

# A bankable solution for commercial buildings, carports, and decentralised power plants

Conext TL three-phase grid-tie inverters



# Introducing the Conext TL three-phase grid-tie inverter

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The new Conext™ TL grid-tie solar inverters are suited for outdoor use and are the ideal solution for commercial buildings, carports, and decentralised photovoltaic (PV) plants up to the MW range. The inverters provide dual maximum power point tracking (MPPT) with a wide voltage range and a peak efficiency of greater than 98 per cent for fast ROI.

The embedded Modbus communication card also allows for connectivity with a large range of Schneider Electric™ products, as well as the option to easily add third party monitoring solutions.



Available in 8, 10, 15 and 20 kW



Backed by the Schneider Electric global service infrastructure and its expertise in energy management, the Conext TL series are the inverters you can trust for quality and reliability.



## Why choose a **Conext TL** solar inverter?



### **True bankability**

- Warranty from a trusted partner with over 175 years of experience
- World leader in industrial power drives, UPS, and electrical distribution
- Strong service infrastructure worldwide to support your global needs



### **Higher return on investment**

- High efficiency >98%
- Higher ROI with dual MPPT
- Great value for money
- Warranty from a trusted partner



### **Designed for reliability**

- Tested and qualified in harsher environmental conditions (MEOST reliability testing)



### **Flexible**

- Wide MPPT voltage range (350 - 850 V)
- Modular system designs using a combination of models
- Easy to connect to third party monitoring solutions
- Appropriate for outdoor installations (IP65 electronics)



### **Easy to service**

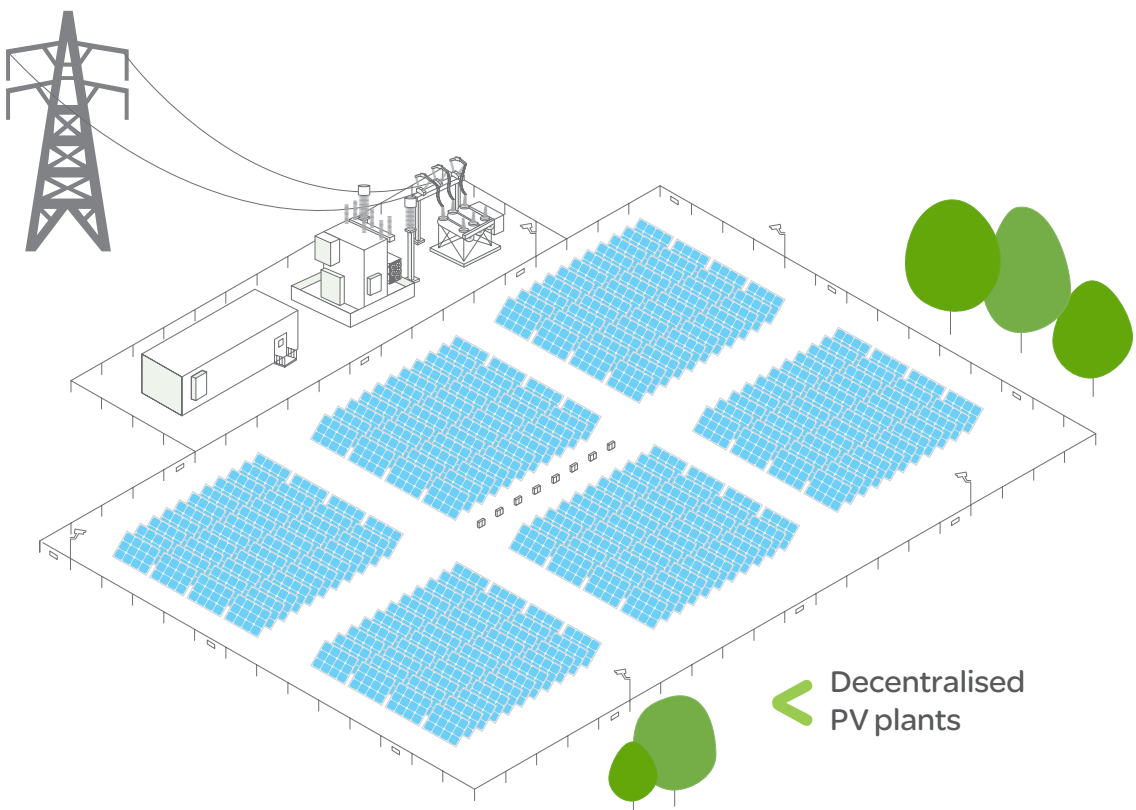
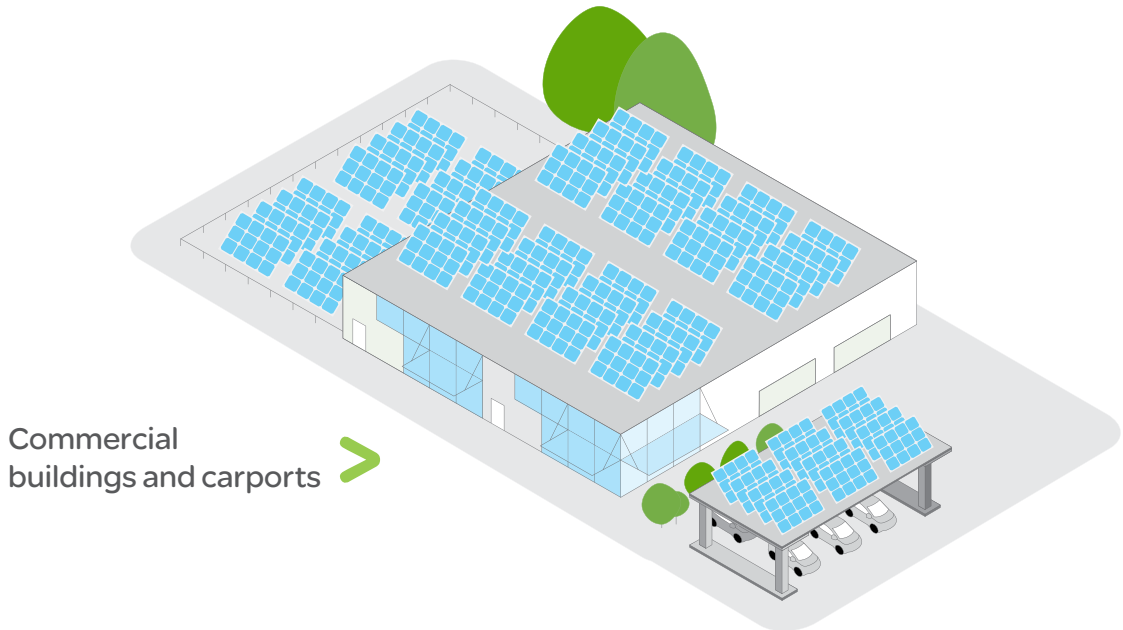
- Easily replaceable fan block and communications card
- Integrated DC switch
- Ability to remotely disable



