

APOSTAR Static UPS



AR 3kVA – 80kVA
AP PREMIUM 100kVA – 400kVA

Nothing protects quite like Piller

Piller protects your business

About Piller

Since its formation by Anton Piller in 1909, the company Piller has been synonymous with electrical machines of the highest quality and reliability. Today, Piller, from its headquarters in Germany and via its regional offices, representatives and distributors world-wide, continues that tradition into the 21st century.

Piller produces high performance power protection systems and converters. Combined with the highest levels of client support and engineering excellence available anywhere, Piller is internationally recognised as the most respected name in its field.

Piller is a wholly owned subsidiary of the multi-disciplined global UK engineering group, Langley Holdings plc. (www.langleyholdings.com)



'The Piller Static UPS meets the highest requirements of a secure power supply'



Complex computer centres, automated production plants and other critical applications make high demands on UPS systems, as power supply failures can have catastrophic results. Non-linear loads therefore have to be handled as safely as shock loads and overloads such as those caused by power surges. When it comes to the security and economy of a UPS system, there is no room for compromise. The Piller Static UPS meets the highest requirements of a secure power supply and at the same time is very economical.

A combination of microcontrollers and the latest power electronic components control, regulate and monitor the UPS functions to ensure maximum reliability.

The Piller Static UPS is a true on line UPS with VFI SS 1111 characteristic double voltage conversion and continuously supplies a constant voltage and frequency. Even in the event of a mains failure, the load is supplied by the inverter without interruption.

At the same time and even with a 100% unbalanced load, Piller Static UPS maintains accuracy at the high output voltage to avoid jeopardising the operation of the critical loads. Varying loads do not affect the quality of the output voltage. They are corrected by the inverter by means of pulse width modulation with instantaneous value accuracy and variable pulse frequency.

Non Linear loads, the predominant part of all systems, generate high peak currents - the quality of the output voltage is maintained even with a 3 times peak current crest factor with respect to the rate current (distortion factor up to 3%).

PROTECTING :

- Biotechnology Development
- Broadcast Centres
- Healthcare Facilities
- Industrial Processes
- Information Systems
- Pharmaceutical Production
- Telecommunications Networks

APOSTAR AR 3kVA to 80kVA

The APOSTAR AR systems supply and protect networks and PC workgroups, communication systems, commercial and scientific systems intelligent engineering measuring devices and industrial automation equipment.

Battery

The intelligent battery manager of the Piller APOSTAR AR Range guarantees the best possible use of battery capacity by automatic adjustment of final discharge voltage. The temperature controlled charging current ensures a long battery life.

Benefits

- True double conversion online UPS, VFI SS 111 classification (according to IEC 620 40-3)
- Very high efficiency
- 50>60 or 60>50Hz frequency converter as standard
- Various operating modes are possible
- Highly reliable
- Redundant and power-parallel configuration of up to 6 units
- Periodical test of battery
- Built-in step-up converter results in a high power factor
- AR Single is available as a free-standing tower or for rack mounting

APOSTAR AR Single

Rated power	kVA	3.3	6	10
Active power	kW	2.3	4.2	8
Phases (output)		1	1	1

APOSTAR AR Comfort

Rated power	kVA	10	15	20	30	40	60	80
Active power	KW	9	13.5	18	27	36	54	72
Phases (output)		3	3	3	3	3	3	3

Communication

For easy integration into your working environment the APOSTAR AR Systems are equipped as standard with serials RS-232 interface and free contacts. This enables the DATAWATCH Shut-down Software and other intelligent consumers to communicate direct with the UPS. Connecting an optional "SNMP-adapter" also allows direct connection to network management systems.

Compatibility

Due to its innovative technique PILLER APOSTAR AR systems are extremely small, quiet and economical to operate. Therefore integration into the system, which is to be protected and its environment, can be easily achieved.



'guaranteeing superior safety and reliability'

PILLER

AP Premium 100kVA to 400kVA

A true double conversion online UPS, the AP Premium (100 to 400kVA) employs next-generation technology to provide reliability, efficiency and flexibility in a remarkably small footprint. The AP Premium is engineered to deliver greater real power to protect the most demanding applications, including today's leading power factor loads. High performance IGBT's, positioned at the front end, provide active filtering to assure the cleanest sinusoidal waveform. Advanced digital controls and communications give the user easy and confident command of the system and an innovative DC interface prolongs battery service life.

Benefits

- High active power - output power factor 0.9
- High output power at capacitive loads
- Lowest system perturbation - sinusoidal - input current THDI <3%
- High efficiency, up to 95%
- Economical, flexible, and energy-saving battery connections
- High reliability
- Variable cable connection - from bottom and top
- Standard, extended-range of communication protocols
- Reduced weight and small foot print



APOSTAR AP Premium

Rated power	kVA	100	120	160	200	300	400
Active power	kW	90	108	144	180	270	360
Phases (output)		3	3	3	3	3	3

'a new milestone in UPS technology'



Trusted to provide maximum availability

Output power factor 0.9

For the same nominal power the AP Premium provides more active power (12.5%) than conventional UPS systems. This allows more loads to be connected.



