

Diesel generator set dual power automatic controller system
ATS-3 controller instructions for use



1、 GENERAL VIEW OF THE ATS UNITS



- ① Main power indicator
- ② Load connection indicator
- ③ Generator power indicator
- ④ Programmable controller
- ⑤ Generator emergency stop button
- ⑥ Fuse
- ⑦ ATS unit main switch
- ⑧ ATS connector

2、 The main function

a) When the commercial powered off, the generator set is automatically started, if the warm-up time is set, the engine will automatically warm up before starting.

If the engine starts to sleep difficult, the system will start the engine 3 times at a certain time.

When engine start success, if the generator output voltage is normal, the system will switch the load to the generator supply. If the startup fails, the system will corresponding alarm.

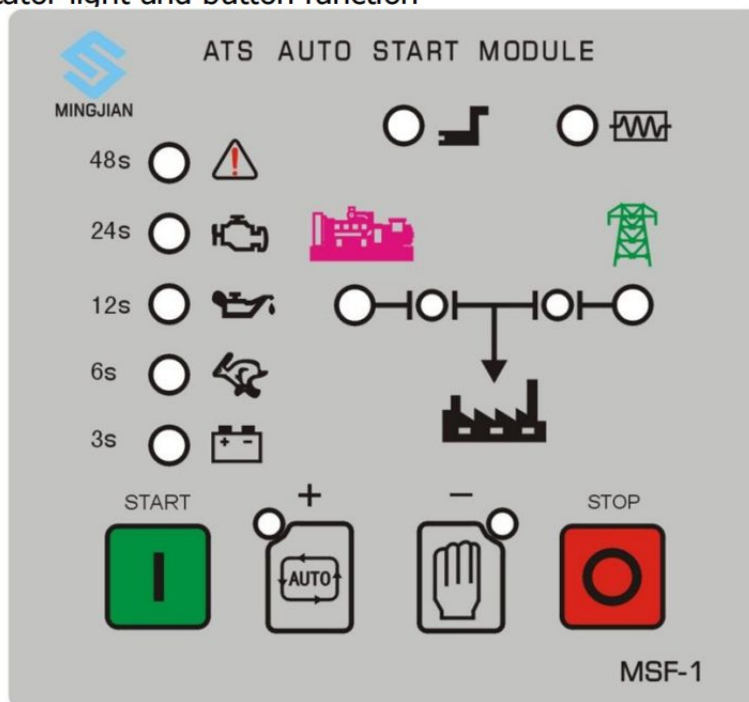
When the commercial power is restored, first switch the load to utility supply, the generator set automatically stops after a certain period of no-load cooling the machine continues to detect the utility.

b) Litigation protection

- Generator frequency protection
- Engine oil pressure protection
- Engine start failure protection
- Engine stop failure alarm
- The generator has no output voltage alarm

After the fault alarm, the system must be powered on again to cancel the fault.

3、Indicator light and button function



- 1)  Start the motor indicator light, light up when the starter motor is running, motor delay Flashes once per second while working.
- 2)  Hot page heat indicator, light up when warming up and warming up
- 3)  Engine indicator light, when the engine is working normally The machine flashes once per second.
- 4)  Power-on closing indicator, light up when power is turned on flashes once per second.
- 5)  Commercial power closing indicator, light when the utility is closed
- 6)  Load identification
- 7)  Delayed stop, Fault warning light flashing 4 times per second indicates that the speed signal is lost.
- 8)  The commercial power indicator light has a commercial power and the light is on. Flashes every time the coin is confirmed 1 second.
- 9)  Engine fault indicator, when the shutdown fails or three starts fail the light flashes 2 times per second.
- 10)  Oil pressure indicator, the light flashes when the engine oil pressure is low 2 times per second.
- 11)  Engine speed warning light, flashing once per second when the speed is too low. Flashing 4 times per second when the speed is too high

