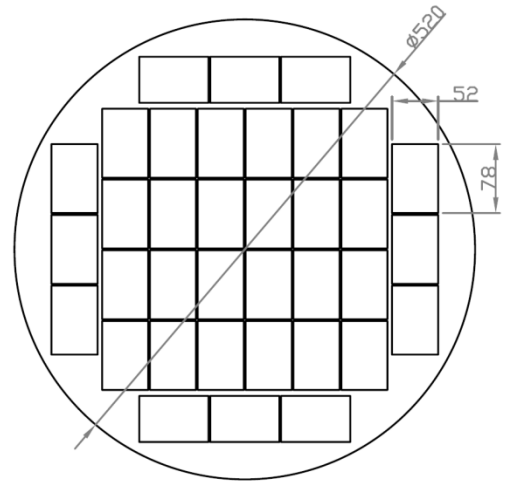


Electrical Data

Nominal Peak Power	20wp
Maximum Power Voltage(Vmp)	18.0v
Maximum Power Current(Imp)	1.12A
Short – Circuit Current(Isc)	1.31A
Open – Circuit Voltage(Voc)	21.5v
Optimized Cell Efficiency(%)	16.2%

Power Tolerance $\pm 3\%$
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

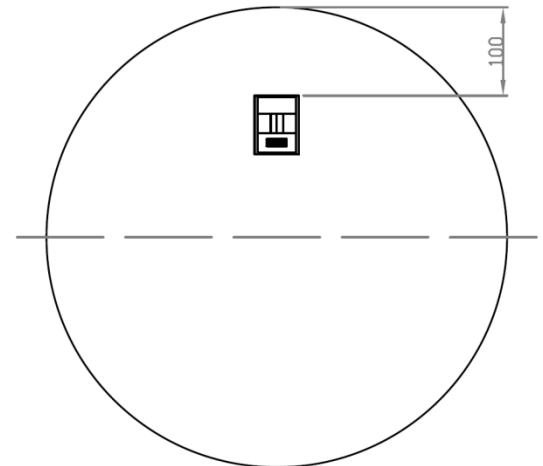


Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C	
Current Temperature Coefficient	% C	0.005
Voltage Temperature Coefficient	% C	-0.33
Power Temperature Coefficient	% C	-0.44



Additional Data

Number of cells and type of connection = 36 series

Dimensions	Ø520mm
Net Weight	2.30Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

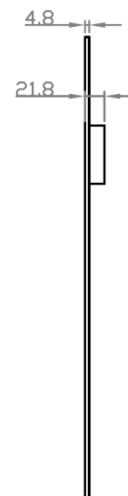
Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells

Warranty Period

10 years: Materials & workmanship



Electrical Data

Nominal Peak Power	5wp
Maximum Power Voltage(Vmp)	18.0v
Maximum Power Current(Imp)	0.28A
Short – Circuit Current(Isc)	0.32A
Open – Circuit Voltage(Voc)	21.5v
Optimized Cell Efficiency(%)	17.2%

Power Tolerance $\pm 3\%$
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C		
Current Temperature Coefficient	% C	0.005	
Voltage Temperature Coefficient	% C	-0.33	
Power Temperature Coefficient	% C	-0.44	

Additional Data

Number of cells and type of connection = 36 series

Dimensions	291*160*25mm
Net Weight	0.74Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

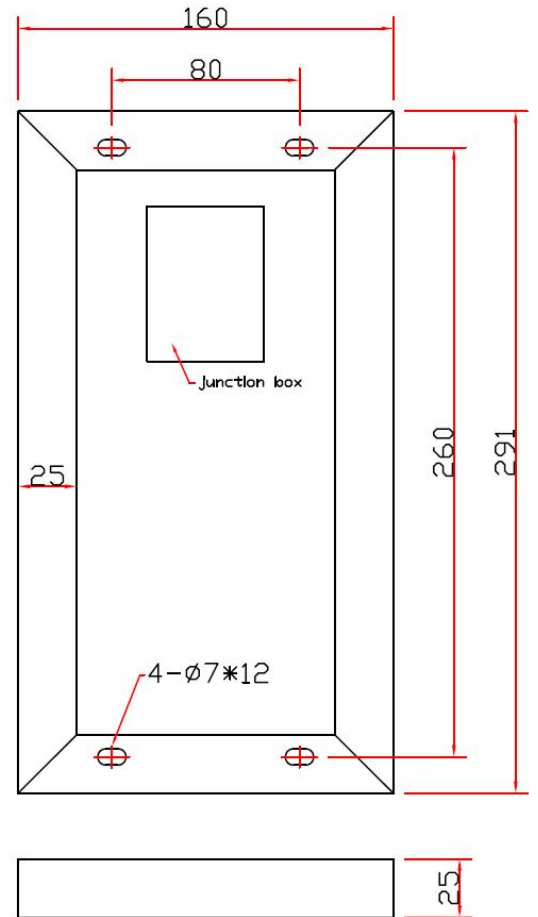
Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells

