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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**IREX Energy Joint Stock Company**

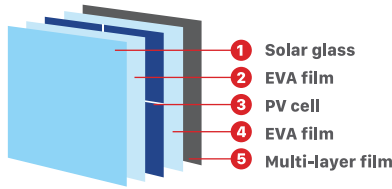
**IR245M-285M-54**

**IR270M-54**

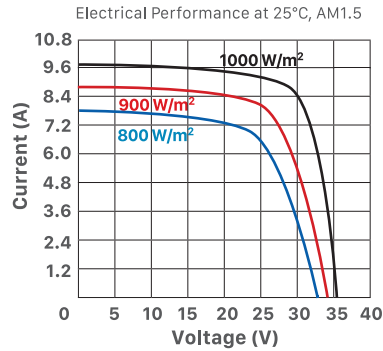
Also available on the web at  
[EnergyPal.com/irex-energy-joint-stock-company-solar-panels/ir270m-54](http://EnergyPal.com/irex-energy-joint-stock-company-solar-panels/ir270m-54)

# 156 SERIES MONOCRYSTALLINE

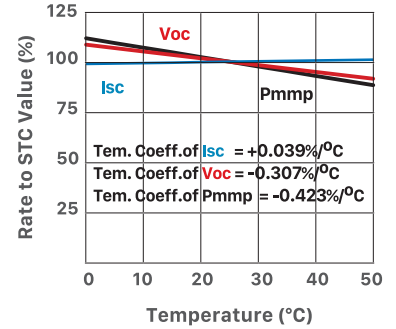
SOLAR MODULE: 245 W, 250 W, 255 W, 260 W, 265 W, 270 W, 275 W, 280 W, 285 W



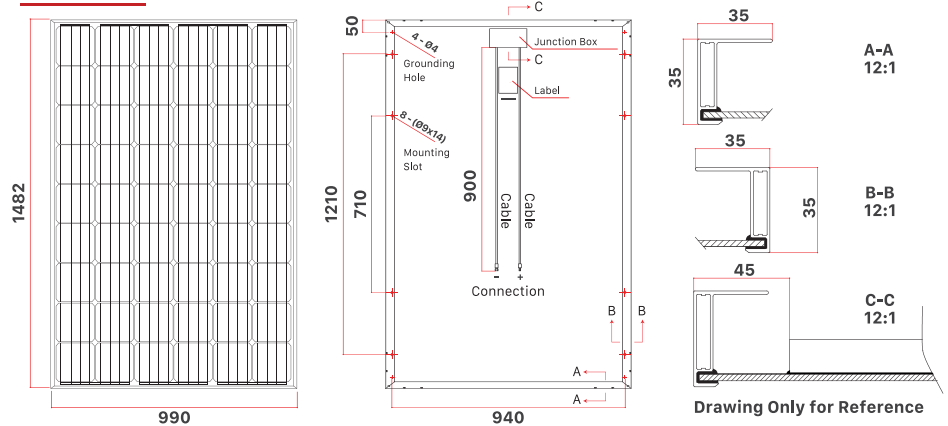
## PERFORMANCE



Temperature Dependence of  $I_{sc}$ ,  $V_{oc}$  &  $P_{mp}$  at 1000 W/m<sup>2</sup>, AM1.5



## STRUCTURE



ELECTRICAL CHARACTERISTICS STC	IR245M-54	IR250M-54	IR255M-54	IR260M-54	IR265M-54	IR270M-54	IR275M-54	IR280M-54	IR285M-54
Maximum Power (Pmax)	245 W	250 W	255 W	260 W	265 W	270 W	275 W	280 W	285 W
Power Tolerance	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%	0 ~ 3%
Module Efficiency	16.7%	17.0%	17.4%	17.7%	18.1%	18.4%	18.8%	19.1%	19.4%
Maximum Power Current (Imp)	8.64 A	8.78 A	8.89 A	9.05 A	9.20 A	9.36 A	9.45 A	9.48 A	9.51 A
Maximum Power Voltage (Vmp)	28.37 V	28.48 V	28.69 V	28.74 V	28.81 V	28.85 V	29.11 V	29.54 V	29.97 V
Short Circuit Current (Isc)	9.16 A	9.31 A	9.42 A	9.58 A	9.75 A	9.90 A	10.00 A	10.03 A	10.07 A
Open Circuit Voltage (Voc)	34.97 V	35.24 V	35.40 V	35.57 V	35.68 V	35.73 V	36.05 V	36.35 V	36.92 V

Values at Standard Test Conditions (STC: Air Mass AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C)

ELECTRICAL CHARACTERISTICS NOCT	IR245M-54	IR250M-54	IR255M-54	IR260M-54	IR265M-54	IR270M-54	IR275M-54	IR280M-54	IR285M-54
Maximum Power (Pmax)	179.00 W	183.00 W	186.00 W	190.00 W	193.00 W	197.00 W	200.00 W	204.00 W	208.00 W
Maximum Power Current (Imp)	6.83 A	6.94 A	7.04 A	7.14 A	7.27 A	7.40 A	7.48 A	7.48 A	7.51 A
Maximum Power Voltage (Vmp)	26.21 V	26.37 V	26.44 V	26.49 V	26.56 V	26.62 V	26.74 V	27.27 V	27.70 V
Short Circuit Current (Isc)	7.33 A	7.45 A	7.54 A	7.62 A	7.80 A	7.95 A	8.02 A	8.04 A	8.06 A
Open Circuit Voltage (Voc)	32.27 V	32.54 V	32.67 V	32.85 V	32.91 V	33.25 V	33.52 V	33.75 V	34.10 V

Values at Nominal Operating Cell Temperature  
 (NOCT: Wind Speed 1m/s, Irradiance 800 W/m<sup>2</sup>, Cell Temperature 45°C, Ambient Temperature 20°C)

## MECHANICAL CHARACTERISTICS

Cell Type	156.75 x 156.75 mm Monocrystalline, 54 (6x9) pcs in series
Solar Glass	High Transmission, Low Iron, Tempered Glass with Anti Reflecting Coating
Frame	Anodized Aluminum Alloy type 6063 - T5
Junction Box	Rated current ≥ 15 A, IP ≥ 67, TUV & UL, 3 diodes
Dimension	1482 x 990 x 35 mm
Output Cable	4 mm <sup>2</sup> (EU)/12 AWG (US), 900 mm
Weight	18 kg
Installation hole Location	See Drawing Above

## PACKING INFORMATION

Container	20' GP	40' GP	40' HQ
Pallets per Container	14	30	30
Pieces per Container	420	900	960

## MAXIMUM RATINGS

Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC) / 1500 VDC (UL)
Maximum Series Fuse Rating	20 A (IEC) / 20 A (UL)
Application Class	Class A