

## Protect 8 S14

Industrial-grade monoblock UPS

Input voltage 380 / 400 / 415 VAC 3 phase

Output voltage 380 / 400 / 415 VAC 3 phase  
220 / 230 / 240 VAC 1 phase



### Industrial UPS with compact design

The state-of-the-art, double-conversion topology and design of the Protect 8 UPS series is flexible and can meet practically all customer requirements. The system is suitable for use in harsh environments.

Protect 8 S14 is a robust and easy to operate UPS, meeting the relevant EMC and other international standards. With an expected lifetime of at least 20 years, the Protect 8 S14 is a rugged and cost-effective solution optimized for minimal operating costs. Designed for highly demanding applications, the Protect 8 S14 will ensure safe operation of all types of critical loads, delivering total control wherever reliability, availability and maintainability are required.

### Typical applications

For all industrial applications

- Oil & Gas, Petrochemical (offshore, onshore, pipelines)
- Energy and Power (generation, transmission, distribution)
- Transportation (rail, airports, shipping, highways, tunnels)
- Water (desalination, treatment)
- Instrumentation & Process control (chemicals, mining, steel, paper, emergency lightning)
- All industrial production processes

## FEATURES

- Redundant parallel operation up to 8 UPS in parallel
- High efficiency
- Small footprint
- Isolated output voltage – Inverter transformer provides output isolation from DC-voltage, enables the use of two separate mains sources
- Fully redundant control architecture
- Fast dynamic response time
- Short circuit protect output
- Redundant and monitored fan control
- EMC immunity and emissions, meets or exceeds IEC 62040-2 requirements
- Versatile communication capabilities
- 18 imbedded languages as standard
- Low voltage ripple to prolong battery life time
- Intelligent battery charge and monitoring control
- Large battery voltage range
- Lithium Ion Battery charging options available

## BENEFITS

- **Without input transformer – unique solution available on the market**
- Dedicated to very harsh environments
- Compact design with small foot print
- High overload capacity
- High efficiency even at low output power
- User friendly, easy to operate, easy to maintain
- Easy service for more than 20 years of life span
- Robust and reliable solution suitable for stringent seismic spectrum
- High humidity level and temperature range, able to operate up to 4000 m above sea level

# Specifications

<b>RECTIFIER UNIT</b>			
Nominal DC voltage			384 V
Nominal AC voltage			3 x 400 V (3 x 380 V, 3 x 415 V)
Input frequency range			50 Hz/60 Hz $\pm 10\%$
Operation range (min./max.)			340 V – 460 V
Input current at nominal load			17 – 195 A
Rectifier type			
– Standard			6 pulse
– Option			Filter/12 pulse
<b>INVERTER UNIT</b>			
DC Input			384 V $\pm 20\%$
@3 phase output voltage configuration			
– Nominal AC voltage			3 x 400 V (3 x 380 V, 3 x 415 V)
– Nominal output current			14 – 173 A
– Nominal power			10 – 120 kVA
@1 phase output voltage configuration			
– Nominal AC voltage			230 V (220 V, 240 V)
– Nominal output current			43 – 261 A
– Nominal power			10 – 60 kVA
Output voltage static stability			$< \pm 1\%$
Output voltage dynamic response			$< \pm 2\%$
Recovery time			2 ms
Frequency			50/60 Hz
Frequency static stability (on internal clock)			$\pm 0.1\%$
Frequency synchronization range			$\pm 1\%$ ( $\pm 2\%$ , $\pm 3\%$ )
Power factor at nominal load			Capacitive to inductive over entire cos - range
Voltage wave form			Sinusoidal
Crest factor			$\leq 3$
Overload capacity 1 min.			150 %
Overload capacity 10 min.			125 %
Short circuit response			$\leq 2.7$ I nominal
<b>STATIC BYPASS SWITCH</b>			
Nominal AC voltage (@ 3 phase output)			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 94 % / >95 % with ECO Mode
Degree of protection			IP20 (option up to IP43)*
Noise level depending on rating			$< 62 - 70$ dB (A)
Color			RAL 7035
Operation temperature			-10 °C to 40 °C (without derating)
Storage temperature			-30 °C to 75 °C
Maximum altitude			1000 m (without derating)
<b>STANDARDS</b>			
Safety			IEC 62040 - 1
EMC immunity and emission			IEC 62040 - 2
Performance			IEC 62040 - 3
Environment		RoHS (2011/65/EU)	WEEE(2012/19/EU)
CE marking			Yes

\*other on request