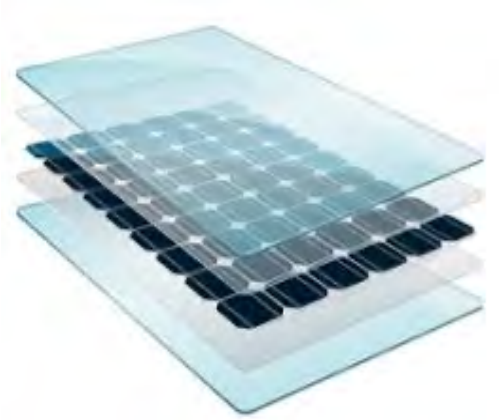
"LOCI" aesthetically integrated solar panel system with powerful performance by the MSMCxxxAS -18 solar panel

Loci is the fully integrated solar panel system that fills the roof or facade for your new construction or renovation projects. Loci is the solution for the energy transition and modern efficient building. The aesthetic solar panel roof combines the function of roof covering and energy generation in one product. The uniform black fully integrated Loci solar panel system with single crystal cells is now even more powerful! This makes the complete roof covering or façade a powerful power plant. Thanks to the integration of world record-breaking Mono cell technology into production, Loci modules are among the most efficient products of their kind, with an efficiency of more than 17.5%. No additional roofing is required, the Loci system replaces the traditional roofing for sloping roofs or cladding and supplies sufficient electricity for the user.



Longer life span by glass - glass technology

The use of a glass cover on the rear of the panel guarantees a longer service life than traditional solar panels which are provided with a plastic cover. The active cell layer is protected on both sides from environmental influences by stable glass substrates. The light frame design makes self-cleaning possible through optimum drainage of rainwater, even with smaller inclination angles of at least 15 degrees. This means lower operating costs for the owner of a Loci solar panel roof

Minimal fire hazard

The use of glass / glass technology eliminates the risk of fire due to "hot spots" since no combustible material is used at the rear of the panel. The wiring under the panels up to the inverter is fully pre-assembled with the right connectors by our supplier, so that poorly made connections by roof fitters are not the main cause of roof fires (ref.TNO-2019-R10287 PV).

Aesthetic appearance

The uniform black appearance of the Loci module gives the Loci integrated solar panel roof the perfect fit for advanced visual applications. In those places where a complete solar panel cannot be fitted, dummy panels with the same appearance as the normal panels are used.

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1083HK Amsterdam The Netherlands

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Water management

Thanks to the use of our patented S-profiles, the panels are potted in the vertical direction, which guarantees optimum watertightness. Our fastening system guarantees water conduction from ridge to gutter between the panel columns. No use is made of EPDM or rubber sealing, which means that water management remains guaranteed even after many years. After years, plastics lose their plasticizers, which can cause leaks.

Soundproofing

Sound tests according to EN-ISO 717-1 show that the Loci solar panel roof has excellent acoustic properties. Example: Rc9, with roof tiles = 38 dB, Rc9, with Loci = 40 dB

Physical characteristics

Thanks to our unique and long-term tested ventilation system under the panels, the system is optimally cooled and the vapor openness of the roof and the home is guaranteed.

Reliability

Our MSMCxxxAS -18 modules are manufactured in a state-of-the-art factory and tested to recognized high standards. In addition, the quality of each module is guaranteed by a complete check, including a 100% flash test procedure. Loci modules therefore not only offer you higher yields today, but also a reliable system for the coming 35+ years. The carrier system is partly manufactured in Austria and the Netherlands with a product warranty of 25 years. The supplied inverter is specially calculated for each roof system to be delivered taking into account all important circumstances.

