Solar
catalogue
2025

POLYCAB

EVERYTHING
UNDER THE SUN

Grid Tie Inverter | PV Module | Solar DC Cables

POLYCAB

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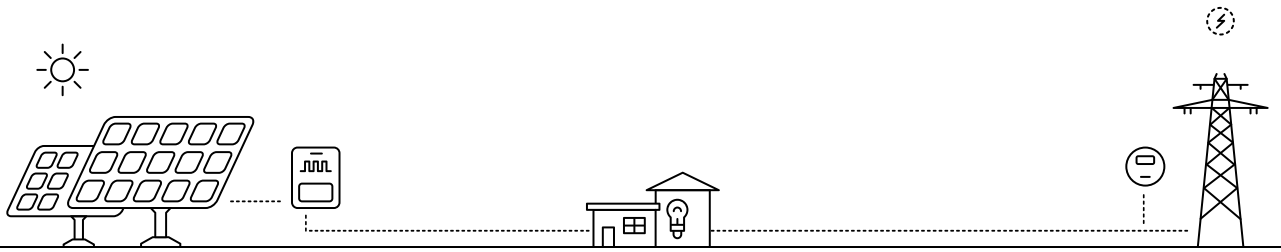
CONTENT



POLYCAB

INTRODUCTION

Polycab is the country's largest manufacturer of wires and cables, manufacturing around 3.9 million kilometers of cables every year. Underpinning our leadership position are our solid business fundamentals, which include multi-location manufacturing with a high degree of backward integration, a comprehensive product portfolio, strong brand positioning, robust distribution network, and experienced management. Polycab's widest range of wires & cables helps the company bond with millions of satisfied customers, riding on key differentiators like product innovation, superior quality, and ready availability. Our clientele includes market leaders in sectors like utilities, power generation, transmission and distribution, petroleum and oil refineries, original equipment manufacturers, EPC contractors, steel, metal, cement, chemicals, atomic energy, railways, and nuclear power industries amongst others.

Apart from a stellar lineup of wires and cables, we have made inroads into the highly competitive FMEG market, with products like Fans, LED Lighting and Luminaires, Switches and Switchgears, Home Appliances, Solar Products and Conduits & Accessories. Polycab's corporate advantage includes its extensive base of expertise, proven technological capabilities, and comprehensive skills of its human resources.

Solar-the Infinite Source Of Power

The sun provides us with ample energy than we could ever use, and no one can monopolies the sunlight. Sun light is free and can be used to convert into electrical energy which is referred as Solar PV system. Solar electricity is green renewable energy and doesn't release any harmful carbon dioxide or other pollutants. A typical 3 kW home solar PV system could save around 3 tons of carbon per year.

With the continuously increasing demand for electric power, the significantly high price of oil and the growing concern for the environment, many businesses are in the process of implementing alternative sources of energy. Among the renewable energy sources, solar energy is a sustainable choice and that can be used in various applications. Many businesses are now extracting this alternative source of energy, hoping to benefit from its numerous advantages.

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To make an ecological awareness and safe use of renewable energy Polycab has brought complete Solar energy solution in Indian and overseas market. Polycab Solar equipment meet the high expectation that are demanded from the Solar system.

Polycab has brought the environmentally friendly E-Beam Technology that meets the demand of sustainable product in line with worldwide market trends and ecological awareness.

Polycab has a comprehensive product range in Solar PV system. The products are manufactured in latest state of the art machines and tested in well-equipped laboratories. These are highly suitable in rough climatic condition as well as guaranteed for more than 25 years of use.

We at Polycab ventured into Solar in 2012 with manufacturing of Solar DC Cables. International accreditation from TUV Rheinland was secured for our Solar DC cables subsequently, initially for 2Pfg 1169/08.2007 standard and then for EN 50618 for sizes 1.5sq. mm to 300sq.mm complying also to IEC 62930.

We have successfully supplied Solar DC as well as AC Cables to large EPC players, Distributors pan India as well as to many of our International Clients all over the Globe. Repeat orders have been forthcoming out of confidence on our product quality and supply capabilities.

Extending our foray into Solar field we added Solar On-Grid Inverters in our Product Basket in 2016. Polycab Solar Grid-Tie String Inverters have already captured the hearts of Solar Roof-Top System Integrators pan India through product performance and prompt after Sales-Services provided by Polycab. Polycab On-Grid Inverters are IEC / BIS Certified with all relevant applicable standards for the full range of Inverters. Polycab has established Solar Grid Tie Inverter manufacturing setup and have started offering MAKE IN INDIA inverters from **2 kW to 350 kW** capacity, catering to Residential, Commercial & Industrial solar projects from KW to MW scale. These inverters designed with highest reliability, efficiency to make compatible with latest module technology and are IEC & BIS certified.

Our success story of On-Grid Inverters in short span of **10 years** is worth mentioning. We have already supplied **1.5 GW** in capacity and **1Lac+ Inverters** in quantity. All these Inverters are already installed and running successfully in the field. We are sure to capture good market share.

We have also added **Solar PV Modules and Solar BOS Products like Solar DC MCBs, MC4 connectors, Cable Tray, Lugs and Glands** in our product basket to achieve our goal to become a one stop shop for all the major components needed in Solar Projects.

With our strong base, large network of branches, warehouses, and distributors across India, we have been extending our best sales and service support to our valued clients and end users.

With excellent performance and better generation Polycab Solar Products have been the most preferred choice amongst many EPC companies, System Integrators and End Users.

System Integrator is now nearing reality and we are now poised to offer all our products to International Markets.

NEW

POLYCAB

EXCLUSIVE FOR RESIDENTIAL SMALL ROOFTOP SOLAR PROJECTS

Single Phase

PSIS2K0SM1R2, PSIS3K0SM1R2,
PSIS3K6SM1R2, PSIS4K0SM1R2,
PSIS4K6SM1R2, PSIS5K0SM1R2,
PSIS5K5SM1R2, PSIS6K0SM1R2

LEADING FEATURES

BIS APPROVED

7 YEAR* WARRANTY

Superior Efficiency	Maximum efficiency 97.3% String Current 20A. Compatible with High Power TOPCon Modules.
High Reliability	IP65 waterproof and dustproof, C5 anti corrosion DC / AC Inbuilt surge protections. Compatible with wide power grid voltage and high harmonic power grid environment
Intelligent Maintenance	App quick commissioning Remote configuration and upgrade