- 12)  Battery voltage warning light, the light flashes when the battery voltage is too high or too low flashing 2 times per second.
- 13)  Start button, the launcher is in the stop state, the indicator light is on (hand Dynamic state), according to the birth can manually start the generator set.
- 14)  Stop / set button, the engine running state is on time, the button is engine stopped Machine, stop the state and press the 3 seconds to enter the setting state
- 15)  Automatic mode/+ button, Press this button to been automatic mode.
When setting state the button is +
- 16)  Manual mode/- button, Press this button to been manual mode. When setting state the button is -
- 17)  indicator flashes at the same time and the generator has no voltage output.
- 18) POWER SWITCH power button

4、Parameter setting

In the case of engine stop, long press  to enter the setting state. Then short Press  to cycle through the following settings and select the setting.
After pressing  to add time, press to decrease the time. Optional setting items

- 1)  Indicator light flashes: generator set no-load cooling time setting. Out factory default is 12 seconds
- 2) Left  Indicator light flashes: generator set closing delay time is set. Out factory default is 6 seconds
- 3)  Indicator light flashes: The commercial power call confirmation time setting. Out factory default is 6 seconds
- 4)  Indicator light flashes: heating time setting. Out factory default is 6 seconds
- 5)  Indicator light flashes: Start motor run time setting, the time can't to be 0, the shortest time is 3 seconds, and the longest time is 21 seconds.
- 6) Set the time indicator light corresponding to the time from bottom to top for 3S, 6S, 12S, 24S, 48S. After selecting the setting item, press  increase the number of lights that are lit, that is, increase the set time, Press  to reduce the number of lights that are lit, that is reduce the set time. between. the time value corresponding to the lit indicator light is added time. Unit: second.

7) Specifications

Items	Details
Voltage	DC8.0-18V
Power	10W
Output	Single phase AC220V/ three phase AC380V
Oil relay output	DC12V 2A
Start relay output	DC12V 2A
Preheat relay output	DC12V 2A
On/Off	Connect B effective
Working condition	-20-50°C humidity 20-90%
Store condition	-30-70°C humidity 20-90%
Hole size	
Size (mm)	300*400*200
Protection level	IP41
Insulation strength	AC1.5KV/1min 1mA
Weight	

5、 Running operation

1) Insert the ATS control cable into the other end of the genset panel socket.

Insert the ATS CONNCETOR socket at the bottom of the cabinet and POWER

SWITCH is set to the ON position. All the indicators on the controller are flashing

After a moment, the AUTO  indicator and the right lamp illuminate and indicate Is there electricity from the utility. Indicates that the controller is working properly.

2) Manual operation

•The system powers up the default manual  Indicator light flashes .

•Press  the button to start the generator set.

3) Automatic running

• The system powers up the default manual  Indicator light flashes .

• Press the  button to enter the automatic state.

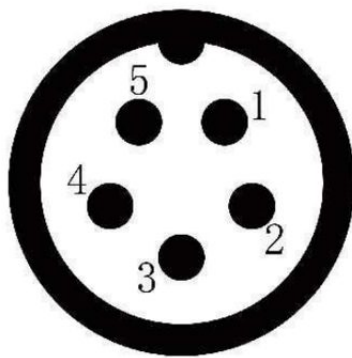
4) Shut down

In the automatic or manual running, long press  the ATS switch will be negative. After switching to the commercial power, the engine is turned off and the system returns to the manual state.

6、 control line socket pin function

The pin function may be different depending on the function used or the customer's request
Change, please contact us in time.

