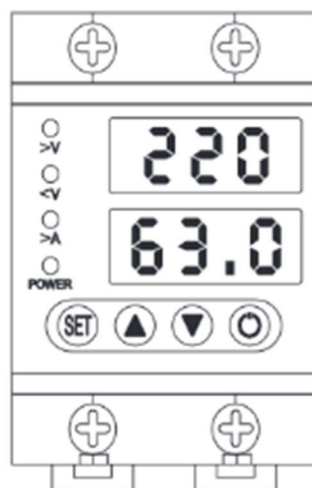
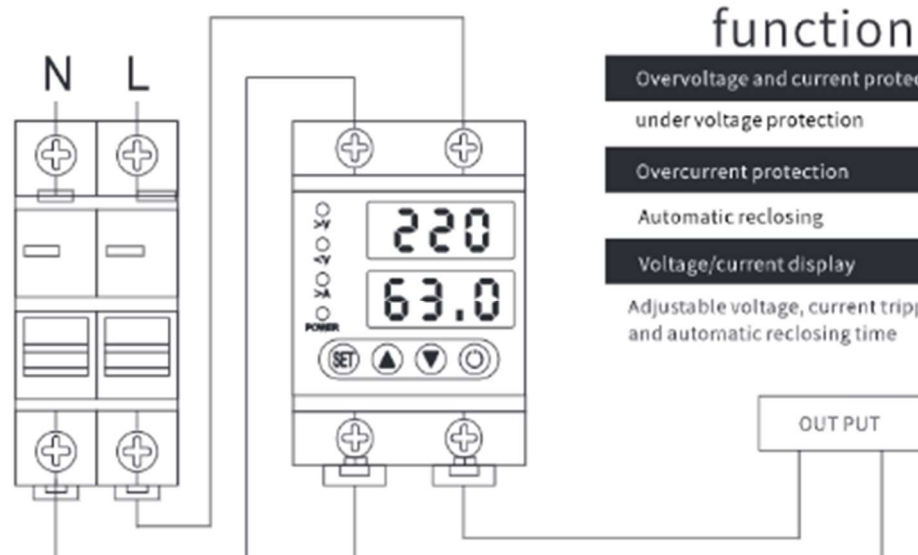


Manufacturing manual for double display overvoltage/undervoltage/overcurrent reclosure

Model AVP-100/80/63/50/40/32/25/20/16



Wiring diagram



function

Overvoltage and current protection

under voltage protection

Overcurrent protection

Automatic reclosing

Voltage/current display

Adjustable voltage, current tripping,
and automatic reclosing time

Function

★ Overvoltage protection/shut down

★ Undervoltage protection/shut down

★ Overcurrent protection/shut down

★ Continuous overcurrent counting/shut down

★ Wide voltage

Overvoltage 130-300V, undervoltage 80-210V. It is always under protection upon incorrect setting, and fault lamp is on

★ Rapid protection against power failure

Abnormal ignition of front-end power grid, power failure, and other protector actions

★ Manual/automatic recovery

After manual protection turns off the output, it must be turned on manually.

★ Knife function

When the protection function is turned off, the relay remains as it is and no longer acts, but the switch button is still active

★ Multi-mode display

Voltage, current, frequency, visual power, etc. are switched according to mode

★ Setup lock

Prevent the parameters from being modified by mistake, which can not achieve the purpose of protection

★ DC mode

When DC is used, current/power is invalid

★ Energy saving mode

Reduce the brightness of digital tube to save energy when the protector is not active