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Single Phase

PSIS2K0SM1R2 | 3K0SM1R2 | 3K6SM1R2 | 4K0SM1R2 | 5K0SM1R2 | 5K5SM1R2 | 6K0SM1R2

TECHNICAL SPECIFICATIONS								
MODEL	**PSIS2K0 SM1R2**	**PSIS3K0 SM1R2**	**PSIS3K6 SM1R2**	**PSIS4K0 SM1R2**	**PSIS4K6 SM1R2**	**PSIS5K0 SM1R2**	**PSIS5K5 SM1R2**	**PSIS6K0 SM1R2**
RATING	2 kW	3 kW	3.6 kW	4 kW	4.6 kW	5 kW	5.5 kW	6 kW
INPUT (PV)								
Max. Usable Power	150%							
Max. DC Voltage	500			600				
MPPT Range	50-490			70-550				
MPPT Range(Full load)	110-430	160-430	190-430	210-500	240-500	260-500	290-500	320-500
Nominal Input Voltage	360							
Max. DC Current	20			20				
Max. Short Circuit Current	30			30				
MPP Tracker No.	1			1				
String No.	1			1				
OUTPUT (GRID)								
Nom. Power (Output)	2,000 W	3,000 W	3,600 W	4,000 W	4,600 W	5,000 W	5,500 W	6,000 W
Maximum Power (Output)	2,200 VA	3,300 VA	3,600 VA	4,400 VA	5,060 VA	5,500 VA	6,000 VA	6,000 VA
Apparent Power (Output)	2,200 W	3,300 W	3,600 W	4,400 W	5,060 W	5,500 W	6,000 W	6,000 W
Nominal Voltage	220 V/ 230 V / 240 V							
Rated grid frequency	50 Hz / 60 Hz							
Maximun Current (Output)	10.0 A	15.0 A	16.0 A	20.0 A	23.0 A	25.0 A	27.3 A	27.3 A
Power Factor Adjustment Range	0.8 leading to 0.8 lagging							
THD	<3% (Rated Power)							
EFFICIENCY								
Max. Efficiency(PV to Grid)	97.3%			97.2%				
Eur. Efficiency(PV to Grid)	95.9%	95.9%	96.3%	96.0%		96.2%	96.4%	96.4%
GENERAL								
Temp. Range	-25°~60°							
Max. operation altitude	4000m							
Topology	Transformerless							
Protection	IP65							
Noise emission	30 dB							
Humidity	0-100%							
Cooling	Natural convection							
HMI & COM								
Display	LED+LCD, APP							
Communication interface	RS485/RS232, WiFi/LAN (Optional)							
PROTECTION								
Anti-islanding protection	YES							
AC over-current protection	YES							
AC short-circuit protection	YES							
AC over-voltage protection	YES							
PV Reverse Polarity Protection	YES							
Residual Current Monitoring	YES							
Surge Arrestor	DC/AC							
Insulation detection	YES							
MECHANICAL								
W x H x D	280mm*336mm*130mm			320mm*344mm*137mm				
Weight	5 KG			9 KG				
DC switch	YES							
CERTIFICATION								
Anti-Islanding Protection	IS 16169:2014							
Safety	IS 16221 (PART 2):2015							
WARRANTY	7 Years							

Note : ①The range of output voltage and frequency may vary depending upon different grid codes.
②Specifications are subject to change without advance notice.

NEW

POLYCAB

SUITABLE FOR RESIDENTIAL & COMMERCIAL ROOFTOP SOLAR PROJECTS

Three Phase

PSIT5KSM1R2
PSIT6KSM1R2
PSIT8KSM1R2
PSIT10KSM1R2

Leading Features

BIS APPROVED

7 YEAR WARRANTY

Superior Efficiency	Maximum efficiency 97.8% Maximum String Current , compatible with 600W+ modules 150% PV configuration, 110% output overload
High Reliability	IP66 waterproof and dustproof, C5 anti corrosion DC / AC surge protections. Compatible with wide power grid voltage and high harmonic power grid environment
Intelligent Maintenance	App quick commissioning Remote configuration and upgrade

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Three Phase

PSIT-5K-SM1R2 | 6K-SM1R2 | 8K-SM1R2 | 10K-SM1R2

TECHNICAL SPECIFICATIONS				
MODEL	**PSIT-5K SM1R2**	**PSIT-6K SM1R2**	**PSIT-8K SM1R2**	**PSIT-10K SM1R2**
Rating	5 kW	6 kW	8 kW	10 kW
INPUT (PV)				
Max. Input Voltage	1100V			
Max. PV configuration	150%			
Rated Input Voltage	620V			
Max. Input Current	20A			
Max. Short Circuit Current	30A			
Start Input Voltage	180V			
MPPT Operating Range	160V -1000V			
Max. Number of PV Strings	1			
No. of MPPTs	1			
OUTPUT (GRID)				
Rated AC Active Power	5,000W	6,000W	8,000W	10,000W
Max. AC Apparent Power	5,500VA	6,600VA	8,800VA	11,200VA
Max. AC Active Power (PF=1)	5,500W	6,600W	8,800W	11,200W
Max. AC Output Current	3*8.4A	3*10.1A	3*13.4A	3*17A
Rated AC Voltage	380V/400V/415V, 3W+N+PE			
AC Voltage Range[1]	260V- 510V (Adjustable)			
Rated Grid Frequency	50Hz/60Hz			
Grid Frequency Range[2]	45Hz-55Hz/55Hz-65Hz (Adjustable)			
THDI	<3%@Rated Power			
DC Current Injection	<0.5%@Rated Current			
Power Factor	>0.99 Rated power (Adjustable 0.8 Leading - 0.8 Lagging)			
EFFICIENCY				
Max. Efficiency	97.8%	97.8%	97.8%	97.8%
European Efficiency	96.2%	96.5%	96.9%	97.1%
PROTECTION				
DC switch	Support			
Anti-islanding protection	Support			
AC overcurrent protection	Support			
AC short circuit protection	Support			
DC reverse connection	Support			
Surge Arrester	AC Type III / DC Type III			
Insulation detection	Support			
Leakage current protection	Support			
GENERAL				
Topology	Transformer-less			
IP Rating	IP66			
Night Self Consumption	<1W			
Cooling	Natural cooling			
Operating Tmp. Range	-25°C - 60°C			
Relative Humidity Range	0 - 100%			
Max. Operating Altitude	4000m			
Noise	<30dB			
Dimensions (W*H*D)	398mm*460mm*190mm			
Weight	16.8 Kgs			
HMI & COM				
Display	Wireless & APP+LED, LCD			
Communication	Optional: WiFi/GPRS/RS485/LAN			
CERTIFICATION				
Anti-Islanding Protection	IS 16169:2014			
Safety	IS 16221 (PART 2):2015			
WARRANTY	**7 Years**			

Note :

①②The range of output voltage and frequency may vary depending upon different grid codes.
Specifications are subject to change without advance notice.

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SUITABLE FOR RESIDENTIAL & COMMERCIAL ROOFTOP SOLAR PROJECTS

Three Phase

PSIT-12K-SM3 , PSIT-15K-SM3 ,
PSIT-20K-SM4 , PSIT-25K-SM4
PSIT-30K-SM4

LEADING FEATURES

Superior Efficiency	Maximum efficiency 98.4% Maximum String Current , compatible with 600W+ modules 150% PV configuration, 110% output overload
High Reliability	IP66 waterproof and dustproof, C5 anti corrosion DC / AC surge protections. Compatible with wide power grid voltage and high harmonic power grid environment
Intelligent Maintenance	App quick commissioning Remote configuration and upgrade

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Three Phase

PSIT-12K-SM3 | 15K-SM3 | 20K-SM4 | 25K-SM4 | 30K-SM4

TECHNICAL SPECIFICATIONS					
MODEL	**PSIT-12K SM3**	**PSIT-15K SM3**	**PSIT-20K SM4**	**PSIT-25K SM4**	**PSIT-30K SM4**
Rating	12 kW	15 kW	20 kW	25 kW	30 kW
INPUT (PV)					
Max. Input Voltage	1100V				
Max. PV configuration	150%				
Rated Input Voltage	620V				
Max. Input Current	15A + 30A		30A + 30A		40A + 30A
Max. Short Circuit Current	20A + 40A		40A + 40A		50A + 37.5A
Start Input Voltage	180V				
MPPT Operating Range	160V -1000V				
Max. Number of PV Strings	3(1/2)		4(2/2)		
No. of MPPTs	2				
OUTPUT (GRID)					
Rated AC Active Power	12,000W	15,000W	20,000W	25,000W	30,000W
Max. AC Apparent Power	13,200VA	16,700VA	22,000VA	27,500VA	33,000VA
Max. AC Active Power (PF=1)	13,200W	16,700W	22,000W	27,500W	33,000W
Max. AC Output Current	3*20.2A	3*25.3A	3*33.7A	3*39.8A	3*50.2A
Rated AC Voltage	380V/400V/415V, 3W+N+PE				
AC Voltage Range[1]	260V- 510V (Adjustable)				
Rated Grid Frequency	50Hz/60Hz				
Grid Frequency Range[2]	45Hz-55Hz/55Hz-65Hz (Adjustable)				
THDI	<3%@Rated Power				
DC Current Injection	<0.5%@Rated Current				
Power Factor	>0.99 Rated power (Adjustable 0.8 Leading - 0.8Lagging)				
EFFICIENCY					
Max. Efficiency	98.3%		98.4%		
European Efficiency	97.8%		98.0%		
PROTECTION					
DC switch	Support				
Anti-islanding protection	Support				
AC overcurrent protection	Support				
AC short circuit protection	Support				
DC reverse connection	Support				
Surge Arrester	AC Type III / DC Type III				
Insulation detection	Support				
Leakage current protection	Support				
GENERAL					
Topology	Transformerless				
IP Rating	IP66				
Night Self Consumption	<1W				
Cooling	Natural cooling				
Operating Tmp. Range	-25°C-60°C				
Relative Humidity Range	0 - 100%				
Max. Operating Altitude	4000m				
Noise	<30dB				
Dimensions (W*H*D)	398mm*460mm*190mm				
Weight	18.7 Kgs		20 Kgs		21.5 Kgs
HMI & COM					
Display	Wireless & APP+LED, LCD				
Communication	WiFi, RS485(Optional), GPRS(Optional)				
CERTIFICATION					
Grid Connection	IEC 61727				
Anti-Islanding Protection	IEC 62116				
Environmental Testing	IEC 60068-2 (1-2-14-30)				
Safety	IEC 62109-1, IEC 62109-2				
EMC	IEC 61000				
Efficiency Measurement	IEC 61683				
WARRANTY	**7 Years**				

