



**INTEGRATION P50
INTEGRATION M50**

210 - 225 Wp

**Appealing design with
roof integrated system**

In-roof panels with Solrif
frame

Easy to install, reliable
operation

Tested system structure
and rain-proof

Optimized for power

PID free high-performance
solar cells

Anti-reflective coated, high
light-transmitting solar
glass

Best low-light behavior
Positiv classified

**Highest quality
standards**

Manufactured in
accordance with DIN EN
ISO 9001:2015 and ISO
14001:2015 and OHSAS
18001:2007

PV-module type approval
according to IEC 61215
and IEC 61215:2016

PV-module safety
qualification according to
IEC 61730 and
IEC 61730:2016

Fire protection: tested in
accordance with
DIN ENV 1187 (t1)

**Guaranteed
performance ***

26 years linear
performance guarantee

12 years product
guarantee,

Optional Total Care
for the entire system

Integration 210 | 215 P50 black
 Integration 220 | 225 M50 black

Performance STC

Under Standard Test Conditions STC:
 1,000 W/m², spectrum AM 1.5, cell temperature
 25°C, measurement tolerances STC: ±3% (Pmpp)

Nominal Power (Pmpp)	210	215	220	225
Open Circuit Voltage (Uoc)	31,65	31,9	31,9	32,2
Voltage (Umpp)	24,75	24,99	25,51	25,76
Short Circuit Current (Isc)	9,13	9,23	9,22	9,31
Current (Impp)	8,49	8,61	8,63	8,74
Efficiency η	14,5	14,8	15,1	15,5

Performance

800 W/m², NOCT, AM 1.5

Nominal Power (Pmpp)	157	161	165	168
Open Circuit Voltage (Uoc)	19,82	30,05	30,04	30,32
Voltage (Umpp)	23,28	23,5	23,91	24,15
Short Circuit Current (Isc)	7,35	7,43	7,42	7,49
Current (Impp)	6,76	6,86	6,88	6,97

Thermal Properties

TC Pmpp	-0.42 %/K	-0.42 %/K	-0.41 %/K	-0.41 %/K
TC Uoc	-0.315 %/K	-0.315 %/K	-0.32 %/K	-0.32 %/K
TC Isc	0.04 %/K	0.04 %/K	0.035 %/K	0.035 %/K
NOCT	46 ± 2 °C	46 ± 2 °C	46 ± 2 °C	46 ± 2 °C

Other Technical Specification

Max. System Voltage	1000 V	1000 V	1000 V	1000 V
Weight	17.5 ± 0.5 kg			
Reverse Current Load IR	15 A	15 A	15 A	15 A
Junction Box	IP67	IP67	IP67	IP67
Connectors	IP68	IP68	IP68	IP68
Bypass Diodes in Junction Box	3 pcs	3 pcs	3 pcs	3 pcs

Materials Used

No. of Cells	50 pcs	50 pcs	50 pcs	50 pcs
Type of Cells	Poly	Poly	Mono	Mono
Front	Solar Glass	Solar Glass	Solar Glass	Solar Glass
Frame	Solrif	Solrif	Solrif	Solrif
Frame Height	35 mm	35 mm	35 mm	35 mm

