

Conext™ Core XC

Series of central inverters with high availability and efficiency from a provider you can trust.



Product at a glance

The Conext Core XC is a series of central inverters designed for high efficiency and flexibility for any PV panel type and installation. The Conext Core XC Series has peak efficiencies of 99.1% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kW. In addition, the Conext Core XC Series is designed to allow for DC inputs up to 1000 Vdc for longer string lengths. It contains the latest grid management features to meet global utility requirements.

Higher return on investment

- Best in class efficiency with 99.1% peak, 98.5% weighted EU
- Increased uptime due to high reliability and comprehensive global service network

Easy to service

- Integrated switchgear using Masterpact NW (AC circuit breaker, DC switch)
- Full suite of alarms and troubleshooting tools allow for remote diagnostics

Designed for reliability

- Robust design through rigorous Custom Reliability Testing

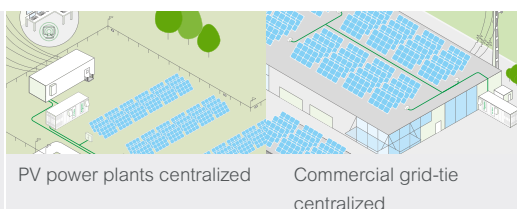
Flexible

- Variety of power outputs from 540 kW to 680 kW
- Full grid management features including voltage/frequency high and low ride through, reactive current support, VAR control, and frequency based active power control
- Configurable firmware to allow for easy adjustments to changing utility requirements

Easy to install

- Compact footprint for easy integration into compact enclosures
- Integrated AC and DC switchgear standard
- In-built hardware for 1000 VDC start-up and LVRT features
- Pre-connection insulation detection with GFDI helps reduce hazards from PV array blind spots

Product applications



PV power plants centralized

Commercial grid-tie centralized

Device short name	XC 540	XC 630	XC 680
Electrical specifications			
Input (DC)			
Input voltage range, MPPT	440 - 800 V (at PF=1)	510 - 800 V (at PF=1)	550 - 800 V (at PF=1)
Static and dynamic MPPT accuracy	>99.9% 5% to 100% of nominal power Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%		
Input voltage range, operating	440 - 885 V	510 - 885 V	550 - 885 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. input current	1280 A	1280 A	1280 A
Max. input short circuit current	2000 A	2000 A	2000 A
Output (AC)			
Nominal output power	540 kVA	630 kVA	680 kVA
Real power	540 kW (at PF=1)	630 kW (at PF=1)	680 kW (at PF=1)
Reactive power range	+ / - 540 kVAr	+ / - 630 kVAr	+ / - 680 kVAr
Output voltage	300 V	350 V	380 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Nominal output current	1040 A	1040 A	1040 A
Power factor settable range (Ppf dispatch)	0.7 to 1.0 leading and lagging	0.7 to 1.0 leading and lagging	0.7 to 1.0 leading and lagging
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
Harmonic distortion	< 3% at rated power	< 3% at rated power	< 3% at rated power
Efficiency (to IEC61683)			
Maximum (@ 50Hz)	98.6%	98.7%	99.1%
European (@ 50Hz)	98.4%	98.5%	98.5%
CEC (@ 60Hz)	98.3%	98.7%	98.5%
General specifications			
Power consumption, night time	<100 W	<100 W	<100 W
IP degree of protection	IP20	IP20	IP20
Enclosure material	Steel	Steel	Steel
Seismic	IEEE-693-2005 High performance level ¹ , ICC-ES AC156-2012 ²		
Product weight	1495kg (3296lbs)		
Product dimensions (H x W x D)	208.5 x 240.0 x 66.0 cm (82.0 x 94.5 x 26.0 in) ³		
Ambient air temperature for operation	-10°C to 55 °C ⁴		
Operating altitude	1000 m, derating for higher altitudes, maximum of 2400 m		
Relative humidity	0 to 95% non-condensing		
Features and options			
Type of cooling	Forced convection cooling		
Display type	LCD multifunction removable display standard		
Communication interface	RS485/Modbus standard		
AC/DC disconnect	Load break rated DC disconnect and AC circuit breaker standard		
Ground fault detection/interruption	Optional isolation monitoring relay or GFDI with circuit breaker		
Sub-array combiner	Optional external combiners with various fuse quantities and trip ratings		
Regulatory approvals			
Safety	EN/IEC62109-1 and EN/IEC62109-2 (when equipped with the appropriate options), EN51078/IEC62103		
EMC	EN/IEC61000-6-2, EN/IEC61000-6-4		
Conext Core XC Series complies	French order of April 23, 2008, IEC 61727, IEC62116, BDEW (Germany), CEI-016 (Italy), PREPA MTR, PEA (Thailand)		

Specifications are subject to change without notice. Other input voltage windows and power outputs available.

¹ZPA=1.0 g 2% damping

²Seismic demand spectrum (SDS) of 1.78g and z/h of 0 Ip =1.5 (ground mounted equipment)

³For design purposes, please refer to dimensions in Installation Manual.

⁴Full power to 50°C, derating above 50°C(for limited DC range). Full power to 45°C, derating above 45°C (for full DC range). For details, refer to the thermal derating application note.