



## Mono-Crystalline Photovoltaic Module High efficiency based on leading innovative photovoltaic technologies



**MYS-48M/B3/CF-200**  
**MYS-48M/B3/CF-195**  
**MYS-48M/B3/CF-190**

### High Quality of PV Module

The MYS-48M/B3/CF-200, MYS-48M/B3/CF-195 and MYS-48M/B3/CF-190 are distinguished by mono-crystalline solar cells with high efficiency up to 14.88% for high output per square meter of module area. MSR delivers modules with positive tolerance from 0 - 4.99 watt, modules of the highest quality would be able to provide with this level of reliability.

- ▶ Modules on high output quality
- ▶ High efficiency based on leading Innovative photovoltaic technologies
- ▶ Outstanding weak light performance
- ▶ Withstand high wind pressure and extreme temperature variations
- ▶ High transparent 3.2mm / 4mm low-Iron tempered glass
- ▶ Unique technology enable no water freezing and warping do not occur
- ▶ Aesthetic appearance
- ▶ 25 years power output warranty (long life span)
- ▶ PV produces energy without emissions (green house gases) and noise free
- ▶ TUV Rheland certified modules accordance to IEC 61215 ed. 2 2005, IEC 61730,Part 1, 2004 and IEC 61701 Salt mist corrosion testing of photovoltaic (PV) modules.



## TECHNICAL DATA

### Mechanical Parameters

overall dimensions (frame)	l x w x t	1348mm x 997mm x 42mm	mm
Weight	Mass	15.4 +/- 1 / 18.6 +/- 1	Kg
Tested static back load (1 h)	Pressure	2'400	N/m <sup>2</sup>
Tested static front load (1 h)	Pressure	2'400	N/m <sup>2</sup>

### Components

Glass	Tempered 3.2mm / 4mm solar glass
Photovoltaic cells	48 mono-crystalline 6" silicon-cells (156mm x 156mm)
Frame	MSR Standard, Anodized Aluminium
Junction box	Tyco (3 bypass diode) (115mm x 110mm x 22.5mm)
Plug connector type / Cable length / cross section size (mm <sup>2</sup> )	MC4 (Tyco Solarlok) / 2 x 1000mm / 4mm <sup>2</sup>

### Certificates, Safety Class and Warranty

IEC 61215 ed. 2	IEC 61215 ed. 2	= Registration No. PV60033123
IEC 61730	IEC 61730	= Registration No. PV60033124
IEC 61701	IEC 61701	= Registration No. PV60037080
CE certified	CE Compliance	= SHEM010060074501TXC
Safety class	II	
IP protection level	65	
Warranty	10 years product warranty 10 years 90% nominal performance 25 years 80% nominal performance	

### Electrical Data at Standard Testing Conditions (STC) 1

1) Irradiance 1000 W/m<sup>2</sup>, module temperature 25°C, spectrum at air-mass AM 1.5

Model	MYS-48M/B3/CF-200	MYS-48M/B3/CF-195	MYS-48M/B3/CF-190
Nominal power @ STC1 (P <sub>MAX</sub> )	200	195	190
Voltage @ maximum power point (V <sub>mpp</sub> )	24.76	24.67	24.52
Current @ maximum power point (I <sub>mpp</sub> )	8.07	7.90	7.75
Open circuit voltage (V <sub>oc</sub> )	29.56	29.47	29.37
Short circuit current (I <sub>sc</sub> )	8.80	8.75	8.70
Temperature Coefficient	-0.45%/K - P <sub>max</sub> -0.41%/K - V <sub>oc</sub> +0.05%/K - I <sub>sc</sub>		

