

**Exond ApodyS - DC/AC inverter** from 2.5 kVA to 320 kVA



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The Exond Apodys range of industrial inverters converts a DC input voltage into a perfect sinusoidal output voltage to provide power supply to AC loads. This range is available as standard from 2.5 to 250 kVA in single phase output configuration, and up to 320 kVA in three-phase output configuration.

### Flexibility for customised solutions

Exond Apodys is fully adaptable to changes in electrical load. A full range of additional options is available to provide tailored industrial solutions:

- AC distribution board
- Redundant ventilation
- Modular or centralised parallel configurations
- Up to IP54 external protection.

For special configurations where a reserve supply is needed to secure the load on the output of the inverter, the following solutions can be designed:

- Integration of the static switch into the inverter cabinet to ensure the automatic transfer on the reserve supply
- Monitoring of the reserve supply voltage
- Additional reserve transformer to adapt the reserve supply voltage to the inverter output voltage
- Additional reserve stabiliser to control the reserve supply voltage within tolerance limits.

Exond Apodys inverters are also available with 400VDC input. This configuration allows us to combine this inverters range with the Excel Apodys battery chargers range in order to design specific high ratings double conversion AC UPS systems (up to 500 kVA).

### Leading technology

Chloride employs patented Vector Control technology to increase the power components performances and to provide active conditioning of the load. The result is improved reliability for processes and enhanced safety for personnel, even in the harshest operating environments.

The innovative modular assembly of Exond Apodys allows us to satisfy the most demanding international project schedules.

### Reliability and accessibility

Exond Apodys provides lasting secure power architecture for your industrial applications thanks to:

- System lifetime of at least 20 years in continuous operation conditions
- Continuous operation at full load in a permanent 40°C ambient temperature
- Robust mechanical design (vertical and horizontal acceleration stress up to 0,5g)
- High clearance capacity to eliminate short-circuits downstream the inverter (short-circuit withstanding of 250% of nominal rating)
- Front access to the main components, reducing MTTR and easing maintenance operations.

### Communication

Exond Apodys uses intuitive multilingual digital graphic control, meaning system status, measurements and alarms are accessible from the front panel of the inverter. The embedded "Event Log" function allows the user to trace the last 100 events. Event memory is activated from the appearance of the very first event.

RS232, RS485 and voltage-free contacts allow the monitoring of the inverter on SCADA systems.

### Remote diagnosis

The Apodys family is fully compatible with LIFE.net, Chloride's remote diagnostic service, which provides:

- Continuous real time UPS monitoring
- Regular transmission of an operating status report
- UPS performance analysis
- Power quality monitoring to analyse mains disturbance trends.

### Applications

The Exond Apodys range delivers a clean and stable 1-phase or 3-phase power supply to critical industrial applications such as:

- Equipments in power generation plants
- Monitoring and control systems as well as automation systems
- Safety systems
- Electrical process in oil platforms and refineries.

### Secure Power Always

In order to reach the highest level of business continuity, Chloride offers a range of maintenance plans, which will:

- Help deliver reliability to your load
- Increase the lifetime of your power protection equipment
- Optimise your capital expenditure
- Provide risk management at a fixed cost
- Provide a pro-active approach to disaster recovery.

For more information please contact your local Chloride sales office

**Delegate your power management to the experts.**

RANGE OF RATINGS (kVA)	2.5	5	7.5	10	15	20	25	30	40	50	60	80	100	120	160	200	250	320
Output type	One-phase output										Three-phase output							
Input DC voltage (VDC)	110		110		220		220		110		110		220		220		220	
Output AC voltage (VAC)	1 x 110		1 x 230		1 x 110		1 x 230		3 x 220		3 x 400		3 x 220		3 x 400		3 x 400	
Available range of ratings (kVA)	2.5 - 120		2.5 - 120		10 - 120		10 - 250		5 - 160		5 - 200		10 - 250		10 - 320		10 - 320	

TECHNICAL CHARACTERISTICS	
<b>INPUT</b>	
Nominal DC voltage (VDC) / tolerance (%)	110 ; 220 / + 18 / -20
<b>OUTPUT</b>	
Nominal AC voltage (VAC) / frequency (Hz)	1 x 110 (120) ; 1 x 230 (220, 240) / 50 (60)   3 x 220 ; 3 x 400 (380, 415) / 50 (60)
Available ratings (kVA)	see above
Frequency response	1 Hz / sec
Frequency stability	
with own oscillator	± 0,05%
with mains synchronisation	± 3% (adjustable from 0,2% to 6%)
Harmonic distortion	
with 100% linear load	3%
with 100% non-linear load - CF 3/1	5%
Synchronisation voltage limits	±15%
Dynamic voltage response	±3% (for 0-100%-0 of load variation)
Static regulation (100% of load)	±1% (in steady state)
Overload capacity	125% for 10 min / 150% for 1 min
Short-circuit capability	250% (100ms) - 175% (5s)   315% (100ms) - 240% (5s) - Ph/N
Load power factor	0,5 lagging to 0,9 leading
Output crest factor admissible	3:1
<b>GENERAL DATA</b>	
Operating temperature (°C)	0 - 40
Storage temperature (°C)	-20 to +70
Relative humidity (non condensing)	< 95%
Operating altitude (m)	1000 (without derating)
Cooling	Fan-assisted
External protection	IP20*
Lock	Steel locked door with door handle
Frame colour	Grey RAL 7032 textured semi-gloss
Dimensions	According to ratings, please consult us
<b>STANDARDS</b>	
Compliance	IEC 950, 439, 146, 529, 726 - EMC (62040-2) and security (62040-1-2)
CE directives	73 / 23 / EEC - LVD and 89 / 336 / EEC - EMC
US standards	Manufacturing following UL, ANSI, NEMA, IEEE standard is available upon request
<b>OPTIONS</b>	
Inverter	Special input or output voltage, volt-free contacts, meters, serial link, inrush current limitation, protection against sudden loss of DC input, AC earth fault alarm
Reserve supply	By-pass transformer, by-pass stabilizer, reserve voltage monitoring
System	parallel configurations, AC distribution, PPVIs monitoring software
Mechanical	Top cable entry, other frame colour, anti-seismic design

\*Other type of protection available upon request.

This product may differ slightly from the product photograph on the front cover.

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