



## PROGETTO ESECUTIVO

**Appalto integrato sulla base del progetto di fattibilità tecnica ed economica "Smart City Napoli Nord - Piani Urbani Integrati – M5C2 – I.2.2"**

**CIG 972663946C CUP I45I22000020006 - CUP I45I22000030006**

### RTI



**OPUS COSTRUZIONI S.P.A.**

**Capogruppo**

P.IVA 07201350639

Via Campana 233, Pozzuoli



**ARCHIVOLTO SRL**

**Mandante**

P.IVA 07162480631

Via O. P. Cafaro n.4, Napoli

### RTP

**SAG ARCHITETTURA SRLS**

P.IVA 09189081210

Sede legale: Via Posillipo 66, Napoli

**MASCOLO INGEGNERIA SRL**

P.IVA 08524811216

Sede legale: Via Gramsci 19, Cicciano

**ELECTA SRL**

P.IVA 04082971211

Sede legale: Via Principe di Piemonte 109, Roccarainola

### RUP

Arch. Pasquale Imbema

**PROGETTO ELETTRICO** - (Afragola Rione Salicelle)  
Capitolato Speciale - Parte Tecnica - Progetto  
impianto fotovoltaico\_Pensilina

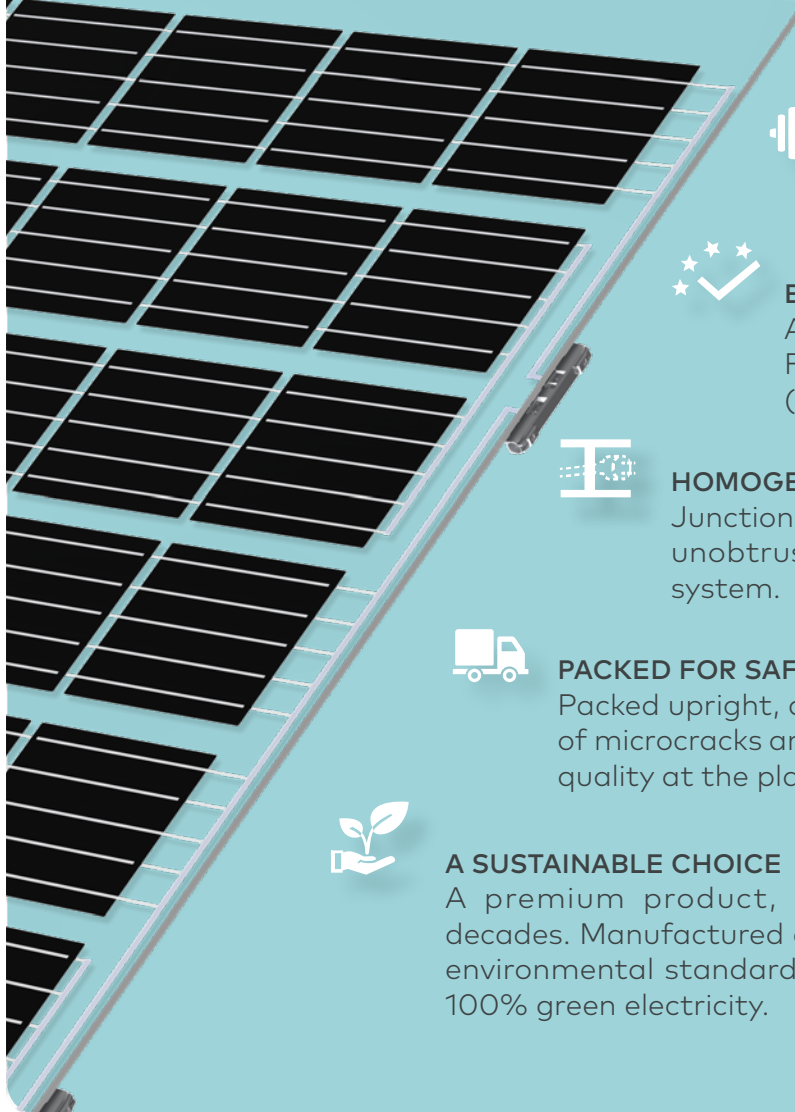
DATA EMISS.	Aprile 2024		CODIFICA	AFG.PE.ELT.R.	008_01
SCALA	-	FORMATO			

REVISIONE	DESCRIZIONE	DATA	APPROVATO DA
01	Integrazione rapporto di validazione	Giugno 2024	
00	prima emissione	Aprile 2024	

# ELEGANTE 200-210 W

Premium PV Panel

## Solar safety glass.



**TRANSPARENCY ~28%**  
The perfect balance of light and shadow.



**ROBUST**  
Strong construction -  
2 x 4 mm partially tempered glass.



**BUILDING PRODUCT**  
According to guideline DIN 18008.  
For vertical and overhead glazing  
(abZ of DIBt Z-70.3-232).



**HOMOGENEOUS OPTICS**  
Junction boxes can be installed  
unobtrusively in the mounting  
system.



**PACKED FOR SAFE TRANSPORT**  
Packed upright, avoiding the emergence  
of microcracks and thus ensuring factory  
quality at the place of delivery.



