



**ENRAMS Australia Pty Limited**

ENERGY REDUCTION & MANAGEMENT SYSTEMS

ABN: 31 080 175 319

## ENRAMS AUSTRALIA PTY LTD – AUTOMATIC VOLTAGE REGULATOR (AVR) PRODUCT FUNCTIONAL SPECIFICATION

The AVR is to be produced in accordance with the specifications detailed within.

Standard	
AS3000	Wiring Rules Australia and New Zealand
AS60038	Standard Voltages
AS61000	EMC requirements (c-tick)

The products will operate within the following electrical parameters:

Item	Specification
Standard Voltages	230V +10% - 6% (253 to 216Volts) 400V +10% - 6% (440 to 376 Volts)
Frequency	50 Hz
Earthing System	MEN
Wiring Systems	3 phase 4 wire

Products Range: nominated by P.O identifying current capability and sizes.

Size	Cooling
100 amps	Air, Natural
150 amps	Air, Natural
200 amps	Air, Natural
300 amps	Air, Natural
400 amps	Forced Air
500 amps	Forced Air
>500 amps	Oil Natural

**Note:** Air cooled units are for indoor applications and modified for outdoor installation as required.

## AVR Functional Requirements

Item	Description	Specification
	<b>Generic</b>	
G1	Current Rating	Amp rating as per Purchase Order
G2	Input Voltage	216 V - 253 V
G3	Load Types	Mixed load (lights, motors, IT, HVAC etc)
	<b>Electrical</b>	
E1	Output Voltage	220 V (adjustable)
E2	Regulation Response Time	<0.1s
E3	Circuit Protection	Internal controls
E4	Control System	Fail Safe
E5	Performance Indicating Lamps	Green = Normal, Red = Bypass
E6	Phase Control	Individual
E7	Connections	Star/Star
E8	Wave Form Distortion	None
E9	Regulation	+/- 1% no load to full load
E10	Duty Cycle	Continuous (24/7)
E11	Efficiency	95 to 99%
E12	Overload Capability	5% for 1 Hour, 10% for 10 Minutes
	<b>Physical</b>	
P1	Circuit Breaker	Yes
P2	Bypass Switch	Yes – Auto and Manual
P3	Surge Suppression	Yes 40 kA
P4	Enclosure IP Ratings	IP21 – IP55
P5	Cooling	As dictated by unit size
P6	Heat Vents	Yes
P7	Weight	TBA
P8	Environment	Indoor
P8	Ambient Temperature	15 to 35 degrees C