Note :

①②The range of output voltage and frequency may vary depending upon different grid codes.
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SUITABLE FOR COMMERCIAL & INDUSTRIAL ROOFTOP SOLAR PROJECTS

Three Phase

PSIT-40K-SM6
PSIT-50K-SM8
PSIT-60K-SM8

LEADING FEATURES

BIS APPROVED

7 YEAR* WARRANTY

- Maximum Efficiency 98.2%
- Wide Voltage Range
- Supports 50% DC oversize,
- 3/4 MPPT design with precise MPPT algorithm
- THDi < 3%,
- IP66 Enclosure
- Intelligent Fan Cooling
- Intelligent string monitoring
- Smart I-V Curve Diagnosis
- Fuse free design to avoid hazard
- Type II SPD for both DC and A C side
- Integrated DC disconnect switches
- RS-485,Wi-Fi / GPRS monitoring interface
- Support "Y" type connection in DC side
- Supports aluminium wire access to reduce cost
- Free remote monitoring on Web Portal and Mobile App

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Three Phase

PSIT-40K-SM6 | 50K-SM8 | 60K-SM8

TECHNICAL SPECIFICATIONS			
MODEL	**PSIT-40K-SM6**	**PSIT-50K-SM8**	**PSIT-60K-SM8**
RATING	40kW	50kW	60kW
INPUT (PV)			
Max. Input Voltage		1100V	
Max. PV configuration (STC)		150%	
Rated Input Voltage		620V	
Max. Input Current	40A+2*32A	40A+3*32A	40A+3*32A
Max. Short Circuit Current	50A+2*45A	50A+3*45A	50A+3*45A
Start Input Voltage		200V	
MPPT Operating Voltage Range		180~1000V	
Max. Number of PV Strings	2/2/2	2/2/2/2	2/2/2/2
No. of MPPTs	3	4	4
OUTPUT (GRID)			
Rated AC Active Power	40000W	50000W	60000W
Max. AC Apparent Power	44500VA	55600VA	66700VA
Max. AC Active Power (PF=1)	44500W	55600W	66700W
Max. AC Output Current	67.5A	84.3A	92A
Rated AC Voltage		380/400/415V, 3L/N/PE,3L/PE	
AC Voltage Range①		322V-520V	
Rated Grid Frequency		50Hz/60Hz	
Grid Frequency Range②		45~55Hz/55~65Hz	
THDI		3% (Rated Power)	
DC Current Injection		<0.5%In	
Power Factor		>0.99 Rated power (Adjustable 0.8 leading - 0.8 Lagging)	
EFFICIENCY			
Max. Efficiency	98.2%	98.2%	98.2%
European Efficiency	97.8%	97.8%	97.8%
PROTECTIONS			
DC switch		YES	
Anti-islanding protection		YES	
AC overcurrent protection		YES	
AC short circuit protection		YES	
DC reverse protection		YES	
Surge Arrester		DC Type II / AC Type II	
Insulation detection		YES	
Leakage current protection		YES	
GENERAL			
Topology		Transformer-less	
IP Rating		IP66	
Night Self Consumption		<1W(standard)	
Cooling		Fan cooling	
Operating Temperature Range		-25°C-60°C	
Relative Humidity Range		0-100%	
Max. Operating Altitude		4000m	
Noise(typical)	<45dB	<45dB	<55dB
Dimensions (W*H*D)	635mm*530mm*224mm		635mm*530mm*233mm
Weight	41.5kg	42kg	42 kg
HMI & COM			
Display		Wireless & APP+LED, LCD	
Communication		WiFi, RS485(Optional), GPRS(Optional)	
CERTIFICATION			
Grid Connection		IEC 61727	
Anti-Islanding Protection		IEC 62116	
Environmental Testing		IEC 60068-2 (1-2-14-30)	
Safety		IEC 62109-1, IEC 62109-2	
EMC		IEC 61000	
Efficiency Measurement		IEC 61683	
Warranty		**7 Years**	

Note : ①②The range of output voltage and frequency may vary depending upon different grid codes.
Specifications are subject to change without advance notice.

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SUITABLE FOR COMMERCIAL & INDUSTRIAL ROOFTOP SOLAR PROJECTS

Three Phase

PSIT-75K-SM14

LEADING FEATURES

BIS APPROVED

7 YEAR WARRANTY

- Maximum Efficiency 98.3%
- Wide Voltage Range
- Supports 50% DC oversize.
- 4 MPPT design with precise MPPT algorithm
- THDi < 3%,
- IP66 Enclosure
- Intelligent Fan Cooling
- Intelligent string monitoring
- Smart I-V Curve Diagnosis
- Type II SPD for both DC and A C side
- Integrated DC disconnect switches
- RS-485,Wi-Fi / GPRS monitoring interface
- Support “Y” type connection in DC side
- Supports aluminium wire access to reduce cost
- Free remote monitoring on Web Portal and Mobile App

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THREE PHASE PSIT-75K-SM14

TECHNICAL SPECIFICATIONS	
MODEL	**PSIT-75K-SM14**
EFFICIENCY	
Max. Efficiency	98.3%
European Efficiency	97.9%
INPUT (PV)	
Max. Input Voltage	1100V
Max. PV Configuration	200%
Rated Input Voltage	620V
Max. Input Current	2*64A+2*48A
Max. Short Circuit Current	2*72A+2*54A
Start Input Voltage/ Min. Operating Voltage	250V/180V
MPPT Operating Voltage Range	180-1000V
Max. Number of PV Strings	4+4+3+3
No. of MPPTs	4
OUTPUT (GRID)	
Rated AC Active Power	75000W
Max. AC Apparent Power	82500VA
Max. AC Active Power (PF=1)	82500W
Max. AC Output Current	125A
Rated AC Voltage	380V/400V/415V, 3W+N+PE
AC Voltage Range①	322V-520V(Adjustable)
Rated Grid Frequency	50Hz/60Hz
Grid Frequency Range②	45Hz-55Hz/55Hz-65Hz (Adjustable)
THDI	<3% (Rated Power)
DC Current Injection	<0.5%In
Power Factor	> 0.99 Rated power (Adjustable 0.8 LD - 0.8 LG)
PROTECTION	
DC Switch	Inbuilt
Anti-islanding Protection	Inbuilt
AC Overcurrent Protection	Inbuilt
AC Short Circuit Protection	Inbuilt
DC Reverse Protection	Inbuilt
Surge Arrester	DC Type II/AC Type II
Insulation Detection	Inbuilt
Leakage Current Protection	Inbuilt
PV String Monitoring	Inbuilt
GENERAL	
Topology	Transformer-less
IP Rating	IP66
Night Self Consumption	<1W (Standard)
Cooling	Fan cooling
Operating Temperature Range	-25° ~ 60°
Relative Humidity Range	0-100%
Max. Operating Altitude	4000m
Noise Emission (Typical)	55dB
Dimensions (W*H*D)	635mm*233mm *530mm
Weight	43.3Kg
HMI & COM	
Display	Wireless & APP+LED, LCD(Optional)
Communication	Optional: Wi-Fi/GPRS/RS485/LAN
CERTIFICATION	
Safety	IEC62109-1, IEC62109-2
EMC	IEC61000
Grid Code	IEC61727, IEC62116, IEC61683, IEC60068
WARRANTY	7 Years

Remarks : ①②The range of output voltage and frequency may vary depending upon different grid codes. Specifications are subject to change without advance notice.