**A SUSTAINABLE CHOICE**  
A premium product, which lasts for  
decades. Manufactured according to rigid  
environmental standards. Produced with  
100% green electricity.

## MADE IN GERMANY!

Right here. In Prenzlau. In our production facility.  
Here we manufacture under the aspects of  
quality & durability since 2001.

## FULL SERENITY



30 Years linear  
**Power Guarantee**



30 Years  
**Product Warranty**

100% cost recovery of guarantee claims.

Under the terms and conditions of the respective guarantee certificate.

QUALITY UNDER HAND AND SEAL



# aleo solar PV-safety glass Elegante

ELECTRICAL DATA (STC)		G40C200	G40C210
Rated power	$P_{MPP}$ [W]	200	210
Rated voltage	$V_{MPP}$ [V]	21.7	22.3
Rated current	$I_{MPP}$ [A]	9.22	9.42
Open-circuit voltage	$V_{OC}$ [V]	26.8	27.1
Short-circuit current	$I_{SC}$ [A]	9.71	9.91
Efficiency	$\eta$ [%]	13.2	13.8

Electrical values measured under standard test conditions (STC): 1000 W/m<sup>2</sup>; 25°C; AM 1.5

BASIC DATA	
Length x width x height	[mm] 950 x 1600 x 9 (12.5 mm height junction box)
Weight	[kg] 31.5
Number of cells	40
Cell size	[mm] 158.75 x 158.75
Cell material	Monocrystalline Si, PERC,
Number of bus bars	5
Front glass	4.0 mm Solar glass (TSG)
Back glass	4.0 mm Solar glass (TSG)

BASIC DATA JUNCTION BOX	
Length x width x height	[mm] 105.8 x 15.5 x 12.5
IP class	IP67
Cable length	[mm] 820
Connectors	TE Slim Line
Bypass diodes	2 (one per junction box)

LOADS	
Max. pressure load	[Pa] 7500*
Max. suction load	[Pa] 5400*
Max. system voltage	[V <sub>DC</sub> ] 1000
Reverse current load	$I_R$ [A] 20
Mechanical load acc. to IEC/EN 61215	
* Please observe the mounting conditions in the installation manual	

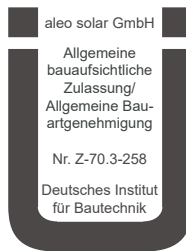
TEMPERATURE COEFFICIENTS			
Temperature coefficient $I_{SC}$	$\alpha (I_{SC})$	[%/K]	+0.05
Temperature coefficient $V_{OC}$	$\beta (V_{OC})$	[%/K]	-0.29
Temperature coefficient $P_{MPP}$	$\gamma (P_{MPP})$	[%/K]	-0.40

Measurement tolerance of  $P_{MPP}$  under STC -3/+3% | Accuracy of other electrical values -10/+10%  
Efficiency relating to gross PV-safety glass area

ADDITIONAL ELECTRICAL DATA		
Reduction of STC efficiency from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup>	[%] rel.	< 2
Classification range (positive classification)	[W]	0/+9.99

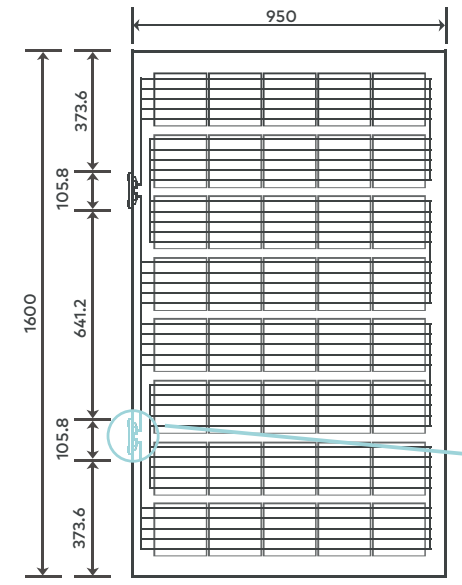


The regulations of laminated safety glass according to DIN 18008 apply to the planning, dimensioning and execution of the glazing.

