

A flexible and efficient residential solar solution

Conext RL single-phase grid-tie inverter



Introducing the Conext RL inverter

Best-in-class inverter for residential solar applications

The Schneider Electric™ Conext™ RL inverters are specially designed to maximise yields for a wide range of rooftops of detached houses and multi-unit dwellings. The rich MPPT features, high energy efficiency, algorithm to minimise shading effects, and wide temperature and voltage operating ranges enable you to maximise your ROI.



Available in 3, 4, and 5 kW



Backed by the Schneider Electric global service infrastructure and expertise in energy management, Conext RL is the inverter you can trust for quality and reliability.



Why choose the **Conext RL** inverter?



True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS, and electrical distribution
- Strong service infrastructure worldwide to support your global needs



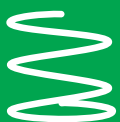
Higher return on investment

- Best-in-class conversion efficiency: 97.5% peak efficiency
- Broad operating range to harvest more energy (early mornings and late afternoons)
- Higher ROI with dual MPPT
- Shade tolerant MPPT algorithm designed to minimise the effect of partial shading on energy output



Designed for reliability

- Robust design through rigorous Multiple Environment Over Stress Testing (MEOST) and Temperature Humidity Bias (THB)
- IP65 compliant rugged, completely sealed unit to stand the harshest environmental conditions



Flexible

- Dual MPPTs with wide MPPT voltage range (160-500 V*) to support multiple roof orientations
- Ability to support unbalanced arrays
- Local as well as remote monitoring options available to track PV installation performance



Easy to service

- No moving parts (e.g. fans) for low maintenance and increased uptime
- Easily replaceable communication card
- Integrated DC switch (optional)



Easy to install

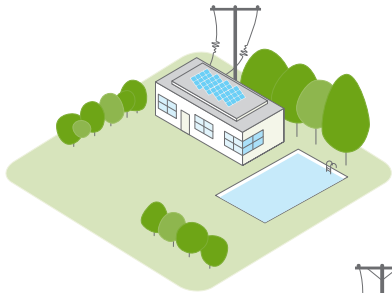
- Compact unit that allows easy and fast mounting with included bracket
- Pluggable AC and DC connectors (MC4)
- Auto country/multilingual configurations

* Full power MPPT voltage range for RL 3000E: 160-500 V; RL 4000E/5000E: 180-500 V

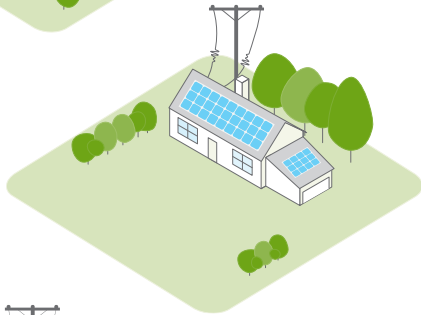
Applications for the Conext RL inverter

A truly flexible residential solution to meet the challenges of a wide variety of roof types

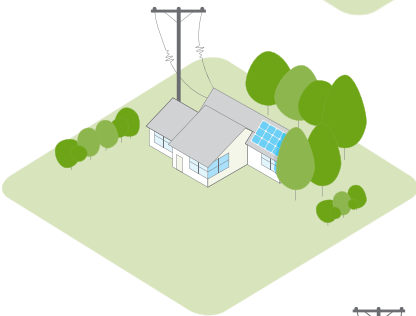
With a broad operating voltage range, dual MPPTs, and the ability to handle unbalanced array inputs, the Conext RL inverter is an ideal choice for various residential roof types.



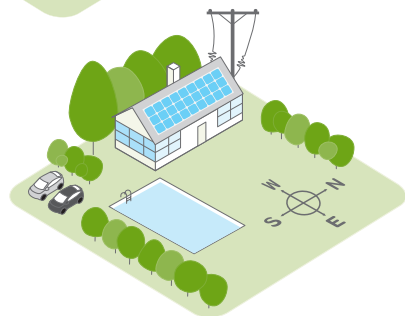
< Flat roofs



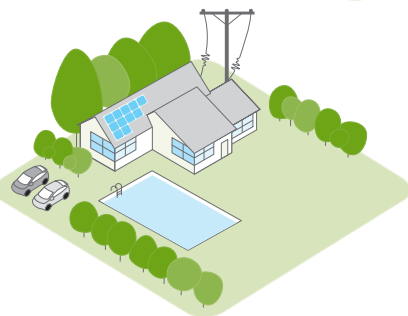
< Multiple pitched roofs



< Partial shading



< Different orientation roofs (east-west)

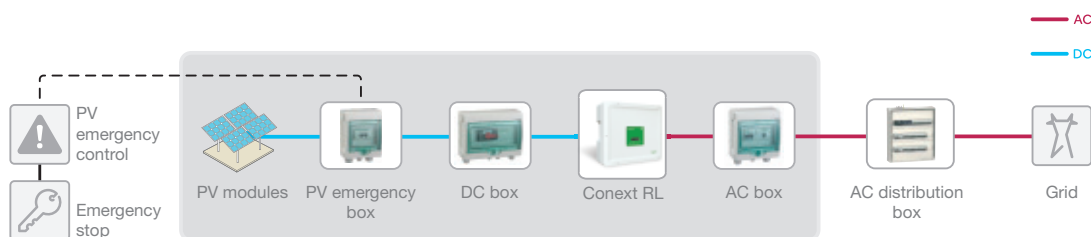


< Odd number of modules

A comprehensive range of reliable system components

Based on the country regulations and the nature of the installation, a residential solar PV installation may need additional balance of system (BOS) components:

