

# ASE48M

## 48 Cells Monocrystalline Panels



**Electroluminescence:** Quality control for small microcracks with infrared radiation.



**Sun Simulator:** 1000 W/m<sup>2</sup> radiation, 25°C temperature, +5 positive power tolerance and classification according to power tolerance.



**Salt Mist Test:** According to IEC 61701 ed.2 Salt Resistance



**Snow Load Test:** Under 5400 Pa snow load resistance according to IEC 61215



**Ammonia Corrosion Test:** Corrosion resistance according to IEC 62716



**Potential Induced Degradation:** PID Resistance according to IEC 62804



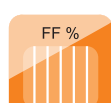
**Wind Load Test:** Under 5400 Pa wind load resistance according to IEC 61215



**Thermal Cycles Damp Heat Test:** 1000 hours damp heat and 200 thermal cycles according to IEC 61215



**High Performance in Low Radiation :** On cloudy days, morning and evening over %3 performance (200 w/m<sup>2</sup>)



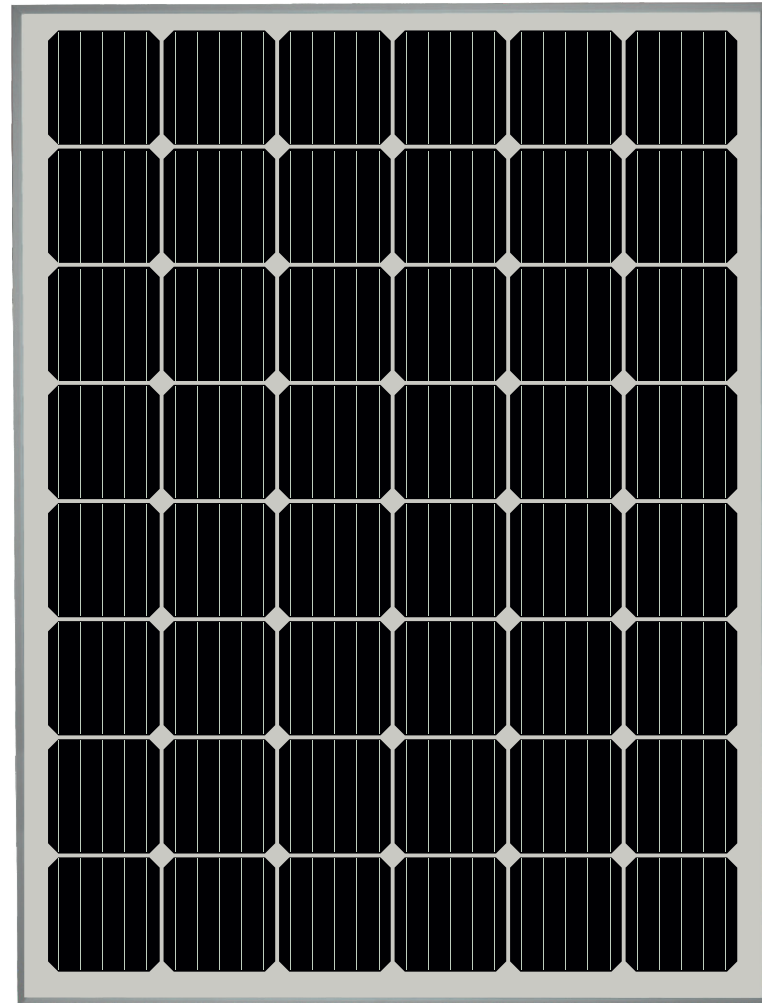
**Fill Factor:** High Fill Factor value, increased power.  
**Cell Power:** Five bus bar, with high power.



**QR Code System:** Real power measurements of modules which have +5 power tolerance ease of viewing with QR Code.



**Just in Time Production:** Production date is in panels glass, unchangeable and warranty of selling production in that are produced in last one year.



ISO 9001

ISO 14001

ISO 18001

IEC 61215

IEC 61730-1

IEC 61730-2

IEC 61701

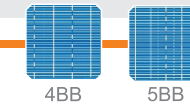
IEC 62716

IEC 62804

**"LOCAL ITEM" MENTIONED  
IN NUMBER 5346 YEK LAW**

**Turkey**  
Discover  
the potential

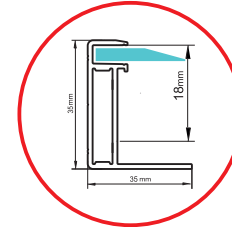
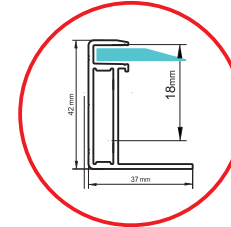
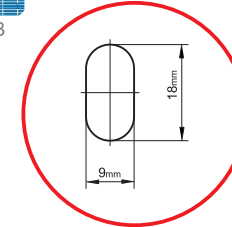
# HIGH QUALITY CONTROL



