

THE VECTOR FS RANGE

Up to 500kVAr

A family of automatic Power Factor Correction units that have a minimal "foot-print"

Designed to provide maximum kVAr per square metre of floor space

Flexible modular design

Highly reliable, low loss capacitors with self healing properties.

Safety protection system incorporated within each capacitor element.

Internally extendible and maintainable floor standing units for easy installation.

The Vector FS series is ideally situated where floor space is limited.

Soft Switching contactors for minimal system disturbance.

Also available with harmonic blocking or filter reactors (see FSi range).

Multi-stage switching with on/off/auto facility available on the control relay.

Panel mounted on/off/auto switches and indicator lamps available as low cost option.

A suitably rated switch-fuse, circuit-breaker or load break switch is available as an option where required.

Max kVAr Rating	Height	Width	Depth
To 125 kVAr	850	600	325
To 250 kVAr	1450	600	400
To 375 kVAr	1850	600	400
To 500 kVAr	2250	600	450

All dimensions are in millimetres



A 324 kVAr, single width, extendible "Vector FS" Automatic power factor correction unit.

The Energy
Solution
Specialists.

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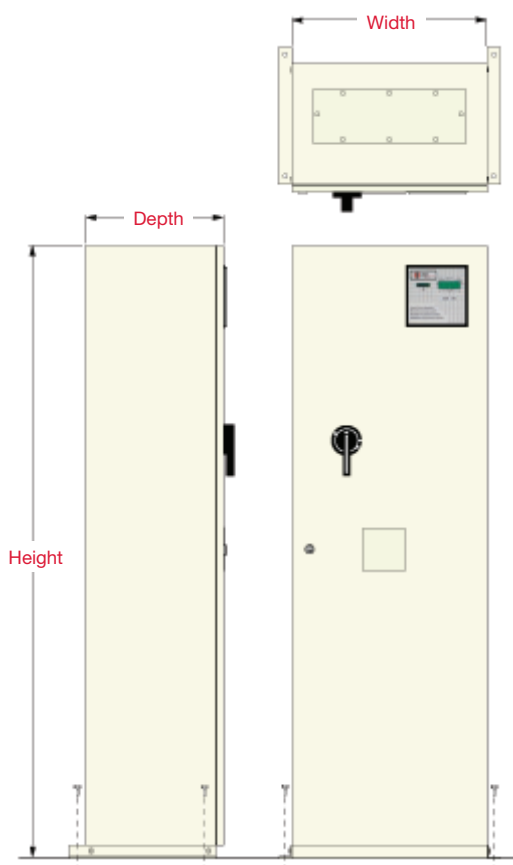
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Control Gear

The equipment incorporates a special soft switching contactor arrangement to minimise system disturbance which is caused by capacitor switching. For example, a 50kVAr automatic step is controlled by two contactors switching in cascade. These contactors incorporate a pre-connection resistor system which reduces the effect of current inrush, thus reducing system disturbance and increasing product life. 100 Amp circuit fuses are installed to protect each 50kVAr capacitor step and its associated control gear.

The enclosure is of robust steel construction and is designed for total front access via a hinged door. Top or side cable entry is provided as standard. Bottom cable entry is also available upon request. The unit utilises an SBA type modular equipment tray system.

Dimensions



Each equipment tray includes the requisite capacitors, soft switching contactors, auxiliary and control fuses. This system greatly simplifies modification or upgrade.

Capacitors

The capacitor unit comprises the requisite number of individual capacitor elements. These elements are manufactured from impregnated metallized polypropylene or metallized paper and plastic film and have a self healing capacity. Each one incorporates a fail-safe protection device.

Permissible Overloads

Rated voltage [V] 50 Hz	300	400	440	480	525	615
Over-voltage [V]						
8 hours daily	330	440	484	528	578	677
30 min. daily	345	460	506	552	604	707
5 min. daily	360	480	528	576	630	738
1 min. daily	390	520	572	624	683	800

Permissible Temperature Range

Ambient -40 to $+60^{\circ}\text{C}$.

Losses

Dielectric loss 0.2 Watts per kVAr

Total capacitor losses 0.5 Watts per kVAr.

Discharge Devices

Capacitor terminal voltage reduced to 50 Volts within 1 minute (exceeding EN 60831).

Paint Specification

RAL 7035 as standard.

Standards

PFC equipment manufactured to:

EN 61921

EN 60831-1

EN 60831-2

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