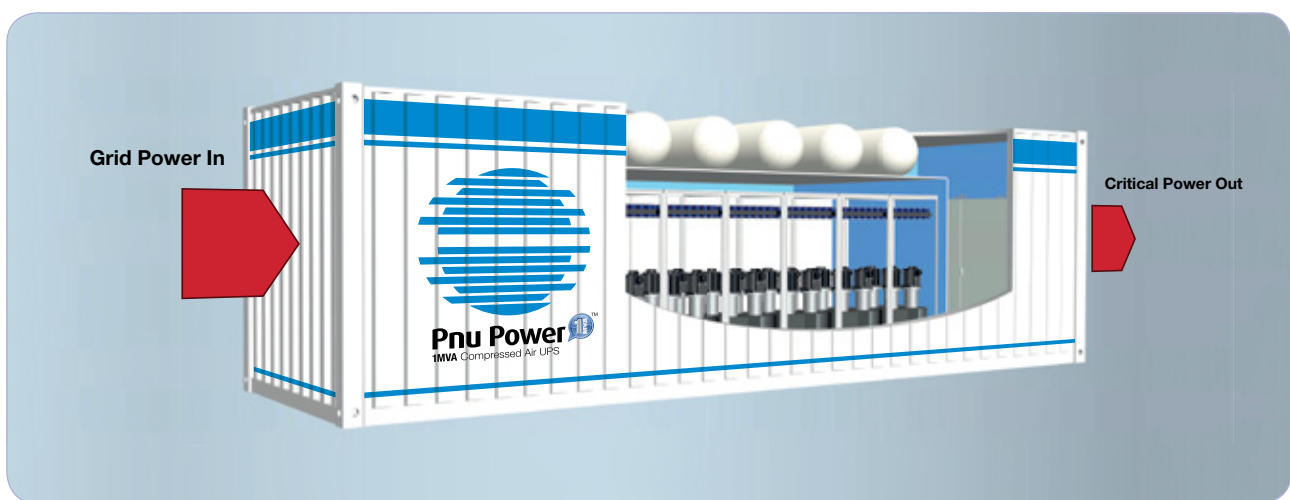


# Pnu Power <sup>1</sup>MVA™

1MVA Air-DRUPS (Compressed Air, Diesel, Rotary UPS)

The most ENERGY EFFICIENT battery-free UPS solution  
For DATA CENTRES and other large UPS applications



## benefits

- minimal standby losses & maintenance
- no moving parts in standby mode
- known state of charge & availability
- low initial & whole life costs
- suitable for hostile environments

