

# EQUINOX™

Three-phase solar power inverters for mains connection from 5 to 10 kW

## EQUINOX™: Electrical generation with high-quality waveforms

Salicru's **Equinox™** series of solar-power inverters offer optimum solutions for low-power three-phase photovoltaic installations.

They have been designed using the latest thermal simulation technology, in order to obtain high power density and a longer service life.

Like the original Equinox series, they are outstanding both for their elegant design and because they are reliable, efficient and functional devices that guarantee a completely stable energy production.

The range includes units with powers of 5, 8 and 10 kW, powers frequently used for a wide range of projects.

Their wide input voltage range allows for flexible string design, since a variable number of photovoltaic modules of different types can be used.

Installation is fast and easy, due to their compact design and weight and the location of the connections in the lower part of the device. The high protection rating of the housing allows both indoor and outdoor installation.

Several communication interfaces are available (WIFI, LAN, 4G and GPRS) that, together with the free **EQX-sun** App for smartphones or tablets, allow easy, uncomplicated monitoring of the photovoltaic installation.



## Applications: Self-consumption in homes and small industrial and commercial premises

Salicru's **Equinox™** series covers a wide variety of applications. It is ideal for self-consumption installations in small industrial and commercial premises and larger houses and villas that require three-phase supplies.

At the same time, they are an excellent choice for small photovoltaic parks, since several devices can be used in parallel.



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## Performances

- Elegant design with aluminium housing and anodized finish.
- Ergonomic forms and easy wall mounting.
- Compact size, minimizes the space required.
- IP65 protection rating allows outdoor use.
- Plug & Play connection.
- Inductance located in the radiator, to reduce the internal temperature.
- 2 MPPT Trackers allow for roofs of most dimensions.
- Wide MPPT tracker voltage range for more flexible string design.
- Integrated DC disconnect.
- The design requires no neutral connection, allowing compliance with many mains connection requirements.
- 3-Level type T topology provides high conversion efficiency and low distortion.
- Low start-up voltage of 200 Vdc.
- Integrated power export limiting function.<sup>(1)</sup>
- Supervision of the installation via free **EQX-sun**<sup>(2)</sup>
- LCD for start-up, configuration and viewing of production data.
- 5-Year warranty, extendable to 20 years.

(1) Requires optional **ESM3T 100A EQX** power meter. Does not allow for the use of self-consumption without surplus as contemplated in Spanish Royal Decree 244/2019.

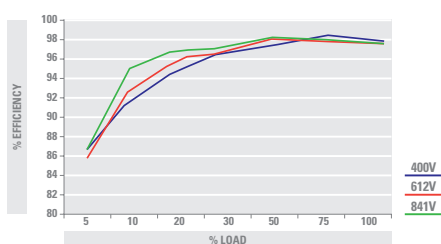
(2) Optional equipment may need to be installed, depending on the monitoring data required::

- Only generation data: **485/WIFI EQX** communication module.

- 24-hour data (generation, network and consumption): **485/WIFI 24H EQX** communication module and **ESM3T 100A EQX** energy meter.

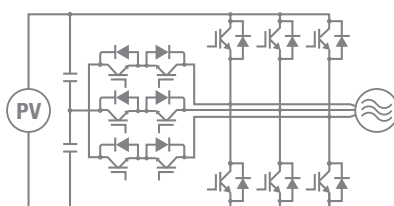


## High efficiency



## 3-level type T topology

The 3-level type T topology, one of the most advanced technologies in power electronics, together with SVPWM (Space-Vector Pulse-Width Modulation) control, reduce switching losses and distortion to increase efficiency and improve the quality of the output waveform.



## Communication modules

The **485/...EQX** communication modules transmit the inverter data to the cloud, for subsequent use by the **EQX-sun** App. Two types of assembly are available: on the inverter itself (generation data only) or on a DIN rail on an AC board (24-hour data plus generation, network and consumption).



## Power meter

The **ESM3T 100A EQX** consists of a network analyser that allows bidirectional metering of energy and three external, split-core, fully cabled transformers that must be installed in each of the phases.



## APP for smartphone and tablet

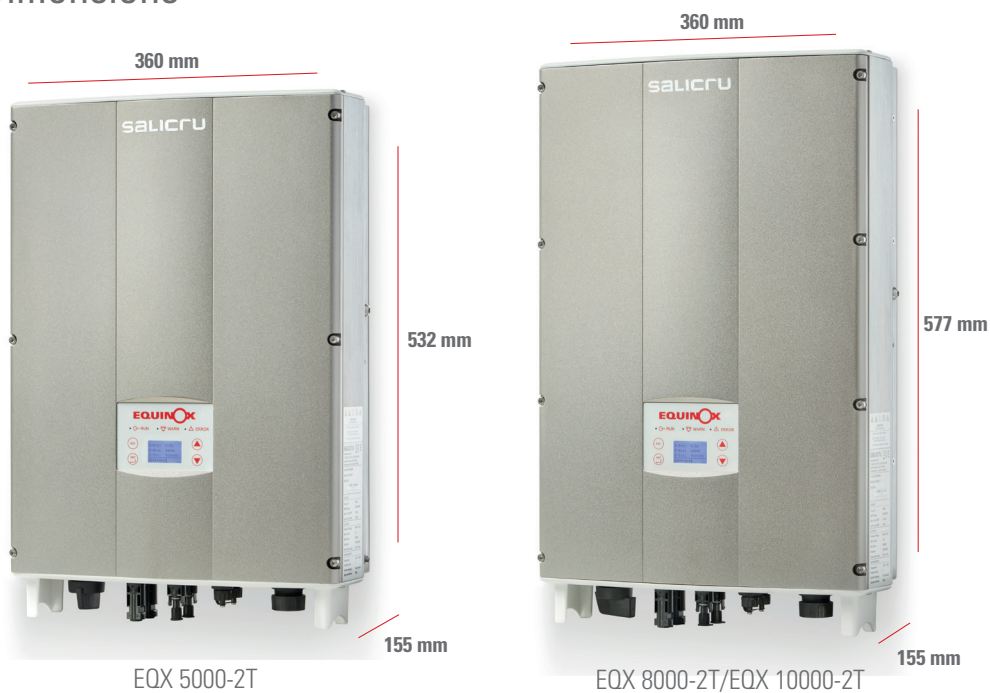
The free app **EQX-sun** allows monitoring the current status of the photovoltaic installation, consulting historical data and monitoring in real time the photovoltaic power produced, that consumed by loads, and that consumed by the mains or injected into it. The App also provides data on the cost savings achieved and the total reduction in CO2.



