



Technical Specification : Solar Panels (5 W to 280 W)

Maximum Power(W)	5	6	10	25	28	30
Optimum Power Voltage(Vmp)	18	18	18	18	18	18
Optimum Operatige Current(Imp)	0.28	0.34	0.56	1.38	1.56	1.6
Open Circuit Voltage(Voc)	21.6	21.6	21.6	21.6	21.6	21.6
Short Circuit Current(Isc)	0.3	0.37	0.64	1.53	1.71	1.83
Solar Cell:	poly	poly	Poly	Poly	Poly	Poly
Size of Module(mm)	204*280*18	204*280*18	341*280*18	532*418*23	532*418*23	532*418*23
CaBle & Connector Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Frame(Material Corners,etc.)	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy
Backing (Brand Type)	TPT	TPT	TPT	TPT	TPT	TPT
Cell Efficiency for 6W(%)	13.8	13.8	13.8	13.8	13.8	13.8
Weight Per Piece(KG)	0.8	0.8	1.3	3	3	3
FF (%)	70-76%	70-76%	70-76%	70-76%	70-76%	70-76%
Junction Box Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Tolerance Wattage(e.g. +/-5%)	±3%	±3%	±3%	±3%	±3%	±3%
Front Glass Thikness(mm)	3.2	3.2	3.2	3.2	3.2	3.2
Temp.Coeff. of Isc(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Voc(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temp. Coeff. of Pm(%)°C	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47
Temp. Coeff. of Im(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Vm(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Surface Maximum Load Capacity	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa
Allowable Hail Load	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g
Bypass Diode Rating(A)	12	12	12	12	12	12
Warranty	90% of 10 yrs., 80% of 25 yrs	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.



Maximum Power(W)	35	40	45	50	55	60
Optimum Power Voltage(Vmp)	17.3	17.5	17.6	17.1	17.2	17.3
Optimum Operatige Current(Imp)	2.02	2.28	2.56	2.92	3.2	3.47
Open Circuit Voltage(Voc)	20.97	21.21	21.33	20.78	20.9	21.02
Short Circuit Current(Isc)	2.54	2.76	2.85	3.76	4.05	4.14
Solar Cell:	156*52 Poly	156*52 Poly	156*52 Poly	156*78 Poly	156*78 Poly	156*78 Poly
Size of Module(mm)	537*664*25	537*664*25	537*664*25	771*664*35	771*664*35	771*664*35
CaBle & Connector Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Frame(Material Corners,etc.)	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy
Backing (Brand Type)	TPT	TPT	TPT	TPT	TPT	TPT
Cell Efficiency for 6W(%)	13.8	13.8	13.8	14	14	14
Weight Per Piece(KG)	4.5	4.5	4.5	6.2	6.2	6.2
FF (%)	70-76%	70-76%	70-76%	70-76%	70-76%	70-76%
Junction Box Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Tolerance Wattage(e.g. +/-5%)	±3%	±3%	±3%	±3%	±3%	±3%
Front Glass Thikness(mm)	3.2	3.2	3.2	3.2	3.2	3.2
Temp.Coeff. of Isc(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Voc(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temp. Coeff. of Pm(%)°C	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47
Temp. Coeff. of Im(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Vm(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Surface Maximum Load Capacity	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa
Allowable Hail Load	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g
Bypass Diode Rating(A)	12	12	12	12	12	12
Warranty	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, ,80% of 25 yrs.	90% of 10 yrs, ,80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.



Maximum Power(W)	65	70	75	110	120	130
Optimum Power Voltage(Vmp)	17.4	17.7		17.55	17.57	17.57
Optimum Operatige Current(Imp)	3.74	3.95		6.26	6.82	7.4
Open Circuit Voltage(Voc)	21.14	21.51		21.6	21.6	21.6
Short Circuit Current(Isc)	4.27	4.34		6.7	7.3	7.91
Solar Cell:	156*78 Poly	156*78 Poly		156*156 Poly	156*156 Poly	156*156 Poly
Size of Module(mm)	771*664*35	771*664*35		1480*670*40	1480*670*40	1480*670*40
CaBle & Connector Type	TUV Certified	TUV Certified		TUV Certified	TUV Certified	TUV Certified
Frame(Material Corners,etc.)	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy
Backing (Brand Type)	TPT	TPT	TPT	TPT	TPT	TPT
Cell Efficiency for 6W(%)	14	14		14.8	14.8	14.8
Weight Per Piece(KG)	6.2	6.2		12.5	12.5	12.5
FF (%)	70-76%	70-76%	70-76%	70-76%	70-76%	70-76%
Junction Box Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Tolerance Wattage(e.g. +/-5%)	±3%	±3%	±3%	±3%	±3%	±3%
Front Glass Thikness(mm)	3.2	3.2	3.2	3.2	3.2	3.2
Temp.Coeff. of Isc(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Voc(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temp. Coeff. of Pm(%)°C	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47
Temp. Coeff. of Im(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Vm(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Surface Maximum Load Capacity	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa
Allowable Hail Load	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g
Bypass Diode Rating(A)	12	12	12	12	12	12
Warranty	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.	90% of 10 yrs, 80% of 25 yrs.