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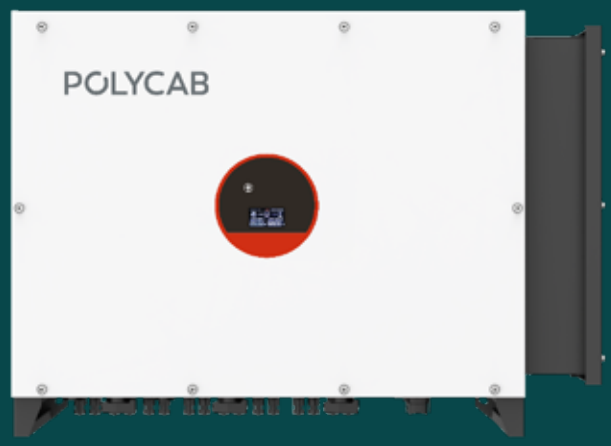
SUITABLE FOR COMMERCIAL & INDUSTRIAL SOLAR PROJECTS



Three Phase

PSIT-125K-SM18

PSIT-110K-SM18

PSIT-100K-SM16

LEADING FEATURES

7 YEAR WARRANTY

- Maximum Efficiency 98.2%
- Wide Voltage Range
- Support 50% DC Overload
- Up to 9 MPPT design with precise MPPT algorithm
- THDi <3%, Low Harmonic Distortion
- IP66 for Outdoor Installation
- Intelligent Fan Cooling
- Intelligent String Monitoring
- Smart I-V Curve Diagnosis
- Fuse Free Design to avoid Hazard
- Type II SPD or MOV for both DC and AC Side
- Integrated DC Disconnect Switches
- Rs-485, Wi-Fi / GPRS Monitoring Interface
- Support "Y" Type Connection in DC Side
- Support Aluminum Wire Access to Reduce Cost
- Free Remote Monitoring on Web Portal & Mobile App

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Three Phase PSIT-100K-SM16 | 110K-SM18 | 125K-SM18

TECHNICAL SPECIFICATIONS			
Model	**PSIT-100K-SM16**	**PSIT-110K-SM18**	**PSIT-125K-SM18**
Rating	100 kW	110 kW	125 kW
Input (PV)			
Max. Input Voltage	1100V		
Max. PV Configuration (STC)*	150%		
Rated / Nominal Input Voltage	600V		
Max. Input Current	3*40A+5*32A	3*40A+6*32A	
Max. Short Circuit Current	3*50A+5*45A	3*50A+6*45A	
Start Input Voltage/ Min. Operating Voltage	250V/200V		
MPPT Operating Voltage Range	200V-1000V		
Full Power MPPT Voltage	540-800V	540-800V	580-850V
Max. Number of PV Strings	8*2	9*2	
No. of MPPTs	8	9	
Output (Grid)			
Rated AC Active Power	100,000W	110,000W	125,000W
Max. AC Apparent Power	111,000VA	123,000VA	125,000VA
Max. AC Active Power (PF=1)	110,000W	121,000W	125,000W
Max. AC Output Current	3*168.8A	3*187A	3*181A
Rated AC Voltage	400V, 3W+N+PE		
AC Voltage Range①	322V-520V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range②	45Hz-55Hz / 55Hz-65Hz (Adjustable)		
THDi	<3% (Rated Power)		
DC Current Injection	<0.5%In		
Power Factor	> 0.99 Rated Power (Adjustable 0.8 LD - 0.8 LG)		
Efficiency			
Max. Efficiency	98.2%		
Europe Efficiency	97.8%	98%	
Protection			
DC Switch	Inbuilt		
Anti-Islanding Protection	Inbuilt		
AC Overcurrent Protection	Inbuilt		
AC Short Circuit Protection	Inbuilt		
DC Reverse Connection	Inbuilt		
Surge Arrester	DC/AC Type II		
Insulation Detection	Inbuilt		
Leakage Current Protection	Inbuilt		
PV String Monitoring	Inbuilt		
General			
Topology	Transformer-less		
IP Rating	IP66		
Night Self Consumption	<10W (Standard)		
Cooling	Fan Cooling		
Operating Temperature Range	-25°C to 60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Noise(typical)	65dB		
Dimensions (W*H*D)	936mm*678mm *365mm		
Weight	91.5 Kg	92 Kg	
HMI & COM			
Display	Wireless & APP+LED, LCD		
Communication	Wi-Fi /LAN/GPRS/RS485 (Optional)		
COM1 Interface	DB9		
COM4 Interface	Plug and Play Connector		
Certification			
Safety	IEC62109-1, IEC62109-2		
EMC	IEC61000		
Grid Code	IEC 61727, IEC 62116, IEC 60068, IEC61683		
Warranty	7 Years		

Note : ①②The range of output voltage and frequency may vary depending upon different grid codes as per the government regulations.
Specifications are subject to change without advanced notice.
*Conditions Apply based on PV Module Rating.

NEW

POLYCAB

UT SERIES

AN IDEAL CHOICE FOR LARGE UTILITY-SCALE, GROUND MOUNTED PV PLANTS

STRING INVERTER I 350kW I 15/12 MPPTs

Three Phase

PSIT-350KH-UT

PSIT-350K-UT

LEADING FEATURES

5 YEAR* WARRANTY

Higher Yields	15A/20A max. DC input current per string Anti-PID (optional) and PID recovery
Superb Safety & Reliability	IP66 and optional C5 protection Full power operation at high temperatures: 352kW@40°C, 320kW@45°C
Lower Costs	Reactive power compensation at night High-speed Power Line Communication (HPLC) for reduced wiring costs
Grid Friendly	Stable operation under weak grid conditions: SCR≥1.2 Dynamic reactive power response <30ms

