



**RELAY VOLTAGE STABILIZER
10000 - 20000 VA**

USER MANUEL

INTRODUCTION;

Thank you for choosing our product. The product is covered under a two year manufacturer's warranty. In order to benefit from this warranty, you must present the certificate signed and dated by your authorized dealer to our technical service. Please follow the instructions for expedite processing for warranty. The warranty process for our product is more convenient aims to interests of consumers.

Page	CONTENTS
1	PURPOSE
2	SCOPE
3	RESPONSIBILITY
4	SERVICE AND SPARE PARTS SUPPLY
5	EFFECTS TO THE HUMAN AND THE ENVIRONMENTAL HEALTH
6	CARRIAGE AND SHIPMENT
7	ACKNOWLEDGE OF REGULATORS AND START UP
8	REGULATOR WORKING PRINCIPLE
9	BASIC ADVANTAGES
10	APPLICATION AREAS
11	TECHNICAL SPECIFICATION
12	RULES FOR MAINTENANCE AND USAGE
13	POSSIBLE PROBLEMS and SOLUTIONS
14	CUSTOMER COMPLAINT FORM
15	WARRANTY CONDITIONS

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Important Notice!

Thank you for preferring us. Your product has been designed to protect your sensitive devices for years.

This manual contains very important information both as to specifications, installation and operation of regulator and as to safety of regulator and related loads. It is essential to thoroughly read and understand the manual and follow instructions for proper and safe operation and maximum performance of product.



Read completely and thoroughly the manual prior to installation!



Keep the manual for future reference!

Symbols Used



Indicates special attention in manual.



Indicates life-critical instructions.



Indicates damage to device and/or injury to user.

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I. PURPOSE

In this manual, it has been introduced the principles and conditions about how to handle, use and maintain model of FULL AUTOMATIC MONOPHASE RELAY Regulator that has been purchased for your needs.

II. SCOPE

Covers power regulators with a power range 10 KVA – 20 KVA.
Until it is not contrarily proved by test reports, it has been applied TS EN 60076 or TS 1055 standards.
It includes domestic updated technical specifications.

III. RESPONSIBILITY

The use or the responsible person of depicted product can safely handle and use it by simply following these instructions.

Please read carefully these instructions for the legality of the warranty conditions and your own safety.

Damages caused by misuse, shipment, short circuit, lightning impacts or any deviation from mentioned instructions are all out of warranty coverage.

For equipment used in device or in parts of installations where overvoltages
May occur in that case supply terminals with all the poles (lack of supply cord or plug) in accordance with wiring rules; should be considered connect system to the fixed wiring of the device as well

IV. SERVICE AND SPARE PART SUPPLY

Domestic repairs are fulfilled by one of our authorized technical services.

To announce any failure report, please contact with our Factory Technical Department. Our Customer Complaints section will make all useful observation and operations at your place, our factory or at technical service and will detect the cause of damage.

Spare part or any additional equipment can easily be provided by our factory or technical service.

The regulators have longer life span as long as their nominal power is not exceeded and operate in suitable working conditions as protected from short circuits and over burden impacts.

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V. EFFECTS TO THE HUMAN AND THE ENVIRONMENTAL HEALTH

As all electric apparels,when the regulators break down,it's flame may cause fire.

Their surrounding should be isolated from people's living place.

Because it is an electrical apparel,it is not to be uncovered by unauthorized

people. When the covers are open,there is a high risk of life danger due to a possible electroshock. The apparel energy should be interrupted.

Disconnect supply circuits before opening enclosure

As an extra safety precaution until the adhesive is fully set the area should be barricaded to prevent children entering the installation area

Beware of unintended consequences strictly do not allow unintended users without competence and information or any individual(including children) as having mental retardation ,handicapped or disabled to enter in the area of installation.

VI. CARRIAGE AND SHIPMENT

For products weighing more than 20 kg,they have not to be carried via man power but simply forklift pallets.

During transportation it is necessary to avoid any fall or crash of the product.



