

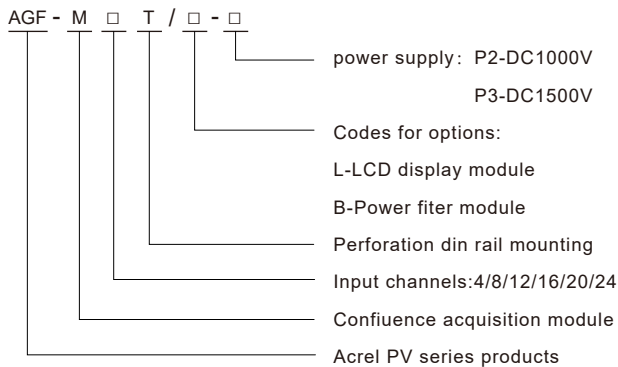
AGF-T Perforation type PV confluence acquisition device



General

AGF-T Perforation type PV confluence acquisition device is specially designed for smart PV combiner box. It is used for monitoring the running state of solar panels in solar cell arrays, measuring the currents of solar cell, detecting the state of surge protection devices and DC breaker. The device is equipped with RS485(Modbus) communication port for transmitting all the datas to master device.

Product Naming



* The power filter module is only used when there are additional filtering requirements for the power supply.

Characteristics

- ◆ Primary current is connected in through perforation. Easy installation, high safety.
- ◆ With Hall sensor, the max isolation measuring current 20A
- ◆ Voltage measurement range for Bus bar is up to DC1.5kV
- ◆ LED display, fit for checking and testing operation in wide-temperature or outside environment.
- ◆ With the function of inner temperature measurement for

real-time measurement of the inner temperature of combiner box

- ◆ With RS485 Modbus RTU
- ◆ More options of power supply
- ◆ Compatible with din rail installation and baseboard fixation

installation, small dimension saving more box space.

Product function

- ◆ Photovoltaic cell open circuit alarm to cooperate with group string voltage and judge Comprehensively
- ◆ With 3-channel switching state monitoring to collect output idle contact information of DC breaker、lightning protector. protector etc
- ◆ Option RS485 port, Modbus-RTU protocol; programmable slave address, baud rate, data format
- ◆ English LCD display, convenient to set parameters and check the data

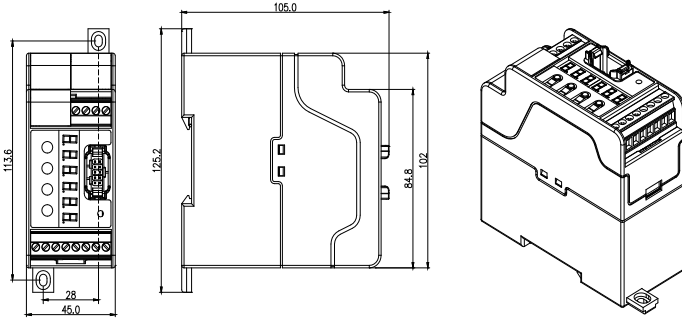
Technical Parameters

Item	AGF-M4T	AGF-M8T	AGF-M12T	AGF-M16T	AGF-M20T	AGF-M24T
Input channels	4	8	12	16	20	24
Rated current	DC 0~20A					
Response time	1s					
Accuracy	0.5 class					
Temperature coefficient	400ppm					
RS485 communication	RS485/ModBus-RTU protocol, 4800/9600/19200/38400bps					
Additional function						
Switch input	3-way input(optocoupler or dry contact mode)					
General technical parameters						
Temperature/ Humidity	Working temperature: -35~+65 C, humidity95%,no condensation, no corrosiogas place; *Display module work temperature:-20~+70 C					
Temperature measurement function	To measure the inner temperature of box (-20 C ~ 100 C)					
Altitude	≤3000m					
Insulation resistance	≥100MΩ					
Industrial frequency withstand voltage	power/communication/switching input/cell voltage input-- AC 2kV/1min(When the auxiliary power supply is DC1500V, the withstand voltage between the power supply, photovoltaic input and other circuit is AC 2.7kV)Current input/power、cell voltage、communication、switching state—AC3.5kV/1min					
EMC	GB_T 17626.2-2006; Electrostatic discharge immunity test 3rd grade, air discharge 8kV, contact discharge 6kV.					
	GB_T 17626.4-2008; Electrical fast transient immunity test grade 4, common mode 4kV, difference mode 2kV					
	GB_T 17626.5-2008; Surge(shock) immunity test grade 4, common mode 4kV, difference mode 2kV					
	GB_T 17626.8-2006; Power frequency magnetic field immunity test grade 4					

