

Smartgen®

HAT260

Automatic Transfer Switch Control Module

OPERATING MANUAL



Smartgen Electronics

Software Version

Version	Date	Note
1.0	2010-03-31	Original release.

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HAT260 is an **Automatic Transfer Switch Control Module**.

The module features 8-Bit microprocessor control. The module is used to monitor two 3-phase AC supply. Once I# AC supply failure is detected (under voltage, over voltage, miss phase) , The module Automatically transfer the switch to II# AC supply, and control generator to start.


● FEATURES

- ★ Micro-processor based design;
- ★ Meter two 3-phase AC Voltages;
- ★ Configurable priority of supply Able to Set I# supply priority or II# supply priority or NONE supply priority;
- ★ Set AUTO or MANUAL via PUSHBOTTON mounted on the front panel;
- ★ Two isolable N designed;
- ★ 6 LEDs display the status;
- ★ Operational timers can be altered by the customer;
- ★ Control generator to Start.

● SPECIFICATION

- ◇ **AC supply:** 180 to 260 V (50/60Hz) 1.5VA
- ◇ **Under voltage:** 265±5 V, **Under voltage:** 172±5 V.
- ◇ **3-phase AC input:** 0 to 460V 50Hz(3 phase)
- ◇ **DC supply:** 8 to 35V(1.5VA)
- ◇ **Relay output:**
 - Relay of close I&II: 5A 230VAC
 - Relay of start genset: 3A 28VDC
- ◇ **Delay timers:**
 - Normal delay time: 1~60s
 - Abnormal delay time: 1~60s
 - Start generator time:
 - 1~60s(after road I is abnormal)
 - Stop generator time:
 - 1~60s(after road I is normal)
- ◇ **Operating Temperature Range:**
 - 30 to +70°C


● DISPLAY SYMBOL

 → Auto

 → Manual

 → Open Key

 → delay time

 → Road I shut button





 → Road II shut button






→ Auto & Manual change button

● OPERATION


AUTO / MANUAL SETTING:

When the module is working, pressing the  button can set the module into **automatic** or **manual** mode (AUTO LED or MANUAL LED will light). In the manual mode, press the  button, transfer switch to I# AC supply; press the  button, transfer switch to II# AC supply; press the  button, transfer switch to “0” position.


While the  and  button is pressed at the same time, power on, the module enter into configuration, and the “I# power LED” ,”AUTO LED” ,”II# power LED” is lighted.


Press the  button, if the “I# power LED” is flashing, you can set the “I#/II# AC supply abnormal timer”. The timer configuration:


1. I# AC supply abnormal timer: Adjust “I# AC supply normal timer” potentiometer;

When completed, pressing the  button will save the current settings, and the “I#power LED” is lighted.


2. 2# AC supply abnormal timer: Adjust “2# AC supply normal timer” potentiometer;

When completed, pressing the  button will save the current settings, and the “I#power LED” , is lighted.


3. If press  button, the “I#power LED” is lighted. the default value is restored.


Again pressing the  button, if the “AUTO LED” is flashing, you can set the “I#/II# AC supply normal timer”. The timer configuration:


1. I# AC supply normal timer: Adjust “I# AC supply normal timer” potentiometer;




When completed, pressing the  button will save the current settings, and the “AUTO LED” is lighted.


2. 2# AC supply abnormal timer: Adjust “2# AC supply normal timer” potentiometer;



When completed, pressing the  button will save the current settings, and the “AUTO LED” is lighted.

3. If press  button, the “AUTO LED” is lighted. the default value is restored. (start delay:5s, stop delay:60s)

Again pressing the  button, if the “I# power LED” is flashing, you can set the “PRIORITY”. The timer configuration:

1. “I# AC supply priority”: pressing the  button, I# power LED is lighted;
2. “II# AC supply priority”: pressing the  button, II# power LED is lighted;
3. **No priority**: pressing the  button, II# power LED is lighted

Again pressing the  button, if the “Road I shut LED” is flashing, you can set the “position input”. The timer configuration:

1. “Check I#/II# position input ”: pressing the  button.
2. “Ignore I#/II# position input ”: pressing the  button.

