

Automatic transfer switch (ATS) · PH 9205

Automatic transfer switch for 19" racks that powers equipment from two independent power sources. Should the primary input fail, it automatically switches to the secondary to maintain supply without interruption, and returns to the primary once it is restored. Transfer time of 9–12 ms.

PRODUCT SUMMARY

Reference	PH 9205
Type	Automatic transfer switch (ATS) · 19" rack · 1U
Inputs	2 × IEC-C20 (source A / source B)
Outputs	8 × IEC-C13 (10 A) + 1 × IEC-C19 (16 A)
Voltage / frequency	230 Vac · 50/60 Hz · input range 180–258 Vac
Transfer time	9–12 ms (typical) · 16 ms max.
Communication	USB · RS-232 · contact port
Dimensions · weight	483 × 44 × 330 mm (W × H × D) · 8 kg
EAN	PH 9205: [5605922027040]



1 Safety

Save these instructions. This manual contains important information that must be followed during the installation and use of the automatic transfer switch (ATS). Read it in full before installation.

Hazardous voltage. The ATS can be powered from two independent sources: the output socket-outlets may remain live even when one of the inputs is disconnected. Hazardous voltages exist inside; it must only be opened by qualified technical personnel.

- The unit must be properly earthed; **always connect the earth conductor first**. Use only the supplied cables and keep the mains socket accessible.

- The ATS is designed exclusively for **professional indoor use**. Install it away from flammable liquids or gases and harmful substances.
- The disconnect and overcurrent-protection devices for the input/output circuits must be provided by the installer. The upstream circuit breaker must remain easily accessible.
- Clean the exterior with a soft, damp cloth, always with the unit disconnected from the mains. Do not use solvents: they may damage the finish.
- All repairs and maintenance must be carried out by authorised technical personnel. There are no user-serviceable parts inside.
- These instructions may be affected by the wiring regulations in force in the country of installation.

2 Product presentation

2.1 · Operating principle

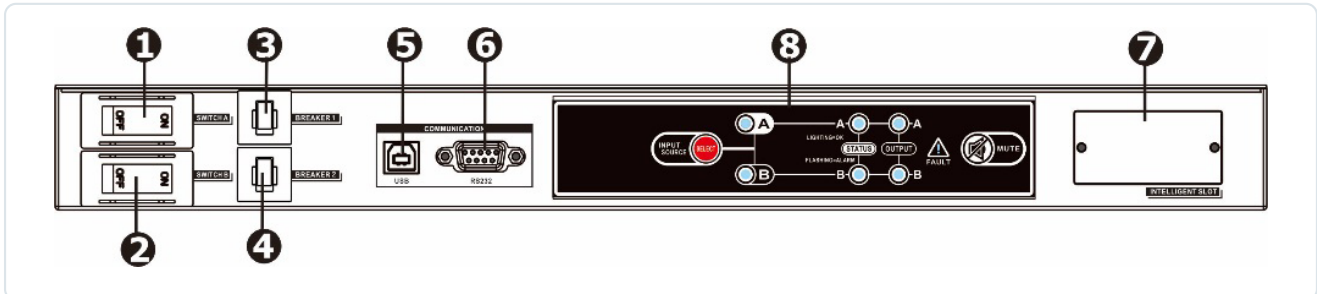
The ATS has two independent power inputs. It powers the load from the primary source and, should this fail, it automatically switches to the secondary without interrupting supply to the connected equipment; the change from one line to the other is seamless to the load. When the primary source is restored, the ATS resumes powering from it. It is the ideal solution for communications racks, servers and IT equipment where continuity of service is a priority.

2.2 · Package contents

- ATS module
- User manual
- Rack mounting brackets

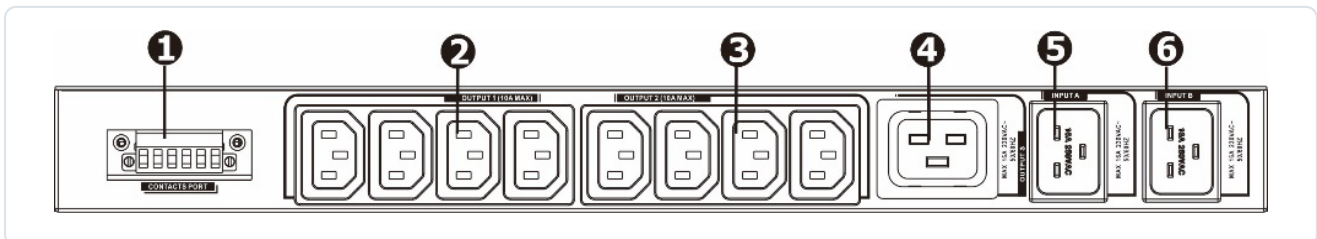
3 Unit description

3.1 • Front view



- ① Input source A switch.
- ② Input source B switch.
- ③ Output 1 circuit breaker.
- ④ Output 2 circuit breaker.
- ⑤ USB communication port.
- ⑥ RS-232 communication port.
- ⑦ Communication slot (intelligent slot).
- ⑧ Operation indicators (see section 6).