- **PV emergency box:** In case of an emergency, the PV emergency box provides a way to disconnect the cables from the solar panels to the inverter, facilitating emergency responses such as fire fighting
- **DC box:** The DC box may contain DC disconnect and surge protection devices
- **AC box:** The AC box may contain AC disconnect and surge protection devices



Contact the local Schneider Electric office to get access to our best-in-class BOS components.



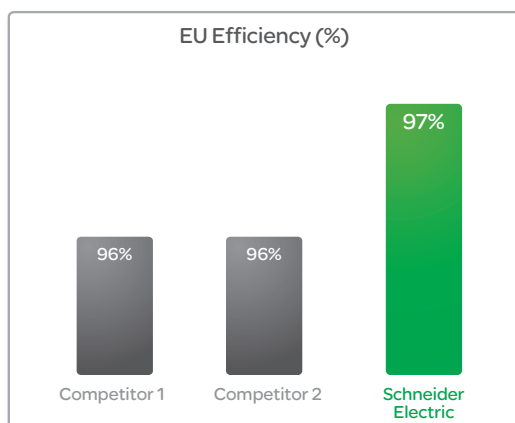
Conext Designer

Conext Designer is designed to simplify and expedite the configuration of the PV installation. The tool has an intuitive and user-friendly interface. The built-in database of around 30 000 modules helps you design your installation with the module of your choice.

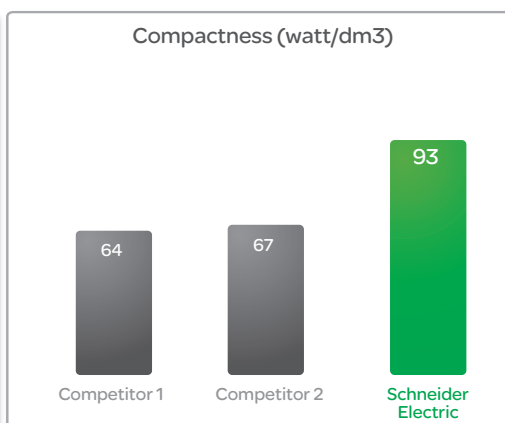
The handy report generation functionality enables you to generate well-organized reports of the installation configuration and share them easily with your colleagues as well as the customer. This tool is available for free download at the Schneider Electric website.

Best-in-class inverter for residential solar

High conversion efficiency*



Product compactness*



*Comparison of Conext RL 3000E with dual MPPT competitor products with equivalent power rating

Improving performance through enhanced monitoring and control

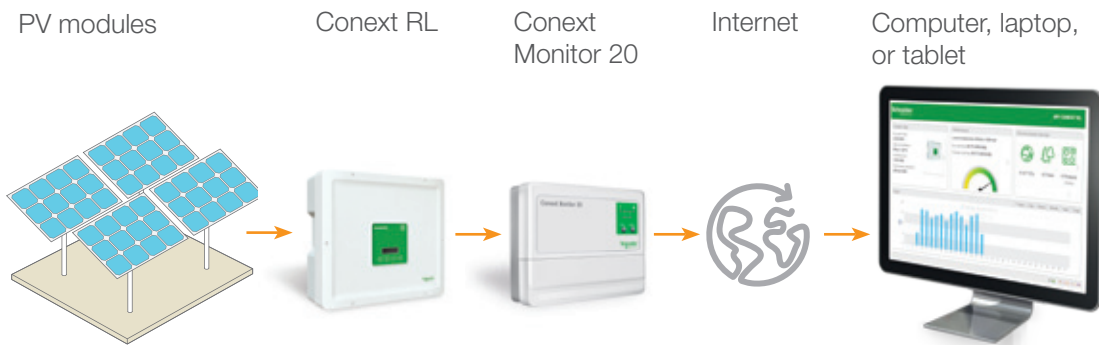
In an environment of ever-diminishing feed-in tariffs, monitoring PV installation performance is becoming increasingly important in order to maximise your ROI. You can choose either the local monitoring or remote monitoring options of Conext RL to fulfill this need.

Local monitoring



With a simple configuration, the user can set up the Ethernet card. The web pages accessible through the built-in web server in the Ethernet card allow monitoring of basic PV installation performance using a computer from the comfort of the home. You can also connect the Ethernet cable to a wireless router to monitor the PV installation performance over WiFi.

Remote monitoring



The remote monitoring solution for Conext RL includes a compact, low-cost monitoring and control unit - "Conext Monitor 20" - which is suitable for PV systems up to 20 kW (not more than three inverters).

Conext Monitor 20 allows simple configuration and start-up. Connecting the Conext Monitor 20 to the Internet via Ethernet allows the operating data to be visualised and monitored, regardless of location, using a web portal.