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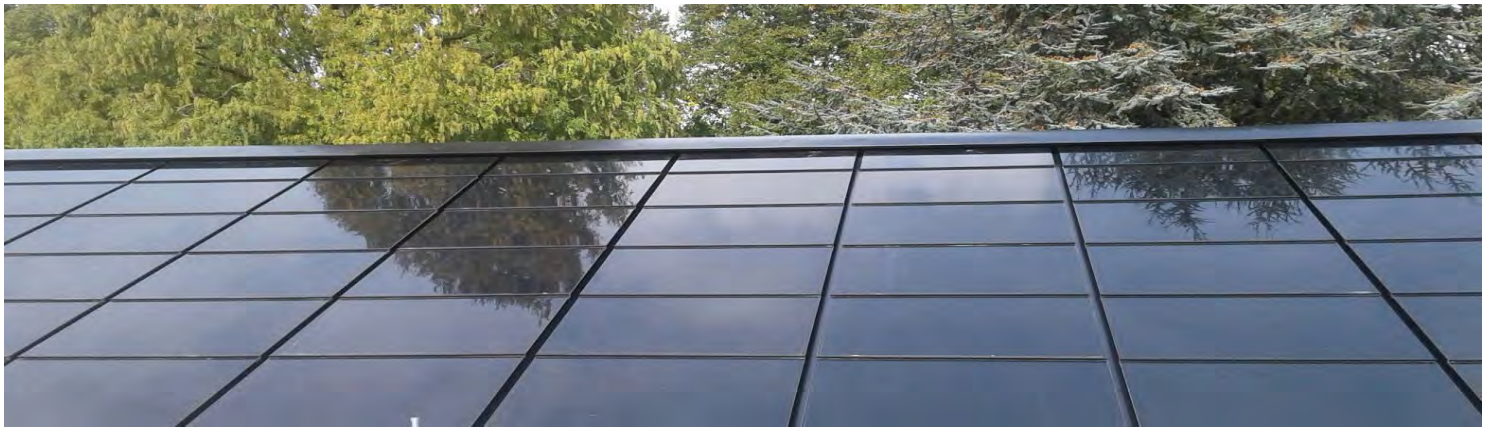

LOCI Solar roof powered by München Energieprodukte MAXIMALENERGIE

Higher yields

- Tight positive power tolerance from -0% / W to + 5% / W ensures that you receive panels on or above the rating plate power, which contributes to minimizing mismatch losses resulting in improved system efficiency. Monocrystalline silicon solar cells with low iron high transmission and textured glass provide a module efficiency of up to 20.0%, maximizing the kWh yield of your system per m2.

Excellent esthetical appearance

- Aesthetic black surface without silver lines
- Ideal to give every building a fantastic look

Easy to clean

- Practically frameless design means less sensitive to dirt.

Guaranteed quality

- Tested for harsh conditions
- Salt spray and ammonia corrosion testing: IEC 61701, DIN 50916: 1985 T2.
- Panels are tested individually to ensure compliance with certification and legal standards.

Warranties

- 15 years limited product warranty
- 25 years power output warranty
- Consult our warranty conditions

Munich Energieprodukte is one of the most innovation, reliability, quality and value oriented companies in the entire sector thanks to the focus on solar panels and technology ranging from roof systems to large-scale power plants. With market shares in Germany, Japan, China, Australia, North and South America, Munich Energieprodukte is truly a global supplier in the field of solar energy. Whether you choose solar panels for your residential / commercial roof system or power plant, know that you can rely on the München Energieprodukte brand. Customers who choose München Energieprodukte know that we deliver maximum performance with the highest quality product at the best price.

15 years Enhanced product guarantee on product and workmanship

25 years Linear power output warranty

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MAXIMUM ENERGY I WWW.MUENCHEN-ENERGIEPRODUKTE.DE

M Series

Monocrystalline Module MSMCxxxAS -18

ELECTRICAL PERFORMANCE									
Electrical parameters at Standard Test Conditions (STC)									
Module Type	MSMCxxxAS-18(xxx=Pmax)								
Power output	P_{max}	w	140	145	150				
Power output tolerances	ΔP_{max}	w	0~+5w						
Module efficiency	ηm	%	17.05	17.65	18.26				
Voltage at P_{max}	Vmpp	V	15.46	15.68	15.89				
Current at P_{max}	Impp	A	9.05	9.25	9.44				
Open circuit voltage	Voc	V	19.07	19.30	19.53				
Short circuit current	Isc	A	9.61	9.82	10.01				

STC: 1000W/m² irradiance, 25˚C cell temperature, AM1.5g spectrum according to EN 60904-3. Average relative efficiency reduction of 5% at 200W/m² according to EN 60904-1.