- The basic function is a 5-hole aviation socket
- Full function must use 7-hole aviation socket, can bring engine preheating and oil pressure alarm indication



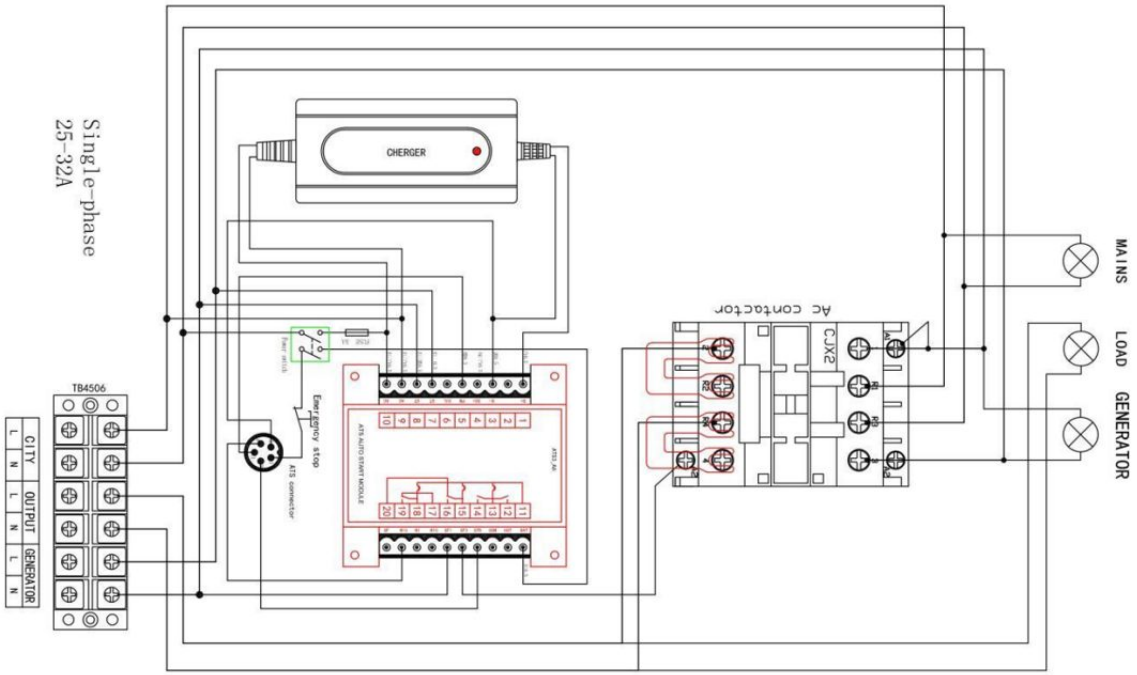
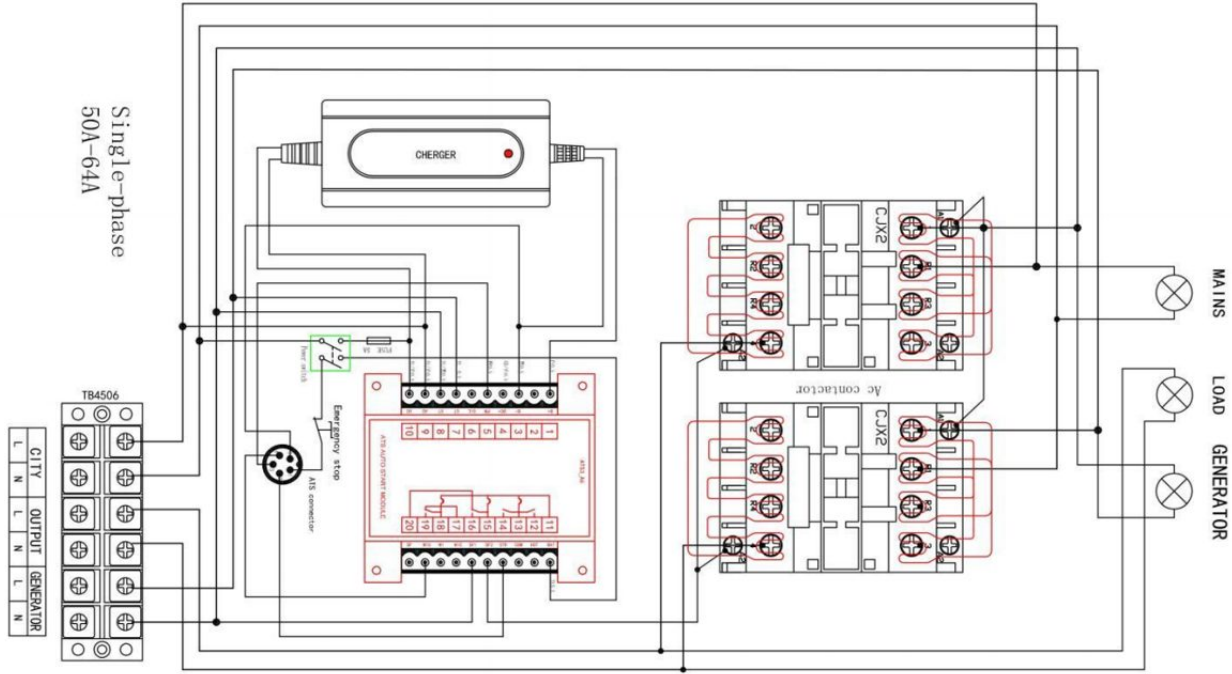
5 PIN CONNECTOR

