ИБП AEG Protect 2.33 - брошюра на продукцию. Юниджет

Постоянная ссылка на страницу: https://www.uni-jet.com/catalog/ibp/on-line-ibp/aeg-protect-2.33/

PROTECT 2.33 2.0

THREE-PHASE IN / OUT UPS SYSTEM

Uninterruptible Power Supply

3-phase Input; 3-phase Output

10–80 kVA power supply
10–40 kVA with integrated batteries

The Protect 2.33 2.0 is designed to protect small and medium sized data centers, telecommunication equipment and other power critical systems where power losses will have a critical impact upon your operations.

In the 10–40 kVA power range, the battery pack can be installed directly into the UPS. The internal battery solution allows an autonomy time of up to 30 minutes depending on UPS power supply and battery pack type. Longer backup times can be implemented by installing external battery cabinets.

Protect 2.33 2.0 is an "online" double-converter UPS with high efficiency, corresponding to the VFI-SS 111 classification according to the IEC 62040-3 standard. Protect 2.33 2.0 is transformerless and uses state of the art features such as IGBT rectifier and inverter, active power factor correction at input and low circuit feedback without additional passive filters. An intelligent battery charging management system ensures optimal battery life.

The large color LCD touch-screen allows intuitive operation and simple configuration. The navigation occurs via keyboard or by a simple touch. Remaining battery time and error messages are depicted in plain text. Protect 2.33 2.0 has an expansion slot for the installation of an SNMP adapter card, an integrated RS232-/485 communication interface (supports Modbus protocol), a connector for remote emergency off and potential-free contacts for signaling operating states and error messages.

Highlights

- IGBT rectifier with PFC and low circuit feedback without additional passive filters
- Adjustable charging current up to 70 A
- Integrated battery for 10–40 kVA model
- Parallel operation possible
- Large color LCD touch-screen
- Small footprint

AEG
POWER SOLUTIONS

PROTECT 2.33 2.0

THE MOST VERSATILE SOLUTION FOR POWER PROTECTION

The UPS Protect 2.33 2.0 works transformerless and uses the latest Pulse Width Modulation technology (PWM). The output adjusts to non-linear loads, in order to supply complex capacitive systems such as IT servers and inductively dominated engines reliably.

The capacity of the UPS ranges from 10 to 80 kVA.

Highest efficiency combined with compact dimensions were the main design criteria.

Protect 2.33 2.0 is easy to install and inexpensive to operate. Diverse communication interfaces are integrated into the UPS or can be installed through an expansion slot. Parallel operation is possible without adding further options.

Three-phase input/output UPS system

- Online/double conversion technology with digital signal processor (DSP)control
- Advanced control with Adaptive Feed Forward Cancellation (AFC) technology for very low harmonic distortion
- Very low input current distortion (THDi <1%)
- Input power factor 0.99 at 10% load

- Output efficiency up to 95%
- Space-saving compact design
- Front access makes maintenance and replacement easy
- Control designed to withstand all kinds of loads
- Variety of communication options available
- Over 60% materials recyclable
- 5.7"/14.5 cm graphic LCD touch-screen panel design for easy-configuration

Online double conversion technology with DSP control

Protect 2.33 2.0 utilizes online double conversion technology to effectively insulate against network disturbances and enable higher load uptime. A digital signal processor (DSP) control provides high accuracy and high performance.

Advanced control with adaptive feed forward cancellation (AFC) for very low harmonic distortion

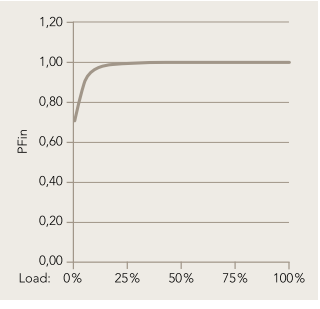
By cancelling input current and output voltage harmonics, the harmful effects of harmonic injection into the power network is eliminated and enhances load integrity.

Very low input current distortion (THDi <1%)

Protect 2.33 2.0 has extremely low line THDi harmonics of <1% at full load. Even at low loads of only 10%, the harmonic effect is <5% and protects the supplying network from negative repercussions. No external passive filters (which can diminish efficiency and cause additional costs) are required.

Input power factor 0.99 at 10% load

A nearly 100% effective UPS power input reduces installation time and costs.

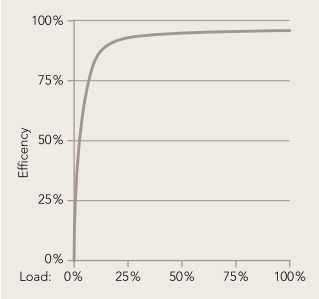


Input power factor

Control designed to withstand all kinds of loads

Output efficiency up to 95%

Applied with DSP controller and the fourth generation IGBT transistors, Protect 2.33 2.0 can achieve high efficiencies of up to 95%. The low energy consumption results from lower heat losses and allows savings in energy consumption and cooling.



Typical efficiency curve of series

Space-saving compact design

The use of transformerless technology allows a considerable reduction of the weight and volume of the units.

Front access makes maintenance and replacement easily

An important design consideration was to allow generous access to the units' electronic cards and power components. All the boards are accessible via the front panel for easy maintenance and replacement of components.