<18 kg (<40 lb)



18–32 kg (40–70 lb)



32–55 kg (70–120 lb)



>55 kg (>120 lb)

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VII. ACKNOWLEDGE AND START UP REGULATOR

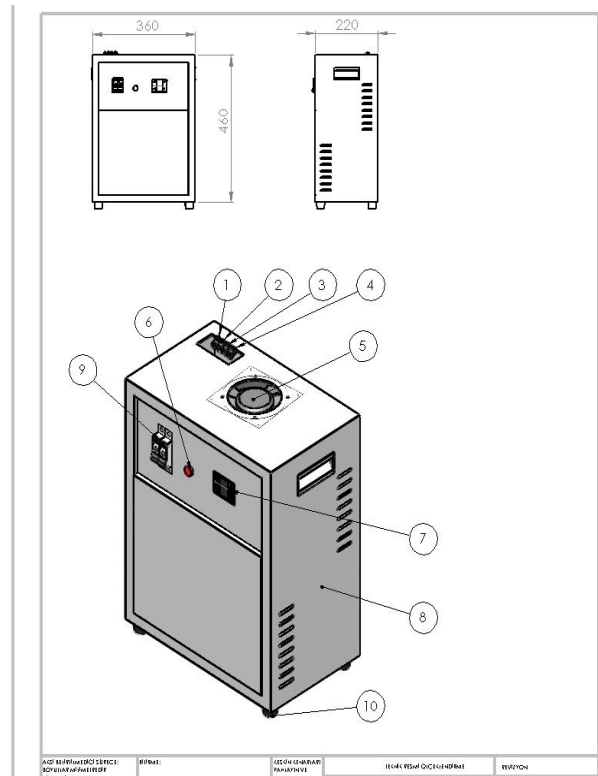


IMAGE - A	
10 KVA – 20 KVA	
NO	SEMI MANUFACTURED
1	Ground Connector
2	Input
3	Neutral
4	Output
5	Fan
6	Signal Light (Voltage On)
7	Digital indicator
8	Cubucle/Chassis
9	W Fuse
10	Stand

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- A) Apparel connections must be made by authorized personel with a proper technical guidance through mentioned instructions.
- B) An earth line must be present at regulator operation area,against any electric leak.
- C) Right after the regulator is installed,on the right side of the regulator ,the move up the arm of W Fuse “ STABILIZER “ then The regulator will be on and ensures the voltage stabilization
Must be kept closed.(when the arm shows below direction,it is shut down)

When chosing connection cables,please use upper section of detected cables.

This way you will minimize the line losses.

- E) When you wish to use the city voltage by taking off the regulator from the circuit,set the Regulator's W otomat STABILIZER to “LINE” and move downwards the arm of W Fuse. Device are manufactured in-phase or current protected over-current load and whether one or both of the voltage missing in such circumstances;is set to be switched off while the other automatically. When you choosing Connection cables for a 10 kva use the cable section over 10 health.

VIII. SERVO REGULATORS WORKING PRINCIPLE

LEGA RELAY AUTOMATIC VOLTAGE Regulators have all a variable transformer which ensures the voltage stabilization WITH RELAYS and an MCU Card which controls the output voltage.When Input voltage is 235 volts over-temperature protection closes output and the buzzer sound alarm is available.

1.Wide Power Range: 0,5 kVA - 20 kVA monophase, monophase production.

2.Voltage field:

Standart; 130/260 V mono phase

Special Stabilizer; 80/235 V monophase

3.Regulation speed rate : 120 V/sn.

4.Output deviation : Regulator does not have any deviation when it is not exceeded the original power limts.

5.Efficiency : LEGA regulators and transformers have more than 98% of efficiency,because they are produced of high quality silica sheets and B class conductor matieral.

6.Operation Temperature: Regulators can go up to 60°C when the environment is not too acid or wet. Temperatures which are above that,require additional cooling system.

IX. BASIC ADVANTAGES

Quality and long lasting material.
Reliable and proven system.
Silent mode.High efficiency
Output without distortion.
Determined and uninterruptible feeding
Wide correction range.High sensibility

X. APPLICATION AREAS

CNC equipment frame.
Warming,Cooling,Air conditioner apparels.
Radio,TV, Emitter Stations.
Electric and Electronic medical equipments.
Rectifiers (Battery Chargers)
Elektric motors.
Tele or other communication devices.
Automatical Welding Machines.
Magnetic Devices
Lightening devices.
Printing machines and sensible electronic typsetting machines
Sensible photograph studio devices.
Induction heating devices.
Electro coating systems
All types of electronic touchscreen,embroidery and tricot frames.
Laboratory with Electric and Electronic devices
Test and search laboratories
Factory,hospital,hotel and building entrances.
Other locations and devices which require constant voltage.

