

# GVN AVR DVR-M1 SERIES

FULL AUTOMATIC SERVO  
DYNAMIC VOLTAGE REGULATOR  
1kVA - 50 kVA

GÜVENİŞ Voltage regulators are the machines that provide the constant voltage that you need by correcting the falling and rising of the mains voltage in the internal structure.

Our DVR-M1 voltage regulators operate fully automatically for voltage regulation without any user intervention.

Once the regulators are switched on, your mains voltage is continuously measured and the necessary up / down operations are performed automatically, giving your system the constant voltage required for a healthy operation.

Servo regulators consist of variac, servo motor which controls variac, electronic multimeter card which controls this motor and booster transformer.

The start torque can quickly correct even very small voltage changes thanks to the high DC servo motor and the control system that can respond quickly to voltage changes.

When the regulation is completed, the servo motor is de-energized with the aid of the electronic braking circuit.

High efficiency.

## The DVR-M1 Regulator provides the following:

- Undisturbed pure sinus voltage regulation.
- AC voltage balancing with extremely high accuracy.
- Keeps the output voltage stable within  $\pm 0.4\%$  (219.2 - 220.8 Vac) while the input voltage is between 180 ... 300 Vac.
- Run smoothly on all loads from 0% to 100%.
- Long-term overload protection and short-term protection.
- When protections are activated, record the number of protection trips and the reason for each parameter separately.
- Record mains input voltage limits and load current values.
- Protection of the user from negative voltages.
- Protection of the user and the device from excessive current.
- Static, not gradual, dynamically correct output voltage too quickly without user notice.
- Display all values against the probabilities in the bypass regime.
- Manual transfer to bypass regime without regulating.



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REGULATOR

## TECHNICAL SPECIFICATIONS

MODEL: DVR-M1	M1-1	M1-2	M1-3.5	M1-5	M1-7.5	M1-10	M1-15	M1-20	M1-25	M1-30	M1-40	M1-50
Power kVA	1	2	3.5	5	7.5	10	15	20	25	30	40	50
<b>INPUT</b>												
Input Voltage Correction Range	180-300 Vac or different range at request											
Input Voltage Operating Range	>175...305 Vac											
Operating Frequency	>47.....64 <											
Input Protection	Overcurrent. Low and High Voltage Protection (Optional)											
<b>OUTPUT</b>												
Output Voltage	230 Vac +/- %0,4 (200 - 240 Vac optional setting)											
Overload	10 second % 200 load											
Correction Speed / Recovery Speed	- 90 Volt / sec											
Output waveform	Pure Sine											
Output protection	Overcurrent. Low and High Voltage Protection (Optional)											
Output protection at low voltage	195 Vac ON - 175 Vac off											
Output protection at high voltage	245 Vac ON ... 250 Vac OFF											
<b>OPERATING PRINCIPLES</b>												
	Servo Motor - Microprocessor - Dynamic Servo											
<b>GENERAL</b>												
Cooling	Natural Air/ Smart fan system (Thermostat) (optional)											
Measurement and imaging	Input and Output Voltage Led Display / Input, Output Voltage and Ampere Led Display MULTIMETER											
Continuous operating time at full load	0..105%.											
Continuous load <105%	< 7 /24											
Efficiency under load.	>96%											
Mechanical By-pass	Standard 1- 0 - 2 maintenance bypass switch											
Protection Class	IP20 and Other Options											
<b>ENVIRONMENTAL</b>												
Operating ambient temperature	0> -40 °C <+ 55°C											
Storage temperature	0> -25 °C <+ 60°C											
Ambient temperature +25 ° C Relative Humidity.	< 96 %											
Operating height	<3000 m 3 km											
Protection Class	IP 21											
Acoustic level	< 50 dB (1m)											
Instruments												
<b>DIMENSIONS</b>												
WxDxH (cm)	17,5 x 30 x 40		23 X 54 X 39			27X54X39		50X56X86		60X64X86		
Optional size	-		45 X 40 X 27			55X40X29		-		-		
Weight (kg)	18	23	30	35	45	52	65	90	110	150	180	200