With Protect 2.33 2.0, the control is designed to be able to withstand all kinds of loads: linear, nonlinear, capacitive or inductive. It makes the Protect 2.33 2.0 tremendously versatile and flexible in supplying power to different types of electronic devices. To make it simple to adapt the UPS to different environments, there are a large number of variable parameters. With appropriate authorization this can be easily configurated via the large LCD touch-screen without additional software.

Variety of communications and options available

The UPS provides the following standard communication options:

- Potenial-free relay contacts
- RS232/485 interface
- 1 x SNMP expansion slot
- Modbus RTU/SEC protocol
- Redundant CAN interface for parallel operation

Over 60% materials recyclable

Protect 2.33 2.0 uses more than 60% recyclable materials in its construction.

Graphical 5.7"/14.5 cm LCD touch-screen for easy configuration and comprehensive information

Protect 2.33 2.0 can be configured via a 5.7"/14.5 cm LCD touch-screen. The setting options are subject to various authorization levels. Via animated pictograms, the current operating state can be viewed at any time.

Applications

Protect 2.33 2.0 provides great flexibility and adaptability to suit a multitude of applications, such as:

- Data centers (computer centers, centralized sales/distribution systems, hosting, housing)
- IT-networks (server farms, local computer networks, network switches and hubs)
- Financial services (bank offices, automatic cash dispensers, card payment authorization systems)
- Industrial processes (production and control systems, industrial machinery, emergency and lighting systems)
- Telecommunications
- Infrastructures (hospitals, airports, tunnels etc.)

Protect 2.33 2.0 40 kVA open door cabinet

MODEL	PROTECT 2.33 2.0						
Capacity	10 kVA / 8 kW	15 kVA / 12 kW	20 kVA / 16 kW	30 kVA / 24 kW	40 kVA / 32 kW	60 kVA / 48 kW	80 kVA / 64 kW
INPUT							
Acceptable voltage range	3 x 400 V (3 Ph + N), +15 % to -20 %						
Frequency	50 Hz / 60 Hz ±5 %						
Nominal input current	13 A	20 A	26 A	39 A	52 A	78 A	103 A
Total harmonic distortion (THDi)		<1.5 % @ 100 % load <2.5 % @ 50 % load <6.0 % @ 10 % load			<1.0 % @ 100 % load <2.0 % @ 50 % load <5.0 % @ 10 % load		
Power factor	1.0						
INVERTER							
Nominal voltage	3 x 400 V (3 Ph + N)						
Precision	stationary: ±1 %, transitory: ±2 % (load variations 100 – 0 – 100 %)						
Frequency	50 Hz / 60 Hz ±0.05 % without mains						
Synchronisation speed	±1 Hz/s						
Waveform	sinewave						
Total harmonic distortion	<0.5 % (linear load), <1.5 % (non-linear load)						
Phase displacement	±1 % (balanced load), ±2 % (50 % unbalanced load)						
Dynamic recovery time	10 ms (98 % of static value)						
Admissible overload	125 % for 10 min., 150 % for 60 s						
Admissible crest factor		3.4 : 1			3.2 : 1		
Admissible power factor	0.1 inductive to 0.1 capacitive						
Imbalance output voltage @ 100 % unbalanced load	<1 %						
Current limitation	3 x I_{nom} (short circuit)						
Inverter efficiency	94.5 %	95 %	95.3 %	95.9 %	96.2 %	96.4 %	96.6 %
STATIC BYPASS							
Type	Thyristor						
Voltage	3 x 400 V (3 Ph + N)						
Frequency	50 Hz / 60 Hz						
Control	microprocessor controled						
Transfer time	uninterrupted						
Admissible overload	400 % for 10 s						
Transfer to bypass	immediate (for overloads >150 %)						
Retransfer	automatic after alarm clear						
MAINTENANCE BYPASS							
Type	without interruption						
Voltage	3 x 400 V (3 Ph + N)						
Frequency	50 Hz / 60 Hz						
GENERAL							
Max. charging current		23.5 A			47.0 A		70.5 A
Overall efficiency (online mode)	91 %	91.3 %	92 %	92.4 %	93.1 %	93.6 %	94.3 %
MASS / WEIGHT / AUTONOMY TIME							
Dimensions approx. D x W x H (mm)		700 x 450 x 1,100			805 x 590 x 1,320		
Footprint (m²)		0.315			0.475		
Net weight (without batteries) kg		110		180		210	230
Integrated battery type (2x31)	12 V 7 Ah	12 V 7 Ah	12 V 9 Ah	12 V 12 Ah	12 V 18 Ah	-	
Autonomy time (min.)	15	10	9	8	9	-	
Weight with integr. battery approx. (kg)	250		270	397	542	-	
EXTERNAL BATTERY CABINET							
	External battery cabinet 1			**External battery cabinet 3**			
Dimensions approx. D x W x H (mm)	700 x 450 x 1,100			805 x 590 x 1,320			
Integrated battery type (2x31)	12 V 12 Ah			12 V 26 Ah			-
Autonomy time (min.)	32	20	14	20	14	8	-
Net weight approx. (kg)	250			710			-
	External battery cabinet 2			**External battery cabinet 4**			
Dimensions approx. D x W x H (mm)	700 x 450 x 1,100			980 x 650 x 1,322			
Integrated battery type (2x31)	12 V 18 Ah			12 V 40 Ah			
Autonomy time (min.)	57	34	24	40	25	15	10
Net weight approx. (kg)	410			1,020			

AEG Power Solutions

Approach your local AEG Power Solutions representative for further support.
Contact details can be found on:

www.aegps.com

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