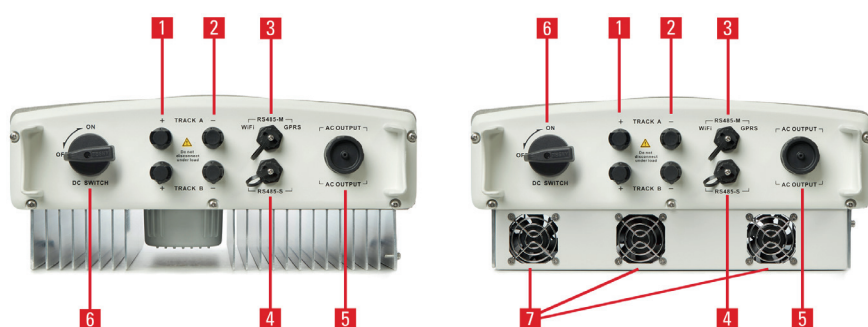
## Range

MODEL	CODE	POWER (kW)	N° MPPTs	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)
EQX 5000-2T	6B2AA000006	5	2	155 × 360 × 532	20
EQX 8000-2T	6B2AA000007	8	2	155 × 360 × 577	23
EQX 10000-2T	6B2AA000008	10	2	155 × 360 × 577	23

## Dimensions



## Connections



1. Positive photovoltaic input terminals
2. Negative photovoltaic input terminals
3. Main communication port (communication module connection).
4. Auxiliary communication port.
5. AC / mains output terminal.
6. DC disconnect.
7. Cooling fans.

# Technical specifications

MODEL		EQX 5000-2T	EQX 8000-2T	EQX 10000-2T
INPUT	Maximum DC input power (W)	5500	8800	11000
	Maximum DC input voltage (Vdc)	900	1000	
	Working-out rank (Vdc)	200-800		
	MPPT rank (Vdc)	260-800	350-800	400-800
	MPPT Trackers / inputs per MPPT	2/1		
	Max. input current per MPPT x Number of MPPTs	10A × 2	12A × 2	12,5A × 2
	Max. short-circuit current per MPPT x Number of MPPTs	11A × 2	13A × 2	14A × 2
OUTPUT	Power factor	0.9 inductive to 0.9 capacitive (adjustable)		
	Maximum power (W)	5000	8000	10000
	Network voltage	Three-phase (L1, L2, L3, N, PE) o (L1, L2, L3, PE)		
	Voltage ranges	Three-phase 320~460 Vac		
	Maximum apparent output power (VA)	5000	8000	10000
	Total harmonic distortion (THDi)	<2%		
	Frequency	50 Hz (47-51,5 Hz) / 60 Hz (57-61,5 Hz)		
	Rated output current (A)	8	12.5	14
	Performance EU	96,28%	96,78%	97,22%
	Maximum performance	98,04%	98,08%	98,14%
	MPPT adaptive performance	99,90%		
	COMMUNICATION	Ports	Standard: RS485 / Optional: Wifi, LAN, 4G and GPRS	
INDICATIONS	Type	2” back-lit LCD + status LEDs		
PROTECTION	Input DC disconnector	Included		
	Integrated in the device	Input: Over-voltage, under-voltage and over-current, DC insulation resistance monitoring, inverse polarity, residual current detection / Output: anti-islanding, over-voltage, under-voltage, over-current and short-circuit, overtemperature, frequency out of range, high DC component in AC.		
	Over-voltage protection category	PV: II / AC: III		
GENERAL	Contamination level	3		
	Self-consumption (at night)	<1W		
	Operating temperature	-25°C~+60°C (de-rate for temperature >45°C)		
	Relative humidity	0~100%		
	Maxium operating altitude	2000m (de-rate for altitude >2000m)		
	Degree of protection	IP65		
	Isolation	Class I		
	Cooling	Natural convection (no fans)	Smart cooling (variable-speed fans)	
	Acoustic noise at 1 metre	≤30 dB	≤50 dB	
	Terminal type	MC4 or compatible		
	Installation	Indoor and outdoor installation / Wall support		
	Topology	Transformerless		
	STANDARDS	Certificate	RD 244/2019; UNE 206007-1 IN <sup>(1)</sup>	
Safety / EMC		IEC 62109-1/2 / EN 61000-6-2/3		
Energy efficiency		IEC 61683		
Environmental tests		IEC 60068-2-1/2/14/30		
Islanding protection		IEC 62116		
Quality and environmental management		ISO 9001 & ISO 14001		

(1) Consult available regulations for other countries



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