

Romag

Photovoltaic Systems



PowerGlaz® RI Roof Integrated Solar Tiles

Roof integrated PV is fast becoming a popular and cost effective solution for new build projects and should be considered to maximise the benefit of the free electricity generated. Roof integrated PV tiles are not only aesthetically pleasing but also act as a replacement to roof tiles and can be easily fitted using our interlocking frame system. Roof integrated tiles are also perfect for roof replacement schemes and investment now can generate a guaranteed income for the next 25 years.

The PowerGlaz® RI system has been developed for use on sloping tiled and slate roofs, with one of the highest power densities available on the market, the PV tiles integrate into the roof rather than being mounted on top.

This unique system combines our experience in producing high quality PV products with a market proven fixing system and can also be used as a 'total roof' solution. It is ideally suited for new builds or re-roofing as it is attached straight to the roof battens and can be used with a wide range of conventional roof tiles.



The PowerGlaz® RI system package includes:

- High Efficiency PowerGlaz® RI 6 Series polycrystalline PV modules
- All associated fixing clips
- Side gutters and header flashing
- Factory fitted connectors for interconnecting the solar tiles

Key features:

- No extra planning - system sits flush with the roof
- No specialist skills - all roofing work is carried out by the roofing contractor
- High power output - around 7 square metres per kWp
- Power output - guaranteed for 25 years
- The PowerGlaz® RI system is certified to IEC 61215 and IEC 61730

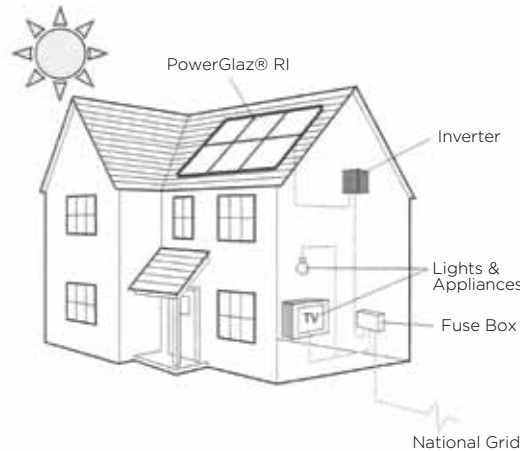
Frequently asked questions

Does PowerGlaz® RI Qualify for 'Feed-In Tariffs'?

Yes, the module options offered in the PowerGlaz® RI system are MCS certified and are eligible for UK 'Feed-In Tariffs' if fitted by a suitably qualified installer who is also MCS certified. On 1st April 2010 the UK government introduced 'Feed-In Tariffs' to help fund PV installations and increase the usage of solar PV as a viable renewable energy source. Energy generated from the PV system is subject to a generation tariff which is paid even if the consumer uses the electricity themselves; electricity fed into the grid receives an additional tariff. The actual tariff paid will depend on the size and type of PV installation.

How does it work?

1. The solar tiles generate DC power by converting daylight into electricity
2. The DC electricity is converted into AC by an inverter(s)
3. The AC electricity is fed via the fuse box to household appliances
4. Excess power is fed to the 'grid'. The Feed-In Tariff is paid for all electric generated



Do I need planning permission?

No, not necessarily - according to Statutory Instruments 2008 No. 675 of the The Town and Country Planning Order 2008 Part 40 "Installation of Domestic Microgeneration Equipment", planning permission is not required for domestic housing installations (subject to certain limitations) unless the installation is in a conservation area or World Heritage site. In both these cases PV can still be installed but conditions apply that prevent it being visible from a highway.

Can PowerGlaz® RI be installed on any house?

Yes, provided the property has a south facing aspect, no more than 90 degrees from due south, then PowerGlaz® RI can be installed with most pitched slated or tiled roof finishes.

Who Installs PowerGlaz® RI?