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XI. Technical Specifications

MODEL		RELAY	
Power (kVA)		10 – 20 kVA	
Input	Phase	1Phase	
	Voltage	220 VAC	
	Operati on Range	130VAC - 260 VAC	
	Frequen cy	50 Hz	
Output	Phase	1 Phase	
	Voltage	220 VAC	
	Frequen cy	50Hz	
Dimensions	Width (cm)	33	39
	Depth (cm)	24	39
	Heigh (cm)	44	51
Weigth (kg)		28	51
GENERAL			
Efficiency under load		≥ % 95	
Correction Speed		120V/sec	
Protections	Phase Loss	Phase Protection Unit (Optional)	
	Hi/Lo Voltage	Contactor(Optional)	
	Overload	W – Fuse	
	By-Pass	Manual	
Protection Level		IP 20	
Noise Level		≤ 45 dB	
Working Conditions	Temperature	-10 °C ~ +60 °C	
	Humidity	0 - 90 % Condensed Humidity	
Cooling		Smart fan	

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XII. RULES FOR MAINTENANCE AND USAGE

- A) Avoid to keep flammable and non heat prof material aaround the regulator.(above,beneath,right,left)
- B) Prevent water leak with early detection and appropriate action to protect the product. The working environment must get rid off the bugs,rodent animals and insects.
- C) The regulator does not give any signal,contact with the technical service for the energy.

XIII. POSSIBLE PROBLEMS and SOLUTIONS

Problem	Reason	Solution
Voltmeter do not display correctly	Voltmeter failed,	Check the socket control via Digital Voltmeter.If it is analogue type,do you change it.
	Electronic card failed	Check the neutral connection,if the error is repeated,call the technical service.
There is Odor coming from the device	overburden	Check the phase loads,set the apparel to Line mode,and call the technical service.
The apparel doest not display voltmeter.	With protection	Control the contactor and the pako switch.The phase may be cut off.Can't be neutral.The voltage is out of working range.
Out of standart On and Off Transitions		Check the neutrals and the phases.
		Draws over current.Out of voltage current standart.
There is Noise	Overburden,motor connections must be loosened.	Set the apparel to Line mode.Contact with our technical service or sales point.Transmit them these points. -Serial No and kVA, -Problems occuring date.

WARNING:

Any intervention should be done by authorized people..

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XIV. CUSTOMER COMPLAINT FORM

If you should have any problems with product quality, please do not hesitate to contact us
This form is for a vehicle complaint or request inform LEGA about your determination
Affirmative or negative

MANUFACTURER VE FACTORY FIRM

SELLER TITLE :

ADRESS :

TEL :

FAX :

MAIL :

PRODUCT SERIAL NUMBER:.....

DELIVERY DAMAGE

PRODUCT DAMAGE: YES NO

DESCRIPTION:

ADDITIONAL HARDWARE

PROBLEM: YES NO

DESCRIPTION:

PERFORMANCE

ERROR: YES NO

DESCRIPTION:

ADDITIONAL REQUEST:

EMBODIER:

DATE:

FIRM NAME:

TEL/FAX:

WARRANTY TERMS

1. Warranty period begins from the date of delivery and least 2(two) years.
2. The device is under the warranty of our company, including all parts of the device.
3. The period during repair is excluded from the warranty period if the device is damaged during the warranty dates. The repair period is 21(Twenty one) working days at maximum. This period starts with delivering the device to the service station; or to the seller, agent, representative, importer or manufacturer if there is no available service station. Unless the damage is not repaired within 15(fifteen) working days, manufacturer or producer is obliged to provide the consumer another similar device until the repair process is over.
4. All repairs will be conducted free of charge for any workmanship cost or changing spare parts in the warranty period if the device is damaged because of materials and workmanship, or during mounting the device.
5. Although the consumer accepts the repair terms, free replacement, refund or discount in the rate of damage cost may be demanded if;
 - Starting from the date of delivery, the same damage repeats twice within that year during the warranty period or different damages occur more than four times or there are more than six damages during this period, besides these different damages make the non-use of device permanent,
 - The minimum repair period is exceeded,
 - It is determined in a report by a service station, or that repair is not possible or the seller, agent, representative, importer or manufacturer if there is no available service station, the company will replace the device free of charge, make a refund or demand a discount in the damage rate.
6. Any damage resulting from the contradictory use of the device as stated in the user's manual would be out of warranty.
7. You may apply to the Ministry of Industry and Trade, General Directorate of Protection of Consumers and Competition if you have any problems in terms of this Certificate of Warranty.

Out of Warranty Situations

- Defects and breaking and scratching of external surfaces of devices that may occur due to transportation, dropping and impact after delivery of the device to the user,
- Defects that may occur due to transportation, drop and impact after delivery of the device to the user
- Improper use and improper voltage application,
- Interventions made by unauthorized persons.