EN

open your life

OPEN 2xx-ME60

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Monocrystalline Technology

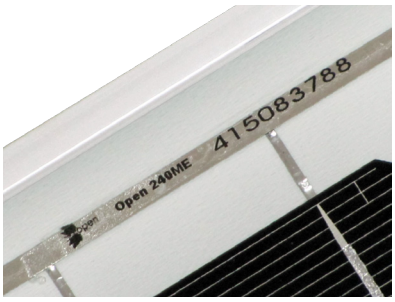
Real Power
- Modules available with 230, 235, 240, 245 and 250 Watt nominal power
- Strict power tolerance of ± 2.5%
- Individual module performance tested on site, based on a TÜV Rheinland calibrated module

Stable Power
- High Quality monocrystalline solar cells, made by Bosch Solar Energy
- Built exclusively with high grade European components

Robust Power
- 4mm thick solar glass offers additional protection against the natural elements
- Frame made of high quality aluminium profiles, resistant to torsion and corrosion

1994 Since

Long Term Manufacturing Experience
- Module manufacturer since 1994



Warranties
Five years material and workmanship*

Guaranteed 90% minimum nominal power for ten years*

Guaranteed 80% minimum nominal power for twenty five years*

*Manufacturer's warranty conditions apply

Certificates and Qualifications
All products are certified by TÜV Rheinland in Germany

Open Renewables® products are manufactured in an ISO9001:2008 certified plant

Open Renewables® Product Range

Monocrystalline 70-260 Watt

Multicrystalline 175-250 Watt

Designed and produced to meet the requirements of IEC 61215 ed.2, IEC 61730

Open Renewables®

230-ME60 235-ME60 240-ME60 245-ME60 250-ME60

Electrical Specifications

Data at Standard Test Conditions (STC)*

		Open 230-M E60	235-ME60	240-ME60	245-ME60	250-ME60	
Rated Power	[Pn]	230	235	240	245	250	[Wp]
Peak Power	[Pmax]	230	235	240	245	250	[W]
Tolerance on peak power	[Tol]	± 2.5	± 2.5	± 2.5	± 2.5	± 2.5	[%]
Module efficiency	[η]	14.0	14.3	14.6	14.9	15.2	[%]
Max. system voltage	[Vsys]	1000	1000	1000	1000	1000	[Vdc]
Peak power voltage	[Vmpp]	30.09	30.36	30.69	31.01	31.25	[V]
Peak power current	[Impp]	7.65	7.74	7.82	7.90	8.00	[A]
Open circuit voltage	[Voc]	36.24	36.43	36.52	36.59	36.88	[V]
Short circuit current	[Isc]	8.28	8.36	8.46	8.59	8.65	[A]
Max. reverse current	[Ir]	20	20	20	20	20	[A]
Min. peak power	[minPmpp]	223.1	228.0	232.8	237.7	242.5	[W]

* Air Mass AM 1.5, Irradiance 1000 W/m2, Cell temperature 25 °C

Electrical Specifications

Typical Data at Nominal Operating Cell Temperature (NOCT)** conditions

		Open 230-ME60	235-ME60	240-ME60	245-ME60	250-ME60	
Temperature	[NOCT]	45.5	45.5	45.5	45.5	45.5	[°C]
Mpp power	[P_{NOCT}]	167.90	171.55	175.20	178.85	182.50	[W]
Open circuit voltage	[Voc]	32.62	32.79	32.87	32.94	33.19	[V]
Short circuit current	[Isc]	6.62	6.69	6.77	6.87	6.92	[A]
Peak power voltage	[Vmpp]	27.08	27.33	27.62	27.91	28.13	[V]

** At an irradiance of 0.8 kW/m2, 20°C ambient temperature and average wind speed of 1 m/s

Specifications common to all models

Length (L)	[mm]	1659.5 ±3
Width (W)	[mm]	988 ±3
Height (H)	[mm]	40 ±1
Weight	[kg]	22 ±5%
Connector type		Tyco Solarlok
Bypass diodes		3
Max. mechanical load		5400 Pa
Cable length (C)	[mm]	1000 / 1000 ±10
Cable cross-section	[mm^2]	4

Other Characteristics

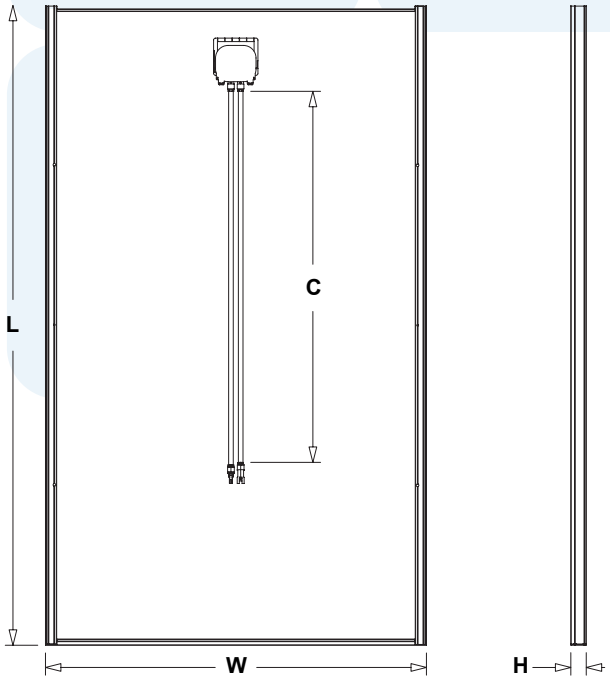
Technology	Monocrystalline Si
α (Isc) [1/K]	0.0006
β (Voc) [1/K]	-0.0033
Γ (Pmpp) [1/K]	-0.0049
β (Vmpp) [1/K]	-0.0047
Efficiency reduction from 1.000 to 200 W/m² is about 1%	

Electrical Equipment. Installation reserved for qualified professionals. This specification does not dispense with reading and understanding of the relevant manuals

Quality Components

60 High Quality Monocrystalline six inch cells
Robust aluminium anodized frame
High transmissivity 4mm thick Solar Glass

Due to continuous research and product improvement, the specifications in this Product Information Sheet are subject to change without notice. Specifications can vary slightly. For installation and operation instructions, please see the applicable manuals. No rights can be derived from this Product Information Sheet and Open Renewables® assumes no liability whatsoever connected to or resulting from the use of any information contained herein.



www.openrenewables.com

Open Renewables, S.A
Rua Aníbal Tavares, 11
Apartado 332
7002-506 Évora, Portugal
Tel: +351 266 730 600
Fax: +351 266 708 794
info@openrenewables.com
www.openrenewables.com