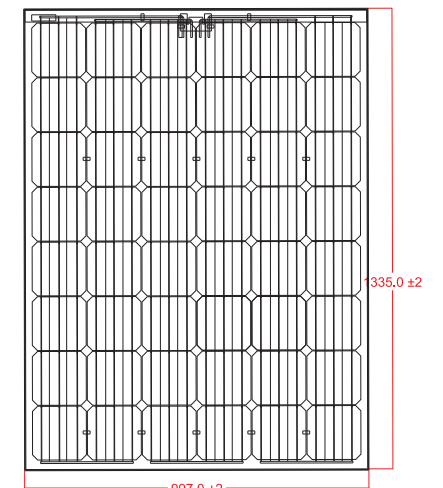
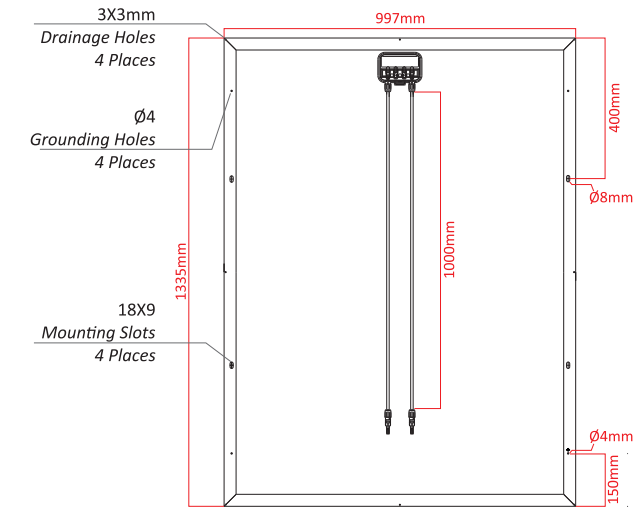
Mounting Slot

Frame

Frame



FRAME CAN BE MANUFACTURED WITH TWO DIFFERENT MEASUREMENT OPTIONS.



### Electrical Data

	MODEL	ASE48M 235	ASE48M 240	ASE48M 245
P <sub>max</sub>	Maximum Power	235	240	245
%	Module Efficiency	17,66	18,03	18,41
I <sub>mp</sub> (A)	Maximum Power Current	9,19	9,24	9,30
I <sub>sc</sub> (A)	Short Circuit Current	9,78	9,81	9,85
V <sub>mp</sub> (V)	Maximum Power Voltage	25,78	26,16	26,54
V <sub>oc</sub> (V)	Open Circuit Voltage	30,58	31,20	31,63

### Mekanik Verileri

Subject	Specification
Dimensions	1335 ± 2 mm (L) x 997 ± 2 mm (W) x 42-35 0,5 mm (D)
Weight	17 Kg
Solar Cell	48 Monocrystalline Type 6" Silicon Cells (156.75 mm x 156.75 mm)
Front Glass	Tempered / Tempered ARC Glass
Encapsuland	Ethylene Vinyl Acetate (EVA)
Backsheet	Composite Film, Color White
Junction Box	With Multicontact / Tyco / Ekinler Certificate
Frame	Aluminium Frame (Eloxal Coating)

### Operating Conditions

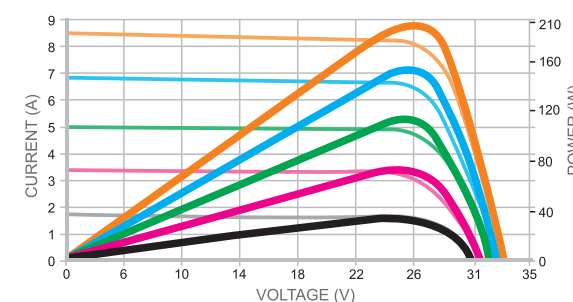
Subject	Specification
Mechanical Strenght	5400 Pa (Certified By TUV Rheinland)
Maximum System Voltage	DC 1000 V
Series Fuse Rating	15 A
Operating Temperature	-40 to 85 °C

### Temperature Characteristics

Subject	Specification
Nominal Operating Cell Temperature	44 °C ± 2 °C
Temperature Coefficient of α <sub>isc</sub> (%/°C)	-0,04 % / °C
Temperature Coefficient of β <sub>Voc</sub> (%/°C)	-0,31 % / °C
Temperature Coefficient of P <sub>max</sub> γ (%/°C)	-0,42 % / °C
Temperature Coefficient of β <sub>Vmp</sub> (%/°C)	-0,42 % / °C

### Warranty

Subject	Specification
Product Warranty	10 Years
Linear Performance Warranty	10 Years, over %90 - 25 Years, over %80
JIT Product	Warranty of selling panels that are produced in last on year.
Power Tolerance	Positive (+) 5 Watt
Online Datasheet on the panel	QR Code System



The typical relative change in module efficiency at irradiance of 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> (both at 25 °C and AM 1.5 spectrum) is less than 3 %.

