

# STROM L

Industrial UPS with highly flexible configuration

10 – 120 kVA 3 phase

10 – 160 kVA 1 phase

Input 380 / 400 / 415 VAC 3 phase

Output 380 / 400 / 415 VAC 3 phase

220 / 230 / 240 VAC 1 phase

Other input/output values available on request

## Industrial-grade UPS with a building block architecture

The state-of-the-art, double conversion topology and “building block” design of the Strom L Uninterruptible Power Supply (UPS) series is flexible. The system ensures the continuous availability of power and safe operations for all types of critical load. In the Strom range, the L system meets practically all conceivable requirements to secure power for highly demanding applications in heavy industries or infrastructures and is suitable for use in harsh environments. Strom L concept is continuously further developed, as we learn through experience. With an expected lifetime at least 20 years, the Strom L is a robust and cost – effective solution, optimized for minimal operating costs.

## FEATURES

### Typical applications

For all industrial applications

- Oil & Gas
- Petrochemical
- Power generation
- Transportation
- Heavy industry

- Redundant parallel operation
- High efficiency
- Potential free output voltage
- Electrical galvanic isolation with low noise level
- Full redundant control architecture
- Very fast dynamic response time
- Output short circuit proof
- Wide range of ratings with IP protection up to 43 as standard
- EMC immunity and emission better than IEC 62040
- 18 imbedded languages as standard
- Low voltage ripple to prolong battery life time
- Intelligent battery charge and monitoring control
- **Lithium Ion Battery charging options ready and available**

## BENEFITS

- Dedicated to very harsh environments
- Robust and reliable solution suitable for stringent seismic spectrums, high humidity level and temperature range, able to operate up to 4000 m above sea level
- **Highly flexible configuration**
- Building block design benefits:
  - Easier to customize, because the main functions of the unit are split in separated blocks, increasing the possible combinations and improving the lead time
  - Easier to upgrade, in terms of power or options, because of the same structure
  - Better for maintenance (lower MTTR).
- High short-circuit resistance
- High overload capability protection
- Easy to operate
- Complies with all relevant international standards
- Easy service for more than 20 years of life span

# Specifications

<b>RECTIFIER UNIT</b>			
Nominal DC voltage	108 V	216 V	384 V
Nominal AC voltage	3 x 400 V (3 x 380 V, 3 x 415 V)*		
Input frequency range	50 / 60 Hz $\pm 10\%$ *		
Operation range (min./max.)	340 V – 460 V		
Input current in A at nominal load	17 – 102 A	18 – 200 A	270 A
Rectifier type			
– Standard	6 pulse		
– Option	Filter / 12 pulse		
<b>INVERTER UNIT</b>			
DC Input	108 V $\pm 20\%$	216 V $\pm 20\%$	384 V $\pm 20\%$
@3 phase output voltage configuration			
– Nominal AC voltage in V	3 x 400 V (3 x 380 V, 3 x 415 V)*		
– Nominal output current in A	14 – 87 A	14 – 173 A	–
– Nominal power in kVA	10 – 60 kVA	10 – 120 kVA	–
@1 phase output voltage configuration			
– Nominal AC voltage in V	230 V (220 V, 240 V)*		
– Nominal output current in A	22 – 261 A	43 – 522 A	696 A
– Nominal power in kVA	5 – 60 kVA	10 – 120 kVA	160 kVA
Output voltage static response	$\leq \pm 1\%$		
Output voltage dynamic response	$\leq \pm 2\%$		
Recovery time	2 ms		
Frequency	50/60 Hz		
Frequency static tolerance	$\pm 0.1\%$		
Frequency synchronization range	$\pm 1\%$ ( $\pm 2\%$ , $\pm 3\%$ )		
Power factor at nominal load	Cos $\varphi$ 0.8		
Voltage wave form	Sinusoidal		
Crest factor	$\leq 3$		
Overload response 1 min.	150 %		
Overload response 10 min.	125 %		
Short circuit response	$\leq 3$ Inominal		
<b>STATIC BYPASS SWITCH</b>			
Nominal AC voltage (@ 3 phase output)	3 x 400 V (3 x 380 V, 3 x 415 V)*	3 x 400 V (3 x 380 V, 3 x 415 V)*	–
Nominal AC voltage (@ 1 phase output)	230 V (220 V, 240 V)*		
Nominal Frequency	50/60 Hz		
<b>GENERAL DATA</b>			
Efficiency depending on rating	Up to 90 % / >95 % with ECO Mode		
Degree of protection	IP20 (option up to IP43)*		
Noise level depending on rating	$< 61 - 76$ dB (A)		
Color	RAL 7035		
Operation temperature	$-10^{\circ}\text{C}$ to $40^{\circ}\text{C}$ (without derating)		
Storage temperature	$-30^{\circ}\text{C}$ to $75^{\circ}\text{C}$		
Maximum altitude without derating	1000 m		
<b>STANDARDS</b>			
Safety	IEC 62040 - 1		
EMC immunity and emission	IEC 62040 - 2		
Performance	IEC 62040 - 3		
CE marking	Yes		

\*other on request