★ Embedded RTOS

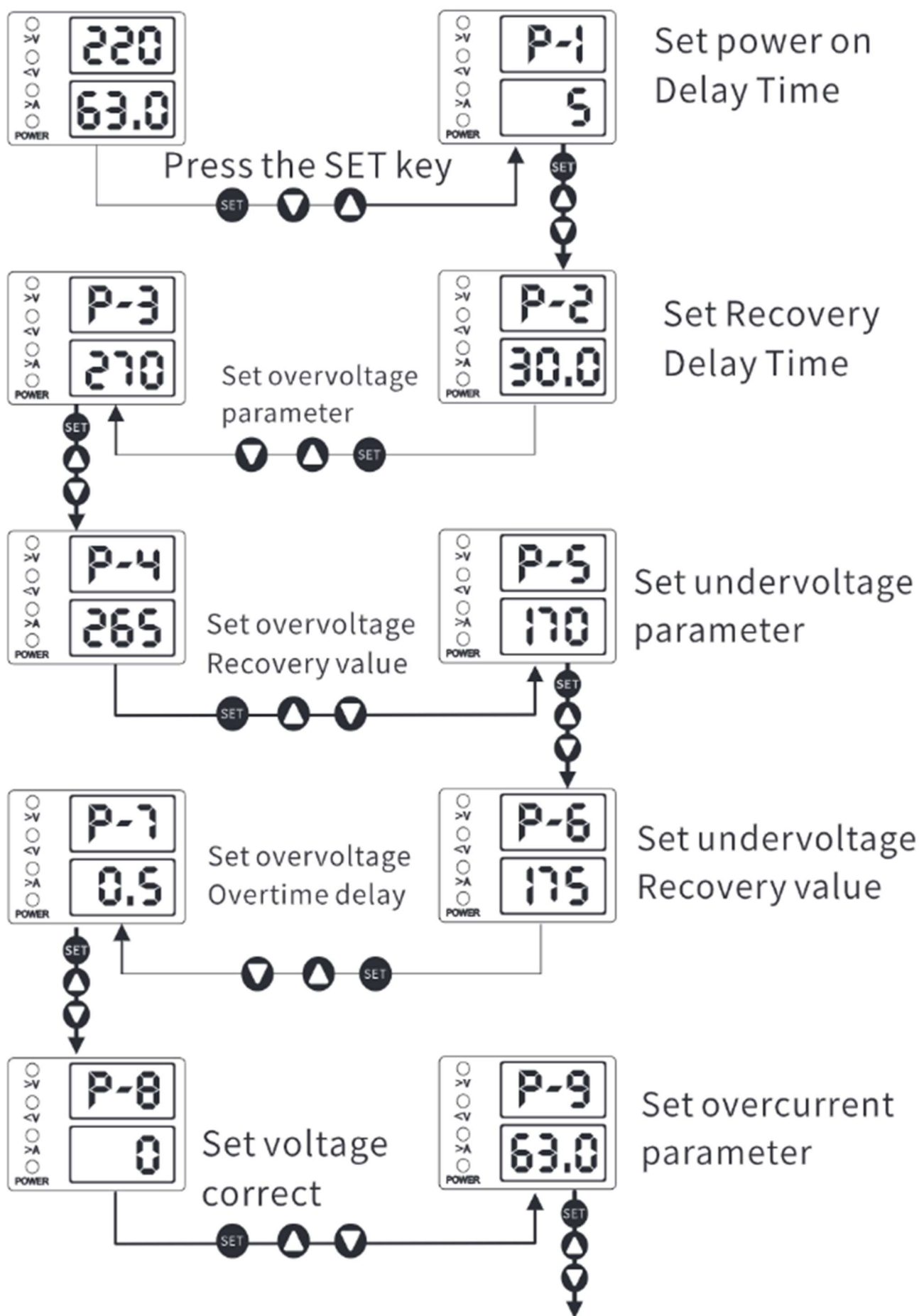
The system performance and stability are improved and the system has high maintainability