Outline and installation

■ Outline dimension

◆ Power supply module size(Figure 1)



Note: Imaginary line is the fixing size of the bottom plate

As power supply module is heavy, bottom plate is needed in installation to avoid its coming off during transportation.

◆ Confluence acquisition module installation dimension

8-channel confluence acquisition module installation dimension

(Figure 2)

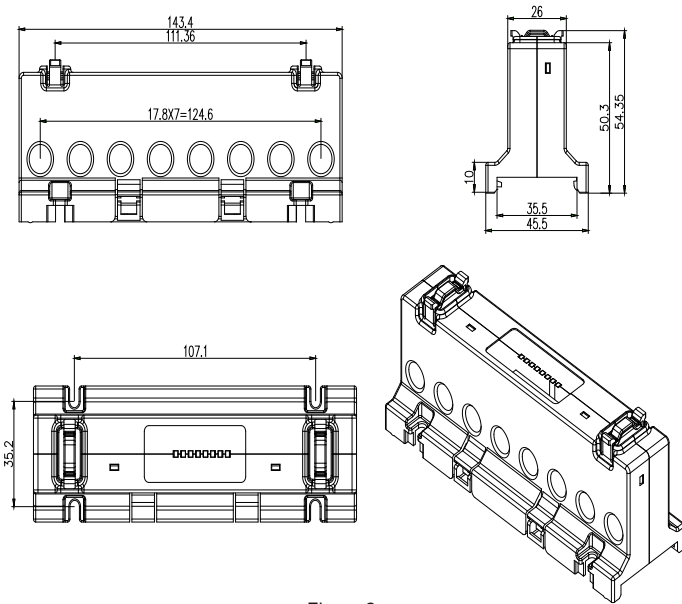


Figure 2

4-channel confluence acquisition module installation dimension

(Figure 3)

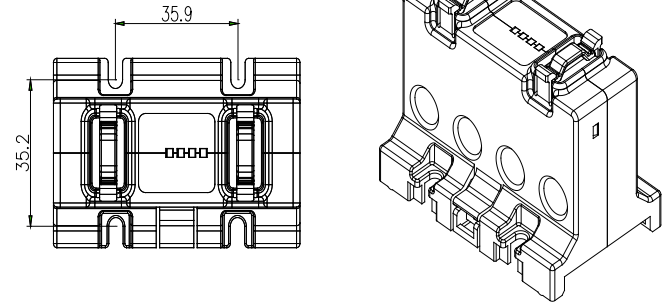
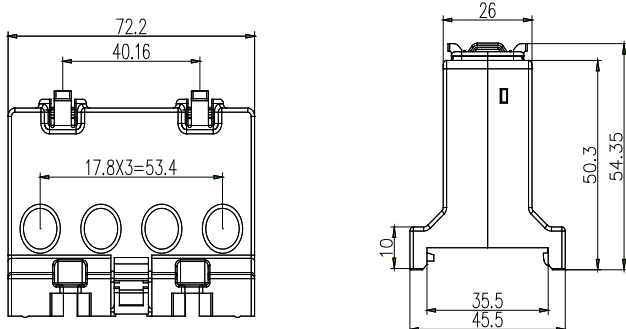


Figure 3

Configuration of 8-channel or 4-channel confluence acquisition module will be decided by actual needs: when 4 channels or less are needed, 4-channel confluence acquisition module will be installed, when needed channel number is 5 to 8, 8-channel confluence acquisition module will be installed. When needed channel number is more than 8, then the number will be divided by 8. If there is a remainder in the result and the remainder is less than 4, then 4-channel confluence acquisition module will be installed. If the remainder is more than 4, 8-channel confluence acquisition module will be installed.