NO.	Color	Function
1	Red	Start
2	Yellow	Speed signal
3	Orange	Fuel valve
4	Green	Battery -
5	Black	Battery +

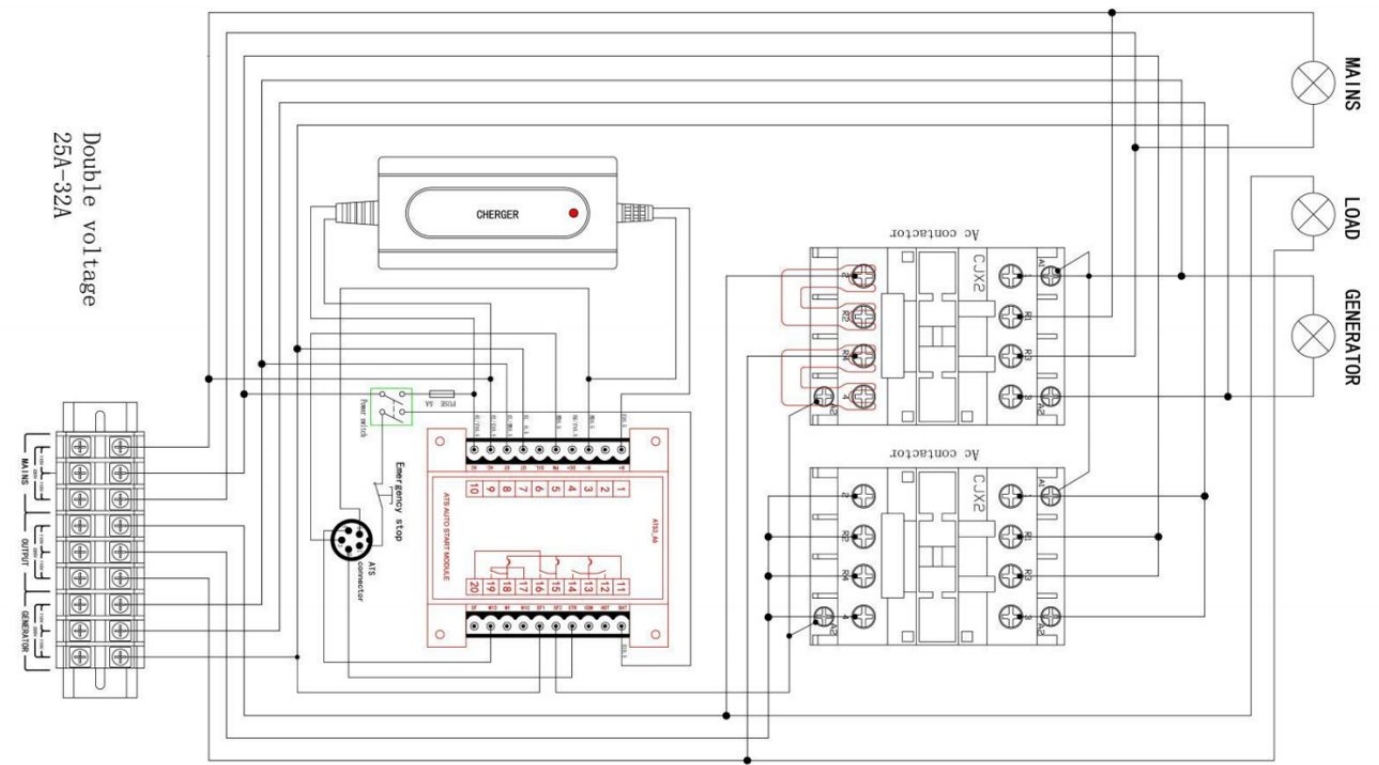
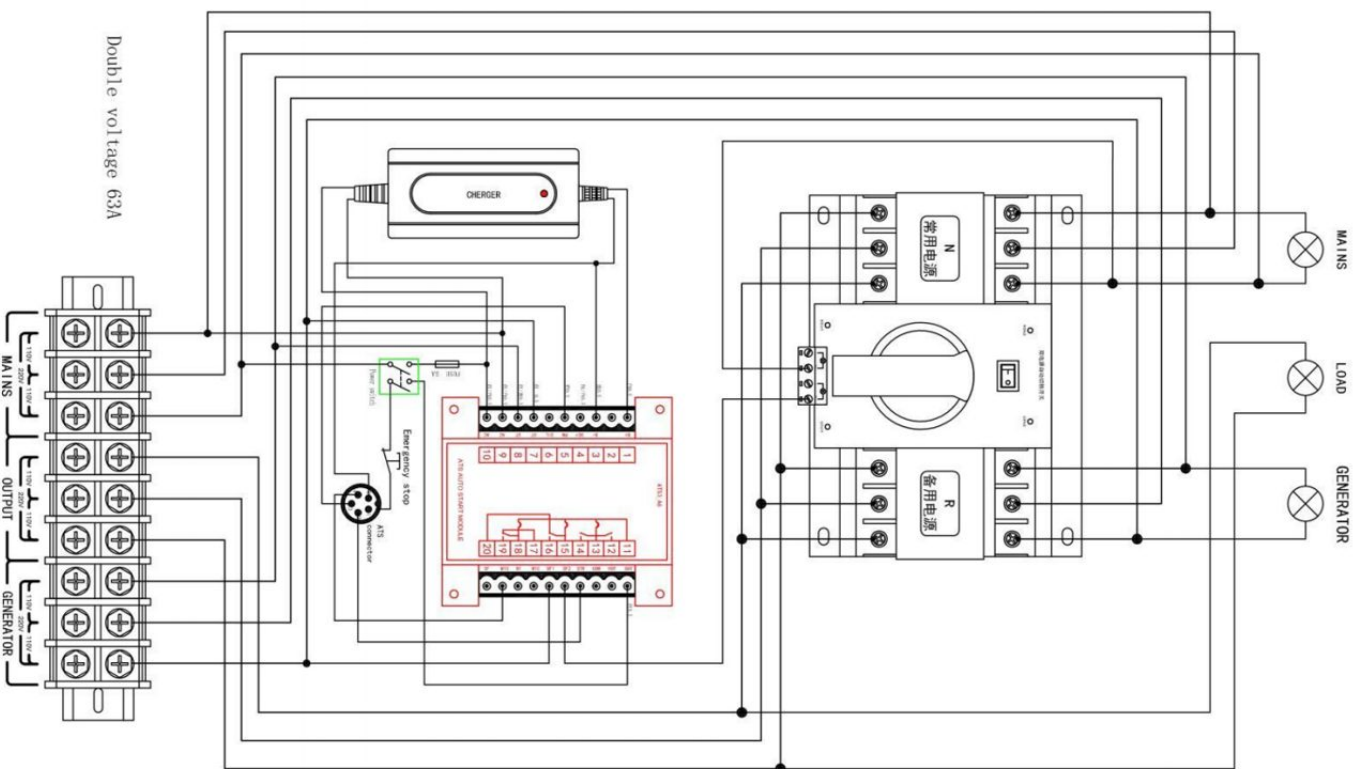
7、 When the ATS controller is connected to the commercial power supply and generation, it must be connected with the power matching automatic circuit breaker, and the shell must be grounded reliably.

