

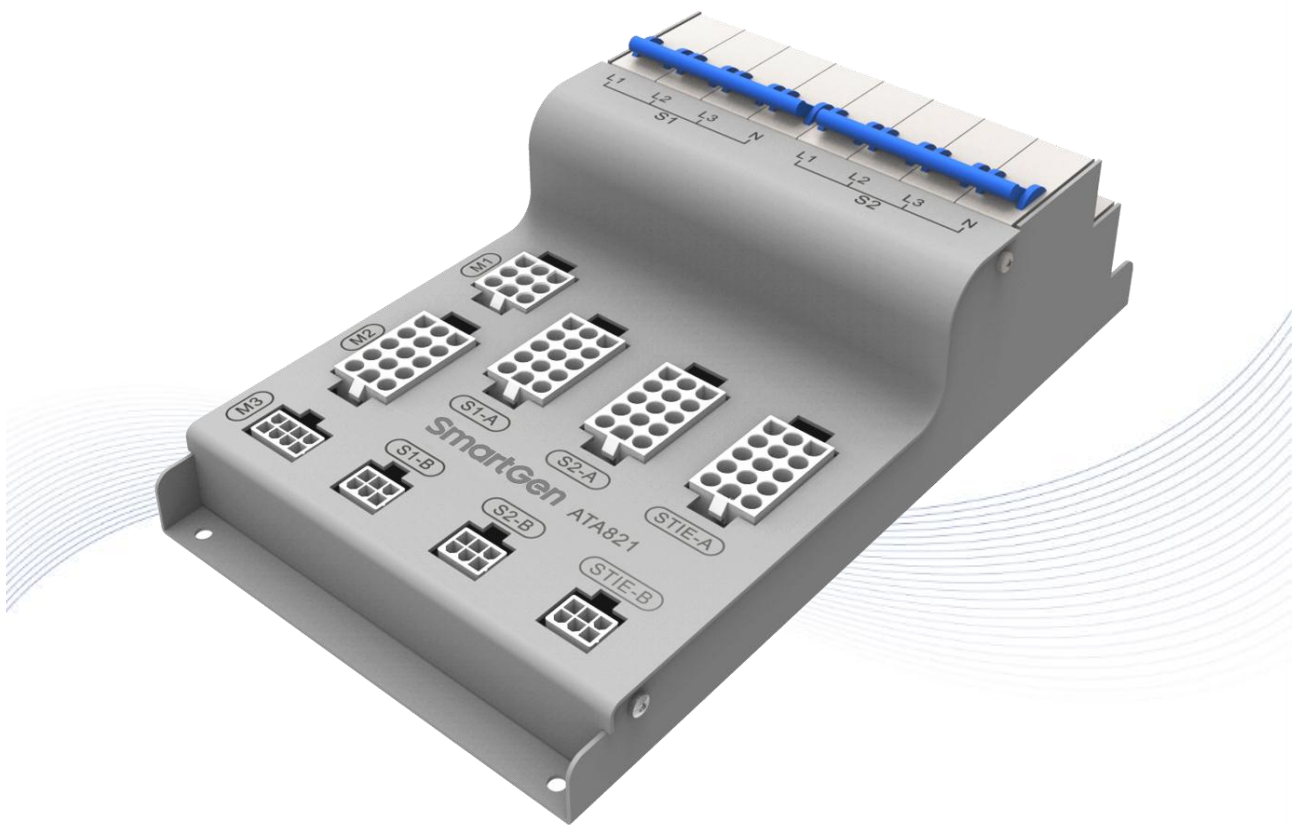
SmartGen

MAKING CONTROL SMARTER

ATA821

BUS TIE ADAPTOR FOR DUAL POWER SWITCH

USER MANUAL



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SmartGen众智 Chinese trademark

SmartGen English trademark

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Table 1 Software Version

Date	Version	Note
2019-12-30	1.0	Original Release.
2020-01-20	1.1	Upgrade.
2021-02-25	1.3	Add illustration for optional terminals.
2022-07-21	1.4	Add illustration for terminal functions.



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1 OVERVIEW

ATA821 Bus Tie Adapter for Dual Power Switch is a kind of adapter which makes convenience for connection between HAT821 dual power bus tie ATS controller and smart breaker, reducing a lot of field wiring work for users, not only labor saving, time saving but also reliable.