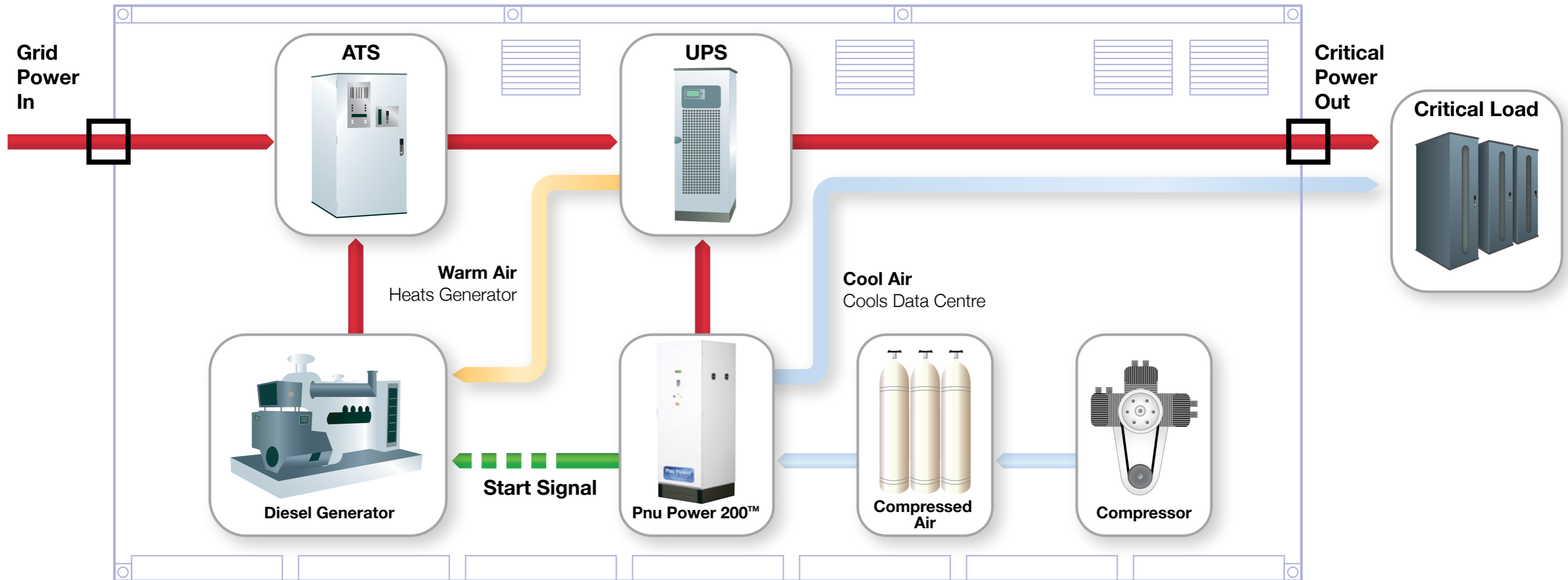
## features

- containerised, weatherproof modules
- proven, reliable technology
- flexible autonomy
- auto recharge compressor
- excellent energy efficiency, even at 50% load

**FACT:** Unlike batteries and flywheels, Pnu Power UPS systems have very low energy usage in standby mode and offer flexible autonomy

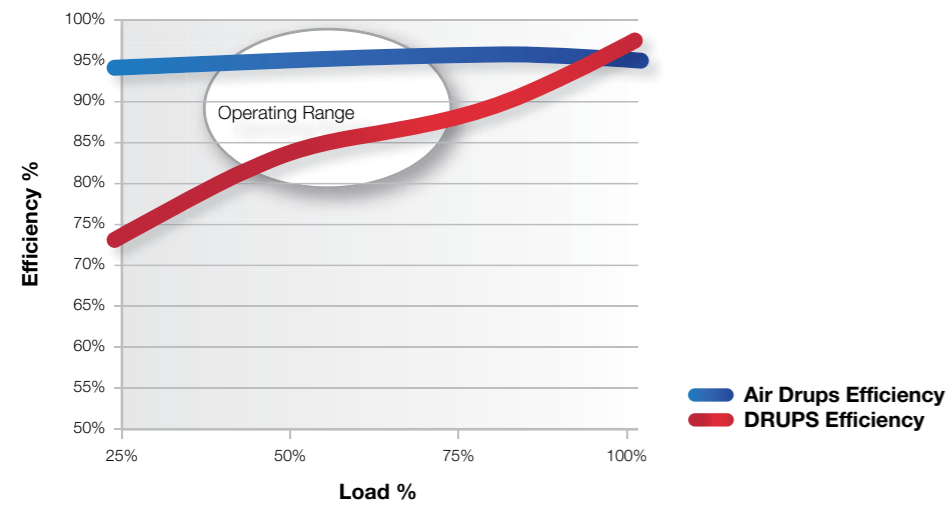
**FACT:** Simply add cylinders to increase run time

## system overview



The Pnu Power 1MVA™ Air-DRUPS solution is fully containerised

## improved PUE\* in REAL WORLD operating conditions



**FACT:** Data centres operate below 100% load (50 to 75% typical).

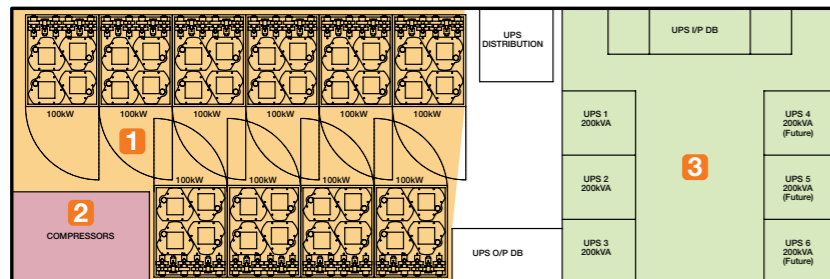
**FACT:** Pnu Power 1MVA Air-DRUPS solutions are 95.5% efficient even at 25% load.

$$*PUE = \frac{\text{Total Facility Power}}{\text{IT Equipment Power}}$$

## typical configuration

The Pnu Power 1MVA™ Air-DRUPS system is easily configured to suit specific applications and enclosures.