POLYCAB

Three Phase PSIT-350KH-UT I 350K-UT

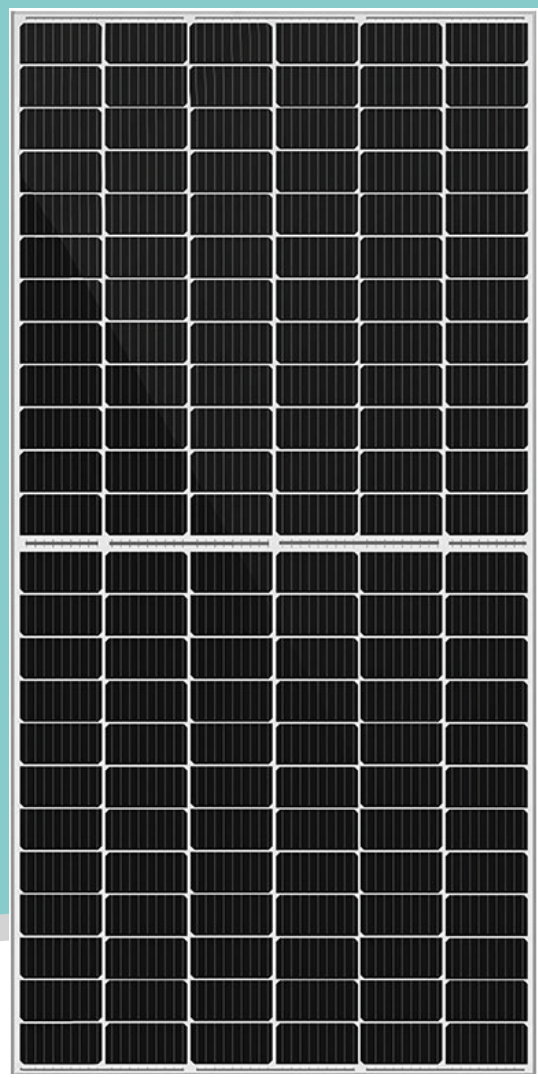
TECHNICAL SPECIFICATIONS		
MODEL	**PSIT-350KH-UT**	**PSIT-350K-UT**
EFFICIENCY		
Max. Efficiency	99.01%	
European Efficiency	98.80%	
INPUT		
Max. Input Voltage (Vdc)	1500	
MPPT Operating Voltage Range (Vdc)	480 ~ 1500	
Start-up Voltage (Vdc)	500	
Nominal Input Voltage (Vdc)	1160	
Max. Input Current per MPPT (A)	40	30
Max. Short Circuit Current per MPPT (A)	60	50
Number of MPP Trackers	12	15
Number of Strings per MPPT	2	
OUTPUT		
Nominal Output Power (kW)	352	
Nominal Output Apparent Power (kVA)	352kVA@40°C / 320kVA@45°C / 300kVA@50°C	
Max. AC Active Power (kW)	352	
Max. AC Apparent Power (kVA)	352	
Nominal Output Voltage (V)	800, 3L / PE	
Output Voltage Range (V)	720 ~ 880	
Nominal AC Grid Frequency (Hz)	50 / 60	
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65	
Max. Output Current (A)	254	
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)	
Max. Total Harmonic Distortion	<3%	
PROTECTION		
PV String Current Monitoring	Integrated	
Internal Humidity Monitoring	Integrated	
PV Insulation Resistance Detection	Integrated	
Residual Current Monitoring	Integrated	
PV Reverse Polarity Protection	Integrated	
Anti-islanding Protection	Integrated	
AC Overcurrent Protection	Integrated	
AC Short Circuit Protection	Integrated	
AC Overvoltage Protection	Integrated	
DC Switch	Integrated	
DC Surge Protection	Type II	
AC Surge Protection	Type II	
PID Recovery	Integrated	
Anti-PID	Optional	
Reactive Power Compensation at Night / Q at Night	Integrated	
Power Supply at Night	Integrated	
I-V Curve Scan	Optional	
GENERAL DATA		
Operating Temperature Range (°C)	-35 ~ +60	
Relative Humidity	0 ~ 100%	
Max. Operating Altitude (m)	5000 (>4000 derating)	
Cooling Method	Smart Fan Cooling	
User Interface	LED, LCD (Optional), WLAN + APP	
Communication	RS485 or HPLC	
Communication Protocols	Modbus RTU	
Weight (kg)	124	
Dimension (W × H × D mm)	1120 × 810 × 368	
Topology	Non-isolated	
Self-consumption at Night (W)	<3	
Ingress Protection Rating	IP66	
DC Connector	MC4 (4 ~ 6mm², 10mm² Optional)	
AC Connector	OT / DT terminal (Max. 400mm²)	
WARRANTY	5 Years	

Note : Specifications are subject to change without advance notice.

POLYCAB

SOLAR PV MODULE (DCR/NON-DCR) 144 HALF CUT MONO PERC CELL

RANGE - NSM 525W TO 560W



High Performance Guarantee!

25 years performance warranty

10 years product warranty

ALMM APPROVED LIST BY MNRE	MODULE EFFICIENCY UP TO 21.67%	POWER TOLERANCE UP TO 4.99W

Product Certification

IS 14286, IS 61730-1 & 2, IS 62804, IEC 61701, UL 61703
Fire Rating BIS ISO 9001, 14001, 45001

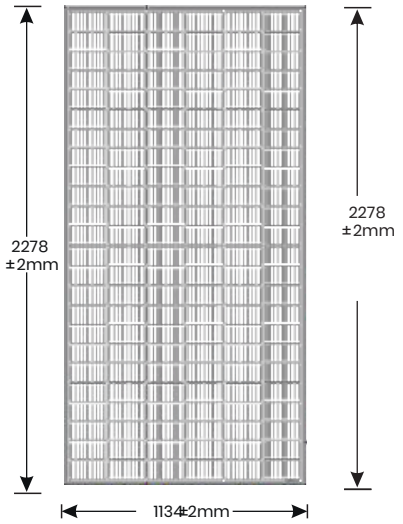
LEADING FEATURES

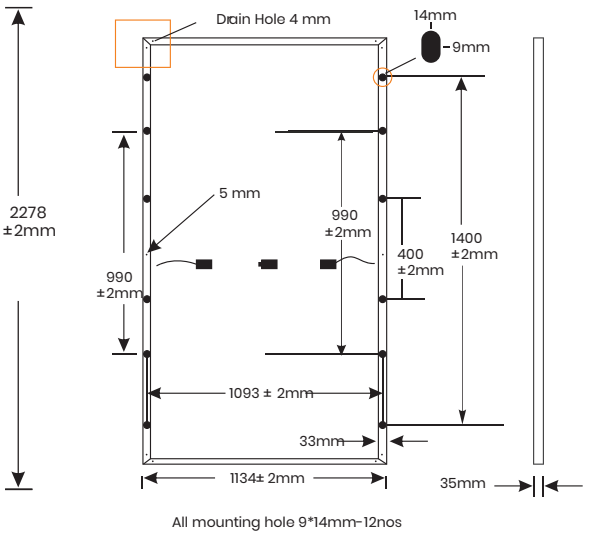
- Ideal For Large Scale Installations
- High Power
- Better Shading Tolerance
- Lower LCOE & System Cost
- Excellent Temperature Performance
- Non-destructive Cutting

POLYCAB

Solar PV Module 144 Half Cut Mono Perc Cell

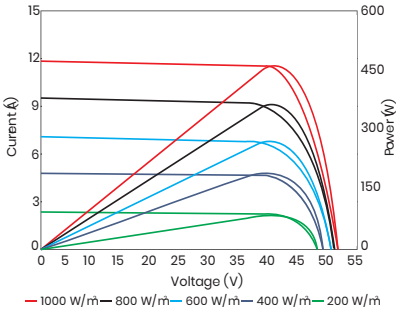
Mechanical Dimensions





All mounting hole 9*14mm-12nos

I-V Curves of PV Module (for Ref)



Electrical Data

Module Type	NSM525 - 144		NSM530 - 144		NSM535 - 144		NSM540 - 144		NSM545 - 144		NSM550 - 144		NSM555 - 144		NSM560 - 144	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Watts (Pmax)	525	390.46	530	393.99	535	397.67	540	401.28	545	405.17	550	408.80	555	412.53	560	416.29
Maximum Power Voltage (Vmp)	41.54	39.00	41.76	39.20	41.99	39.42	42.21	39.63	42.46	39.86	42.68	40.07	42.91	40.28	43.14	40.50
Maximum Power Current (Imp)	12.64	10.01	12.69	10.05	12.74	10.09	12.79	10.13	12.84	10.16	12.88	10.20	12.93	10.24	12.98	10.28
Open-circuit voltage (Voc)	49.80	45.77	49.94	45.92	50.0	46.06	50.16	46.20	50.3	46.35	50.49	46.51	50.62	46.66	50.75	46.81
Short-circuit current (Isc) (A)	13.45	10.74	13.5	10.77	13.56	10.81	13.60	10.84	13.65	10.88	13.69	10.91	13.74	10.94	13.78	10.98
Module Efficiency STC (%)	20.32		20.51		20.71		20.90		21.09		21.29		21.48		21.67	
Operating Temperature (°C)	-40°C ~ +85°C															
Maximum System Voltage	1500 V DC (IEC)															
Maximum series fuse rating	20A															