3.2 • Rear view

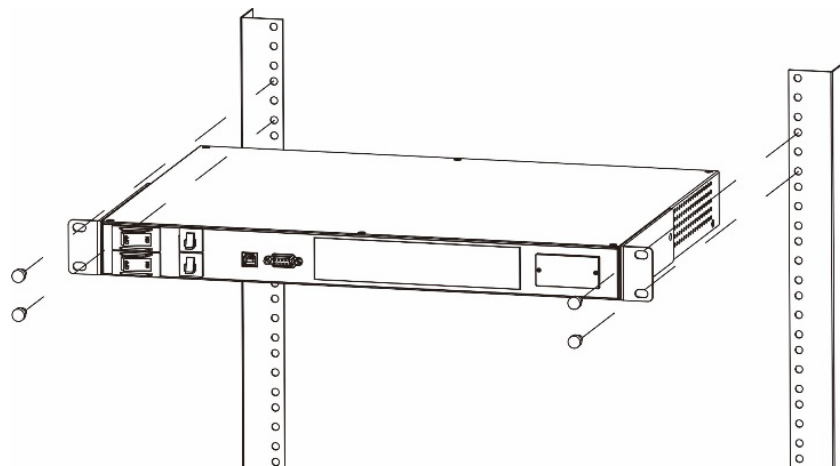


- ① Contact port (see section 7).
- ② “Output 1” socket-outlets (IEC-C13, 10 A).
- ③ “Output 2” socket-outlets (IEC-C13, 10 A).
- ④ “Output 3” socket-outlet (IEC-C19, 16 A).
- ⑤ Input source A connector (IEC-C20).
- ⑥ Input source B connector (IEC-C20).

4 Installation

4.1 · 19" rack mounting

Before installing, inspect the unit and check that the contents are undamaged. Fasten the mounting brackets to the unit with the supplied screws and install it in a standard 19" rack (1U).



Mounting the unit in a 19" rack.

If the temperature around the unit exceeds **40 °C**, additional ventilation is required.

4.2 · Electrical connection

Connect the input A and B connectors to two independent power sources (mains and/or UPS) using the corresponding IEC-C20 cables. Connect the load to the 10 A output socket-outlets (Output 1 and 2, IEC-C13) or the 16 A output (Output 3, IEC-C19) as required. Make sure each source has its own upstream overcurrent protection.

5 Operation

5.1 · Power-on and source selection

Set the input switches to "ON": the output will be powered from the selected source. To choose the source that normally powers the load, press the **source selector** (INPUT SOURCE SELECT). The default source is **Source A**.

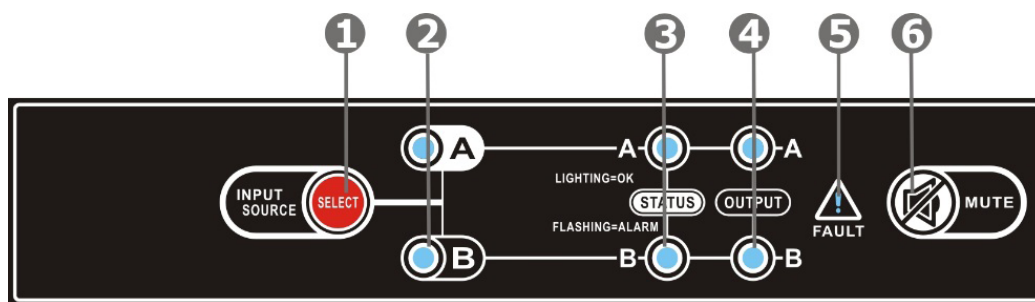
Function	Description	Default	Configuration
Priority source selector	Selects the input that normally powers the load.	Source A	Source A · Source B

5.2 · Switching thresholds

The ATS continuously monitors the voltage and frequency of both inputs and switches automatically when the active source falls out of range.

