Conext™ RL single-phase grid-tie inverter

Flexible and efficient residential solar solution

The Schneider Electric Conext™ RL inverters are specially designed to maximize yields for a wide range of rooftops of detached houses and multiple dwellings. The rich MPPT features, high energy efficiency, partial shading algorithm and a wide temperature and voltage operating range enables you to maximize your ROI. Backed by Schneider Electric's global service infrastructure and expertise in energy management, the Conext RL series are the inverters you can trust for quality and reliability.

Why choose Conext RL?

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 minimize the effect of partial shading on the energy output

Designed for reliability

- Robust design through rigorous Multiple Environmental 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 (160-500V*) to support multiple roof orientations
- Ability to support unbalanced arrays
- Local as well as remote monitoring options available to track PV plant performance

Easy to service

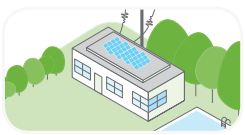
- No moving parts (e.g. fans) for low maintenance and increased uptime
- Easily replaceable communication card
- Integrated DC switch (optional)

Easy to install

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

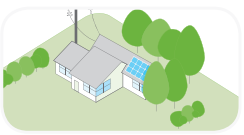
Available in 3, 4 and 5 kW

Product applications



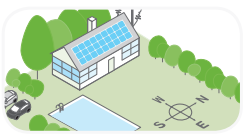
Flat roofs

Multiple pitched roofs



Partial shading

Odd number of modules



Different orientation roofs (East - West)

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

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Schneider Electric™

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 65ºC (-4ºF to 149ºF)**	-20 to 65ºC (-4ºF to 149ºF)**	-20 to 65ºC (-4ºF to 149ºF)**
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, G83/2, 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 remperature.