THERMAL CHARACTERISTICS			
Nominal operating cell temperature	NOCT	˚C	45 +/-2
Temperature coefficient of P_{max}	γ	% / ˚C	-0.39
Temperature coefficient of V_{oc}	βVoc	% / ˚C	-0.29
Temperature coefficient of I_{sc}	αIsc	% / ˚C	+0.05

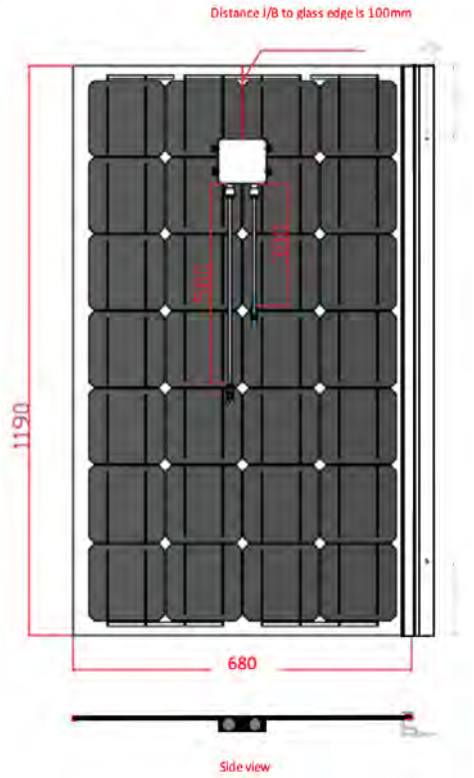
NOCT:open-circuit module operation temperature at 800W/m² irradiance,20˚Cambient temperature,1m/s wind

GENERAL CHARACTERISTIC	
Gross dimensions	1190mm / 690mm / 7mm
Nett dimensions	1190mm / 680mm / 7mm
Weight	17.2kg

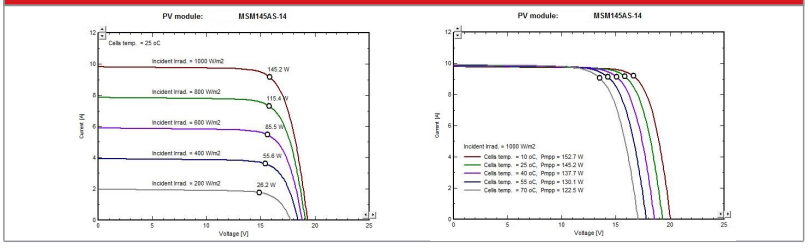
OPERATING CONDITIONS	
Max. System Voltage	1000VDC
Max. series fuse rating	15A
Limiting reverse current	15A
Operating temperature range	-40˚C to 85˚C
Max.staticload,front(e.g.,snow and wind)	5400Pa
Max. static load, back (e.g., wind)	2400Pa
Max.hailstone impact(diameter/velocity)	25mm / 23m/s

MECHANICAL CHARACTERISTICS	
Front/back Cover (material / thickness)	low-iron tempered glass / 3.2/3.2mm
Cell (quantity)	28 pcs(4*7)
Encapsulant (material)	EVA
Frame material	anodized aluminum alloy
Junction box (protection degree)	≥ IP67 with bypass-diode
Cable (length / cross sectional area)	1000mm / 4mm²
Plug connector(type/protection degree)	MC4 / IP67
Fire Safety Classification (IEC 61730)	Class A

Specifications are subject to change without notice.



IV-Curves



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