

PROTECT 5.31 MX

**Robustness and Reliability
for all industrial processes 10-60 kVA**

AEG

SVS POWER SUPPLY
SYSTEMS

General Classification according IEC 62040-3

Robust and reliable

Protect 5.31 is the industrial range of UPS units from AEG SVS PSS.

In online mode, it ensures the reliable supply of electrical power to all connected consumers. Permanent, reliable and completely free from any switching operations.

Complete system

Protect 5.31 transforms the alternating current from the mains, charges and monitors the stand-by batteries, and provides an alternating current output to the load, via a single phase inverter, which is free from disruption or interruption. Isolation transformers in the rectifier and inverter mean disruptions are eliminated.

Protection without a limit

Protect 5.31 carries on protecting when other units have long since given up. Its intermittent overload capacity is 500 %. In addition, its high level short-circuit strength and above average crest factor (factor 3) provide customer systems and processes with absolute reliability.

High cyclic loads do not cause any problems thanks to the unit's excellent dynamic response.

Engineering our business

UPS systems engineered by AEG SVS PSS have been protecting industrial installations and power stations for more than 50 years. AEG SVS PSS provides comprehensive information and skilled engineering in all aspects of high-performance direct and alternating current power supplies - straight from the specialists.

Key features

- Optimum efficiency, even in the part-load range
- More EMC robust than the UPS Standard by a factor of 2 to 3
- Floating **216 V** battery voltage for linking to existing DC busbars
- Isolating transformer in rectifier and inverter
- Ergonomic control unit with four-row text display
- Intelligent battery management and status diagnostics
- Short-circuit resistant
- Overload- protected
- Ground-fault monitoring
- Can be operated with a central battery
- Suitable for lead-acid or NiCd batteries
- Remote monitoring and control capabilities (programmable)
- Capable of communicating with computer and control systems
- Signalling contact for all important operating states
- Standardized modules
- Low maintenance - no rotating mechanical components
- **CE** - compliant
- Redundant fans



Power
Reliability

SPECIFICATION

Type Protect 5.31	010	020	030	040	060
Type power at w_{eff} 0.8 ind. (kVA)	10	20	30	40	60
RECTIFIER UNIT					
Rated connected voltage	3 x 480 Vac, optional 3 x 220 Vac , 3 x 400 Vca, ± 15 %				
Frequency	50 Hz or 60 Hz ±10 %				
Current consumption at full-load (A)					
- with trickle charge	14	29	43	57	84
- with max. battery charge	19	37	55	73	104
Rectifier Bridge	6 pulse	6 pulse	12 pulse	12 pulse	12 pulse
Mains filter	optional	optional			
Charging characteristics	IU to IEC 478-1				
INVERTER UNIT					
Rated DC voltage (link voltage)	216 V ± 20%, operating with lead-acid or NiCd batteries				
Rated AC voltage	120 V (can be optionally 127 V or from 220 to 240 V)				
Dynamic characteristics	for 0% - 100% - 0% load cycle, voltage decline < ±2 %; recovery time approx. 1 ms				
Frequency tolerance without mains	60 Hz ±0,1%, optionally 50 Hz ±0.1%				
Frequency tolerance (sync. range)	60 Hz ±1 %, optionally 50 Hz ±1 %				
Power factor range	capacitive to inductive over the entire cos φ range				
Output current (A)	83	167	249	332	498
Voltage wave form	sinusoidal				
Voltage distortion	<3% over the entire DC voltage, load and power factor ranges				
Crest factor with non-linear load	3, THD <5%				
Non-linear load	up to 100 % of the UPS nominal load				
Overload response	overload capacity of 150 % for 60 s.; 125 % for 10 min.				
Short circuit proof	Short circuit current 3 x Inom				
STATIC BYPASS SWITCH					
Rated connected voltage	120 Vac optional 127 Vac or 240 Vac				
Frequency	50 Hz or 60 Hz				
Rated connected power (kVA)	10	20	30	40	60
Overload	500%				
GENERAL DATA					
Total efficiency, in online mode	>88 % (depending on model)				
Noise level, in online mode	<55 - 70 dB(A)				
EMC emissions	to EN 50091-2 , Class A				
EMC immunity	to EN 50082-2				
Operating temperature range	- 5°C to +40°C				
Storage temperature range	- 35°C to +75°C				
Type of cooling	reinforced natural air cooling with integrated fans in redundant configuration				
Installation height	up to 1000 m above sea level at nominal load				
Protective system	IP 20 to IEC 529/EN 60 529				
Equipment colour	RAL 7032, powder coating				
Size (mm) Width	900	900	1200	1200	1500
Height	1800	1800	1800	1800	1800
Depth*	850	850	850	850	850
Weight excl. battery system (kg)	420	550	850	900	1500
1. interface	RS 232 serial, subminiature, 9-pin, (e.g. PC connection)				
2. interface	potential-free contacts				
Communication software	CompuWatch				
OPTIONS	several options available, e.g. protective system IP 43, different cabinet heights, etc.				

* plus 50 mm for door and control unit

AEG SVS
Power Supply Systems GmbH
A company of Saft Power Systems

Emil-Siepmann-Straße 32
D-59581 Warstein-Belecke
Telefon : +49(0)2902/763-0
Telefax : +49(0)2902/763-680
http : //www.aegsvs.de



POWER SYSTEMS
www.saftpowersystems.com

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