1.NOTE: During the module power on, the I#/II# AC supply priority can be judged.

- 1. I# power LED flashing for 3 times indicate I# AC supply priority.**
- 2. II# power LED flashing for 3 times indicate II# AC supply priority.**
- 3. I# and II# power LED flashing for 3 times indicate No priority.**

2. NOTE: During the module power on, the “position input ” can be judged.

1. while “I# power LED” ,”II# power LED” is lighted. It indicate “Check I#/II# position input ”.
2. while “I# power LED” ,”II# power LED” is put out. It indicate “Ignore I#/II# position input ”.

3.NOTE:The factory value:

1. I#,II# AC supply abnormal timer is 5 seconds.
2. genset stop timer is 60 seconds.

Terminal is as follows:

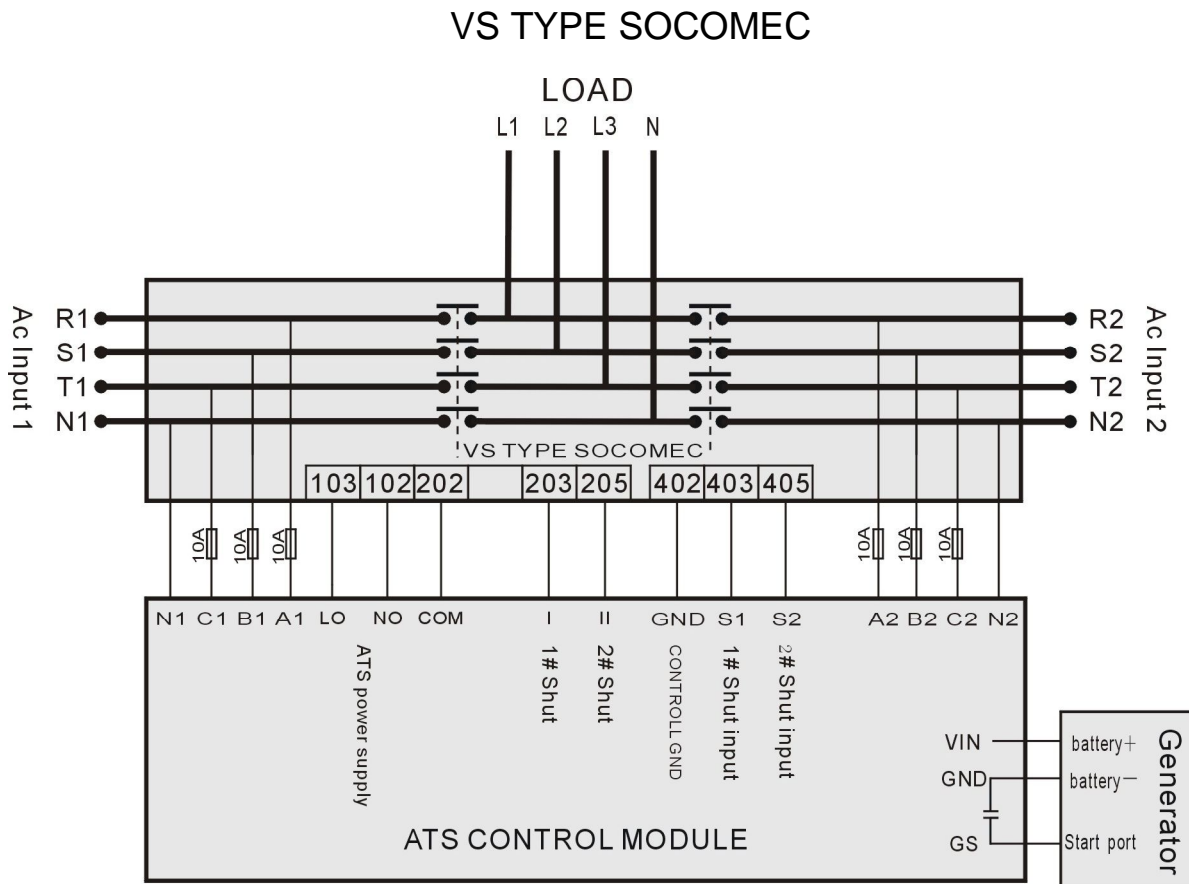


- ◆ A1,B1,C1,N1 connect to I# AC supply A,B,C,N.
- ◆ A2,B2,C2,N2 connect to II# AC supply A,B,C,N.
- ◆ S1: I# AC supply closed auxiliary input(GND active).
- ◆ S2: II#AC supply closed auxiliary input(GND active).
- ◆ VIN,GND: DC positive input,DC negative input, it must be connected when starting generator.
- ◆ LO,NO: It is used to supply for ATS. It come from #1 and #2 power phase A.

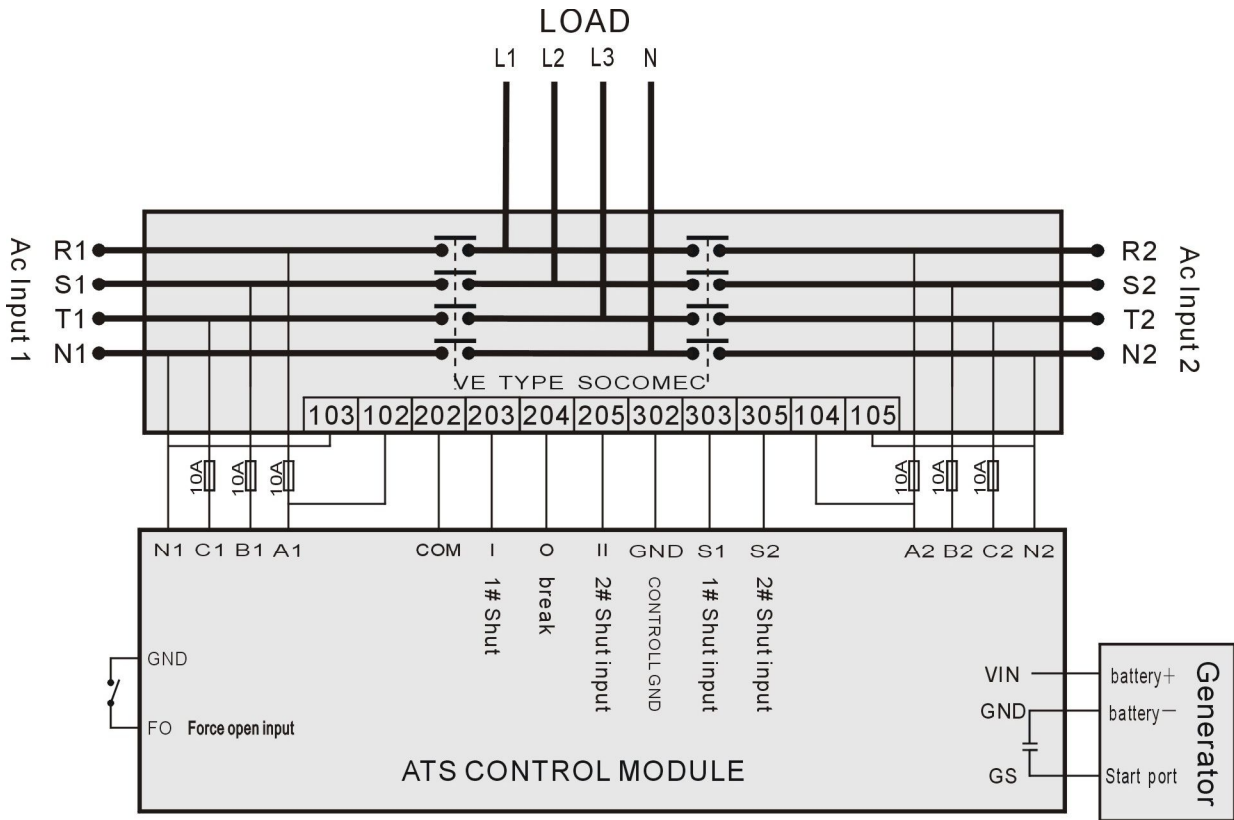
Any of #1 and #2 phase A voltage is normal it will output. Capacity 230V/5A.