In order to qualify for 'Feed-In Tariffs', PowerGlaz® RI should be commissioned by an MCS certified installer. Romag can advise on suitable installers.



Maintenance

Romag PowerGlaz® RI is a passive system with no moving parts to wear out and if installed over 20° is self cleaning in most locations. We do however, recommend an inspection of the installation at least once a year and any dirt build up should be cleaned off.

Test Standards

MCS 012

Resistance to Surface Spread of Flame and Fire Penetration

BS EN 13501-5: 2005 Designation Broof(t4)
BS 476 Part 3: 2004 Designation Ext.S.AA

Wind Uplift Resistance

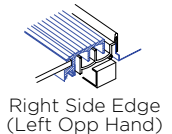
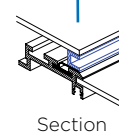
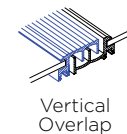
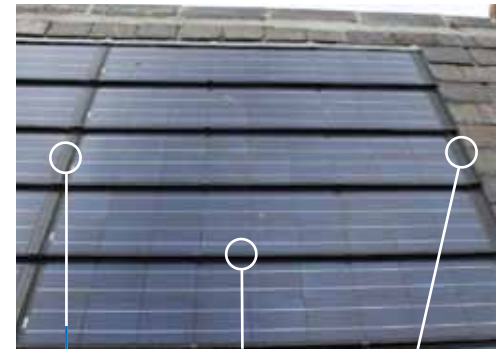
BS EN 14437:2004 - Achieved 4.5KPa

Water Ingress

Tested in accordance with:

Pr EN 15601 - (Type B Test) 'Wind Driven Rain'

Pr EN 15601 - (Type D Test) 'Water Deluge'





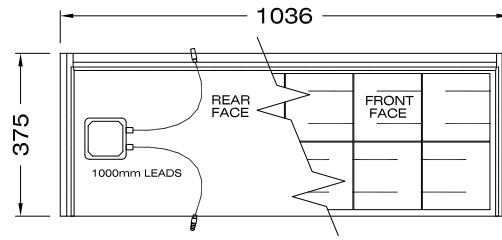
Romag RI 6 Series Electrical Characteristics

	RI 6 (32)	RI 6 (18)	RI 6 (12)	Wp
Pmpp	120	66	43	V
Vmpp	15.43	8.61	5.59	V
Impp	7.73	7.62	7.57	A
Voc	19.92	11.20	7.49	V
Isc	8.27	8.14	8.12	A
FF	74.41	71.96	69.53	%
Efficiency	13.6	12.8	12.3	%