◆ LCD display module installation dimension (Figure 4)

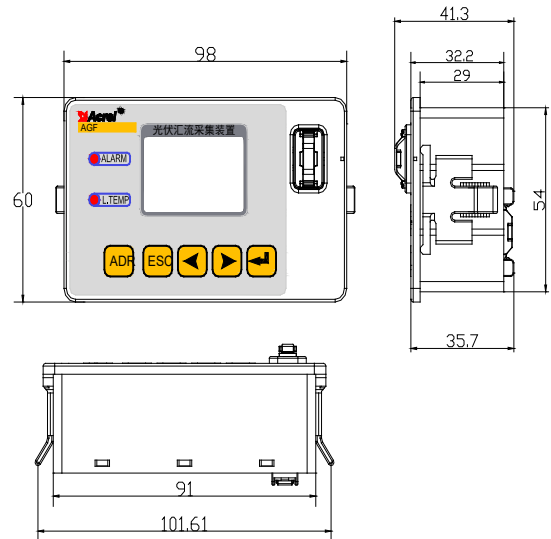
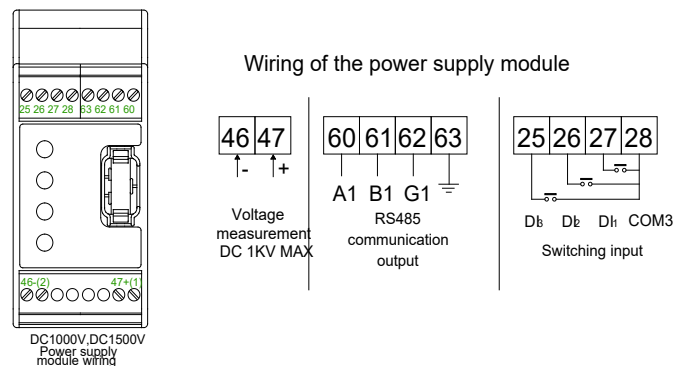


Figure 4

Wiring mode



Note: Power supply circuit and voltage measuring circuit must be installed with fuse with 3A rated current and rated voltage that is the highest working voltage in these circuits to ensure safety.