### **Easy to install**

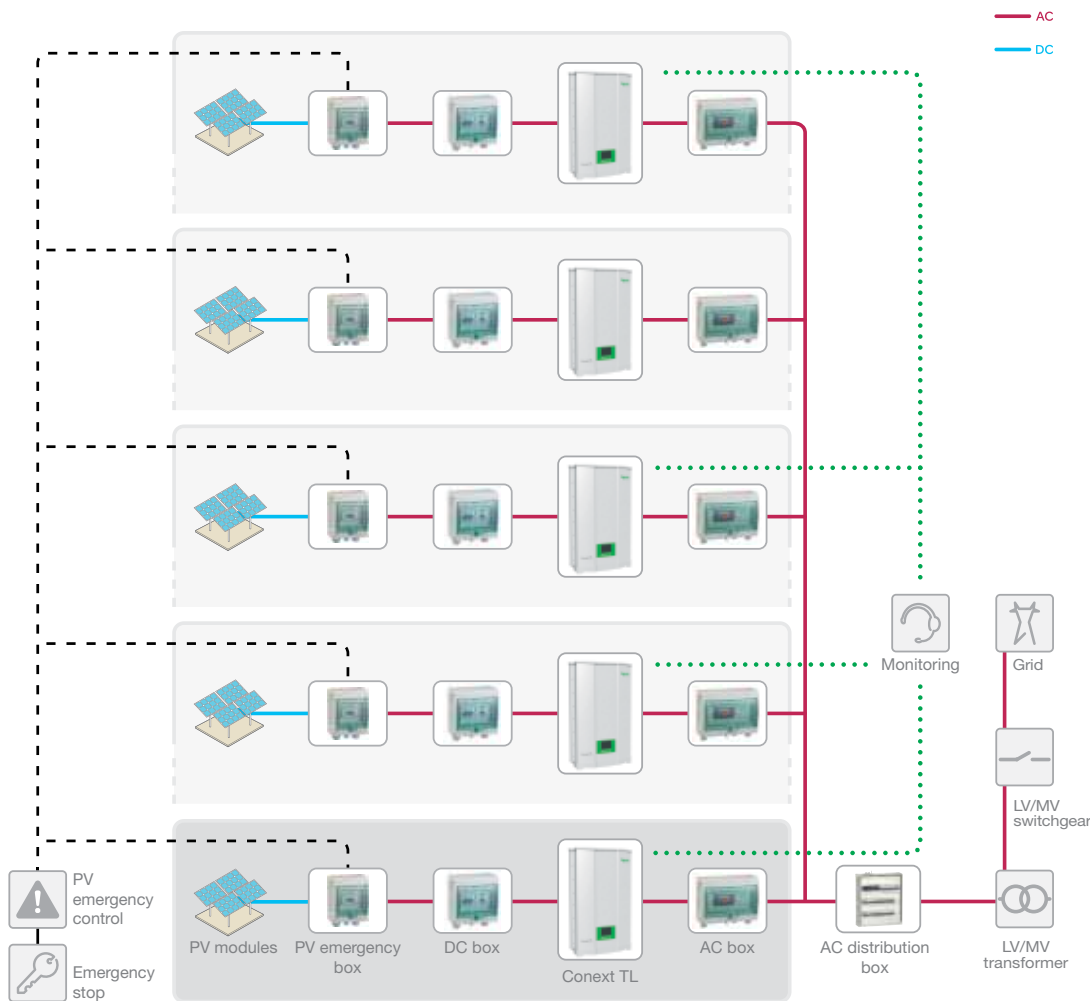
- Easy and fast mounting with included bracket
- Pluggable AC and DC connectors (MC4)
- Auto country/multilingual configurations