8、 Wiring diagram

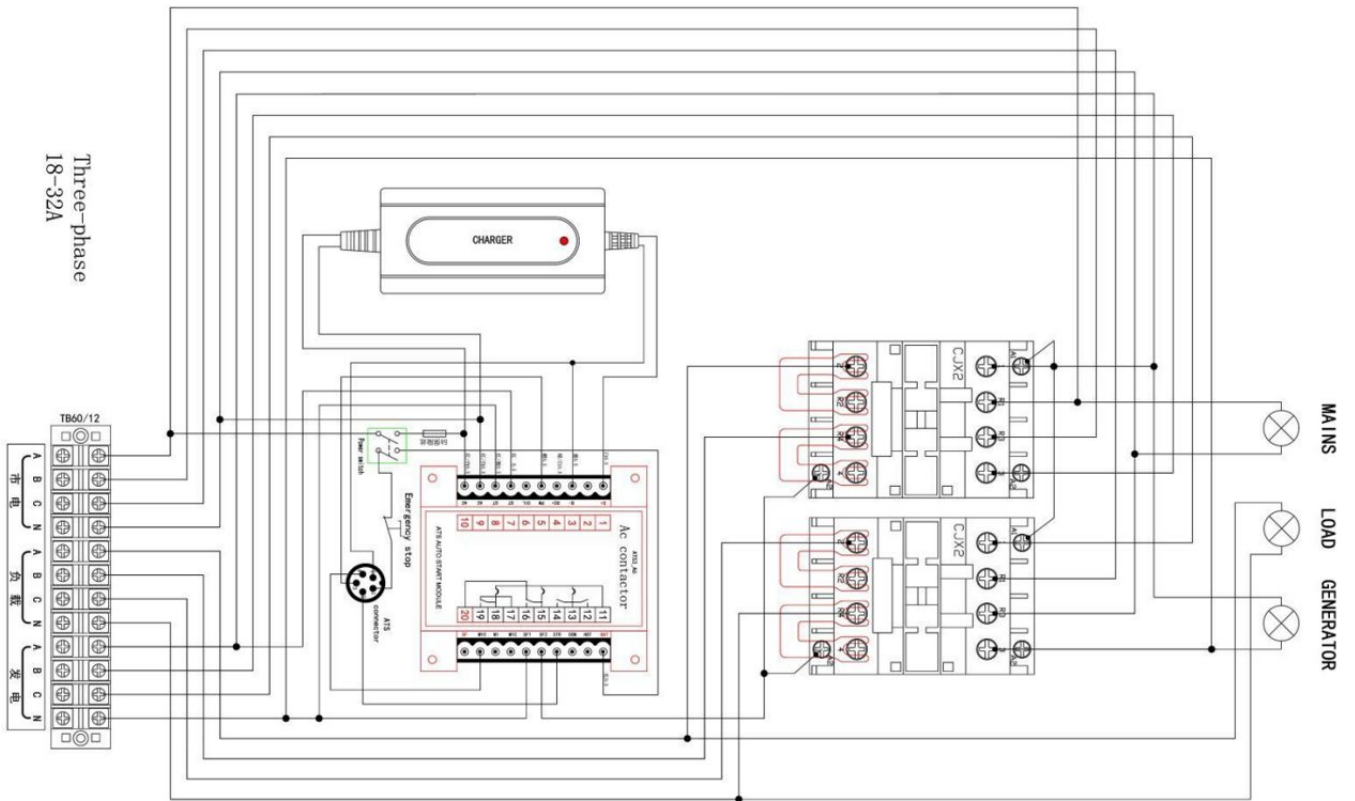
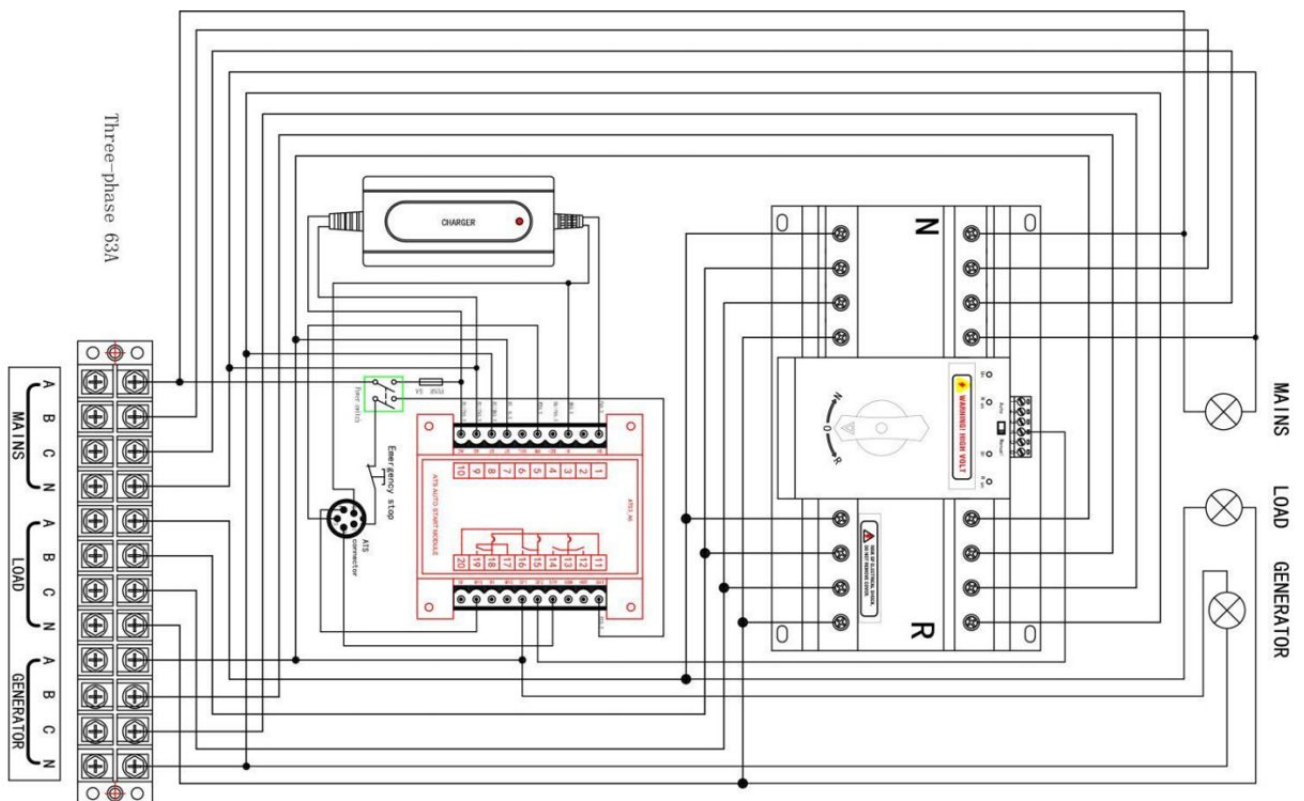
a) Single phase



b) Double voltage



c) Three-phase



9、 Connection of the generator and ATS to the building power supply network

