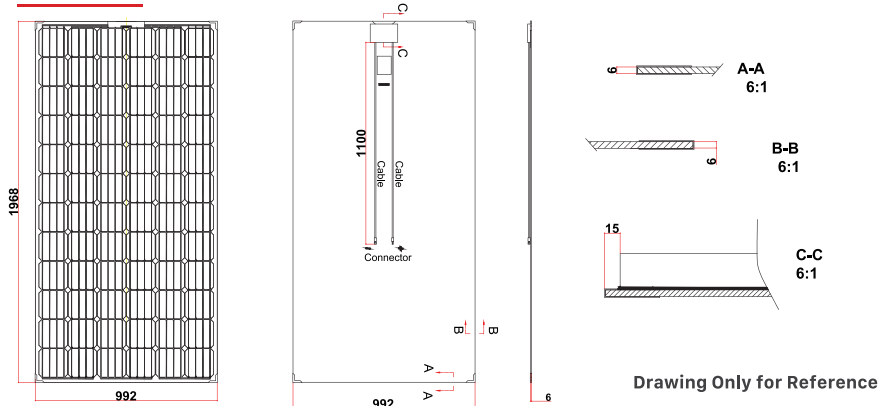
SOLAR MODULE: 340 W, 345 W, 350 W, 355 W, 360 W, 365 W, 370 W, 375 W, 380 W



PERFORMANCE



STRUCTURE



Drawing Only for Reference

ELECTRICAL CHARACTERISTICS STC	IR340M-72DG	IR345M-72DG	IR350M-72DG	IR355M-72DG	IR360M-72DG	IR365M-72DG	IR370M-72DG	IR375M-72DG	IR380M-72DG
Maximum Power (Pmax)	340 W	345 W	350 W	355 W	360 W	365 W	370 W	375 W	380 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	17.4 %	17.7 %	17.9 %	18.2 %	18.4 %	18.7 %	19.0 %	19.2 %	19.5 %
Maximum Power Current (Imp)	8.93 A	9.04 A	9.18 A	9.25 A	9.34 A	9.40 A	9.45 A	9.48 A	9.52 A
Maximum Power Voltage (Vmp)	38.08 V	38.17 V	38.26 V	38.39 V	38.55 V	38.84 V	39.16 V	39.56 V	39.92 V
Short Circuit Current (Isc)	9.46 A	9.58 A	9.73 A	9.79 A	9.87 A	9.95 A	10.00 A	10.03 A	10.08 A
Open Circuit Voltage (Voc)	47.07 V	47.26 V	47.49 V	47.69 V	47.73 V	48.05 V	48.49 V	48.68 V	48.94 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR340M-72DG	IR345M-72DG	IR350M-72DG	IR355M-72DG	IR360M-72DG	IR365M-72DG	IR370M-72DG	IR375M-72DG	IR380M-72DG
Maximum Power (Pmax)	248.00 W	252.00 W	256.00 W	259.00 W	262.00 W	266.00 W	270.00 W	274.00 W	277.00 W
Maximum Power Current (Imp)	7.06 A	7.15 A	7.25 A	7.30 A	7.37 A	7.42 A	7.46 A	7.50 A	7.54 A
Maximum Power Voltage (Vmp)	35.15 V	35.27 V	35.39 V	35.49 V	35.56 V	35.85 V	36.20 V	36.53 V	36.74 V
Short Circuit Current (Isc)	7.57 A	7.63 A	7.78 A	7.81 A	7.88 A	7.95 A	8.00 A	8.03 A	8.06 A
Open Circuit Voltage (Voc)	43.56 V	43.78 V	43.98 V	44.25 V	44.42 V	44.64 V	45.03 V	45.14 V	45.36 V

Values at Nominal Operating Cell Temperature (NOCT: Wind Velocity 1 m/s, Irradiance 800 W/m², Ambient Temperature 20°C)

MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 72(6x12) pcs in series
Front/Back	High Transmission, Low Iron, Tempered Glass
Frame	Frameless
Junction Box	Rated current ≥ 15A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1968 x 992 x 6 mm
Output Cable	4 mm ² (EU)/12 AWG (US), 1100 mm
Weight	23 kg
Installation hole Location	See Drawing Above

PACKING INFORMATION

Container	20' GP	40' GP	40' HQ
Pallets per Container	5	11	11
Pieces per Container	190	418	418

WORKING CONDITIONS

Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
NOCT	45 ± 2
Application Class	Class A