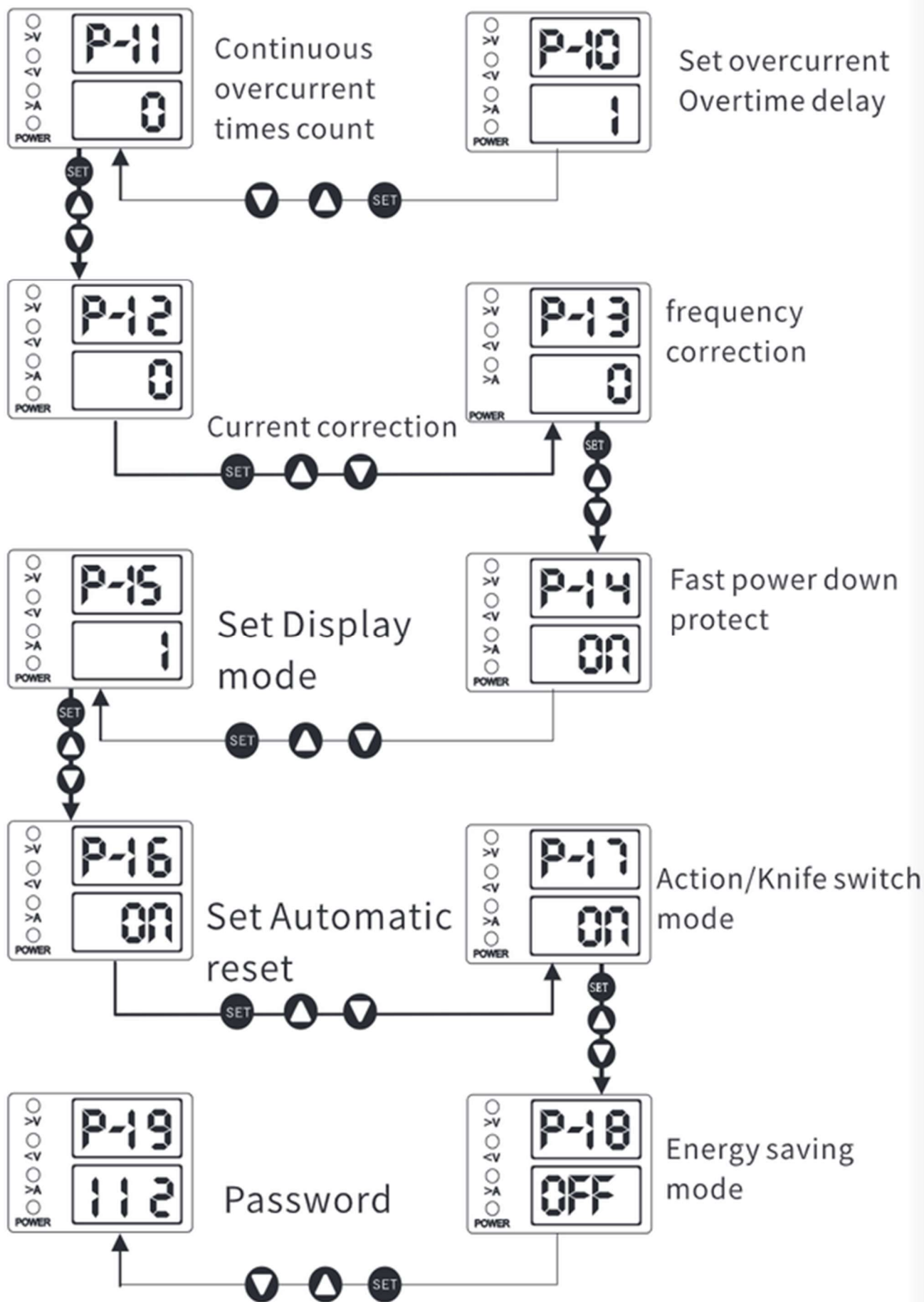
Parameter

| | | | | |
|---|----------------------|----|----|---|
| ★ Effective voltage range | AC 80-300 | V | 1% | Can be calibrated and have higher accuracy |
| ★ Effective current range | AC 0.1-63.0 | A | 1% | Can be calibrated and have higher accuracy |
| ★ Frequency range | 40-70 | Hz | 1% | Can be calibrated and have higher accuracy |
| ★ Screen refresh rate | >1000 | Hz | | |
| ★ Table update | 0.1-1.0 | S | 1% | Screen value update |
| ★ Table algorithm | Root mean square/RMS | | | This algorithm should be used in mains power grid |
| ★ Overvoltage and undervoltage backlash | 5 | V | | Fixed 5V backlash |
| ★ Timer range | 1-999 | S | 1% | User settings |
| ★ Action time | 0.1-10.0 | S | 1% | User settings |
| ★ Effective DC range | DC 80-300 | V | 1% | |

