

## PROTECT 4

Multi-purpose high power UPS

Input 380 / 400 / 415 VAC 3 phase

Output 380 / 400 / 415 VAC 3 phase



### High power UPS with compact design

The UPS Protect 4 is a highly reliable solution with a very long track record in system availability and use, providing safe uninterrupted power back-up. It is a compact ready to install unit, with a maximum single unit capacity of up to 600 kVA, ensuring the safe operation of any critical loads. It allows you to benefit from a proven design. The robust and easy to operate UPS has excellent overload capability, superior dynamic response and is easy to maintain. Tailoring to specific requirements is possible due to the high level of customization available. Operational expenditure is optimized with a complete and cost-effective life cycle.

### 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

- High efficiency
- Small footprint
- Short lead time
- Potential free output voltage
- Full redundant control architecture
- Very fast dynamic response time
- Output short circuit proof
- Redundant and monitored fan control
- EMC immunity and emission better than IEC 62040
- High communication capabilities
- Low voltage ripple to prolong battery life time
- Intelligent battery charge and monitoring control
- Large battery voltage range
- Redundant parallel operation
- **Lithium Ion Battery charging options ready and available**

## BENEFITS

- Dedicated to very harsh environments
- Compact design with small foot print
- High overload capability protection
- Long life time
- High efficiency even at low output power
- Comply with all relevant international standards
- Over 60-year experience to guarantee your business continuity
- 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	259 – 1230 A
Charge characteristic acc. IEC478-10	IU
Max. charging voltage	480 V
Rectifier type	12 pulse
<b>INVERTER UNIT</b>	
DC Input	384 V $\pm$ 20 %
Nominal AC voltage	3 x 400 V (3 x 380 V, 3 x 415 V)
Nominal output current	231 – 867 A
Nominal power	160 – 600 kVA
Output voltage static response	$< \pm$ 1 %
Output voltage dynamic response 0 % – 100 % – 0 %	$< \pm$ 5 %
Recovery time	2 ms
Frequency	50 / 60 Hz
Frequency static tolerance	$\pm$ 0.1 %
Frequency synchronization range	$\pm$ 1 %
Power factor at nominal load	0.0 lag to 0.0 lead
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 x 400 V (3 x 380 V, 3 x 415 V)
Nominal frequency	50/60Hz
Overload	500 % for 10 ms
<b>GENERAL DATA</b>	
Efficiency depending on rating	Up to 94 % / $>$ 98 % with ECO Mode
Degree of protection	IP20 (option up to IP31)
Noise level depending on rating	$>$ 69 dB (A)
Color	RAL 7035
Operation temperature	-10 °C to 40 °C (without derating)
Storage temperature	-30 °C to 75 °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
Environment	RoHS (2011/65/EU) WEEE (2012/19/EU)
CE marking	Yes

## AEG Power Solutions

Approach your local AEG Power Solutions representative for further support. Contact details can be found on: [www.aegps.com](http://www.aegps.com)