

By the product certificate number / Par le numéro de certificat du produit

No. 2621/0429-G1-CER

Issued to / Délivré à:

License holder / Titulaire de la licence:

**SolarEdge Technologies Ltd.**  
1 Hamada street, Herzliya Pituach 4673335, Israel

Trademark / Marque déposée:

Factory location / Emplacement de l'usine:

**SolarEdge Technologies Ltd.**  
2 Hamerkava street, industrial Zone, Tzipurit, Israel

It is certified that the product / Il est certifié que le produit:

Type of product / Type de produit: **Three-phase photovoltaic inverter** / Onduleur photovoltaïque triphasé

Model / Modèle:

**SE330K**

Technical Data /  
Données techniques:

**Rated Power / Puissance nominale**

**330 kW**

**Rated Voltage / Tension nominale**

**690 V<sub>ac</sub>**

**Rated Frequency / Fréquence nominale**

**50 Hz**

**Firmware version / Version du firmware**

**2.3.132**

**Number of phases / Nombre de phases**

**Three Phase / Triphasé  
(3/N/PE)**

**Isolation transformer / Transformateur d'isolement**

**No / Non**

Is in compliance with the standard / Est conforme à la norme:

- **EN 50549-2:2019+AM:2023:** Requirements for generating plants to be connected in parallel with distribution networks - Part 2: Connection to a MV distribution network - Generating plants up to and including Type B. / *Exigences relatives aux centrales électriques destinées à être raccordées en parallèle à des réseaux de distribution - Partie 2: Raccordement à un réseau de distribution MT - Centrales électriques jusqu'au Type B inclus.*

Is in compliance with the requirements of regulation / Est conforme aux exigences du règlement:

- **EN 50549-10:2022:** Requirements for generating plants to be connected in parallel with distribution networks – Part 10: Tests for conformity assessment of generating units. / *Exigences relatives aux centrales électriques destinées à être raccordées en parallèle à des réseaux de distribution - Partie 10: Essais pour l'évaluation de la conformité des unités génératrices.*

The above-mentioned product is certified according to the standard EN 50549-2:2019+AM:2023 and is valid to be installed in PV generating plants up to and including Type B to be connected to a MV distribution network. The relation between this European Standard with the relevant Article of COMMISSION REGULATION (EU) 2016/631 (NC RfG) is considered as it is indicated in the annex H of the standard EN 50549-2:2019+AM:2023. / *Le produit susmentionné est certifié conformément à la norme EN 50549-2:2019+AM:2023 et peut être installé dans des centrales photovoltaïques jusqu'au Type B inclus, à raccorder à un réseau de distribution MT. La relation pertinente entre cette norme européenne et l'Article du RÈGLEMENT (UE) 2016/631 DE LA COMMISSION (NC RfG) est considérée comme l'indique l'annexe H de la norme EN 50549-2:2019+AM:2023.*

Aforementioned equipment is certified according to SGS internal procedure PE.T-ECPE-54 according to requirements established on standard UNE-EN ISO/IEC 17065. / *L'équipement susmentionné est certifié selon la procédure interne de SGS PE.T-ECPE-54 conformément aux exigences établies par la norme UNE-EN ISO/IEC 17065.*

This certificate is first issued on 17<sup>th</sup> July 2024 / *Ce certificat est émis pour la première fois le 17 juillet 2024*

This certificate is valid until the 17<sup>th</sup> July 2029 / *Ce certificat est valable jusqu'au 17 juillet 2029*

