



Outstanding performance in weak-light conditions



Anti-PID



Positive current sorting



Excellent temperature coefficient giving higher yields in the long term



IP68 connectors enhance the reliability of the PV system



Certified to withstand increased loads of up to 5400Pa



10-year product warranty
25-year performance warranty^[1]

Durability assured:



Salt mist corrosion resistance



Ammonia corrosion resistance



Fire test resistance



Blowing sand resistance

- Manufacturing facility certified by ISO 9001, ISO 14001 and OHSAS 18001
- Internal quality control has standards higher than both IEC and UL

- Product quality is assured through the use of branded components
- Free module recycling through PV Cycle Association membership^[2]



PREMIUM Modules

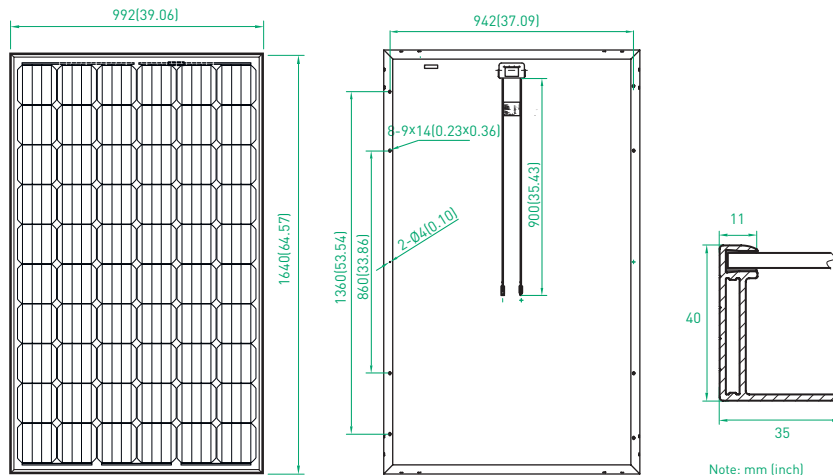
Note: This datasheet is not legally binding. Phono Solar reserves the right to make specifications changes without notice. Further information can be found on our website: www.phonosolar.com

1. In compliance with our warranty terms and conditions.

2. In PV Cycle member countries only, see: www.pvcycle.org

PREMIUM SOLAR MODULES 270-280W MONO

DIMENSIONS



Note: mm (inch)

MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline 156mm x 156mm square, 6 × 10 pieces in series
Dimension	Length: 1640mm (64.6 inch)
	Width: 992mm (39.1 inch)
	Height: 40mm (1.6 inch)
Weight	19kg (41.9 lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm ² (IEC) / 12AWG (UL), 900mm
Junction Box	IP 68 rated

ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC61730)	A
Fire Rating (IEC61730)	C
Module Fire Performance (UL1703)	Type 1
Maximum System Voltage	DC 1000V (IEC)
	DC 600V (UL) / 1000V (ETL)

ELECTRICAL TYPICAL VALUES^[1]

Model	Rated Power (P _{mpp})	Tolerance	Rated Current (I _{mpp})	Rated Voltage (V _{mpp})	Short Circuit Current (I _{sc})	Open Circuit Voltage (V _{oc})	Module Efficiency (%)
PS270M-20/U	270W	±3%	8.65A	31.2V	9.05A	38.3V	16.60
PS275M-20/U	275W	±3%	8.75A	31.4V	9.10A	38.4V	16.90
PS280M-20/U	280W	±3%	8.86A	31.6V	9.15A	38.5V	17.20

WEAK LIGHT PERFORMANCE

Intensity [W/m ²]	I _{mpp}	V _{mpp}
1000	1	1
800	0.8	0.996
600	0.6	0.99
400	0.4	0.983
200	0.2	0.952
100	0.1	0.921

TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C
Voltage Temperature Coefficient	-0.35%/k
Current Temperature Coefficient	+0.07%/k
Power Temperature Coefficient	-0.45%/k