# Applications for the Conext TL three-phase grid-tie inverter



# Designing a decentralised solar installation using Conext TL

Using Conext TL inverters in a decentralised PV architecture, the PV array is broken up into smaller sub-arrays, each with its own small power string inverters.



- Lower installation cost and time due to modular system design, reduced transportation costs, and no need for specialised installation equipment or personnel.
- Lower balance of system cost as inverters can be mounted outside, closer to the PV panels, thereby reducing DC cable costs and eliminating need for concrete pad or shelter.
- Increased energy harvest due to multiple MPPT trackers, and a wide MPPT input range offering string optimization per inverter.
- Lower maintenance cost & minimal system disruptions due to short replacement lead times and ease of servicing.

Hence, a decentralised approach with Conext TL inverters lowers the rated costs of the plant (including land costs, LV and MV cabling, civil works and fencing, security installations, heavy machinery, etc.). These savings, coupled with increased power production, decrease the payback period of the overall investment.

## Conext TL references



### France

**Solution:** 4 Conext TL and DC/AC enclosures

**System size:** 70 kW

**Installation type:** Commercial rooftop

### Germany

**Solution:** 18 Conext TL, 18 DC boxes and 3 AC boxes including 6 Sarel-boxes and surge arresters

**System size:** 360 kW

**Installation type:** Commercial rooftop

### Greece

**Solution:** 25 Conext TL inverters

**System size:** 500 kW

**Installation type:** Ground mounted

### Italy

**Solution:** 17 Conext TL inverters, 2 Prisma and 50 array boxes

**System size:** 335 kW

**Installation type:** Commercial rooftop

### Italy

**Solution:** 8 Conext TL inverters, 3 Prisma and 5 array boxes

**System size:** 145 kW

**Installation type:** Commercial rooftop

### Italy

**Solution:** 10 Conext TL inverters, 2 Prisma and 20 array boxes

**System size:** 200 kW

**Installation type:** Commercial rooftop

### Slovakia

**Solution:** 4 Conext TL inverters, 2 Prisma and 20 array boxes

**System size:** 80 kW

**Installation type:** Commercial rooftop

### Switzerland

**Solution:** 5 Conext TL inverters, 3 DC boxes and 3 AC boxes

**System size:** 95 kW

**Installation type:** Commercial rooftop

# Technical specifications

Device short name	TL 8000 E	TL 10000 E	TL 15000 E	TL 20000
<b>Electrical specifications</b>				
<b>Input (DC)</b>				
MPPT voltage range full power	350 - 850 V	350 - 850 V	350 - 800 V	350 - 800 V
Operation voltage range	200 - 1000 V	200 - 1000 V	200 - 1000 V	200 - 1000 V
Starting voltage	200 V	200 V	200 V	200 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V	1000 V
Number of MPPT	2	2	2	2
Max. input current per MPPT	17 A	17 A	23 A	30 A
Max. short circuit current per MPPT	24 A	24 A	30 A	30A
Nominal input power for max. output	8.3 kW	10.4 kW	17.0 kW	22.0 kW
Max. DC input power per MPPT	5.5 kW	7.0 kW	8.5 kW	11.0 kW
DC connection type	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)
DC switch	Integrated	Integrated	Integrated	Integrated
<b>Output (AC)</b>				
Nominal output power	8 kVA	10 kVA	15 kVA	20 kVA