Parameter	Description	Value
Acceptable voltage range (A and B)	The source powers the load within this range; outside it, the ATS switches to the other source.	180–258 V
Voltage return point	When the priority source is restored, the ATS returns to it.	Low 190 V · High 248 V
Acceptable frequency (A and B)	Within this range the source powers the load; outside it, the ATS switches.	45–55 Hz

6 Indicators and status



Operation indicator panel.

- ① Priority source selector.
- ② Priority source LED.
- ③ Input source status LED.
- ④ Output source LED.
- ⑤ Fault indicator.
- ⑥ Alarm mute button.

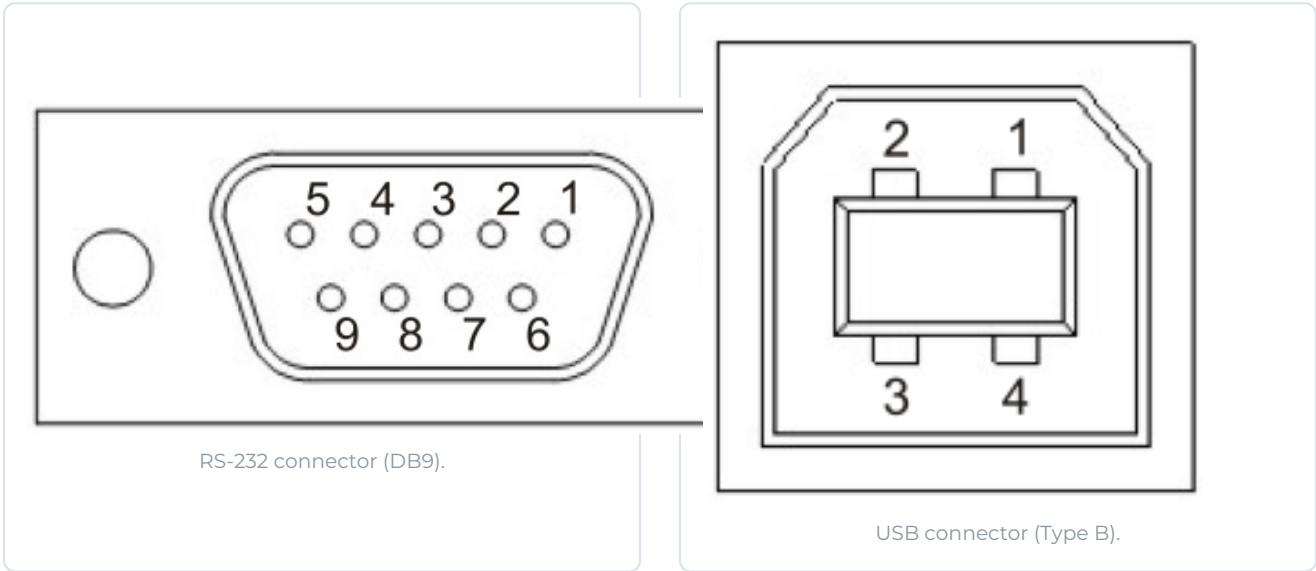
Indicator	State	Meaning
Priority (A / B)	LED of the chosen source on	Source set as priority.
Input status (A / B)	Off	The input has no voltage.
	On	Input present and within specification.
	Flashing	Input present but out of specification.
Output (A / B)	LED A or B on	The load is powered from that source.
	Both off	No output.
Fault	On + continuous alarm	Alarm present. Press the mute button to silence it.

7

Communications

7.1 · Serial ports (RS-232 and USB)

