



## HAT700B

HAT700 series ATS controller is intelligent dual-supply module with configurable function, automatic measurement, LCD display, and digital communication. It combines digital, intelligence and networking. Automatic measurement and control can reduce incorrect operation. It is an ideal option for ATS.

Product Code : 6020016

Power Supply : DC(8-35)V

Case Dimensions : 197\*152\*47(mm)

Panel Cutout : 186\*141(mm)

Operating Temp. : (-25~+70)°C

Weight : 0.8kg

## COMPLETE DESCRIPTION

HAT700 series ATS controller is intelligent dual-supply module with configurable function, automatic measurement, LCD display, and digital communication. It combines digital, intelligence and networking. Automatic measurement and control can reduce incorrect operation. It is an ideal option for ATS.

The powerful Microprocessor contained within the unit allows for precision voltage (2-way-3-phase) measuring and make accurate judgment; in addition, the corresponding digital output port will active when there is over/under voltage, over/under frequency, loss of phase and other abnormal condition occurs. This controller has full consideration in various application of ATS (automatic transfer system) and can be directly used for PC ATS, CB ATS, CC ATS etc. It has compact structure, advanced circuits, simple wiring and high reliability, and can be widely used in electrical devices, automatic control and testing system of electric power, telecommunications, petroleum, coal, metallurgy, railways, municipal administration, intelligent building, etc.

## MODULES COMPARISON

Function							
Type	DC Power	AC Power Supply	AC Current & Power	Sync Close	Input Ports (Fixed+Config.)	Output Ports (Fixed+Config.)	RS485
HAT700	●				2+4	2+6	●
HAT700 B	●	● (LN90V~280 V)			2+4	2+6	●
HAT700 I	●		●		2+4	2+6	●
HAT700 BI	●	● (LN90V~280 V)	●		2+4	2+6	●
HAT700 S	●	● (LN90V~280 V)	●	●	2+4	2+6	●

## PERFORMANCE AND CHARACTERISTICS

1. System type can set as: S1 (Mains) & S2 (Mains), S1 (Mains) & S2 (Generator), S1 (Generator) & S2 (Mains), S1 (Generator) & S2 (Generator).
2. 132x64 LCD with backlight, multilingual interface (including English, Chinese or other languages), push-button operation.
3. Collect and display 2-way 3-phase Voltage, Frequency and Phase.
4. Collect and display Active Power, Reactive Power, Apparent Power, Power Factor and Current.
5. S1/S2 separated over current warning/ trip alarm.
6. NEL (Non-essential Load) trip function.
7. Display S1/S2 Total kW Energy, Total kvar Energy, Total Close Times.
8. Display continuous power supply time and S1/S2 total power supply time.

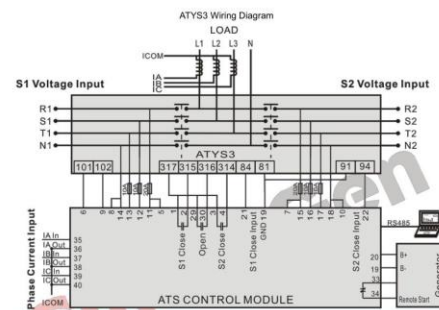
9. Sync Transfer function; in addition, Voltage Difference, Frequency Difference and Phase Difference can be displayed.
10. For Stored-Energy type ATS, its close relay will active after the PF Input is active.
11. Over/under voltage, loss of phase, reverse phase sequence, over/under frequency protection.
12. Phase Sequence Transfer function.
13. Automatic/Manual mode. In manual mode, can force the switch to close or open;
14. All parameters can be set on site. Passwords authentication ensures authorized staff operation only.
15. The genset can be Manual Test on site to achieve start/stop operation.
16. ATS Controller has function of automatic Re-closing.
17. Closing output signal can be set as on intervals or as continuous output.
18. Applicable for PC Three-stage, PC Two-stage, CB and CC switch.
19. Applicable for 2 isolated neutral line.
20. Real-time clock (RTC); Event log Function (Event log can record 99 items circularly).
21. Scheduled Run & Scheduled Not Run (can be set as start genset once a day/week/month whether with load or not).
22. Can control two generators to work as Cycle Run mode, Master Run mode and Balance Run mode.
23. Widely power supply range DC(8~35)V allows the controller can bear 80V instantaneous current.
24. Large terminal space allows the controller can bear maximum 625V input voltage.
25. With RS485 isolated communication interface. With "remote controlling, remote measuring, remote communication, remote regulating" function by the ModBus communication protocol. Can remote start/stop the genset and remote control the ATS to close or open.
26. Suitable for various AC systems (3 phase 4-wires, 3-phase 3-wires, single-phase 2-wire, and 2-phase 3-wire).
27. Modular design, self extinguishing ABS plastic shell, pluggable terminal, built-in mounting, compact structure with easy installation.