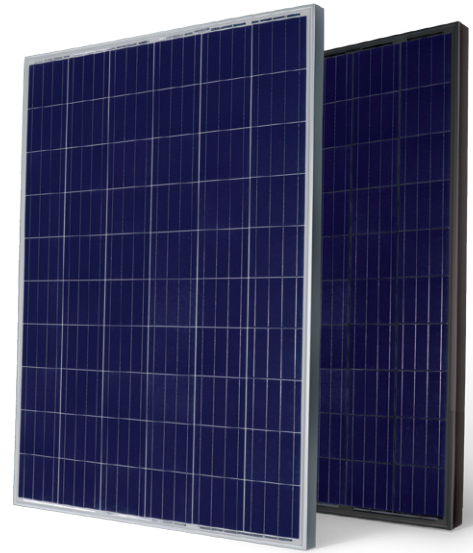
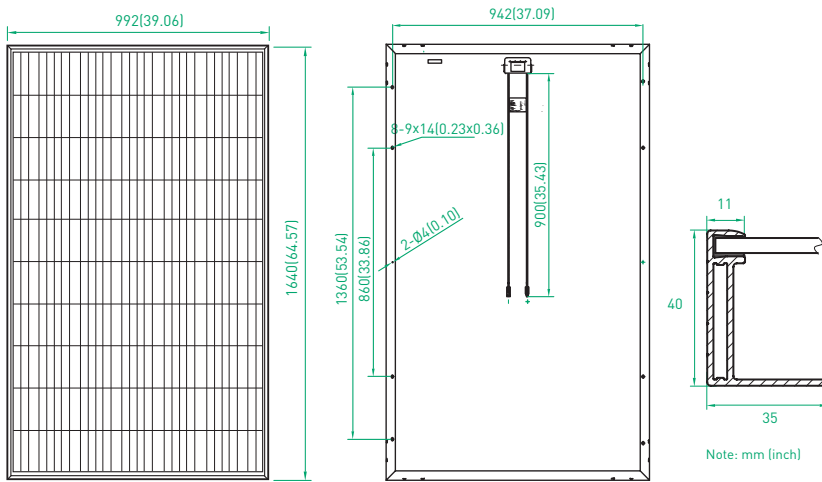
PACKING CONFIGURATION

Container	40' HQ	20' GP
Pieces per container	728	264

1. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m², Air mass 1.5 Spectrum, cell temperature of 25°C.

PREMIUM SOLAR MODULES 260-270W POLY

DIMENSIONS



MECHANICAL CHARACTERISTICS

Solar Cells	Polycrystalline 156mm x 156mm square, 6 × 10 pieces in series
Dimension	Length: 1640mm (64.6 inch)
	Width: 992mm (39.1 inch)
	Height: 40mm (1.6 inch)
Weight	19kg (41.9 lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm ² (IEC) / 12AWG (UL), 900mm
Junction Box	IP 68 rated

ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC61730)	A
Fire Rating (IEC61730)	C
Module Fire Performance (UL1703)	Type 1
Maximum System Voltage	DC 1000V (IEC)
	DC 600V (UL) / 1000V (ETL)

ELECTRICAL TYPICAL VALUES^[1]

Model	Rated Power (P _{mpp})	Tolerance	Rated Current (I _{mpp})	Rated Voltage (V _{mpp})	Short Circuit Current (I _{sc})	Open Circuit Voltage (V _{oc})	Module Efficiency (%)
PS260P-20/U	260W	±3%	8.54A	30.6V	8.90A	38.0V	15.98
PS265P-20/U	265W	±3%	8.61A	30.8V	9.00A	38.1V	16.29
PS270P-20/U	270W	±3%	8.71A	31.0V	9.10A	38.2V	16.60

WEAK LIGHT PERFORMANCE

Intensity [W/m ²]	I _{mpp}	V _{mpp}
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952
100	0.1	0.921

