PROTECT 8.

INDUSTRIAL UPS

Protect 8.31 Single Phase output
10 kVA – 120 kVA

Protect 8.33 Three Phase output
10 kVA – 120 kVA

400 V AC Input
220 V DC Link

The "Building Block" UPS

Engineering is our business

UPS systems from AEG Power Solutions ensure the continuous availability of all your global industrial requirements in Oil & Gas, Petrochemical, Power Generation, Transportation and other heavy industries.

Designed for all Industrial Applications

The state-of-the-art, double-conversion topology and "building block" design of the Protect 8 Uninterruptible Power Supply (UPS) is flexible, meets practically all conceivable customer requirements, and is suitable for use in harsh environments.

With the Protect 8, you will benefit from 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 is a robust and cost-effective solution optimized for minimal operating costs. Designed for highly demanding applications including Oil & Gas, Petrochemical, Power Generation and Heavy Industry, the Protect 8 will ensure safe operation of your critical loads and give you peace of mind, wherever reliability, availability and maintainability are required.

Unique Design

The Protect 8 is designed with a modular "building block" approach to meet the toughest product customization requirements:

- » Specific ingress protection degrees
- » Specific input & output voltages
- » Specific batteries and autonomy times
- » Documentation
- » Communication

Further benefits include a guaranteed short lead time, extremely high electrical and mechanical robustness, high reliability and a small footprint.

AEG
POWER SOLUTIONS

PROTECT 8.31

SPECIFICATION
SINGLE PHASE OUTPUT

MODEL	P8.31-10	P8.31-20	P8.31-30	P8.31-40	P8.31-60	P8.31-80	P8.31-100	P8.31-120
Nominal rating (at cos φ 0.8 lag) in kVA	10	20	30	40	60	80	100	120
RECTIFIER UNIT								
Input nominal voltage	3 x 400 V (3 x 380 V, 3 x 415 V)							
Input operating range (min./max.)	340 V–460 V							
Frequency	50/60 Hz ±10 %							
Input current in A at nominal load	16	35	56	68	100	134	166	200
Charging characteristic to IEC 478-10	IU							
Nominal DC voltage	220 V							
Rectifier type **- Standard** **- Optional**	6 pulse Filter	6 pulse Filter	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse
INVERTER UNIT								
DC input	216 V ± 20 %							
Nominal AC voltage	230 V (220 V, 240 V)							
Output voltage static response	< ± 1 %							
Output voltage dynamic response	< ± 2 %							
Recovery time	1 ms							
Frequency	50/60 Hz							
Frequency tolerance without mains	± 0.1 %							
Frequency synchronisation range	± 1 % (± 2 %, ± 3 %)							
Allowable load power factor	0.0 lag to 0.0 lead							
Output phase current in A	43	87	130	174	261	348	435	522
Voltage wave form	sinusoidal							
Voltage distortion	≤ 3%							
Crest factor	max. 3							
Overload response 1 min.	150 %							
Overload response 10 min.	125 %							
Max short circuit current	> 3 x I nom							
STATIC BYPASS SWITCH								
AC voltage	230 V (220 V, 240 V)							
Frequency	50/60 Hz							
Nominal power in kVA	10	20	30	40	60	80	100	120
GENERAL DATA								
Efficiency (AC to AC) – typical	up to 90 %/> 95 % with ECO Mode							
Noise level depending on rating	< 55–70 dB (A)							
EMC compatibility	EN 62040-2							
Air cooling with redundant and monitored fans	Yes							
Operating temperature range min./max. (without de-rating)	– 5° C/+ 40° C							
Storage temperature range min./max.	– 30° C/+ 75° C							
Maximum altitude without de-rating	1000 m							
Protection degree IEC 529/EN 60529 standard system	IP20, IP21/as option IP43 (>IP43 engineered)							
Equipment colour	RAL 7035							
WEIGHTS AND DIMENSIONS								
Height standard UPS (mm)	1810	1810	1810	1810	1810	1810	1810	1810
Height with max. options (mm)	1915	1915	1915	1915	2015	2015	2015	2015
Width (mm)	600	900	900	900	1200	1500	1800	1800
Depth (mm)	860	860	860	860	860	860	860	860
Weight (kg) ~	350	500	700	700	1000	1200	1500	1500