Madrid, 17<sup>th</sup> July 2024 / *À Madrid, le 17 juillet 2024*

Daniel Arranz Muñiz  
Certification Manager



**ANNEX I: EN 50549 PARAMETER TABLE**

Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value
<b>4.4.2 Operating frequency range</b>	47.0 – 47.5 Hz Duration		0 – 20 s	20s
	47.5 – 48.5 Hz Duration		30 – 90 min	90 min
	48.5 – 49.0 Hz Duration		30 – 90 min	90 min
	49.0 – 51.0 Hz Duration		Not configurable	Unlimited
	51.0 – 51.5 Hz Duration		30 – 90 min	90 min
	51.5 – 52 Hz Duration		0 – 15 min	15 min
<b>4.4.3 Minimal requirement for active power delivery at underfrequency</b>	Reduction threshold		Not configurable	49,5 Hz
	Maximum reduction rate		Not configurable	10 % P <sub>M</sub> /Hz
<b>4.4.4 Continuous operating voltage range</b>	Upper limit		Not configurable	110 % Un
	Lower limit		Not configurable	90 % Un
<b>4.5.2 Rate of change of frequency (ROCOF) immunity</b>	ROCOF withstand capability		Not configurable	2 Hz/s



Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value	
4.5.3.2 Under-voltage ride through (UVRT) Generating plant with non-synchronous generating technology	Maximum power resumption time		Not configurable	1 s	
	Voltage-Time-Diagram		See Figure 6 of EN 50549-2:2019	Time [s]	U [p.u.]
				0,00	0,05
				0,25	0,05
				3,00	0,85
				180	0,85
180	0,9				
4.5.3.3 Under-voltage ride through (UVRT)	Maximum power resumption time		Not configurable	3 s	
Generating plant with synchronous generating technology	Voltage-TimeDiagram		See Figure 7 of EN 50549-2:2019	Time [s]	U [p.u.]
				N/A	N/A
				N/A	N/A
				N/A	N/A
				N/A	N/A
				N/A	N/A
				N/A	N/A
4.5.4 Over-voltage ride through (OVRT)	Voltage-TimeDiagram		Not configurable see Figure 8 of EN 50549-2:2019	Time [s]	U [p.u.]
				0,0	1,25
				0,1	1,25
				0,1	1,20
				5,0	1,20
				5,0	1,15
				60	1,15
				60	1,10



Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value
<b>4.6.1 Power response to overfrequency</b>	Threshold frequency f1		50,2 Hz – 52 Hz	50,2 Hz
	Droop		2 % – 12 %	5 %
	Power reference		$P_M$   $P_{max}$	$P_{max}$ , for EESS $P_M$ for other nonsynchronous generating technology
	Intentional delay		0 – 2 s	0s
	Deactivation threshold fstop		50,0 Hz – f1	Deactivated
	Deactivation time tstop		0 – 600 s	-
	Acceptance of staged disconnection		Yes   No	No
<b>4.6.2 Power response to underfrequency</b>	Threshold frequency f1		49,8 Hz – 46 Hz	49,8 Hz
	Droop		2 – 12 %	5 %
	Power reference		$P_M$   $P_{max}$	$P_{max}$
	Intentional delay		0 – 2 s	0 s
<b>4.7.2.2 voltage support by reactive power - Capabilities</b>	Active factor / Reactive power (%Pd) range overexcited		0.1 – 1 / 100 % $P_d$ - 0	0.1 – 1 / 100 % $P_d$ - 0
	Active factor / Reactive power (%Pd) range underexcited		0.1 – 1 / 100 % $P_d$ - 0	0.1 – 1 / 100 % $P_d$ - 0



Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value
4.7.2.3 voltage support by reactive power – Control modes	Enabled control mode		Q setp. Q(U) Q(P)	Q set point
4.7.2.3.2 voltage support by reactive power - Set point control modes	Q set point and excitation		0 – 98.8 % PD	0
	cos φ set point and excitation		N/A	N/A
4.7.2.3.3 voltage support by reactive power - Voltage related control modes	Characteristic curve			U (%Un)   Q (%Pn)
				93%   +60%
				94%   0%
				106%   0%
	107%   -60%			
	Time constant		3 s – 60 s	10 s
	Min cos φ		0,0 – 1	0,9
Lock-in power		0 % – 20 %	Deactivated	
Lock-out power		0 % – 20 %	Deactivated	
4.7.2.3.4 voltage support by reactive power - Power related control mode	Characteristic curve			P (%Pn)   Q (%Pn)
				15%   +60%
				20%   0%
				80%   0%
85%   -60%				
4.7.4.2.1 Voltage support during faults and voltage steps – General	Enabling		Enable   Disable	Disabled
	Static voltage range overvoltage		100 % U <sub>c</sub> – 120 % U <sub>c</sub>	110 % U <sub>c</sub>
	Static voltage range undervoltage		80 % U <sub>c</sub> – 100 % U <sub>c</sub>	90 % U <sub>c</sub>
/ Generating Plant with non-synchronous generator	Insensitivity range of ΔU50per		0 % – 15 %	5 %
	Gradient k1		0 – 6	2
	Gradient k2		0 – 6	2



Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value
<b>4.7.4.2.1.2 Optional Modes</b> <b>/ Generating Plant with non-synchronous generator</b>	Active power priority		N/A	N/A
	Reactive current limitation [% rated current]		0 % - 100 %	Disable
	Zero current threshold		0 % - 100 %	Disable
<b>4.7.4.2.2 Zero current mode for converter connected generating technology</b> <b>/ Generating Plant with non-synchronous generator</b>	Enabling		Enable   Disable	Disable
	Static voltage range overvoltage		100 % $U_n$ – 120 % $U_n$	120 % $U_n$
	Static voltage range undervoltage		20 % $U_n$ – 100 % $U_n$	50 % $U_n$
<b>4.9.3 Requirements on voltage and frequency protection</b>	Threshold for protection as dedicated device [ in A or kW. kVA]		N/A	
	Undervoltage threshold stage 1		N/A	
	Undervoltage operate time stage 1		N/A	
	Undervoltage threshold stage 2		N/A	
	Undervoltage operate time stage 2		N/A	
	Overvoltage threshold stage 1		N/A	
	Overvoltage operate time stage 1		N/A	
	Overvoltage threshold stage 2		N/A	
	Overvoltage operate time stage 2		N/A	



Clause(s) / subclause(s) of EN 50549-2:2019	Parameter	Remarks/ additional information	Configurable value range	Default value
<b>4.9.3 Requirements on voltage and frequency protection</b>	Overvoltage threshold 10 min mean protection		N/A	
	Underfrequency threshold stage 1		N/A	
	Underfrequency operate time stage 1		N/A	
	Underfrequency threshold stage 2		N/A	
	Underfrequency operate time stage 2		N/A	
	Overfrequency threshold stage 1		N/A	
	Overfrequency operate time stage 1		N/A	
	Overfrequency threshold stage 2		N/A	
	Overfrequency operate time stage 2		N/A	
<b>4.10.2 Automatic reconnection after tripping</b>	Lower frequency		47,0 Hz – 50,0 Hz	49,5 Hz
	Upper frequency		50,0 Hz – 52,0 Hz	50,2 Hz
	Lower voltage		50 % U <sub>c</sub> – 100 % U <sub>c</sub>	90 % U <sub>c</sub>
	Upper voltage		100 % U <sub>c</sub> – 120 % U <sub>c</sub>	110 % U <sub>c</sub>
	Observation time		10 s – 600 s	60 s
	Active power increase gradient		6 % - 3000 %/min	10 %/min
<b>4.10.3 Starting to generate electrical power</b>	Lower frequency	Connection and reconnection Will be performed by an external device	47,0 Hz – 50,0 Hz	49,5 Hz
	Upper frequency		50,0 Hz – 52,0 Hz	50,1 Hz
	Lower voltage		50 % U <sub>c</sub> – 100 % U <sub>c</sub>	90 % U <sub>c</sub>
	Upper voltage		100 % U <sub>c</sub> – 120 % U <sub>c</sub>	110 % U <sub>c</sub>
	Observation time		10 s – 600 s	60 s
	Active power increase gradient		6 % - 3000 %/min	Disabled
<b>4.11.1 Ceasing active power</b>	Activation option		Digital input / Modbus	
<b>4.11.2 Reduction of active power on set point</b>	Activation option		Digital input / Modbus	
<b>4.12 Remote information exchange</b>	Available communication standards	Remote information exchange shall be evaluated according to requirements of DSO/TSO or other interested parties	N/A	