Warranty Period

10 years: Materials & workmanship



Electrical Data

Nominal Peak Power	10wp
Maximum Power Voltage(Vmp)	18.0v
Maximum Power Current(Imp)	0.56A
Short – Circuit Current(Isc)	0.63A
Open – Circuit Voltage(Voc)	21.5v
Optimized Cell Efficiency(%)	17.2%

Power Tolerance \pm 3%
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C		
Current Temperature Coefficient	% C	0.005	
Voltage Temperature Coefficient	% C	-0.33	
Power Temperature Coefficient	% C	-0.44	

Additional Data

Number of cells and type of connection =	36 series
Dimensions	305*291*25mm
Net Weight	1.22Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

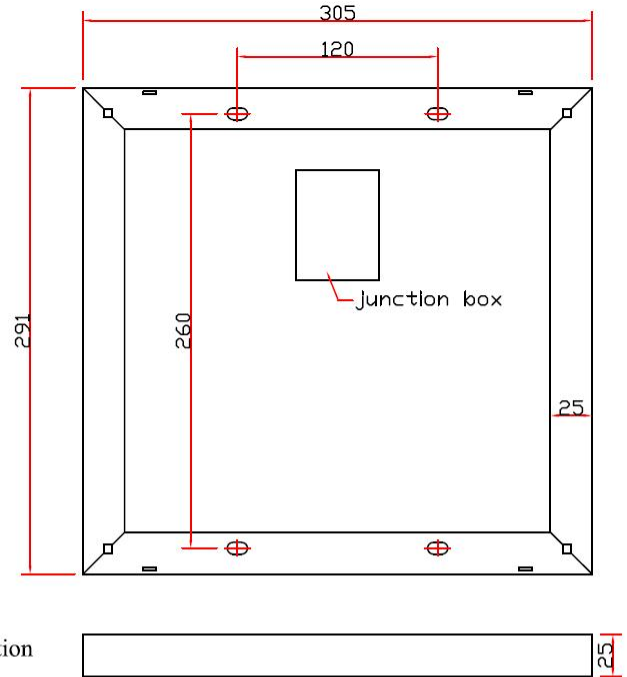
Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells

Warranty Period

10 years: Materials & workmanship



Electrical Data

Nominal Peak Power	15wp
Maximum Power Voltage(Vmp)	18.0v
Maximum Power Current(Imp)	0.84A
Short – Circuit Current(Isc)	0.93A
Open – Circuit Voltage(Voc)	21.5v
Optimized Cell Efficiency(%)	17.2%

Power Tolerance ± 3%
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C		
Current Temperature Coefficient	% C	0.005	
Voltage Temperature Coefficient	% C	-0.33	
Power Temperature Coefficient	% C	-0.44	

Additional Data

Number of cells and type of connection = 36 series

Dimensions	440*291*25mm
Net Weight	1.66Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

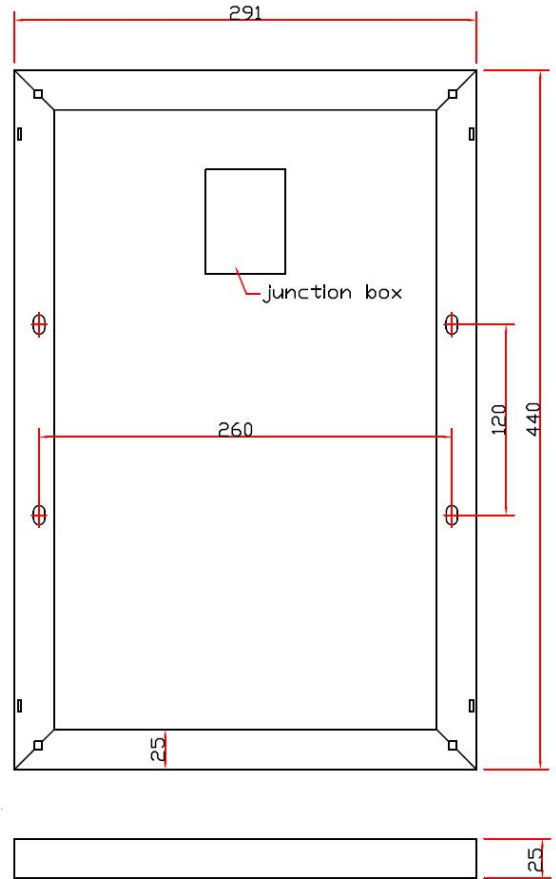
Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells

Warranty Period

10 years: Materials & workmanship



Electrical Data

Nominal Peak Power	20wp
Maximum Power Voltage(Vmp)	18.0v
Maximum Power Current(Imp)	1.12A
Short – Circuit Current(Isc)	1.23A
Open – Circuit Voltage(Voc)	21.5v
Optimized Cell Efficiency(%)	17.2%

Power Tolerance \pm 3%
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C		
Current Temperature Coefficient	% C	0.005	
Voltage Temperature Coefficient	% C	-0.33	
Power Temperature Coefficient	% C	-0.44	

Additional Data

Number of cells and type of connection = 36 series

Dimensions	565*291*25mm
Net Weight	2.06Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

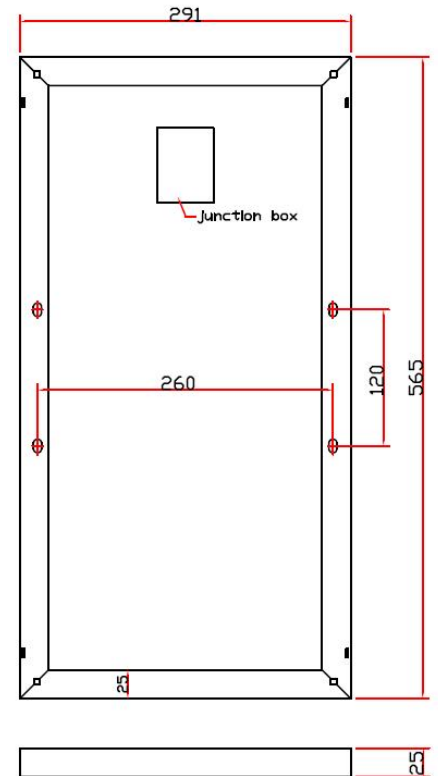
Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells

Warranty Period

10 years: Materials & workmanship



Electrical Data

Nominal Peak Power	20wp
Maximum Power Voltage(Vmp)	36.0v
Maximum Power Current(Imp)	0.56A
Short – Circuit Current(Isc)	0.61A
Open – Circuit Voltage(Voc)	43.0v
Optimized Cell Efficiency(%)	17.2%

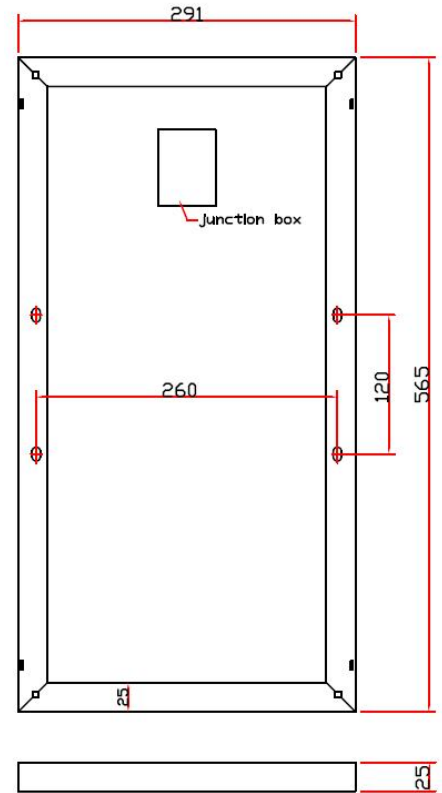
Power Tolerance $\pm 3\%$
 STC: Irradiance of 1000W/m², Air Mass of 1.5, Cell Temperature of 25°C

Limits

Operating Module Temperature:	-40° C to +85°C
Maximum System Voltage:	600VDC

Temperature and Coefficients

NOCT	-40° C to +85°C		
Current Temperature Coefficient	% C	0.005	
Voltage Temperature Coefficient	% C	-0.33	
Power Temperature Coefficient	% C	-0.44	



Additional Data

Number of cells and type of connection = 72 series

Dimensions	565*291*25mm
Net Weight	2.06Kgs/pc

Guaranteed Power Output

10 Years: 90% of its nominal power rating
 20 Years: 80% of its nominal power rating

Impact Resistance

Can bear the force generated by one 227g steel ball dropped from 1 meter height

Cell Type

Polycrystalline silicon photovoltaic cells



Warranty Period

10 years: Materials & workmanship