STC — Irradiance 1000 W/m² — Cell Temperature 25°C — AM = 1.5

NOCT — Irradiance 800 W/m² — Ambient Temperature 20°C — AM = 1.5 — Wind Speed = 1 m/s

Mechanical Data

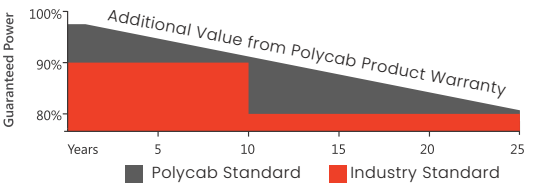
Specification	Data
Cell Type	Half cut Mono PERC
Cell Arrangement	72 Mono PERC - 144 Half Cells
Dimensions	2278x1134x35 mm
Weight	29 Kg.
Front Cover	3.2 mm ARC Glass
Frame Material	Anodized Aluminium Alloy
Junction Box	IP68 Split JB
Cable	4 mm² (IEC) - Length 0.35 mtr (Potrait)/ 1.4mtr(Landscape)
Connectors	MC4 Compatible
By-Pass Diodes	3 Pcs

Temperature Characteristic

Specification	Data
Temperature Co-efficient (Pmax)	-0.34% /°C
Temperature Co-efficient (Voc)	-0.26% /°C
Temperature Co-efficient (Isc)	+0.05% /°C
Nominal Operating Cell Temperature	42 ± 2°C

Performance Warranty

10 Years Product Warranty - 25 Years Linear Power Warranty



Increased Shade Tolerance

HALF-CELL MODULE

Functions like two parallel modules, enabling the **half-cell** string to work in partial shading

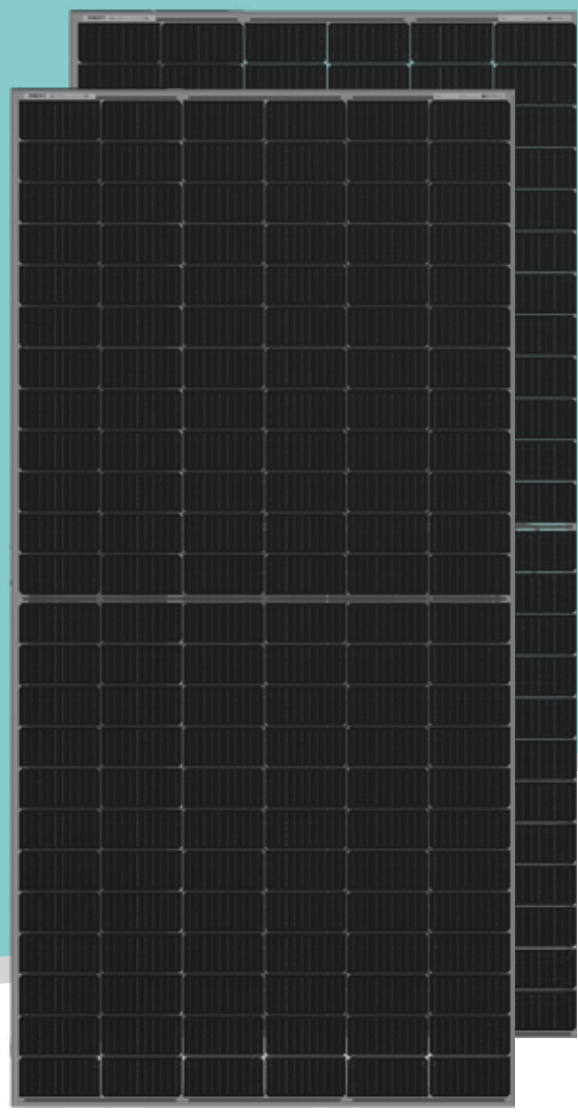
* The above data is liable to change without prior notice
Warranty applicable as per standard warranty terms

Note : The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement, Polycab India Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.

POLYCAB

SOLAR PV MODULE (DCR/NON-DCR) 144 MONO PERC HALF CUT BIFACIAL MODULE

RANGE - NSM 525W TO 560W



High Performance Guarantee!

27 years performance warranty

12 years product warranty

MODULE EFFICIENCY UP TO 21.67%	POWER TOLERANCE UP TO 4.99W	PID RESISTANT

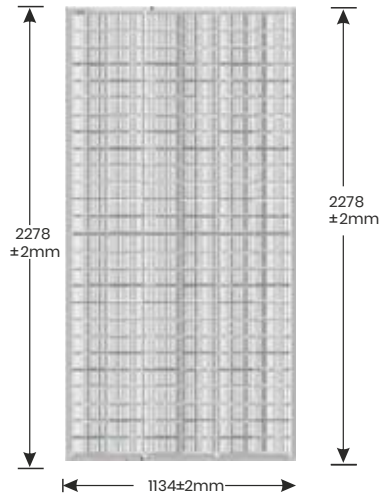
LEADING FEATURES

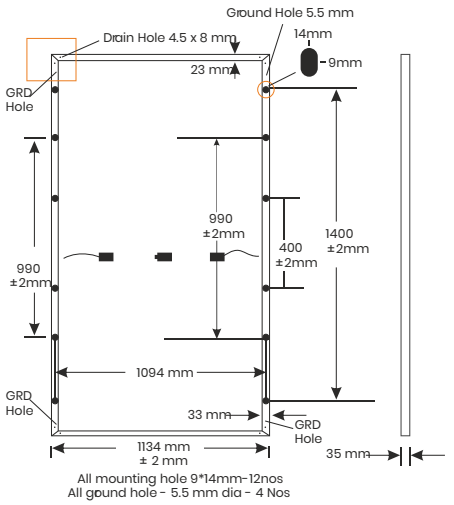
- Ideal For residential rooftoof and Large Scale Installations
- High Power with Bifacial
- Better Shading Tolerance
- Lower LCOE & System Cost
- Excellent Temperature Performance
- Non-destructive Cutting

POLYCAB

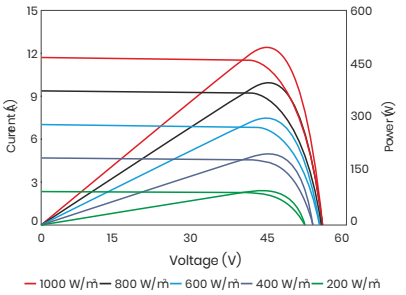
Solar PV Module 144 Mono Perc Half Cut BI - FACIAL

Mechanical Dimensions





I-V Curves of PV Module (for Ref)



Degradation in the first year- 2%,

Degradation from second year onwards- 0.55%

Electrical Data

Module Type	NSM525 - 144		NSM530 - 144		NSM535 - 144		NSM540 - 144		NSM545 - 144		NSM550 - 144		NSM555 - 144		NSM560 - 144	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Watts (Pmax)	525	390.46	530	393.99	535	397.67	540	401.28	545	405.17	550	408.80	555	412.53	560	416.29
Maximum Power Voltage (Vmp)	41.54	39.00	41.76	39.20	41.99	39.42	42.21	39.63	42.46	39.86	42.68	40.07	42.91	40.28	43.14	40.50
Maximum Power Current (Imp)	12.64	10.01	12.69	10.05	12.74	10.09	12.79	10.13	12.84	10.16	12.88	10.20	12.93	10.24	12.98	10.28
Open-circuit voltage (Voc)	49.80	45.77	49.94	45.92	50.0	46.06	50.16	46.20	50.3	46.35	50.49	46.51	50.62	46.66	50.75	46.81
Short-circuit current (Isc) (A)	13.45	10.74	13.5	10.77	13.56	10.81	13.60	10.84	13.65	10.88	13.69	10.91	13.74	10.94	13.78	10.98
Module Efficiency STC (%)	20.32		20.51		20.71		20.90		21.09		21.29		21.48		21.67	
Operating Temperature (ºC)	-40°C ~ +85°C															
Maximum System Voltage	1500 V DC (IEC)															
Maximum series fuse rating	20A															