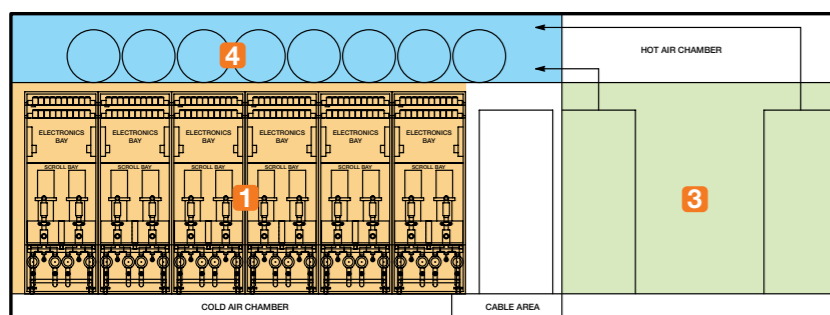
### Top elevation



#### KEY:

- 1 scroll generators
- 2 auto compressors
- 3 UPS units
- 4 air cylinders

### Side elevation



## proven reliability

Pnu Power UPS systems provide dependable service worldwide, in fields including aerospace, electricity networks and telecoms.

## low lifetime costs (capex/opex)

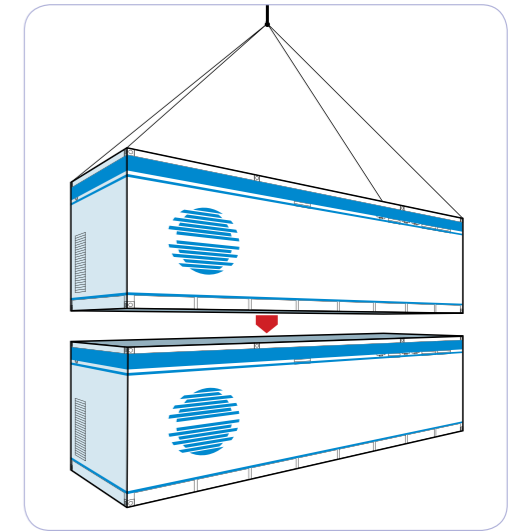
Pnu Power 1MVA™ CAPEX costs are competitive – OPEX costs are much lower than for traditional battery/flywheel solutions. Minimal maintenance requirements plus extremely low standby losses add up to exceptionally competitive whole-life cost of ownership.

## scalable solutions

Need a 2MVA installation or more? We can provide multiple Pnu Power 1MVA™ modules to any capacity you want.

## fast plug-and-play installation

Pnu Power 1MVA™ units are delivered to your site, ready to use. And because they are completely self-contained and weatherproof, you can install them virtually anywhere.



Stackable Modules

## increasing efficiency

- heat from UPS systems is used to warm the diesel generator
- cold air exhaust can be used to cool the data centre until the generator starts
- photovoltaic options can be used to top up the energy supply and/or drive the standby control electronics



 Pnu Power 1MVA™ 1MVA Air-DRUPS (Compressed Air, Diesel, Rotary UPS)			
UPS Solution	Pnu Power 1MVA™	Conventional Battery	Flywheel
standby losses	low	low / medium	high
energy usage	low	low / medium	high
photovoltaic option	yes	no	no
maintenance needs	periodic inspection	regular test/servicing	medium
charge indicator	yes	optional	yes

# Pnu Power <sup>1 MVA</sup>™

1MVA Compressed Air UPS

PRODUCT CODE: AC1000

## standard specifications

TECHNICAL	
Output	1000 kVA (1MVA) 0.9 pf
Height/Width/Depth	9m (30') x 3m (10') x 3.35m (11')
Weight	15,000 kg (33,000 lbs)
Supply pressure	35 bar (507.5 psi)
Run time (from standard extendable cylinder pack)	30 seconds (minimum)
POWER	
DC voltage	Customer specified: 350-600 Vdc +/-ve grounding available as standard
AC	Multiple voltages and frequencies available
Voltage regulation	+/-0.5%
ENERGY SOURCE	
Source	High pressure cylinders or medium pressure plant main
Air quality	Standard industrial
Recharge type	Automatic compressor
ENVIRONMENTAL	
Operating temperature	-40 to +50°C (-40 to +122°F)
Storage temperature	-40 to +60°C (-40 to +140°F)
Humidity	>95% non-condensing
Efficiency	95.5 to 96% (25 to 100% Load)
Noise	<65dBA at 5m as standard across range
Enclosure	Containerised solution designed for external use (internal options available)
INSTRUMENTATION	
Local	LCD display shows run time remaining and operational status
Remote	Ethernet (TCP-IP) or standard modem
STANDARDS	
Safety	CE Certified
Emissions	CE Certified
Immunity	CE Certified



Compressed Air Batteries  
the smarter backup choice

### Technical Information & Support

Energetix Pnu Power  
Capenhurst Technology Park  
Capenhurst  
Chester, UK  
CH1 6EH

t. +44 (0) 151 348 2100  
f. +44 (0) 151 348 2101  
info@pnupower.com  
www.pnu-power.com