- ◆ GS: Genset start relay output(GND active).
- ◆ FO:Force open input (GND active).
- ◆ O: SOCOMEC ATS switch breaker opened output. Capacity 230V/3A
- ◆ I: SOCOMEC ATS switch #1 breaker closed output. Capacity 230V/3A.
- ◆ II: SOCOMEC ATS switch #2 breaker closed output. Capacity 230V/3A.
- ◆ COM: SOCOMEC ATS switch COM.

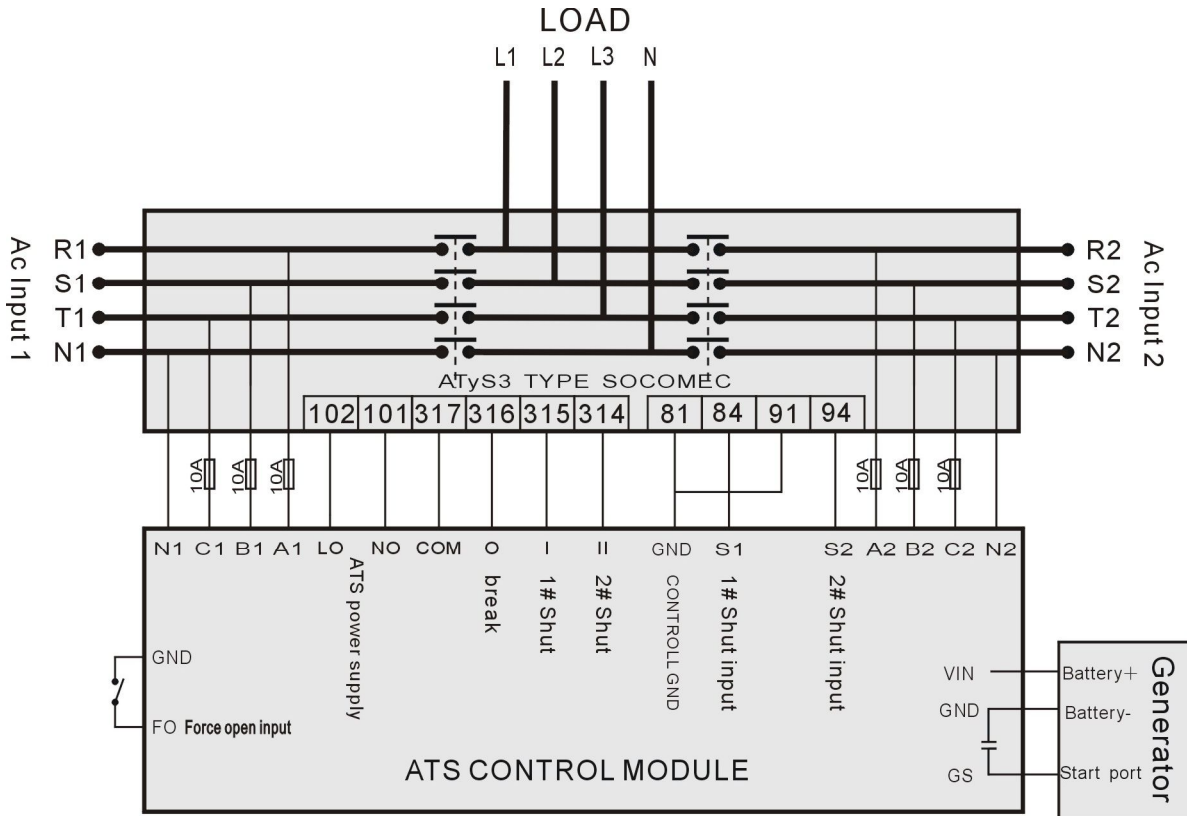
● TYPICAL CONNECTIONS



VE TYPE SOCOMEC



ATYS3 TYPE SOCOMEC



● CASE DIMENSIONS

