



آریاتک  
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## Keys

## علائم

Single-phase input and output	<b>1:1</b>	ورودی و خروجی تک فاز
Three-phase input, Single-phase output	<b>3:1</b>	ورودی ۳ فاز : خروجی تک فاز
Three-phase input and output	<b>3:3</b>	ورودی و خروجی ۳ فاز
Single-phase or three-phase input, single-phase output	<b>1-3:1</b>	ورودی تک فاز یا ۳ فاز : خروجی تک فاز
UPS VFD (Voltage Frequency Dependent)		یوپی‌اس‌هایی که ولتاژ و فرکانس خروجی به ولتاژ و فرکانس ورودی وابسته است
UPS Line Interactive (Voltage Independent)		یوپی‌اس‌هایی که ولتاژ خروجی مستقل از ولتاژ ورودی است
UPS Online (Voltage Frequency Independent)		یوپی‌اس‌هایی که ولتاژ و فرکانس خروجی مستقل از ولتاژ و فرکانس ورودی است
Tower		یو پی اس ایستاده
Rack		یو پی اس رک مونت
Rack / Tower		یو پی اس دوگانه: ایستاده / رک مونت
Modular system		یو پی اس ماژولار
UPS suitable for home - small office applications		یو پی اس مناسب منازل و دفاتر کوچک
UPS suitable for datacentre applications		یو پی اس مناسب دیتا سنتر
UPS suitable for electro-medical applications		یو پی اس مناسب مصارف بیمارستانی
UPS suitable for industrial applications		یو پی اس مناسب کارخانجات صنعتی
UPS suitable for transport applications (railways, airports, naval)		یو پی اس مناسب حمل و نقل عمومی (مترو، تجهیزات ریلی و فرودگاهی)
UPS suitable for emergency applications		یو پی اس مناسب مصارف اضطراری



# AEG

## PROTECT<sup>PLUS</sup> S300

3/3 transformer-less IGBT based UPS  
From 10 to 200 kVA  
Performance, compactness and reliability



3:3



Protectplus S300 is the new transformer-less UPS from AEG Power Solutions. Best in class system for its compact footprint, the system also provides high efficiency (> 95.6 % in double conversion and up to 98 % in Eco Mode).

Protectplus S300 is flexible in its configurations and benefits of a wide range of options. This makes it an ideal power protection for small and medium sized critical applications where power consumption, available space and reliability are key parameters.

The combination of high-level performance, with integrated battery solutions, or (as an alternative), the inbuilt galvanic isolation, the compact footprint and the wide range of options, make Protectplus S300 the best solution for the power quality of any critical load.

### Features

The UPS is based on a highly efficient transformer-less double conversion technology, ensuring the lowest OPEX on the market in its category. Best in class for energy consumption; the system has a very low Total Cost of Ownership (TCO).

- 3-level IGBT technology

- Compact foot-print, with integrated batteries or isolation transformer up to 80 kVA
- Transformer-less architecture
- AC/AC efficiency up to 95.6 % (VFI) and 98 % in VFD\*
- Input PF > 0.99 and THDi < 3 %\*
- Output PF up to unity (without derating)
- Up to 8 units in parallel connection
- Static and maintenance bypass switches included
- Back-feed protection included
- Cold start (battery start) function
- 4.3" touch screen display
- Wide range of options

### Typical applications

- IT
- Industry 4.0
- Finance and retail
- Healthcare
- Transportation



# UPS

## Specifications

POWER RATING MODEL	10	15	20	30	40	60	80	100	120	160	200	
Nominal active power up to 40 °C (kW)	9	13.5	18	27	36	54	72	100	120	160	200	
Dimensions W x D x H (mm)	400 x 815 x 1040				515 x 855 x 1440			475 x 890 x 1440				
Weight without batteries/transformer (kg)	87	87	91	100	173	197	209	210	220	262	270	
<b>MAINS INPUT LINE (RECTIFIER)</b>												
Phase	3Ph + N + G											
Nominal voltage (V)	380 / 400 / 415											
Voltage range (V)	-20 % / +15 %											
Frequency (Hz)	50 / 60											
Frequency range (Hz)	40 – 70											
Power factor	> 0.99											
Input THDi (at rated voltage and THDv <0.5 %)	< 3 % (with full linear load)											
<b>BYPASS INPUT LINE</b>												
Nominal Bypass Input Voltage [V]	380 / 400 / 415											
Bypass Input Voltage Range	± 20 % (with full load)											
Bypass Input Frequency [Hz]	50/60											
Bypass Frequency Range [Hz]	Nominal: ± 3 % (adjustable)											
Overload Capacity on Bypass Line	Up to 150 % continuously Up to 180 % @ 1 min Up to 1000 % @ 100 ms											
<b>OUTPUT LINE (INVERTER)</b>												
Voltage [V]	380 / 400 / 415											
Output THDv (according to IEC EN 62040-3)	< 2 % (with linear load); < 5 % (with non linear load)											
Transient Response	± 2 % for dynamic step load (20 % – 100 % – 20 %)											
Transient Recovery (after step load)	< 20 ms											
Output PF (up to 40 °C)	Up to 0.9							Up to 1				
Crest Factor	3:1											
Frequency [Hz]	50 / 60											
Slew Rate [Hz/s]	0.5 to 5 (adjustable)											
Overload Capacity through Inverter Line	Up to 105 % for long time operation < 110 % with transfer to bypass after 60 minutes < 125 % with transfer to bypass after 10 minutes < 150 % with transfer to bypass after 60 seconds > 150 % with transfer to bypass after 100 ms											
Short circuit current (through inverter line)	> 180 % with output VAC < 22 V rms (O/P current is limited for max. 180 ms; if continues, the UPS will shut down)											
AC/AC efficiency in VFI @ nominal linear load	> 93.0 %	> 93.0 %	> 93.0 %	> 93.3 %	> 93.3 %	> 94.5 %	> 94.8 %	> 94.8 %	> 95.6 %	> 94.5 %	> 95.3 %	
AC/AC efficiency in VFD	> 98 % (at nominal load)											
<b>BATTERY LINE</b>												
Nominal DC voltage (VDC)	± 360 (with + / N / - connections)											
Quantity of lead acid batteries (12 V each)	60 (settable from 60 to 64 blocks)											
Recharge power	20 % of nominal power											
<b>USER INTERFACE</b>												
Display	LCD Touch Screen Display (4.3")											
Standard communication ports	RS232, USB											
Optional communication ports	SNMP, dry contact relay card, Modbus											
<b>GENERAL</b>												
Protection degree	IP20 (standard); other values upon request (up to IP41)											
Color	RAL 9005											
Operating temperature (°C)	0 to 40											
Storage temperature (°C)	-15 to 70											
Relative humidity	0 to 95 %											
Altitude (above sea level) (m)	< 1000 (with power derating of 0.5 % every 100 m up to 3000 m, according to IEC EN 62040-3)											
Noise at 1 m distance (dB)	< 57			< 62			< 64		< 68			
<b>STANDARDS AND CERTIFICATIONS</b>												
Marking and Certifications	CE											
Safety	IEC EN 62040-1											
EMC	IEC EN 62040-2											
Test and Performance	IEC EN 62040-3											





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