With four digital inputs and a power control function, it also meets grid feed-in management requirements by allowing the connection of a ripple control receiver to the inverter through the datalogger.

Technical specifications

Device short name	RL 3000 E	RL 4000 E	RL 5000 E*
Electrical specifications			
Input (DC)			
MPPT voltage range, full power	160 - 500 V	180 - 500 V	180 - 500 V
Operating voltage range	90 - 550 V	90 - 550 V	90 - 550 V
Starting voltage	100 V	100 V	100 V
Max. input voltage, open circuit	550 V	550 V	550 V
Number of MPPT	2	2	2
Max. input current per MPPT	10 A	12 A	18 A
Max. short circuit current per MPPT	13.9 A	16.7 A	25.0 A
Nominal input power for max. output	3.2 kW	4.2 kW	5.3 kW
Max. DC input power per MPPT	3.2 kW	3.2 kW	3.5 kW
DC connection type	MC4, 2 pairs (1+1)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)
DC switch	Integrated (optional)	Integrated (optional)	Integrated (optional)
Output (AC)			
Nominal output power	3 kVA	4 kVA	5 kVA
Nominal output voltage	230 V, single-phase	230 V, single-phase	230 V, single-phase
Isolation	Transformerless	Transformerless	Transformerless
AC voltage range	184 V - 276 V	184 V - 276 V	184 V - 276 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Frequency range	50 / 60 Hz +/- 5 Hz	50 / 60 Hz +/- 5 Hz	50 / 60 Hz +/- 5 Hz
Max. output current	13.9 A	18.2 A	23.2 A
Total harmonic distortion	<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
AC connection type	IP67 connector	IP67 connector	IP67 connector
Efficiency			
Peak	97.5%	97.5%	97.5%
European	97.0%	97.0%	97.0%
General specifications			
Power consumption, night time	<1 W	<1 W	<1 W
IP degree of protection	IP65 (electronics and balance)	IP65 (electronics and balance)	IP65 (electronics and balance)
Climatic category (per IEC 60721-3-4)	4K4H	4K4H	4K4H
Cooling	Natural Convection	Natural Convection	Natural Convection
Enclosure material	Aluminium	Aluminium	Aluminium
Product weight	20.0 kg (44.1 lb)	21.0 kg (46.3 lb)	24.0 kg (52.9 lb)
Shipping weight	25.0 kg (55.1 lb)	25.0 kg (55.1 lb)	30.0 kg (66.1 lb)
Product dimensions (H x W x D)	42.0 x 48.0 x 16.0 cm (16.5 x 18.9 x 6.3 in)	42.0 x 48.0 x 16.0 cm (16.5 x 18.9 x 6.3 in)	44.5 x 51.0 x 17.7 cm (17.5 x 20.1 x 7.0 in)
Shipping dimensions (H x W x D)	50.5 x 59.5 x 29.5 cm (19.9 x 23.4 x 11.6 in)	50.5 x 59.5 x 29.5 cm (19.9 x 23.4 x 11.6 in)	56.6 x 61.9 x 33.1 cm (22.3 x 24.4 x 13.0 in)
Ambient air temperature for operation	-20 to 65 °C (-4 °F to 149 °F)**	-20 to 65 °C (-4 °F to 149 °F)**	-20 to 65 °C (-4 °F to 149 °F)**
Operating altitude	Up to 2000 m	Up to 2000 m	Up to 2000 m
Relative humidity	4 - 100% condensing	4 - 100% condensing	4 - 100% condensing
Noise emission (at 1 m distance)	<40 dbA	<40 dbA	<40 dbA
Features and options			
Embedded data logger	365 days		
Display	LCD 2 -line 16 digits, 2 buttons		
Communication interface standard/optional	RS 485, MODBUS / Ethernet (with built-in web server)		
Multifunction relay	Yes		
Warranty in years standard/optional	5 / 10		
Regulatory approvals			
Electrical safety	CE marked for the Low Voltage Directive EN / IEC 62109-1 EN / IEC 62109-2, AS3100/AS5033		
Grid interconnection	VDE-AR-N 4105, RD1699, CEI 0-21, G59/2, G83/1, UTE C15-712-1, AS4777, VDE 0126, EN50438, 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)		
Available product variants			
Standard	PVSNVC3000 (RL 3000 E)	PVSNVC4000 (RL 4000 E)	PVSNVC5000 (RL 5000 E)
With integrated DC switch	PVSNVC3000S (RL 3000 E-S)	PVSNVC4000S (RL 4000 E-S)	PVSNVC5000S (RL 5000 E-S)
Monitoring accessories			
Local monitoring	Ethernet card (PVSCMC1105)		
Remote monitoring	Conext Monitor 20 (PVSCMC1120)		

Specifications are subject to change without notice. *4.6 kW for Germany. **-20 °C cold start temperature.

Discover how our residential solar solutions can help maximise your return on investment.

Visit www.schneider-electric.com/solar today to find out more!

You can also see our solutions on YouTube at www.youtube.com/schneidersolar

Make the most of your energySM

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