Setting

| No. | Option code | Option | max | min | Default | Step | Unit | Description |
|-----|-------------|---------------------------------|-------|-------|---------|---------|-------|---|
| P1 | Pt | Power-on delay | 999 | 1 | 5 | 1/10 | S | |
| P2 | rt | Recovery delay | 999 | 1 | 30 | 1/10 | S | |
| P3 | oU | Overvoltage | 300 | 130 | 270 | 1/10 | V | Close overvoltage if greater than 300 |
| P4 | oUr | Overvoltage recovery value | 295 | 125 | 265 | 1/10 | V | Skip this setting when overvoltage is turned off |
| P5 | uU | Undervoltage | 210 | 80 | 170 | 1/10 | V | Close undervoltage if below 80 |
| P6 | uUr | Undervoltage recovery value | 215 | 85 | 175 | 1/10 | V | Skip this setting when undervoltage is turned off |
| P7 | Utt | Overvoltage action delay | 10.0 | 0.1 | 0.5 | 0.1/1.0 | S | |
| P8 | UAd | Voltage correction | +10% | -10% | 0 | 0.5% | V | Long press setting is not recommended |
| P9 | oC | Overcurrent | 63.0 | 1.0 | 63.0 | 0.1/1.0 | A | Close overcurrent if greater than 63.0 |
| P10 | Ctt | Overflow as delay | 10.0 | 0.1 | 1.0 | 0.1/1.0 | S | |
| P11 | CC | Continuous overcurrent counting | 20 | 0 | 0 | 1 | Times | 0: Turn off counting |
| P12 | CAAd | Current correction | +10% | -10% | 0 | 0.5% | A | Long press setting is not recommended |
| P13 | FAd | Frequency correction | +2.5% | -2.5% | 0 | 0.1% | Hz | Modifying this value will affect the accuracy of the timer |
| P14 | FPd | Rapid power failure protection | on | off | on | | MS | |
| P15 | dS | Display mode | 3 | 1 | 1 | 1 | | 1: Standards |
| | | | | | | | | 2: Manual switch |
| | | | | | | | | 3: Automatic switch |
| P16 | Ar | Automatic reset | on | off | on | | | on: Self-recovery |
| | | | | | | | | off: Manual recovery |
| P17 | Act | Action/knife mode | on | off | on | | | on: Protector working properly |
| | | | | | | | | off: knife mode |
| P18 | EC | Energy saving mode | on | off | off | | | on: Open |
| | | | | | | | | off: Close |
| P19 | Loc | Setup lock password | 999 | 000 | 112 | 1/10 | | When this value is not 112, you can only view the parameter and cannot set it |





Other Operation

| Function | Description |
|--------------------------------|---|
| Reset | In shutdown mode, press the power key for more than 5S to reset all parameters and start up |
| Toggle display | Display Mode 2: +,-Key Switch |
| | Display Mode 3: +,-Key Switch |
| Turn on/off | Short press the power key for operation |
| Quick voltage adjustment | In the boot state, click the '+' key quickly |
| Quick current adjustment | In the boot state, click the '-' key quickly |
| Setting error | When the overvoltage is set below the undervoltage, the protector will always be in the protection state |
| Reference of calibration table | When correcting the voltage/current, the adjustment must be made with reference to the multimeter with root mean square (RMS) |
| Modify the setup lock password | Reservation |

Power on

| Function | Description |
|--------------------|--|
| Power-on self-test | Turn on the digital tube to display 888, and the LED indicator lights up for 1 second |
| Status display | The first bit of the upper digital tube displays the overvoltage protection status 'y': turn on the overvoltage protection '-': turn off the overvoltage protection |
| | The second bit of the upper digital tube shows the undervoltage protection status 'y': turn on undervoltage protection '-': turn off undervoltage protection |
| | The third bit of the upper digital tube displays the overcurrent protection status 'y': turn on the overcurrent protection '-': turn off the overcurrent protection |
| | The lower digital tube displays the frequency of the current power supply 50H/60H/dC |
| | Knife function, skipping status display |
| | Automatic reset off, skipping status display |
| | The status display is constrained by the power-on delay which is greater than 3 seconds, and then the remaining power-on time is displayed |