### PARAMETER LIST

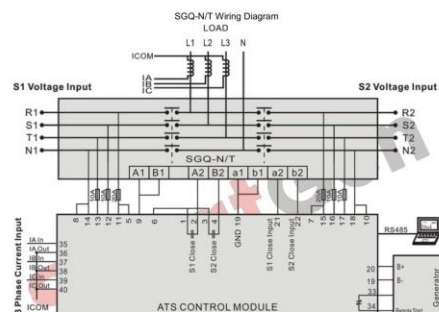
Function Item	Parameter
Display	LCD(132*64)
Language	Chinese & English & Others
AC System	1P2W/2P3W/3P3W/3P4W
Alternator Voltage	(50~280)V(ph-N)
Alternator Frequency	50/60Hz
Monitor Interface	RS485
Programmable Interface	LINK/RS485
RTC(Real Time Clock)	●
Scheduled Start Genset	●
Circulate Start Genset	●
Switch Over Priority	●

Function Item	Parameter
Applicable Switch Type	PC Two-stage, PC Three-stage, CB and CC switch
DC Supply	DC(8-35)V
Case Dimensions(mm)	197*152*47
Panel Cutout(mm)	186*141
Operating Temp.	(-25~+70)°C

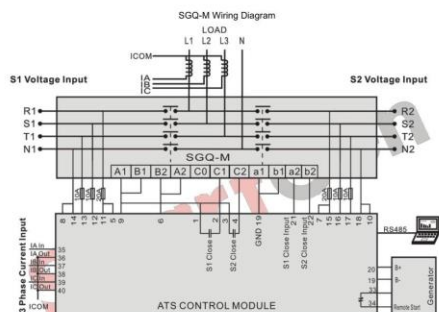
## HAT700b Typical Application7



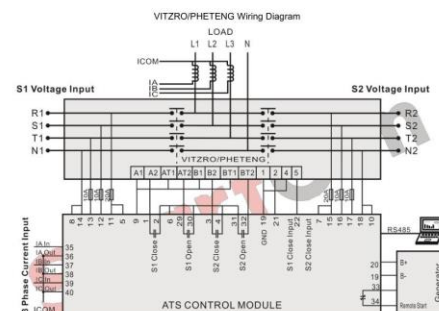
Parameters Setting	
Switch Type	PC Three-stage
Aux. Output 1	ATS Power L
Aux. Output 2	ATS Power N
Aux. Output 4	S1 Open Control
Aux. Output 6	Gen Start Output



Parameters Setting	
Switch Type	PC Two-stage
Aux. Output 1	ATS Power L
Aux. Output 2	ATS Power N
Aux. Output 6	Gen Start Output



Parameters Setting	
Switch Type	PC Two-stage
Aux. Output 1	ATS Power L
Aux. Output 2	ATS Power N
Aux. Output 6	Gen Start Output



Parameters Setting	
Switch Type	CB/CC
Aux. Output 1	ATS Power L
Aux. Output 2	ATS Power N
Aux. Output 4	S1 Open Control
Aux. Output 5	S2 Open Control
Aux. Output 6	Gen Start Output