Instruction for LCD display module menu

■ Menu structures

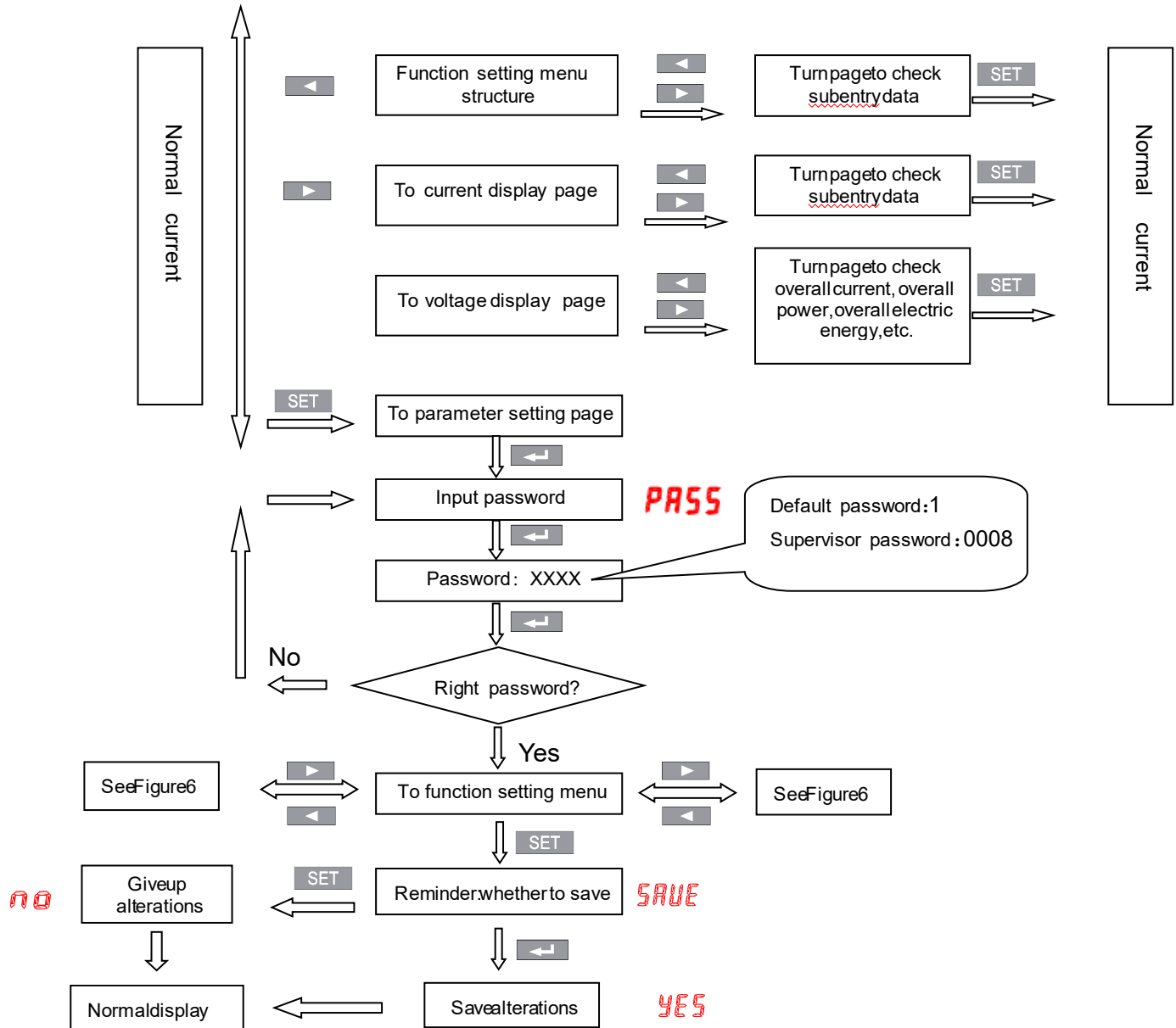


Figure 6