TEMPERATURE CHARACTERISTICS

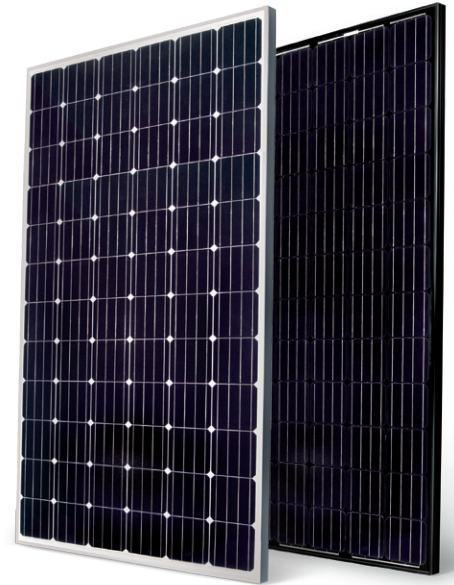
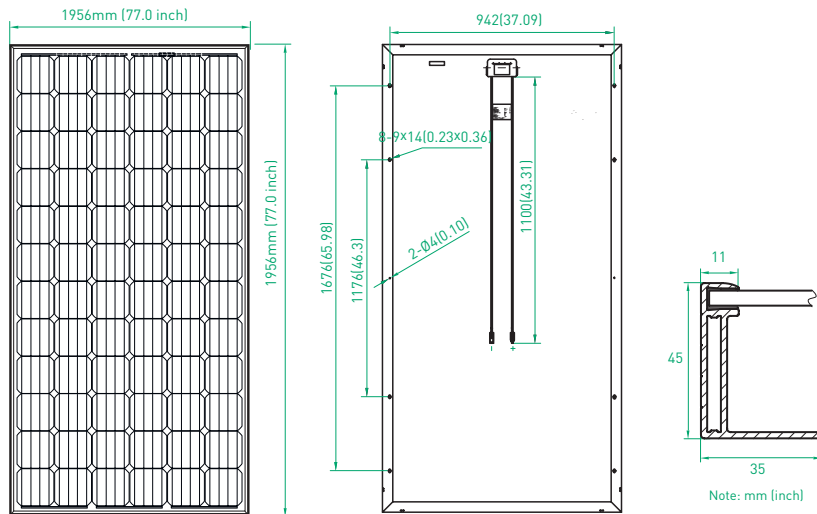
NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C
Voltage Temperature Coefficient	-0.31%/k
Current Temperature Coefficient	+0.06%/k
Power Temperature Coefficient	-0.40%/k

PACKING CONFIGURATION

Container	40' HQ	20' GP
Pieces per container	728	264

1. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m², Air mass 1.5 Spectrum, cell temperature of 25°C.

PREMIUM SOLAR MODULES 310-335W MONO



MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline 156mm x 156mm square, 6 x 12 pieces in series
Dimension	Length: 1956mm (77.0 inch)
	Width: 992mm (39.1 inch)
	Height: 45mm (1.8 inch)
Weight	24kg (52.9 lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm ² (IEC) / 12AWG (UL), 1100mm
Junction Box	IP 68 rated

ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC61730)	A
Fire Rating (IEC61730)	C
Module Fire Performance (UL1703)	Type 1
Maximum System Voltage	DC 1000V (IEC)
	DC 600V (UL) / 1000V (ETL)

ELECTRICAL TYPICAL VALUES^[1]

Model	Rated Power (P _{mpp})	Tolerance	Rated Current (I _{mpp})	Rated Voltage (V _{mpp})	Short Circuit Current (I _{sc})	Open Circuit Voltage (V _{oc})	Module Efficiency (%)
PS310M-24/T	310W	±3%	8.36A	37.1V	8.75A	46.3A	15.98
PS315M-24/T	315W	±3%	8.46A	37.2V	8.82A	46.5A	16.23
PS320M-24/T	320W	±3%	8.55A	37.4V	8.90A	46.7A	16.49
PS325M-24/T	325W	±3%	8.62A	37.7V	8.95A	46.9A	16.75
PS330M-24/T	330W	±3%	8.68A	38.0V	8.99A	47.1A	17.00
PS335M-24/T	335W	±3%	8.72A	38.4V	9.04A	47.2A	17.26

WEAK LIGHT PERFORMANCE

Intensity [W/m ²]	I _{mpp}	V _{mpp}
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952
100	0.1	0.921

TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C
Voltage Temperature Coefficient	-0.35%/k
Current Temperature Coefficient	+0.07%/k
Power Temperature Coefficient	-0.45%/k

