

# ADVR-2300M

Hybrid Universal Analog / Digital 1 or 3 phase  
3.5Amp Self Excited, Shunt, Auxiliary Winding,  
Harmonic Power or PMG Automatic Voltage  
Regulator

## Features

- Power input single phase 60 to 300 Vac @ 50 to 500 Hz
- Sensing input 1 or 3 phase 220 to 600 Vac programmable, RMS reading
- Voltage regulation less than  $\pm 0.5\%$
- 50/60 Hz selectable
- Multiple power input source SHUNT, AUX, HARMONIC, PMG
- Inverse-time over excitation & under frequency protection
- Soft start voltage ramping
- Built-in high capacity protection fuse
- Panel mounted, internal wiring external adjustment
- Apply with KUTAI EPMG-1270/EPMG-2470 or IVT-1260/IVT-2460 to boost for self-excited (shunt) generator during heavy transient loads
- Digital circuit for voltage sensing and under frequency protection



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CE EN61204-3:2001 Certified

- Effectively minimize the output voltage variations and under frequency knee point drifted affected by temperature changes

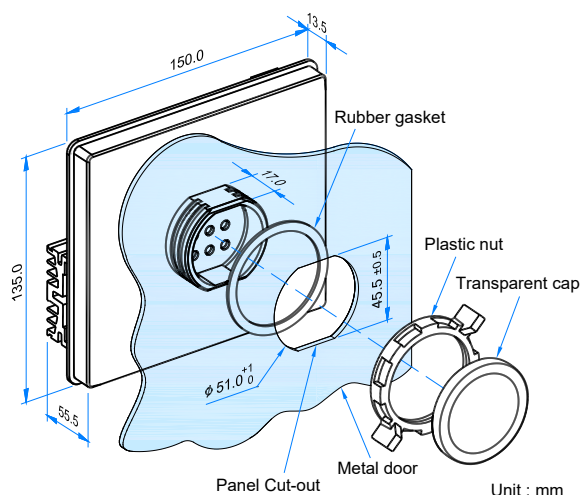
## Specifications

<b>Sensing Input</b>	Voltage 220 to 600 Vac 1 or 3 phase DIP switch setting	<b>Static Power Dissipation</b>	Max. 6 watts
	Frequency 50/60 Hz DIP switch setting	<b>Burden in Shunt &amp; PMG Wiring</b>	550 VA @ power input 110 Vac 1100 VA @ power input 220 Vac
<b>Power Input</b>	Voltage 60 to 300 Vac 1 phase 2 wire	<b>Quadrature Droop Input</b>	CT 1A or 5A > 5VA (DIP switch setting)
	Frequency 50 to 500 Hz	<b>Excitation Output</b>	Voltage Continuous 125 Vdc @ power input 220 Vac Sensitivity Max. $\pm 7\%$ @ P.F $\pm 0.7$
<b>Excitation Output</b>	Voltage Continuous 125 Vdc @ power input 220 Vac	<b>Analogue Input</b>	Input resistance greater than 2K ohms Max. Input $\pm 5$ Vdc or $\pm 10$ Vdc Sensitivity 1 Vdc for 2.5% Generator Volts
	Current Continuous 3.5A Intermittent 7A for 10 seconds	<b>Under Frequency Protection (Factory Presets)</b>	50 Hz system knee point at 45 Hz 60 Hz system knee point at 55 Hz
	Resistance $\geq 18$ ohms @ power input 110 Vac	<b>Over Excitation Protection</b>	Inverse-time 125 $\pm 4$ Vdc @ power input 220 Vac
	$\geq 36$ ohms @ power input 220 Vac	<b>Voltage Thermal Drift</b>	Less than 3% at $-40$ to $+70$ °C
<b>External Volts Adjustment</b>	Max. $\pm 5\%$ @ 500 ohm 1 watt potentiometer		
	Max. $\pm 10\%$ @ 1K ohm 1 watt potentiometer		
<b>Voltage Regulation</b>	Less than $\pm 0.5\%$ (with 4% engine governing)		
<b>Build Up Voltage</b>	5Vac 25Hz residual volts at power input terminal		
<b>Soft Start Ramp Time</b>	4 seconds $\pm 10\%$		
<b>EMI Suppression</b>	Internal electromagnetic interference filtering		

## Environment

<b>Operating Temperature</b>	$-40$ to $+60$ °C	<b>Relative Humidity</b>	Max. 95%
<b>Storage Temperature</b>	$-40$ to $+85$ °C	<b>Vibration</b>	5.5 Gs @ 60 Hz

## Dimensions



## AVR Control Functions

<b>VOLT</b>	Voltage adjustment
<b>STAB</b>	Stability adjustment
<b>U/F</b>	Setting under frequency protection knee point
<b>DROOP</b>	Droop adjustment
<b>TRIM</b>	Analogue input adjustment
<b>DIP</b>	Voltage droop ratio setting
<b>O/E LED</b>	Over excitation protection indicator
<b>U/F LED</b>	Under frequency protection indicator

## Physical Specifications

<b>Dimensions</b>	150.0 (L) x 135.0 (W) x 55.5 (H) mm 5.91 (L) x 5.31 (W) x 2.19 (H) inch
<b>Weight</b>	460 g $\pm 2\%$ 1.01 lb $\pm 2\%$



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