

SPECIFICATIONS: powerPerfector

VPO® technology helps reduce electricity bills, cut CO₂ emissions and improve power quality to protect the electrical infrastructure and help equipment work more efficiently, for longer, by regulating and controlling a building's incoming electrical supply.

Technical Description	Voltage Power Optimiser with embedded winding for harmonic attenuation and unreferenced star point for passive voltage balancing with a high short circuit current withstand capability and ultra-low impedance.
Nominal Voltage	400V ± 20%
Nominal Frequency	50/60 Hz
Wire Connection	3 phase – 3 wire type (No neutral connection required).
Construction	High purity cold-wound copper conductor, grain orientated sheet silicon steel core. Dry type.
powerPerfector Rating	70kVA (100A) • 110kVA (160A) • 175kVA (250A) • 220kVA (315A) • 280kVA (400A) 350kVA (500A) • 440kVA (630A) • 560kVA (800A) • 690kVA (1000A) 830kVA (1200A) • 1MVA (1450A) • 1.25MVA (1800A) • 1.5MVA (2150A) • 2MVA (2900A)
Available Optimisation Settings	4, 5, 6 & 7% • 6, 7, 8 & 9% • 8, 9, 10 & 11%
Voltage Transient Protection	Protection against common transient events.
Passive Phase Voltage Balancing	Through differential compound interaction.
Harmonic Attenuation	Passive low filtration from primary winding plus tertiary delta winding (No tuned circuits, active or electronic components).
Impedance	0.5% ensuring that existing electrical integrity is not compromised nor do existing circuit breaker timer settings require alteration.
Efficiency	Peak efficiency 99.94%
Voltage Withstand For 60 Secs	3kV
Insulation Class	H – 180°C
Duty Type	Continuous
Cooling Type	Natural Air (AN)
Environment Operating Range	-10°C to +50°C
Environment Humidity Range	30% to 90%
Enclosure Ingress Protection Rating	IP31 (Internal) enclosure Floor standing louvred panels with Aluminium Gland Plate located above the VPO for cable top entry complete with Phase-Phase Input and Output meters. IP44 (External) enclosure Floor standing, front access via front panel secured with the minimum required exposed bolts. For added security and safety a combination of tools is required to remove the panels. Vents on the bottom and top to allow airflow through the enclosure. Cable entry box for bottom cable entry.
Maintenance Requirement	The unit does not require any maintenance. The incoming and outgoing electrical connections of the unit should be periodically checked as stated within the latest wiring regulations.
CE Mark	BS EN 60076:11-2004