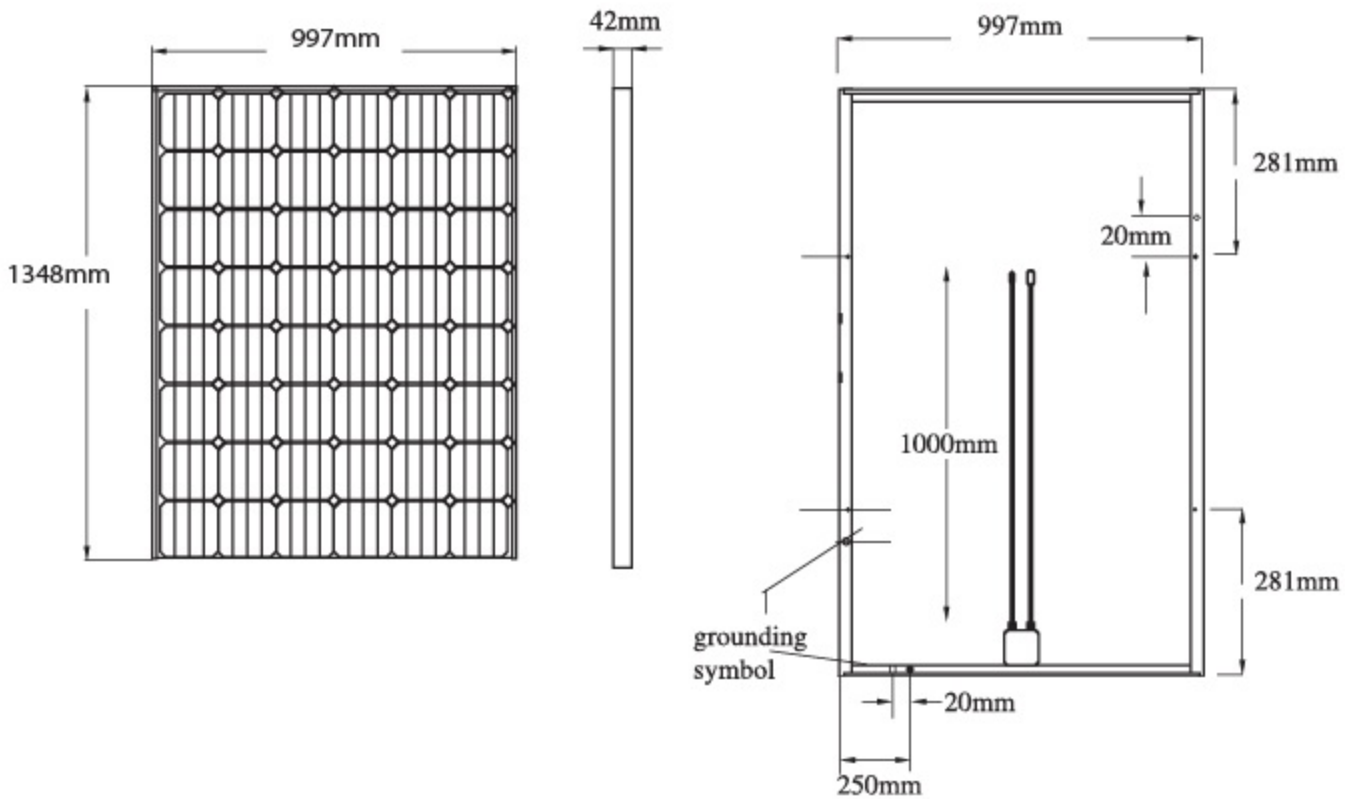
### General Electrical Parameters

Maximum system voltage	1,000V DC
Maximum module reverse current (I <sub>R</sub> )	12A
Operating Temperature range	-40°C to +85°C
NOCT	46 +/- 2°C





## DIMENSIONS



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IV parameters are rated at Standard Test Conditions (Irradiance of 1000W/m<sup>2</sup>, AM 1.5G, cell temperature 25°C). All measurements are guaranteed at the laminate leads. NOCT is measured at 800W/m<sup>2</sup>, 20 deg. Ambient, and 1m/s windspeed. Specifications are subject to change without notice.

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