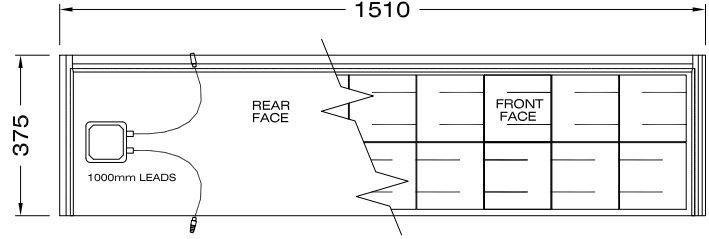
Temperature Characteristics

Coefficients: Power - 0.45%/°C Voltage -0.35%/°C
Current 0.05%/°C

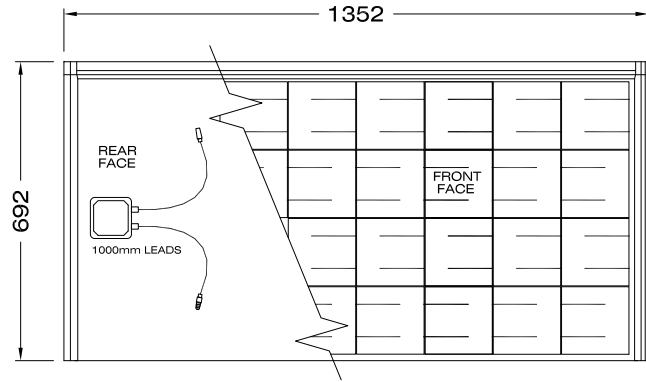
RI6 (12) 12 cell variant



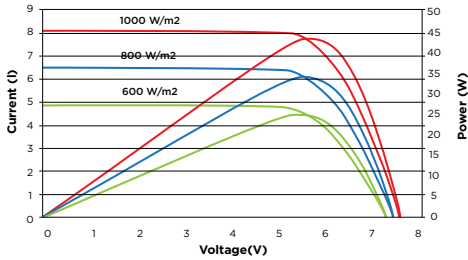
RI6 (18) 18 cell variant



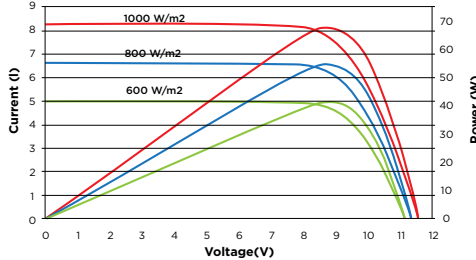
RI6 (32) 32 cell variant



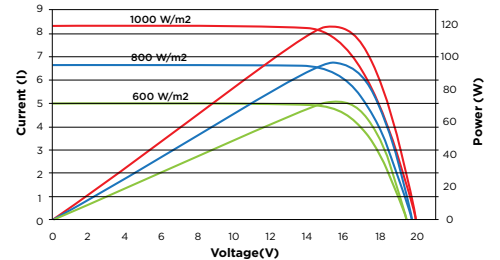
RI6 (12) Characteristics IV/Power Curves against Incident Radiation (at 25°C)



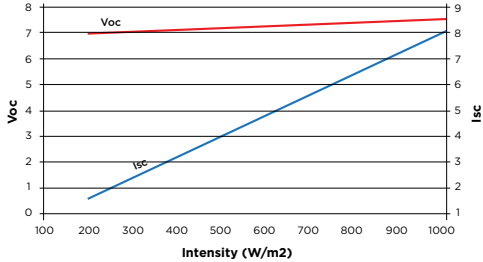
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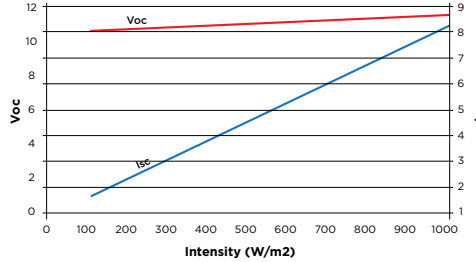
RI6 (32) Characteristics IV/Power Curves against Incident Radiation (at 25°C)



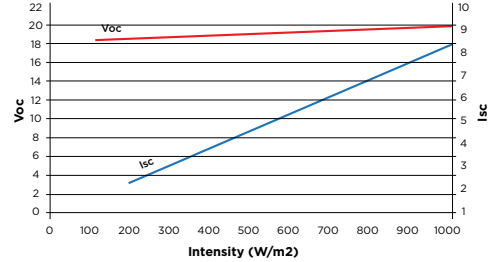
RI6 (12) Characteristics Curves: Isc, Voc vs Radiation Intensity



RI 6(18) Characteristics Curves: Isc, Voc vs Radiation Intensity



RI6 (32) Characteristics Curves: Isc, Voc vs Radiation Intensity



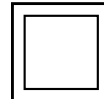


Other PowerGlaz® products

The PowerGlaz® range includes:

- Canopies
- Semi transparent glass/glass laminates for integration into curtain wall and roof glazing system
- Louvres • PowerPark charging stations for new generation electric vehicles
- MCS approved SMT6 series standard modules.

The information given in this brochure may be subject to change without warning.
Please check with our technical department prior to ordering.



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