

# EQUINOX TL

Three-phase solar power inverters for mains connection from 15 to 30 kW

## EQUINOX TL: Robust, reliable and efficient

Salicru's **Equinox TL** series of solar-power inverters are ideal for large generator plants in the industrial and commercial sectors.

They offer high-performance cost-optimised solutions with minimum maintenance, and guarantee high profitability and fast return on investment.

They offer high power density and a longer service life, due to designs developed using the latest thermal simulation technology.

The range includes devices with powers of 15, 20 and 30 kW, making them suitable for a wide range of projects. Their wide input voltage range and their intelligent DC combiner allow for flexible string design, since a variable number of photovoltaic modules of different types can be used.

The location of the connectors in the lower part of the devices and the high protection rating of the housing make them suitable for indoor and outdoor use, and installation is fast and easy.

The free **EQX-sun** App, available for smartphones and tablets using iOS or Android, plus various communication interfaces (WIFI, LAN, 4G and GPRS) allow the photovoltaic installation to be easily monitored.



## Applications: Self-consumption in large industrial and commercial premises

Salicru's **Equinox TL** series has been developed to offer self-consumption solutions with the possibility of using several devices in parallel for large industrial and commercial premises and for photovoltaic generator parks.

Installations of this type allow businesses to generate their own electrical power, reducing and stabilising energy costs. They are also an attractive capital investment, since in general, both the plant and the income belong to the owner.

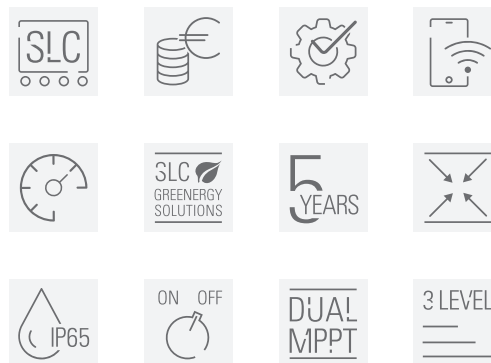


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# Performances

- Modular design facilitates installation and maintenance.
- High power density, reduced size.
- IP65 protection rating allows outdoor use.
- Wide MPPT tracker voltage range for more flexible string design.
- 2 independent MPPT Trackers allow unequal power inputs. One MPPT can control up to 60% of the maximum DC power.
- Integrated DC disconnecter.
- Intelligent DC combiner and integrated over-voltage protection to improve system flexibility and reduce its cost.
- 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.
- Advanced film DC bus capacitors, designed with the latest thermal simulation technology to provide a greater service life.
- 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.

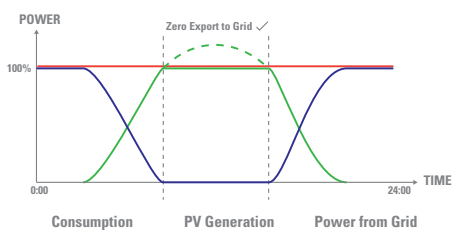
(2) Optional equipment may need to be installed, depending on the monitoring data required:

- 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.

## Integrated power export limiting

The inverters in the **Equinox TL** series incorporate intelligent control of the output power. Using the **ESM3T 100A EQX** power meters, the inverters monitor the mains in real time and, when configured appropriately, prevent energy being injected into the mains by constantly adjusting the output power, thus avoiding the system shutting down and allowing it to continue to use the available photovoltaic energy.



## 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).

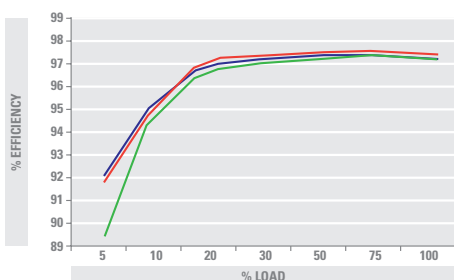


## APP for smartphone and tablet

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 CO<sub>2</sub>.

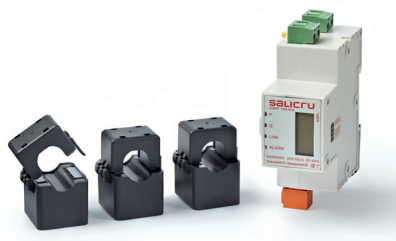


## High efficiency



## 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.



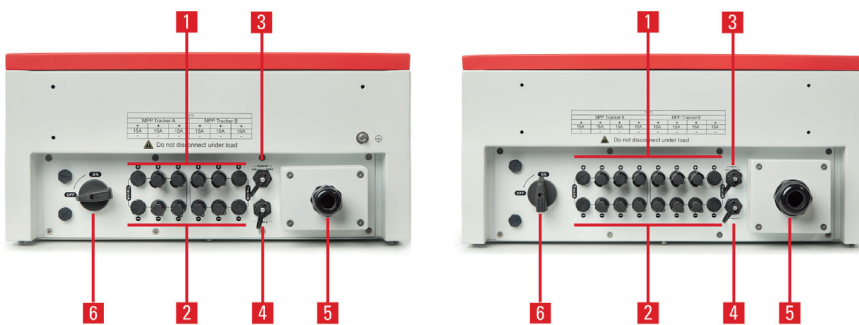
## Range

MODEL	CODE	POWER (kW)	N° MPPTs	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)
EQX 15000-2T	6B2AA000009	15	2	236 × 505 × 637	38
EQX 20000-2T	6B2AA000010	20	2	251 × 545 × 723	52
EQX 30000-2T	6B2AA000011	30	2	251 × 545 × 723	52

## 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.

## Technical specifications

MODEL		EQX 15000-2T	EQX 20000-2T	EQX 30000-2T
INPUT	Maximum DC input power (W)	16500	22000	33000
	Maximum DC input voltage (Vdc)	1000		
	Working-out rank (Vdc)	200-800	300-800	
	MPPT rank (Vdc)	400-800	450-800	480-800
	MPPT Trackers / inputs per MPPT	2/2	2/3	
	Max. input current per MPPT x Number of MPPTs	21A x 2	25A x 2	33A x 2
	Max. short-circuit current per MPPT x Number of MPPTs	23,5A x 2	27A x 2	36A x 2
OUTPUT	Power factor	0.8 inductive to 0.8 capacitive (adjustable)		
	Maximum power (W)	15000	20000	30000
	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)	15000	20000	30000
	Total harmonic distortion (THDi)	<2%		
	Frequency	50 Hz (47-51,5 Hz) / 60 Hz (57-61,5 Hz)		
	Rated output current (A)	24.1	32	48
	Performance EU	97,01%	96,69%	97,12%
	Maximum performance	97,52%	97,60%	97,65%
	MPPT adaptive performance	99,90%		
COMMUNICATION	Ports	Standard: RS485 / Optional: Wifi, LAN, 4G and GPRS		
INDICATIONS	Type	3.5" back-lit LCD + status LEDs		
PROTECTION	Input DC disconnecter	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%		
	Maximum operating altitude	2000m (de-rate for altitude >2000m)		
	Degree of protection	IP65		
	Isolation	Class I		
	Cooling	Smart cooling (variable-speed fans)		
	Acoustic noise at 1 metre	≤55 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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