Bifacial Output - Backside Power Gain

Note: Measurement uncertainty ± 3%

Module Type	NSM525 - 144	NSM530 - 144	NSM535 - 144	NSM540 - 144	NSM545 - 144	NSM550 - 144	NSM555 - 144	NSM560 - 144
10 % Gain	577.5	583.0	588.5	594.0	599.5	605.0	610.5	616.0
15 % Gain	603.8	609.5	615.3	621.0	626.8	632.5	638.3	644.0
20 % Gain	630.0	636.0	642.0	648.0	654.0	660.0	666.0	672.0
25 % Gain	656.3	662.5	668.8	675.0	681.3	687.5	693.8	700.0
30 % Gain	682.5	689.0	695.5	702.0	708.5	715.0	721.5	728.0

- STC — Irradiance 1000 W/m2 — Cell Temperature 25°C — AM = 1.5
- NOCT — Irradiance 800 W/m2 — Ambient Temperature 20°C — AM = 1.5 — Wind Speed = 1 m/s

Note: Bifacial gain will depend on structure height, system design and albedo.

Mechanical Data

Specification	Data
Cell Type	Half cut Mono PERC
Cell Arrangement	72 Mono PERC - 144 Half Cells
Dimensions	2278x1134x35 mm
Mounting Hole	Y - 400 / 990 / 1400 mm
Weight	29 Kg.
Front Cover	3.2 mm ARC Glass
Frame Material	Anodized Aluminium Alloy
Junction Box	IP68 Split JB
Cable	4 mm² (IEC) - Length 0.35 mtr (Potrait)/ 1.4mtr(Landscape)
Connectors	MC4 Compatible
By-Pass Diodes	3 Pcs
Configuration	Transperant

Temperature Characteristic

Specification	Data
Temperature Co-efficient (Pmax)	-0.34% /ºC
Temperature Co-efficient (Voc)	-0.26% /ºC
Temperature Co-efficient (Isc)	+0.040% /ºC
Nominal Operating Cell Temperature	42 ± 2ºC

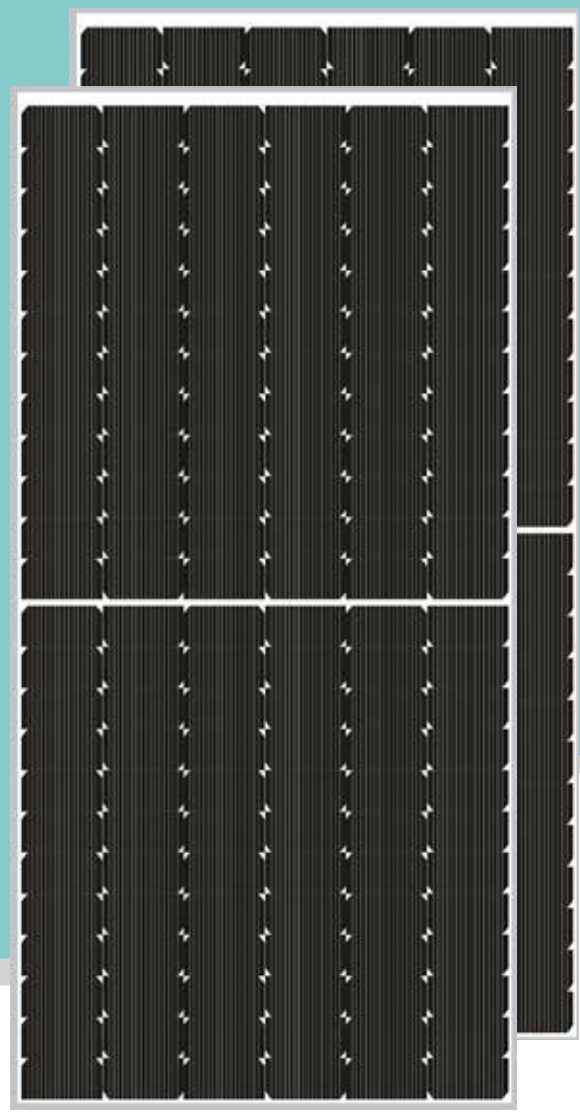
*The above data is liable to change without prior notice 'Warranty applicable as per standard warranty terms.

Note : The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement, Polycab India Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.

POLYCAB

SOLAR PV MODULE (DCR/NON-DCR) 144 N-TYPE TOPCON G2G HALF CUT BIFACIAL MODULE

RANGE - G2G 580W TO 605W



High Performance Guarantee!

30 years performance warranty

12 years product warranty

MODULE EFFICIENCY UP TO 23.42%	POWER TOLERANCE UP TO 5W	PID FREE AND UV RESISTANT

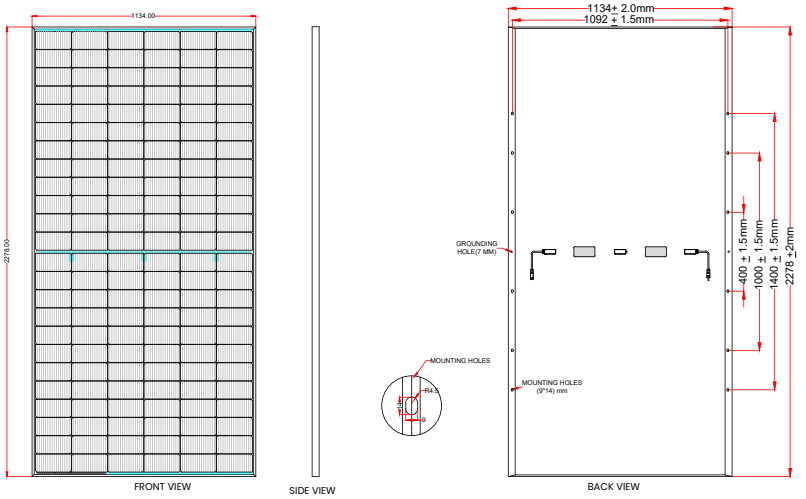
LEADING FEATURES

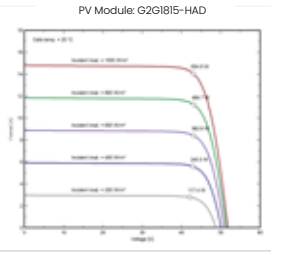
1. Ideal for Utility and Commercial Installations
2. Bigger 16BB M10R N-Type TOPCon Solar Cells for Higher Wattage
3. 144 Half-Cut Cells for Better Performance in Low Light
4. Multi-Busbar Structure for Lower Electrical Losses
5. Non-Destructive Cell Cutting Process for Lower Chances of Micro-cracks
6. Round Ribbon Connectors for Better Utilization of Light
7. 1% Degradation in First Year and 0.4% Degradation in Subsequent Year
8. Excellent Anti-PID Performance
9. 3.26% BOS Cost Savings
10. 1.56% Reduction in LCOE

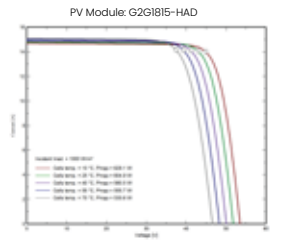
POLYCAB

Solar PV Module 144 N-Type Topcon G2G Half-Cut Bi-Facial

Mechanical Dimensions





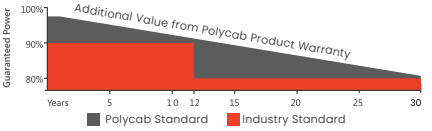


ELECTRICAL DATA (STC) :