2 PERFORMANCE AND CHARACTERISTICS

- Suitable for 3Ph 4W AC system;
- Two integrated 400V/50Hz/10A circuits of air breaker, which are individually used to connect two circuits of AC power;
- All-in-one integrated adaptor, which can simultaneously connect S1 breaker, S2 breaker and bus tie breaker;
- Suitable for HAT821 dual power bus tie ATS controller;
- Cold rolled plate closure;
- With screw installation method, adapter is fixed by 4 screws.

3 SPECIFICATION

Table 2 Performance Parameters

Item	Description
Rated Working Voltage	AC 400V 50/60Hz
Max. Working Current	10A
Air Breaker	400V~ 50Hz 10A
Case Dimensions	144.4mmx252mmx75.3mm
Working Conditions	Temperature: (-25~+70)°C Humidity: (20~93)%RH
Storage Condition	Temperature: (-30~+80)°C
Insulation Strength	Apply AC1.5kV voltage between high voltage terminal and low voltage terminal and the leakage current is not more than 3mA within 1min.
Weight	1.6kg



4 PANEL DESCRIPTION

4.1 PANEL ILLUSTRATION

Panel illustration is as Fig. 1.

Two circuits of air breaker, connect separately with S1/S2 AC power.

Connector M1, M2, M3 need to connect to the side of HAT821 controller.

Connector S1-A, S1-B need to connect to the side of S1 breaker.

Connector S2-A, S2-B need to connect to the side of S2 breaker.

Connector STIE-A, STIE-B need to connect to the side of bus tie breaker.

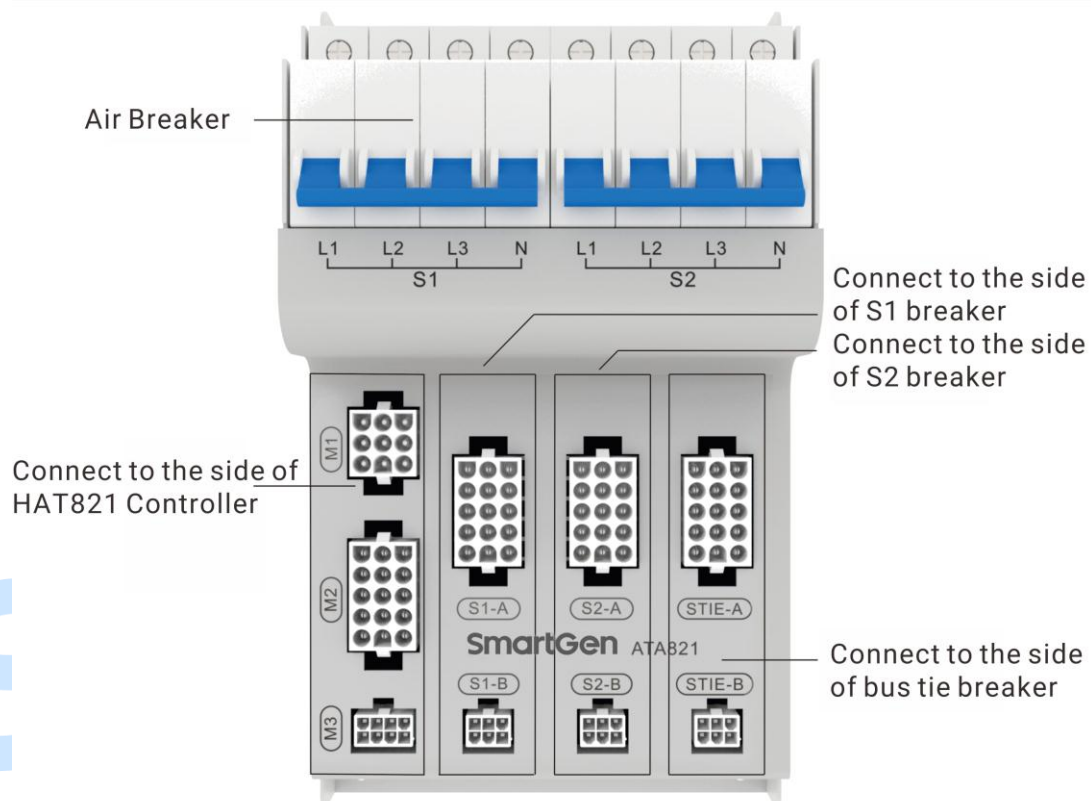


Fig. 1 Panel Instruction

4.2 CONNECTOR ILLUSTRATION

The pin numbers of connector terminals are as Fig. 2.