High output power at capacitive loads

Modern server power supplies tend to absorb capacitive currents. The AP Premium makes more capacitive power available than conventional UPS systems.



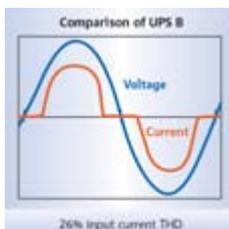
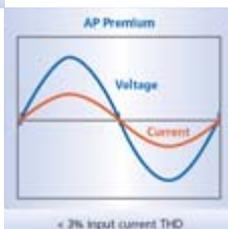
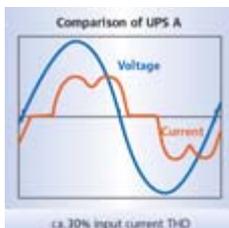
'next-generation technology to provide reliability, efficiency and flexibility'



AP Premium higher efficiency, continuous protection

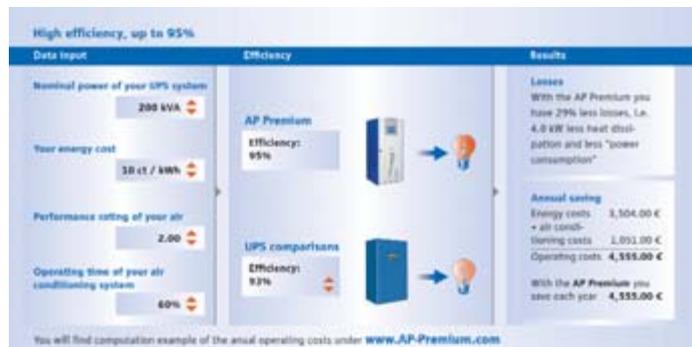
Sinusoidal input current THDi <3%

Conventional UPS systems absorb current which has very high levels of distortion (up to 35%). This distorted current causes an appreciable rise in the specified, limited harmonic level. In addition, such currents also have serious notches, which cause so-called commutation notches in the supply system. The result is a phase shift between voltage and current and thus reactive power absorption. Other UPS manufacturers install filter systems in the energy supply, resulting in over dimensioning of standby generating plant, cables and fuses. AP Premium eliminates this as it takes up sinusoidal current.



High efficiency, up to 95%

The efficiency of a system has a direct influence on energy costs and the cooling required. With an efficiency of up to 95%, the AP Premium sets new standards in the static UPS sector. AP Premium offers a similar level of efficiency throughout the partial load range. This means that even in redundant systems the AP Premium saves costs - day after day, year after year.



Unrivalled after sales service

Competence and responsiveness are the watchwords of our business.

Piller believe that product and service belong together, and the Piller name is synonymous with excellent after sales service. The best technology is only as good in the long term as the service that underpins it.

For this purpose, a comprehensive network of qualified service staff is available – world-wide.

The premium quality and technical maturity of every Piller product already guarantees a high degree of functional security, and together with quality maintenance, this further reduces any risk of possible breakdown.

Piller offers a comprehensive package of services tailored to your requirements:

- **Technical consultation**
- **Operator training**
- **Functional testing**
- **Maintenance**
- **Fault analysis and troubleshooting**
- **Customer training**
- **Remote system diagnosis and support**
- **24/7/365 emergency call-out**



Service Team Capability

Piller's customer service engineering team is highly qualified and trained on all products and services. As a combined total, field service teams have centuries of experience working on four generations of UPS system. Piller operate a 'best of breed' philosophy in all working practices and are believed to be market leaders in first time resolution of site problems.

Piller Emergency Call-Out Service

Piller understand that malfunctions also occur outside working hours, which is when competent help is needed quickly. An emergency call out service ensures that a Piller Service specialist can be reached quickly. Service centres are strategically positioned in relation to Piller's installed base, for the best possible response time and familiarity with every installation.



'on demand 24 hours a day, 365 days a year'

PILLER

ROTARY UPS SYSTEMS
HYBRID ROTARY UPS SYSTEMS
ROTARY DIESEL UPS SYSTEMS
STATIC UPS SYSTEMS
STATIC TRANSFER SWITCHES
KINETIC ENERGY STORAGE
AIRCRAFT GROUND POWER SYSTEMS
FREQUENCY CONVERTERS
NAVAL POWER SUPPLIES
SYSTEM INTEGRATION



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The information contained within this brochure is deemed to be correct at the time of going to press. Due to a policy of continued improvement, we reserve the right to change any specification without prior notice.
ERRORS & OMISSIONS EXCEPTED

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Power Systems