ALMM Model No.	G2G1740-HAD	G2G1755-HAD	G2G1770-HAD	G2G1785-HAD	G2G1800-HAD	G2G1815-HAD
PIL Model No.	PILGS1740-HAD	PILGS1755-HAD	PILGS1770-HAD	PILGS1785-HAD	PILGS1800-HAD	PILGS1815-HAD
Peak Power Output - Pmax (Wp)	580	585	590	595	600	605
Power Output Tolerance (Wp)	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5
Open Circuit Voltage - Voc (V)	51.04	51.19	51.34	51.49	51.64	51.79
Maximum Power Voltage - Vmpp (V)	42.37	42.52	42.67	42.82	42.97	43.12
Short Circuit Current - Isc (A)	14.45	14.52	14.59	14.66	14.72	14.79
Maximum Power Current - Impp (A)	13.69	13.76	13.83	13.90	13.96	14.03
Module Efficiency (%)	22.45	22.65	22.84	23.03	23.23	23.42
Fill Factor (%)	78.65	78.72	78.78	78.85	78.91	78.98

Performance Warranty

12 Years Product Warranty - 30 Years Power Output Warranty



ELECTRICAL DATA (NOCT) :

Peak Power Output - Pmax(Wp)	430.94	434.66	438.37	442.09	445.80	449.52
Open Circuit Voltage - Voc(V)	47.47	47.61	47.75	47.89	48.03	48.16
Maximum Power Voltage - Vmpp(V)	38.77	38.91	39.04	39.18	39.32	39.45
Short Circuit Current - Isc(A)	11.73	11.79	11.85	11.90	11.95	12.01
Maximum Power Current - Impp(A)	11.12	11.17	11.23	11.29	11.34	11.39
Maximum System Voltage	1500V DC					
Maximum Series Fuse Rating	30A					

Mechanical Data

Specification	Data
Solar Cells Per Module (Units)	144
Cells Configuration (Matrix)	12 x 6 || 12 x 6
Cell Size (mm)	91 x 182
Length × Width × Thickness in mm	2278 X 1134 X 35
Area of Module (Sq-m)	2.583252
Weight of Module (Kg)	33.5 ± 2%Kg

TOTAL POWER (FRONT+BACK) :

With 10% Gain	Peak Power (Wp)	638	644	649	655	660	666
	Efficiency ηm (%)	24.70	24.91	25.12	25.34	25.55	25.76
With 15% Gain	Peak Power (Wp)	667	673	679	684	690	696
	Efficiency ηm (%)	25.82	26.04	26.27	26.49	26.71	26.93
With 20% Gain	Peak Power (Wp)	696	702	708	714	720	726
	Efficiency ηm (%)	26.94	27.18	27.41	27.64	27.87	28.10
With 25% Gain	Peak Power (Wp)	725	731	738	744	750	756
	Efficiency ηm (%)	28.07	28.31	28.55	28.79	29.03	29.28
With 30% Gain	Peak Power (Wp)	754	761	767	774	780	787
	Efficiency ηm (%)	29.19	29.44	29.69	29.94	30.19	30.45

Temperature Ratings

Specification	Data
NOCT	45°C±2°C
Temperature Coefficient of Pmax	-0.27%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Isc	0.04%/°C
Operating Temperature Range	- 40°C to + 85°C

- STC — Irradiance 1000 W/m2 — Cell Temperature 25°C — AM = 1.5
- NOCT — Irradiance 800 W/m2 — Ambient Temperature 20°C — AM = 1.5 — Wind Speed = 1 m/s

Solar Cell	N-Type TOPCon (91 x 182)	Application Class Rating	Class A
Junction Box	IP 68 Rated Split Junction Box with Individual Bypass Diode	Safety Class Rating	Class II
Connector	IP 68 Rated MC4 Compatible	Fire Safety	Class C
Front Cover(Glass)	2.0 mm Low Iron High Transmission AR Coated Tempered Glass	Mechanical Load	Snow Load 5400 pa, Wind Load 2400 Pa
Back cover(Backsheet)	2.0 mm Low Iron Solar Textured Glass	Cable Type	4 mm2
Encapsulant	PID Free and UV Resistant	Cable Length	≥300mm
Frame	Anodized Aluminum Frame		

*The above data is liable to change without prior notice ¹Warranty applicable as per standard warranty terms.

Note : The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement, Polycab India Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.

POLYCAB SOLAR H1Z2Z2-K BS EN 50618

Photovoltaic Solar DC Cable, Halogen Free, Flame Retardant

Salient Features

- Halogen free
- Electron Beam Cross-linked
- Flame retardant
- Long life
- Flexibility
- UV, Ozone resistant
- Hydrolysis resistant
- High temperature resistant

Voltage Rating

Nominal Voltage:1500 V DC between conductors as well as conductor and earth.
Max permitted voltage: 1800 V

Operation Temperature

Fixed: -40˚C to +120˚C
Maximum operating conductor temperature: +120˚C

Construction

- Conductor: Tinned copper conductor as per IEC 60228, class 5.
- Insulation: E-Beam cross linked halogen free and flame-retardant compound (XLPO)
- Sheath: E-Beam cross linked halogen free and flame-retardant compound (XLPO)

Identification

Insulation : (-ve) Black & (+ve) Red
Sheath : (-ve) Black & (+ve) Black (70%)with red Strip (30%)

Bending Radius

For fixed installation - > 4D
For occasional movement - > 5D

Standard and References

EN/IEC 60228
EN 50618
IEC 60332-1-2

Test Voltage

6.5kV AC 50Hz

Compliance

Fire Performance
Smoke Emission

Halogen free material

Resistance to ozone
Weathering / UV

Life Expectancy
Water Resistance
-Category {(AD7/AD8)}

DIMENSIONAL CHARACTERISTICS

Single Core Cross sectional Area	Nominal insulation thickness	Nominal Sheath thickness	Approx. Overall Diameter	Max. DC Resistance at 20° C
mm2	mm	mm	mm	Ω/km
1.5	0.7	0.8	5.0	13.7
2.5	0.7	0.8	5.5	8.21
4.0	0.7	0.8	6.0	5.09
6.0	0.7	0.8	6.5	3.39
10	0.7	0.8	7.5	1.95
16	0.7	0.9	8.5	1.24
25	0.9	1.0	10.5	0.795
35	0.9	1.1	12.0	0.565
50	1.0	1.1	14.0	0.393
70	1.1	1.2	16.0	0.277
95	1.1	1.3	18.0	0.210
120	1.2	1.3	19.5	0.164
150	1.4	1.4	21.5	0.132
185	1.6	1.6	24.5	0.108
240	1.7	1.7	27.0	0.0817
300	1.8	1.8	30.0	0.0654

CURRENT RATINGS

Nominal Cross sectional Area	Current Carrying Capacity according to method of installation		
	Single Cable Free in air	Single Cable on a surface	Two loaded cables touching, on a surface
mm2	A	A	A
1.5	30	29	24
2.5	41	39	33
4	55	52	44
6	70	67	57
10	98	93	79
16	132	125	107
25	176	167	142
35	218	207	176
50	276	262	221
70	347	330	278
95	416	395	333
120	488	464	390
150	566	538	453
185	644	612	515
240	775	736	620
300	895	850	713

*Current Ratings are based on EN 50618 at Max. Conductor Temperature 120°C and Ambient Air temperature 60°C.

Note: the expected period of use at maximum conductor temperature at 120° C is limited to 20,000 hours

Current rating / de-rating factors other than 60°C ambient temperature.

Up to 60°C	70°C	80°C	90°C
1.00	0.92	0.84	0.75

Note: These cables can be provided with twisted formation, If required.

POLYCAB

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