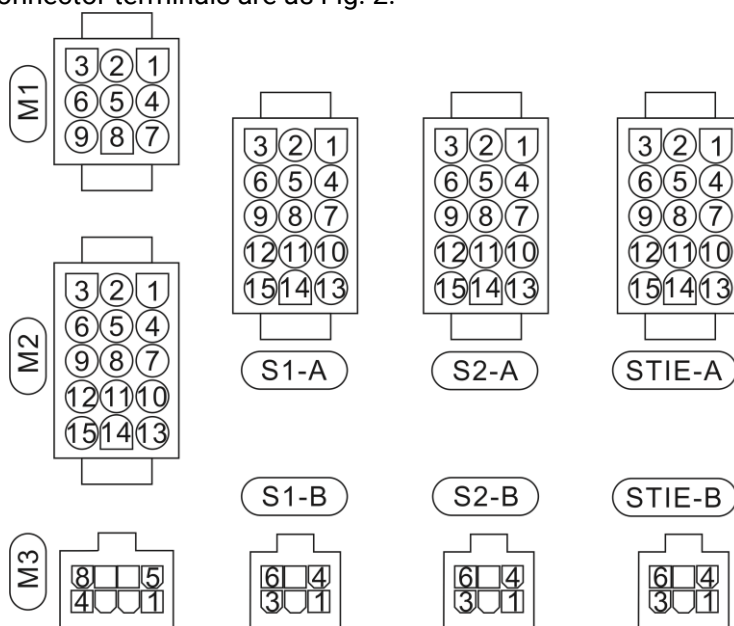


Fig. 2 Pin Numbers of Connector Terminals

Terminal Wirings of connector are as Table 3 and Table 4.

Table 3 WH821-M-XX-XX Controller Side Connector Wiring Illustration

Connector No.	Pin No.	Wire No.	Connector No.	Pin No.	Wire No.
M1	1	M-18	M2	1	M-4
	2	M-19		2	M-14
	3	M-15		3	M-1
	4	M-20		4	M-10
	5	NC		5	M-11
	6	M-17		6	M-3
	7	M-21		7	M-2
	8	M-22		8	M-9
	9	M-16		9	M-5
M3	1	M-29		10	M-6
	2	M-30		11	NC
	3	M-41		12	M-7
	4	NC		13	M-8
	5	M-34		14	M-12
	6	M-35		15	M-13
	7	M-31			
	8	M-36			

Table 4 WH821-QX-XX-XX Breaker Side Connector Wiring Illustration

Connector No.	Pin No.	Wire No.	Function Illustration
Q1	S1-A	1	Q1Close L
		2	Q1Under Volt. N
		3	Q1 Under Volt. L
		4	Q1Stored Energy L
		5	Q1Power L
		6	NC
		7	Q1Close N
		8	Q1Open N
		9	Q1Power N
		10	Q1 NC 1*
		11	Q1Stored Energy N
		12	Q1Open L
		13	Q1NC 2*
		14	Q1 NC 1
		15	Q1 NC 2
	S1-B	1	NC
		2	Q1 Trip Fault 1*
		3	Q1NO *
		4	NC
		5	Q1NO
		6	Q1Trip Fault 1

NOTE: Connector S2-A and S2-B, STIE-A and STIE-B connected wire number starts with Q2, Q3; Others are the same with S1-A, S1-B, connected separately with WH821-Q2-XX-XX and WH821-Q3-XX-XX. For example: P1 wire number of connector S2-A is Q2-32.

Wire number definition:

Q1-1 Example: Q1-1 means wire needs to connect to Terminal 1 of S1 breaker.



means wire needs to connect to corresponding terminal number of smart breaker;

means the position where wire needs to connect;

M means HAT821 Controller;

Q1 means S1 breaker;

Q2 means S2 breaker;

Q3 means bus tie breaker.

Wire harness definition:

WH821-□□-□□-□□

means acronym of the factory;

means wire harness length, unit: m. e.g. 30 means 3.0m;

means the position where wire needs to connect; definition same as wire

No.



