

# PowerMAXX Variable Voltage Stabilizer Reactor (V.S.R.)

## Standard Unit Specifications & Technical Data

<b>Application</b>	
System	To suit five (5) line system - 3 Active - 1 Neutral - 1 Earth
Input Voltages	216V-253V, 360V-440V, 50HZ
Output Voltages	220V-225V, 380V-390V, 50HZ
<b>Regulation/Operating Characteristics</b>	
Regulation	Nominal input voltage $\pm 10\%$ Nominal output voltage $\pm 1\%$ Independent phase regulation to correct voltage imbalance
Regulation Variation	None - regulation constant for 0 to 100% load on any load power factor
Dual Control Circuitry	Auto/Manual
Overload/Inrush Capability	6000%-1cycle, 1000%-1 second, 500%-5 seconds, 200%-1 minute 1000% fault clearing
Load/Power Factor	No power factor limitations from no load to full load conditions Compatible with all load types
Tap Switching	No load current interruption or waveform distortion on switching at any load or power factor
Zero Crossing Sensitivity	None, tap switching not dependent on determining load current zero crossing
Harmonic Distortion	No distortion added at any load or power factor
Response Time	<10ms
Efficiency	Autotransformer 99% typical
Operating Efficiency	$\pm 3\%$ of nominal frequency
<b>Noise Suppression/Protection</b>	
Noise Attenuation	Please advise Line isolation to minimize transient events & noise
Surge Suppression	Built-in surge suppression for spikes & surges up to 25,000 Volts complies with ANSI/IEEE C62.41
Input Circuit Breaker	Included
Failsafe Electronic Bypass	Auto-actuation on high temperature, over current or component failure with no loss of load
<b>Construction</b>	
Technology	Passive & Brushless Microprocessor controlled Solid state tap switching of inductive reactor coils
Switching Technology	Solid state switching - Semikron (SCR) or approved equivalent
Transformer	300-500KVA: Shielded copper foil windings [1 $\emptyset$ & 3 $\emptyset$ (delta-wye)] Above 500KVA: Autotransformer, copper foil wound [3 $\emptyset$ (wye-wye)] Nippon Steel Z11 cold rolled grain orientated silicon steel with low hysteresis Electrolytically refined copper foil windings
Insulation	Greater than 5 megohms
Cooling	Natural convection - Fan cooling not required
Enclosure	Floor mounted/waterproof/dustproof - IP66 Enclosure - 2mm thick mild steel Enclosure powder coated climatic green, fitted with lifting eyes
Cable Connections	Refer enclosure drawing for cable exit/entry options
Audible Sound Level	Please advise

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Panel Display	GREEN FLASHING LIGHT = Stabilizer is NORMAL RED FLASHING LIGHT = Stabilizer is ABNORMAL ABNORMAL MESSAGE = ABN button display
Measurement Display	Backlit LCD displays: Input line voltage & frequency, Output line voltage, Phase voltage Line current & frequency, VA, KW, PF, Internal temperature
Communication	RS-485 communication port Remote signal measurement, and control functions to monitor and control equipment Event history inside memory for up to 200 events
Warranties	10 year warranty against SCR failure 10 year on complete unit
<b>Environmental Requirements</b>	
Temperature - Humidity Operating Altitude	Ambient 0-40C (32-104F) - Relative humidity 0-95% non-condensing 0-3000 metre's (0-10,000 ft)
<b>Standard Documentation &amp; Factory Testing</b>	
Every unit shall be factory tested & certified to buyers specifications confirming proper unit operation Certified factory test data shall be supplied for independent inspection review prior to export boxing Installation details: Weights, enclosure dimensions, cable exit/entry, conductor connections, wiring connections Three (3) copies owners manual	
<b>Certifications &amp; Accreditations</b>	
Wiring	AS/NZS 3000: 2007
International Accreditation	Chinese, CE, UL, ISI, ISO9001, BS EN 60076-11: 2004
Australian Accreditation	All 'Electrical Equipment Type' Australian standards