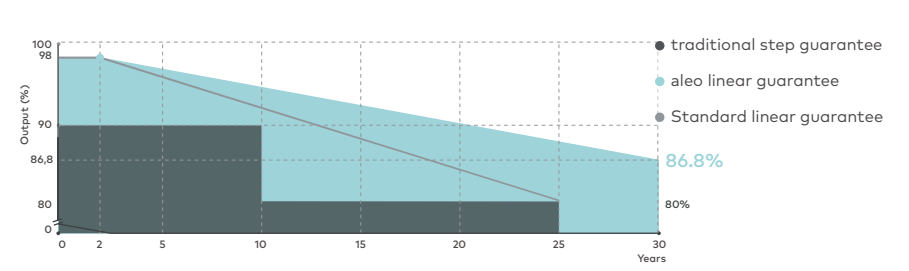


CERTIFICATIONS AND WARRANTY	
Product Guarantee	30 years
Power Guarantee	30 years
Fire Resistance	Class A according to IEC 61730-2
Protection Against Electric Shock	II
Certifications	architectural certification from DIBt

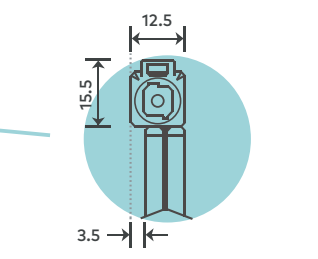
## DIMENSIONS [mm]



## PERFORMANCE GUARANTEE



## DIMENSIONS JUNCTION BOX [mm]



PLEASE CONTACT YOUR AUTHORISED ALEO DEALER

**ALEO SOLAR GMBH**  
Marius-Eriksen-Straße 1  
17291 PRENZLAU  
GERMANY

**CONTACT**  
+49 3984-8328-0  
info@aleo-solar.com  
www.aleo-solar.com



# MIC 750~3300TL-X

- Maximum efficiency of 97.6%
- Compact design
- Touch key& OLED display
- Flexible monitoring options
- AFCI optional



**GROWATT**

[www.ginverter.com](http://www.ginverter.com)

P O W E R  
- I N G O  
T O M O -  
R R O W O

Datasheet	MIC 750TL-X	MIC 1000TL-X	MIC 1500TL-X	MIC 2000TL-X	MIC 2500TL-X	MIC 3000TL-X	MIC 3300TL-X
<b>Input data (DC)</b>							
Max. recommended PV power (for module STC)	1050W	1400W	2100W	2800W	3500W	4200W	4290W
Max. DC voltage	500V	500V	500V	500V	550V	550V	550V
Start voltage	50V	50V	50V	50V	80V	80V	80V
Nominal voltage	120V	180V	250V	360V	360V	360V	360V
MPP voltage range	50V-500V	50V-500V	50V-500V	50V-500V	65V-550V	65V-550V	65V-550V
No. of MPP trackers				1			
No. of PV strings per MPP tracker				1			
Max. input current per MPP tracker				13A			
Max. short-circuit current per MPP tracker				16A			
<b>Output data (AC)</b>							
AC nominal power	750W	1000W	1500W	2000W	2500W	3000W	3300W
Max. AC apparent power	750VA	1000VA	1500VA	2000VA	2500VA	3000VA	3300VA
Nominal AC voltage(range*)				230V (180-280V)			
AC grid frequency(range*)				50/60 Hz (45-55Hz/55-65 Hz)			
Max. output current	3.6A	4.8A	7.1A	9.5A	11.9A	14.3A	14.3A
Adjustable power factor				0.8leading...0.8lagging			
THDi				<3%			
AC grid connection type				Single phase			
<b>Efficiency</b>							
Max. efficiency	97.4%	97.4%	97.4%	97.4%	97.6%	97.6%	97.6%
European efficiency	96.5%	96.5%	97.0%	97.0%	97.0%	97.1%	97.1%
MPPT efficiency				99.9%			
<b>Protection devices</b>							
DC reverse polarity protection				Yes			
DC switch				Yes			
AC/DC surge protection				Type III / Type III			
Insulation resistance monitoring				Yes			
AC short-circuit protection				Yes			
Ground fault monitoring				Yes			
Grid monitoring				Yes			
Anti-islanding protection				Yes			
Residual-current monitoring unit				Yes			
AFCI protection				Optional			
<b>General data</b>							
Dimensions (W / H / D)				274/254/138mm			
Weight	6kg	6kg	6kg	6kg	6.2kg	6.2kg	6.2kg
Operating temperature range				-25°C ... +60°C			
Nighttime power consumption				< 0.5W			
Topology				Transformerless			
Cooling				Natural convection			
Protection degree				IP65			
Relative humidity				0-100%			
Altitude				4000m			
DC connection				H4/MC4(Optional)			
AC connection				Connector			
Display				OLED+LED/WIFI+APP			
Interfaces: RS485 / USB/WI-FI / GPRS / RF/LAN				Yes/Yes/Optional/Optional/Optional /Optional			
Warranty: 5 years / 10 years				Yes /Optional			
CE,AS4777, AS/NZS 3100, CEI 0-21, VDE-AR-N 4105, VDE 0126-1-1, UTE C 15-712-1, EN50549, IEC 60068, IEC 61683, IEC 62116, IEC 61727, INMETRO, G98, C10/C11, UNE217001, UNE206007, PO12.2							

\* The AC voltage and frequency range may vary depending on specific country grid standard.  
All specifications are subject to change without notice.