5 APPLICATION DIAGRAM

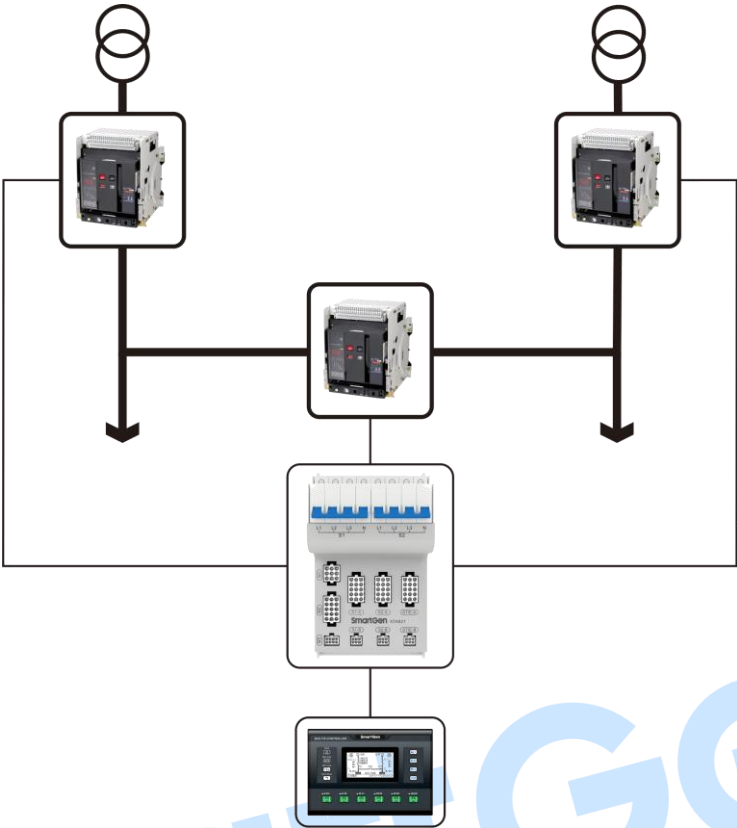


Fig. 3 Application Diagram



6 OPTIONAL ACCESSORY ILLUSTRATION

The connected wire harness and terminals matched with terminal block of this product are optional; Users can make clarification at ordering, note the harness requirements and breaker type. See Table 4 for details.

Table 5 Optional Accessory Description

Category	Note
Optional Wire Harness	There are four in total, WH821-M-XX-XX、WH821-Q1-XX-XX、WH821-Q2-XX-XX、WH821-Q3-XX-XX. The length of the wire harness (unit: m) and the model of the circuit breaker should be indicated when choosing.
Optional Terminals	Include the matching terminals and connector terminals.

7 CASE DIMENSIONS

This adapter is designed by screw installation method, and is fixed by four screws at installation.

Unit: mm

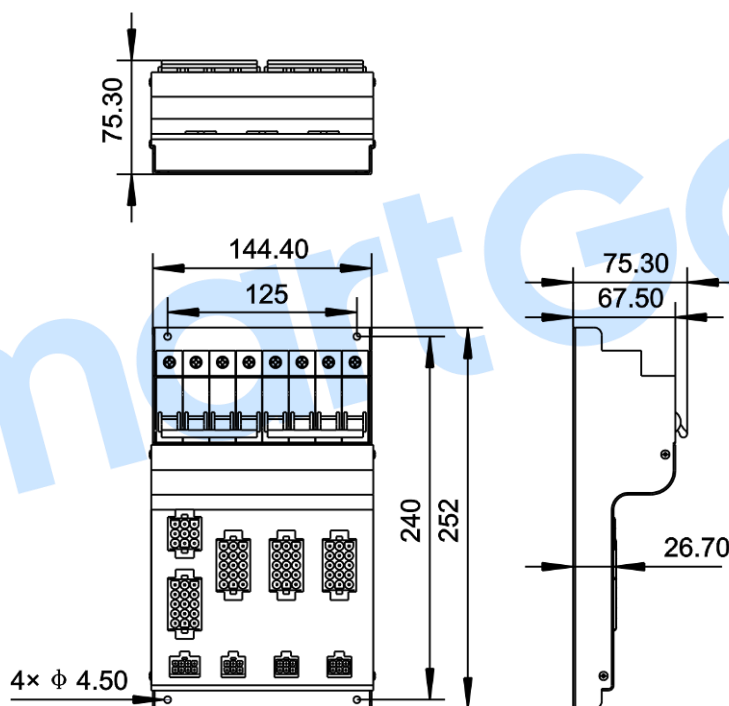


Fig. 4 Case Dimensions and Cutout