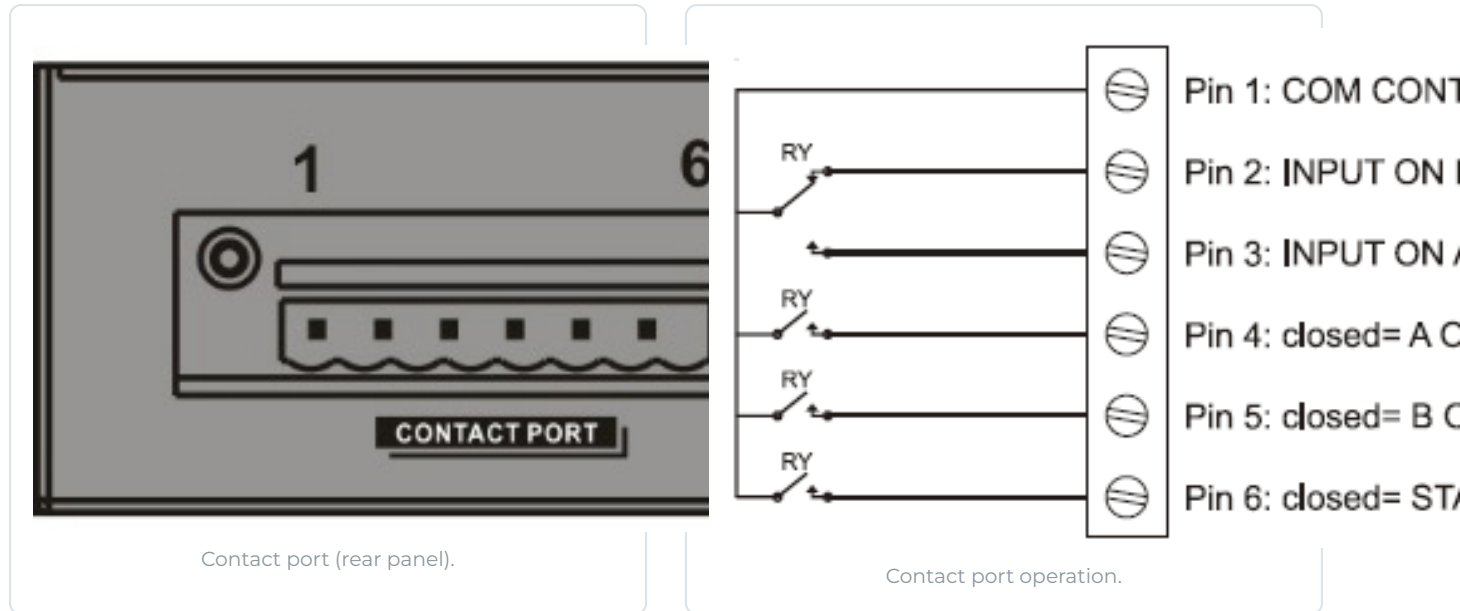
The ATS has an **RS-232** port and a **USB** port on the front panel for monitoring. Using one port automatically excludes the other. Their use is optional and not required for the ATS to function.



RS-232 · pin		USB · pin		Signal	Source
2		1		TX (out)	V
3		2		RX (in)	D
5		3		GND	D
6		4		+12 V	C

7.2 • Contact port

On the rear panel, the contact port (6 pins) allows the ATS to be connected to an external monitoring system (for example, a BMS) to monitor its status. The external equipment must comply with the voltage and current ratings of the port.



- **Pin 1:** common contact.
- **Pin 2:** “Source B” active contact (closed between pin 1 and pin 2 → the output is powered from source B).
- **Pin 3:** “Source A” active contact (closed between pin 1 and pin 3 → the output is powered from source A).
- **Pin 4:** “Source A” status OK (closed between pin 1 and pin 4 → source A present and regular).
- **Pin 5:** “Source B” status OK (closed between pin 1 and pin 5 → source B present and regular).
- **Pin 6:** ATS status OK (closed between pin 1 and pin 6 → regular operation).

Attention. The contact port pins support a maximum current of **8 A** and a maximum voltage of **250 Vac**.

8 Troubleshooting

Problem	Possible cause	Solution
The ATS does not turn on (the LEDs do not activate and no alarm sounds)	Inputs not connected.	Connect the mains to the inputs as described in the installation section.
	Input switches in "OFF".	Set them to "ON".
	Input power failure.	Check that mains voltage is present or that the UPS powering the ATS is on.
	Upstream protection tripped.	Reset the protection after checking there is no overload or short circuit at the output.
The load is not powered	Outputs not connected.	Connect the load to the output socket-outlets.
10 A thermal protection tripped	Short circuit or overload on a 10 A output.	Check the connected load, reset the protection by pressing the button and reconnect the loads one at a time to locate the fault.

For any abnormal situation not covered here, contact technical support.

9 Technical specifications

INPUT	
Voltage	230 Vac (range 180–258 Vac)
Frequency	50/60 Hz
Maximum input current	16 A
Connection	2 × IEC-C20 (source A / source B)
OUTPUT	
Voltage	230 Vac
Maximum output current	10 A (IEC-C13) · 16 A (IEC-C19)
Connection	8 × IEC-C13 + 1 × IEC-C19
SWITCHING	
Transfer time	9–12 ms (typical) · 16 ms max.
COMMUNICATION	
Ports	USB · RS-232 · contact port (max. 8 A / 250 Vac)
PHYSICAL & ENVIRONMENTAL	
Dimensions (W × H × D)	483 × 44 × 330 mm · 19" rack format (1U)
Weight	8 kg
Operating temperature	–5 °C to 45 °C
Relative humidity	0–95% RH (non-condensing)

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