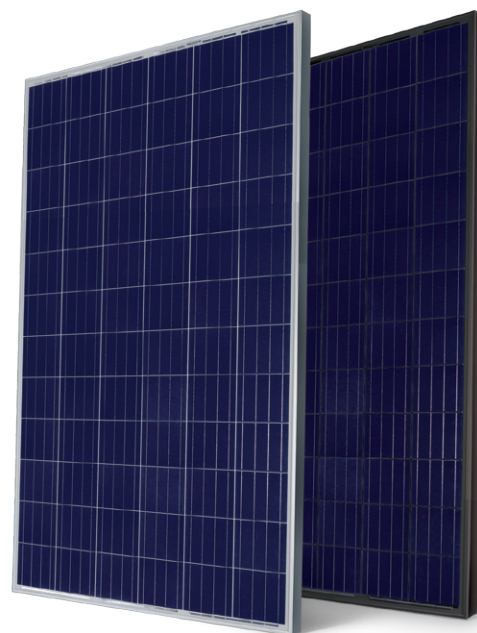
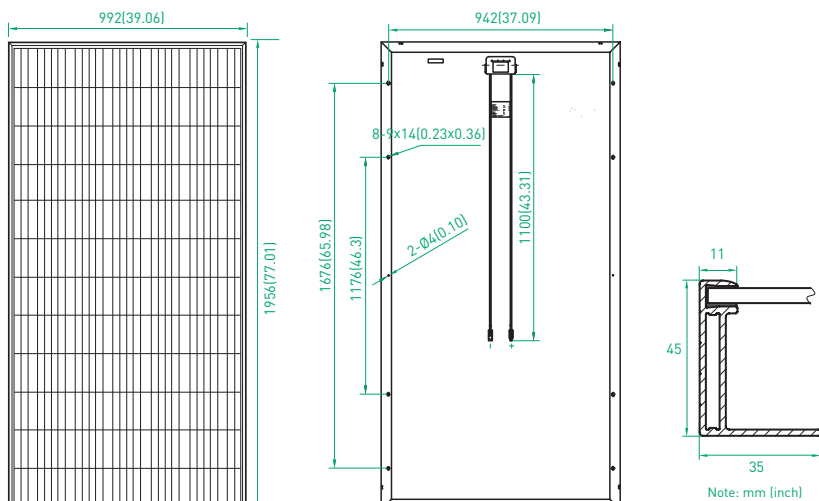
PACKING CONFIGURATION

Container	40' HQ	20' GP
Pieces per container	576	200

1. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m², Air mass 1.5 Spectrum, cell temperature of 25°C.

PREMIUM SOLAR MODULES 305-320W POLY

DIMENSIONS



MECHANICAL CHARACTERISTICS

Solar Cells	Polycrystalline 156mm x 156mm square, 6 x 12 pieces in series
Dimension	Length: 1956mm (77.0 inch)
	Width: 992mm (39.1 inch)
	Height: 45mm (1.8 inch)
Weight	24kg (52.9 lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm ² (IEC) / 12AWG (UL), 1100mm
Junction Box	IP 68 rated

ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC61730)	A
Fire Rating (IEC61730)	C
Module Fire Performance (UL1703)	Type 1
Maximum System Voltage	DC 1000V (IEC)
	DC 600V (UL) / 1000V (ETL)

ELECTRICAL TYPICAL VALUES^[1]

Model	Rated Power (P _{mpp})	Tolerance	Rated Current (I _{mpp})	Rated Voltage (V _{mpp})	Short Circuit Current (I _{sc})	Open Circuit Voltage (V _{oc})	Module Efficiency (%)
PS305P-24/T	305W	±3%	8.36A	36.5V	8.73A	45.8V	15.72
PS310P-24/T	310W	±3%	8.45A	36.7V	8.80A	46.0V	15.98
PS315P-24/T	315W	±3%	8.55A	36.9V	8.88A	46.2V	16.23
PS320P-24/T	320W	±3%	8.65A	37.0V	8.95A	46.4V	16.49

WEAK LIGHT PERFORMANCE

Intensity [W/m ²]	I _{mpp}	V _{mpp}
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952
100	0.1	0.921

TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C
Voltage Temperature Coefficient	-0.31%/k
Current Temperature Coefficient	+0.06%/k
Power Temperature Coefficient	-0.40%/k

PACKING CONFIGURATION

Container	40' HQ	20' GP
Pieces per container	576	200

1. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m², Air mass 1.5 Spectrum, cell temperature of 25°C.