Maximum Power(W)	160	170	180	200	210	220
Optimum Power Voltage(Vmp)	26.35	26.35	26.35	29.28	29.28	29.28
Optimum Operatige Current(Imp)	6.07	6.45	6.83	6.83	7.17	7.51
Open Circuit Voltage(Voc)	32.4	32.4	32.4	36	36	36
Short Circuit Current(Isc)	6.49	6.9	7.31	7.31	7.67	8.03
Solar Cell:	156*156 Poly	156*156 Poly	156*156 Poly	156*156 Poly	156*156 Poly	156*156 Poly
Size of Module(mm)	1480*980*40	1480*980*40	1480*980*40	1640*990*50	1640*990*50	1640*990*50
CaBle & Connector Type	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified	TUV Certified
Frame(Material Corners,etc.)	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy
Backing (Brand Type)	TPT	TPT	TPT	TPT	TPT	TPT
Cell Efficiency for 6W(%)	13.75	13.75	13.75	15	15	15
Weight Per Piece(KG)	17.8	17.8	17.8	18.96	18.96	18.96
FF (%)	70-76%	70-76%	70-76%	70-76%	70-76%	70-76%
Junction Box Type	TUV Certified	TUV Certified	TUV Certified	TUV Certificate	TUV Certified	TUV Certified
Tolerance Wattage(e.g. +/-5%)	±3%	±3%	±3%	±3%	±3%	±3%
Front Glass Thikness(mm)	3.2	3.2	3.2	3.2	3.2	3.2
Temp.Coeff. of Isc(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Voc(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temp. Coeff. of Pm(%)°C	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47
Temp. Coeff. of Im(%)°C	0.04	0.04	0.04	0.04	0.04	0.04
Temp. Coeff. of Vm(%)°C	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Surface Maximum Load Capacity	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa	2400Pa
Allowable Hail Load	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g
Bypass Diode Rating(A)	12	12	12	12	12	12
Warranty	90% of 10 yrs	90% of 10 yrs,	90% of 10 yrs.,	90% of 10 years,	90% of 10 yrs,	90% of 10 yrs,
	,80% of 25 yrs.	80% of 25 yrs.	80% of 25 years.	80% of 25 years.	80% of 25 yrs.	80% of 25 yrs.



Maximum Power(W)	250	270	280
Optimum Power Voltage(Vmp)	35.14	35.14	35.14
Optimum Operatige Current(Imp)	7.11	7.68	7.97
Open Circuit Voltage(Voc)	43.2	43.2	43.2
Short Circuit Current(Isc)	7.6	8.21	8.53
Solar Cell:	156*156 Poly	156*156 Poly	156*156 Poly
Size of Module(mm)	1960*990*50	1960*990*50	1960*990*50
CaBle & Connector Type	TUV Certified	TUV Certified	TUV Certified
Frame(Material Corners,etc.)	Aluminium-alloy	Aluminium-alloy	Aluminium-alloy
Backing (Brand Type)	TPT	TPT	TPT
Cell Efficiency for 6W(%)	16	16	16
Weight Per Piece(KG)	21	21	21
FF (%)	70-76%	70-76%	70-76%
Junction Box Type	TUV Certified	TUV Certified	TUV Certified
Tolerance Wattage(e.g. +/-5%)	±3%	±3%	±3%
Front Glass Thikness(mm)	3.2	3.2	3.2
Temp.Coeff. of Isc(%)°C	0.04	0.04	0.04
Temp. Coeff. of Voc(%)°C	-0.38	-0.38	-0.38
Temp. Coeff. of Pm(%)°C	-0.47	-0.47	-0.47
Temp. Coeff. of Im(%)°C	0.04	0.04	0.04
Temp. Coeff. of Vm(%)°C	-0.38	-0.38	-0.38
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Surface Maximum Load Capacity	2400Pa	2400Pa	2400Pa
Allowable Hail Load	23m/s ,7.53g	23m/s ,7.53g	23m/s ,7.53g
Bypass Diode Rating(A)	12	12	12
Warranty	90% of 10 yrs	90% of 10 yrs,	90% of 10 yrs,.
	,80% of 25 yrs.	80% of 25 yrs.	80% of 25 yrs