■ Function setting menu structure

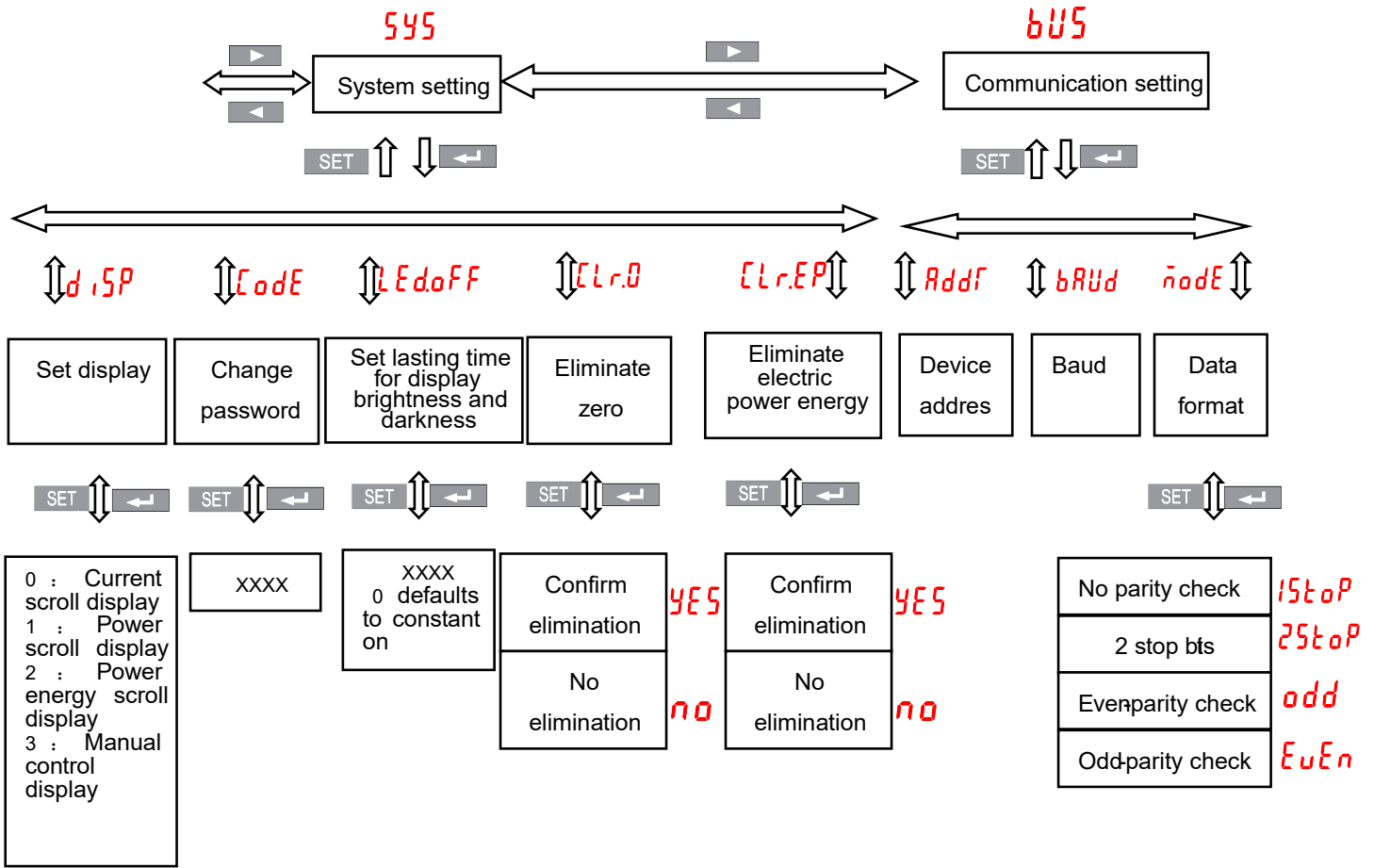


Figure 7

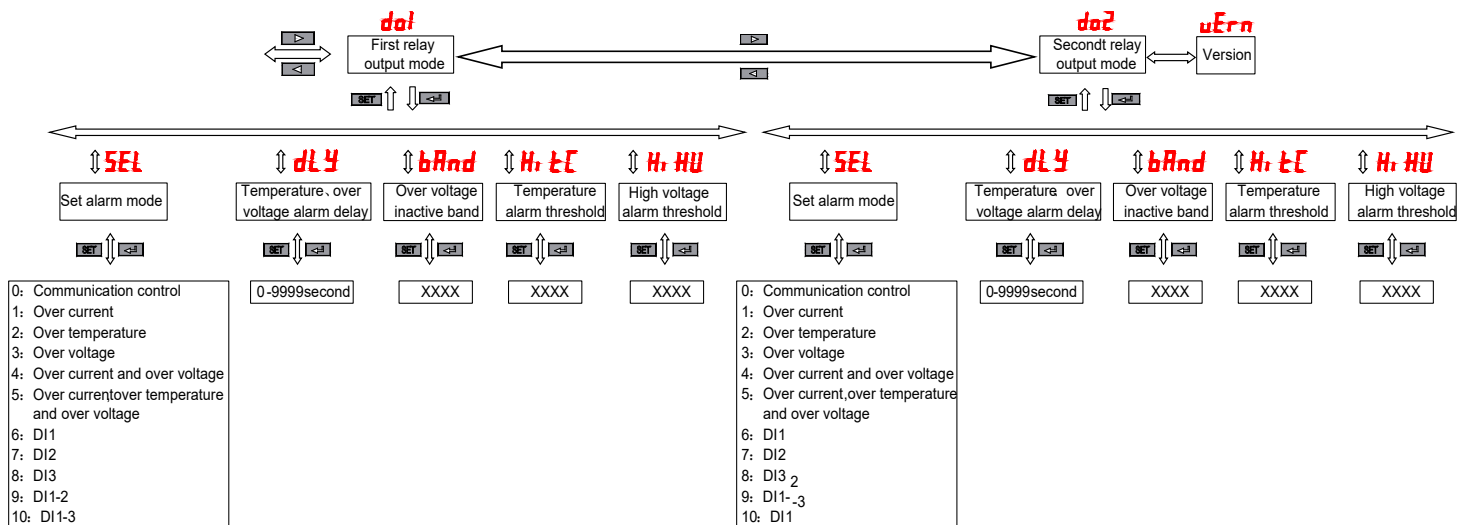


Figure 8