PROTECT 8.33

SPECIFICATION
THREE PHASE OUTPUT

MODEL	P8.33-10	P8.33-20	P8.33-30	P8.33-40	P8.33-60	P8.33-80	P8.33-100	P8.33-120
Nominal rating (at cos φ 0.8 lag) in kVA	10	20	30	40	60	80	100	120
RECTIFIER UNIT								
Input nominal voltage	3 x 400 V (3 x 380 V, 3 x 415 V)							
Input operating range (min./max.)	340 V–460 V							
Frequency	50/60 Hz ±10 %							
Input current in A at nominal load	16	35	56	68	100	134	166	200
Charging characteristic to IEC 478-10	IU							
Nominal DC voltage	220 V							
Rectifier type **- Standard** **- Optional**	6 pulse Filter	6 pulse Filter	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse	6 pulse 12 pulse
INVERTER UNIT								
DC input	216 V ± 20 %							
Nominal AC voltage	3 x 400 V (3 x 380 V, 3 x 415 V)							
Output voltage static response	< ± 1 %							
Output voltage dynamic response	< ± 2 %							
Recovery time	1 ms							
Frequency	50/60 Hz							
Frequency tolerance without mains	± 0.1 %							
Frequency synchronisation range	± 1 % (± 2 %, ± 3 %)							
Allowable load power factor	0.0 lag to 0.0 lead							
Output phase current in A	14	29	43	58	87	116	145	173
Voltage wave form	sinusoidal							
Voltage distortion	≤ 3%							
Crest factor	max. 3							
Overload response 1 min.	150 %							
Overload response 10 min.	125 %							
Max short circuit current	> 3 x I nom							
STATIC BYPASS SWITCH								
AC voltage	3 x 400 V (3 x 380 V, 3 x 415 V)							
Frequency	50/60 Hz							
Nominal power in kVA	10	20	30	40	60	80	100	120
GENERAL DATA								
Efficiency (AC to AC) – typical	up to 90 %/> 95 % with ECO Mode							
Noise level depending on rating	< 55–70 dB (A)							
EMC compatibility	EN 62040-2							
Air cooling with redundant and monitored fans	Yes							
Operating temperature range min./max. (without de-rating)	– 5° C/+ 40° C							
Storage temperature range min./max.	– 30° C/+ 75° C							
Maximum altitude without de-rating	1000 m							
Protection degree IEC 529/EN 60529 standard system	IP 20, IP 21 & IP43 (>IP43 engineered)							
Equipment colour	RAL 7035							
WEIGHTS AND DIMENSIONS								
Height standard UPS (mm)	1810	1810	1810	1810	1810	1810	1810	1810
Height with max. options (mm)	1915	1915	1915	1915	2015	2015	2015	2015
Width (mm)	900	900	900	900	1200	1500	1800	1800
Depth (mm)	860	860	860	860	860	860	860	860
Weight (kg) ~	600	600	700	700	1100	1100	1700	1700

Protect 8. Highlights

- The new generation of AEG Power Solution UPS
- More than 60 years experience in UPS business summarized in Protect 8
- Modern modular „Building block" to meet all customization requirements
- True on-line double conversion UPS (VFI SS 111)
- UPS designed for industrial applications
- Short lead time
- High robustness for harsh working environments
- Redundant controls for high reliability
- Small footprint
- High efficiency even at low output power
- Compatible with every type of battery
- Full digital control
- Top class communication platform.

Batteries

AEG Power Solutions has considerable in-house knowledge in battery technology and is able to offer expert advice on the specifying, selection, operation and testing of batteries. Our total system solutions include a wide range of products using lead acid and nickel-cadmium batteries in vented and gas recombination technologies. Replacement batteries can be supplied and installed by our Global Service Team.

Services

With over 60 years of expertise in power systems and solutions, AEG Power Solutions is renowned for its unparalleled services and technical support in critical application environments.

As the world class system provider, you can rely on a global network of 20 Services Centers supported by over 150 field engineers and more than 100 certified service partners around the world. From the power solution selection to your process installation and commissioning, our certified experts go beyond your expectations by offering service excellence that will ensure the lowest operational cost for your mission-critical equipment. The reliability of your installed power solution is supported by a Global Service Team renowned for its short response time and trouble shooting efficiency. Choosing one of the Pro Care™ Preventive Maintenance Options gives you the ultimate peace of mind reassuring complete cost control, security and uninterrupted power supply in utmost critical situations. You can also benefit from a full range of professional services that will protect and ensure the durability of your investment and will take over when you need it the most:

- Pro Care™ Preventive Maintenance Options
- Turnkey solutions
- Installation & commissioning
- Maintenance services
- E-Service/remote monitoring
- 24/7 hotline
- Onsite training
- Hot swapping
- Onsite battery replacement
- Battery monitoring
- Facility and equipment management
- 24/7 global onsite contracts
- Power quality assessment
- Load bank & site capacity analysis
- Trouble shooting and repair.

For further information
please refer to our website:

www.aegps.com

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