Nominal output voltage	230 / 400 V, three-phase	230 / 400 V, three-phase	230 / 400 V, three-phase	230 / 400 V, three-phase
Isolation	Transformerless	Transformerless	Transformerless	Transformerless
AC voltage range	184 - 276 V	184 - 276 V	184 - 276 V	184 - 276 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Frequency range	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz
Max. output current	12.8 A	16.0 A	24.0 A	32.0 A
Total harmonic distortion	< 3 %	< 3 %	< 3 %	< 3 %
Power factor (adjustable)	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag
AC connection type	IP67 connector	IP67 connector	IP67 connector	IP67 connector
<b>Efficiency</b>				
Peak	98.2 %	98.3 %	98.0 %	98.0 %
European	97.4 %	97.7 %	97.3 %	97.5 %
<b>General specifications</b>				
Power consumption, night time	< 2 W	< 2 W	< 2 W	< 2 W
IP degree of protection	IP65 (electronics) IP55 (balance)	IP65 (electronics) IP55 (balance)	IP65 (electronics) IP55 (balance)	IP65 (electronics) IP55 (balance)
Cooling	Fan cooled	Fan cooled	Fan cooled	Fan cooled
Enclosure material	Aluminium	Aluminium	Aluminium	Aluminium
Product weight	41.0 kg (90.2 lb)	41.0 kg (90.2 lb)	67.2 kg (148.2 lb)	67.2 kg (148.2 lb)
Shipping weight	48.5 kg (106.9 lb)	48.5 kg (106.9 lb)	122.0 kg (269.0 lb)	122.0 kg (269.0 lb)
Product dimensions (H x W x D)	62.5 x 61.2 x 27.8 cm (24.6 x 24.0 x 10.9 in)	62.5 x 61.2 x 27.8 cm (24.6 x 24.0 x 10.9 in)	96.0 x 61.2 x 27.8 cm (37.8 x 24.1 x 10.9 in)	96.0 x 61.2 x 27.8 cm (37.8 x 24.1 x 10.9 in)
Shipping dimensions (H x W x D)	75.0 x 74.0 x 40.0 cm (29.5 x 29.1 x 15.8 in)	75.0 x 74.0 x 40.0 cm (29.5 x 29.1 x 15.8 in)	115.0 x 79.0 x 48.0 cm (45.3 x 31.1 x 18.9 in)	115.0 x 79.0 x 48.0 cm (45.3 x 31.1 x 18.9 in)
Ambient air temperature for operation	-20 to 60°C (-4°F to 140°F)	-20 to 60°C (-4°F to 140°F)	-20 to 60°C (-4°F to 140°F)**	-20 to 60°C (-4°F to 140°F)**
Operating altitude	Up to 2000 m	Up to 2000 m	Up to 2000 m	Up to 2000 m
Relative humidity	4 - 100 % (condensing)	4 - 100 % (condensing)	4 - 100 % (condensing)	4 - 100 % (condensing)
Noise emission (at 1 m distance)	< 50 dBA	< 50 dBA	< 55 dBA	< 55 dBA
<b>Features and options</b>				
Embedded data logger	365 days			
Display	5" Graphic LCD (320 x 240 pixels), 4 buttons			
Communication interface	Modbus (RS485)			
Multifunction relay	Yes			
Warranty in years (standard/optional)	5 / 10			
<b>Regulatory approval</b>				
Electrical safety	CE marked for the Low Voltage Directive EN/IEC 62109-1 / EN/IEC 62109-2 AS3100 (Australia / Israel***)			
Grid interconnection*	BDEW***, VDE0126-1-1, VDE-AR-N 4105, RD1663, RD661, RD1699, ENEL-Guida***, CEI 0-21, A70, G59/2***, UTE C15-712-1, AS4777/SI4777***, PO12.3***, IEC 62116***, IEC 61727***			
Environmental	RoHS, REACH			
EMC	CE marked for the EMC directive 2004-108-EC Emissions: EN 61000-6-3 (residential) Immunity: EN 61000-6-2 (industrial)			
<b>Available product variants</b>				
Standard	PVSNVC8000	PVSNVC10000	PVSNVC15000	PVSNVC20000

Specifications are subject to change without notice.

\*More available upon request. \*\*-15°C cold start temperature. Vpv ≥500V, unit derates above 40°C ambient. \*\*\*Only for TL 15000 E and TL 20000 E.

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