AVR-10-D **V-10.0**

INSTALLATION INSTRUCTIONS

Entering the Programming Mode

- Press together ▼, ▲ buttons for 5 seconds.
- When the program mode is entered, the display will show PGN.

Press ▼, ▲ buttons for 5 seconds

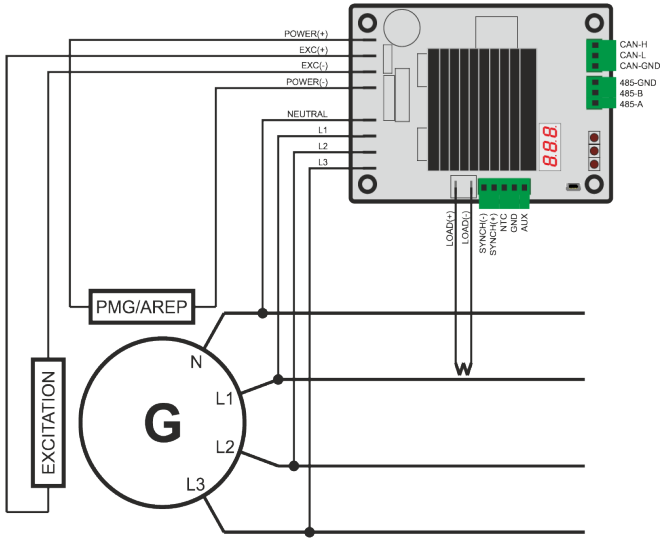
- Navigation between program parameters is performed via the ▼, ▲ buttons.
- Press ✓ button to enter inside the selected parameter.
- Parameter value may be increased and decreased with ▼ and ▲ buttons.
- When a program parameter is modified, press ✓ button to save in memory.
- Program parameters are kept in a non-volatile memory and are not affected from power failures
- To exit the program mode, hold pressed ▼, ▲buttons together.

Parameter Definition	Unit	Factory Set
P_01 Nominal Voltage	V-AC	230
P_02 Alternator High Voltage Warning Limit	%	120
P_03 Alternator High Voltage Shutdown Limit	%	125
P_04 Alternator High Voltage Delay Timer	Sec	5
P_05 Soft Start Threshold Voltage	V-AC	60
P_06 Soft Start Timer	Sec	0
P_07 Regulation Topology	-	0
P_08 Global Gain	-	90
P_09 Proportional Gain	-	400
P_10 Integral Gain	-	400
P_11 Differential Gain	-	300
P_12 SYNC Input Enable	-	0
P_13 AUX Input Enable	-	0
P_14 Trim Voltage	V-AC	10
P_15 Droop Enable	-	0
P_16 Droop Voltage	V-AC	10
P_17 Maximum Droop Current	A	500
P_18 Maximum Excitation Current	%	100
P_19 Minimum Excitation Current	%	0

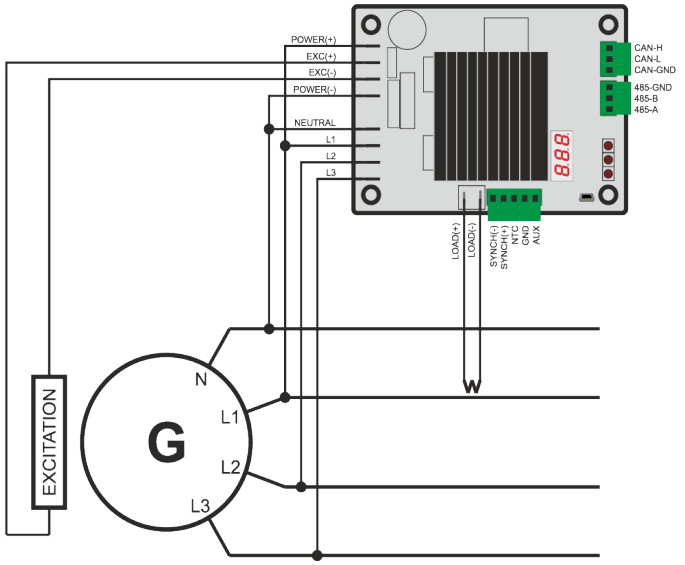
Parameter Definition	Unit	Factory Set
P_20 Excitation Current High Alarm Limit	A	10.0
P_21 Alternator Current High Alarm Limit	A	0
P_22 Excitation/Alternator Current Alarm Delay Timer	Sec	1
P_23 Alternator Current Transformer Ratio	-	100
P_24 Knee Setpoint-1	Hz	48.0
P_25 Knee Setpoint-2	Hz	40.0
P_26 Knee Target Voltage	V-AC	200
P_27 Knee Recovery Ramp Rate	V/sec	0
P_28 Low Frequency Alarm Delay Timer	Sec	1
P_29 Device Internal Temperature High Limit	°C	100
P_30 Alternator Temperature High Limit	°C	0
P_31 Temperature Alarm Delay Timer	Sec	3
P_32 Alternator Temperature Sensor Type	-	0
P_33 Modbus Address	-	1
P_34 RS-485 Baud Rate	bps	9600
P_35 Save Configuration	-	0
P_36 Restore Configuration	-	0
P_37 Canbus Control Enable	-	0
P_38 Boot Mode Enable	-	0

TYPICAL CONNECTIONS

Connection Diagram AREP Alternator



Connection Diagram SHUNT Alternator



Regulation topology parameter to define connection topology of target voltage:

0: L1-N
1: L2-N
2: L3-N
3: Average value of L1-N, L2-N, L3-N
4: minimum value of L1-N, L2-N, L3-N
5: maximum value of L1-N, L2-N, L3-N
6: L1-L2
7: Average value of L1-L2, L2-L3, L3-L1
8: minimum value of L1-L2, L2-L3, L3-L1
9: maximum value of L1-L2, L2-L3, L3-L1

The alarm table for voltage regulator:

ALARM	DESCRIPTION
Er1	Alternator Voltage High Alarm
Er2	Excitation Current High Alarm
Er3	Loss of Voltage
Er4	Frequency Low Alarm
Er5	Alternator Current High Alarm
Er6	Internal Temperature Sensor Alarm
Er7	Device High Temperature Alarm
Er8	Alternator Temperature Sensor Alarm
Er9	Alternator High Temperature Alarm