



# ATyS S

Remotely-operated motorised transfer switch  
transfer switching equipment up to 125 A



your energy  
our expertise



 **socomec**  
Innovative Power Solutions

# Totally safe, long-life, transfer switching

The disconnect and switching components are integrated in the ATYS S transfer switch so as to ensure both the continuity of the power supply and the safety of operators. In addition, its transfer technology based on three stable positions means that energy consumption is minimised, whilst ensuring maximum immunity to electrical network disturbances, making this a truly robust, reliable and long-life solution.



## Ensures the availability of the electrical power supply

The functions and design of the ATYS S are combined with one key aim in mind: **ensuring the power supply to the loads**. The equipment has three operating which increase the possibility of **choosing the most reliable source under all circumstances**. What's more, the ATYS S only requires a power supply when changing position, so increasing its **reliability and service life**.

## Ensures operator safety

With its on-load switching capacity coupled with the Auto, Manual and Padlocked operating modes, the ATYS S is **simple to use and 100% secure**. The power supply source is selected without risk directly on the product using the front handle, or via remote control via the dedicated contacts. The safety of maintenance operations downstream of the ATYS is assured thanks to the device's padlocking function.

## SOCOMEC, your best asset

### European manufacturing group

- Created in 1922.
- A workforce of almost 3000
- Located on all five continents

### A culture of independence

- Family shareholding.
- Control of the decision-making process.
- Respect of human values.

### The spirit of innovation

- Almost 10 % of turnover is invested in R&D.

### A flexible manufacturing structure

- Competitive production sites.
- Lean Management.
- Lead times, quality and cost guaranteed.

### The vision of a specialist

- Expertise in core technologies
- Product adaptations as per customer requirements.

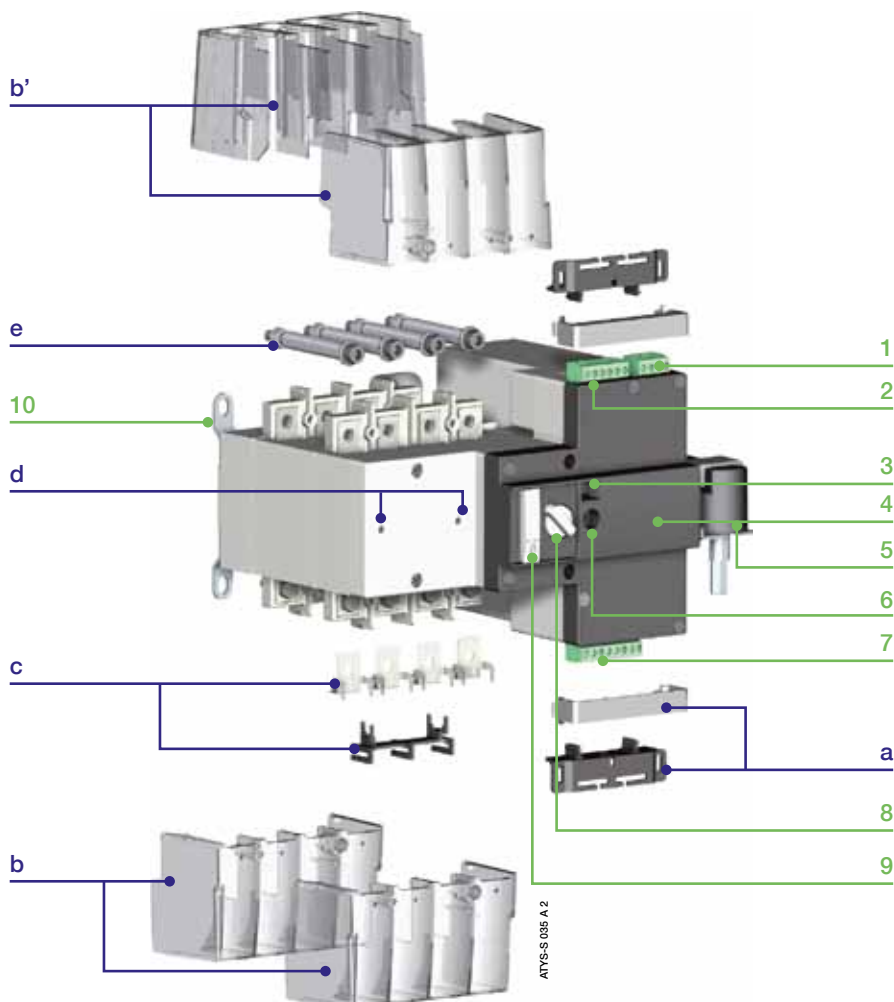
### A focus on service

- Advice, technical assistance and call-out, training.
- Teams located across the globe.



# ATyS S

The fully integrated transfer solution from 40 to 125 A



## Included in the standard package

1. Monitoring/control input contacts
2. Auxiliary contacts for operating positions
3. Switch position indicator (I - 0 - II)
4. Replaceable motorisation module
5. Emergency manual operation handle
6. Slot for manual handle
7. Auxiliary power supply inputs
8. Operating mode selector switch (Automatic/Manual/Padlocked)
9. Padlocking slot (up to three 4x8 mm padlocks)
10. Adjustable fixing lugs (x4)

## Accessories

- a. Easy secure connectors bracket
- b. Terminal shrouds (supply side)
- b'. Terminal shrouds (load side)
- c. Voltage tapping kit
- d. Mounting holes for DIN rail accessories (can hold up to 4 modules)
- e. Reversible top/bottom bridging bars

## Four key applications: the know-how of a specialist

Ensuring the availability and storage of high quality power.



Managing power and protecting persons and facilities.

Managing the energy performance of buildings.



Enabling available, safe and efficient energy.

# Benefits of the ATyS S range



## Safe and reliable

- **Longer service life** due to the ATYS S switching based on three stable positions. This technology ensures a constant pressure on the switch contacts whatever the level of network voltage - a vital factor in preventing excessive wear (welding).
- **Loads downstream are fully protected.** Unlike contact-based solutions that require a continuous supply which can also lead to "contact bounce", the ATYS S only needs a supply during transfers, thus ensuring the stability of downstream loads.
- **Guaranteed power supply** with the DC 12 V or 24/48 V control voltage models. The ATYS S thus ensures switching in all circumstances because it is completely isolated from the mains voltage.
- **A wide band of control voltage (+/- 30%)** is offered by the AC supply models, thus ensuring an extended service life of the solution, even in areas affected by fluctuations in the mains supply.



## Easy servicing

- **Minimum downtime:** the ATYS S power connections are physically independent from the motor/control modules to facilitate on-load maintenance.
- **No interruption to the load:** the ATYS S remains functional and can be operated with its handle, even when the motor/control module is disconnected.



## Fully integrated solution

- **Guaranteed operation:** the ATYS S is factory assembled, fully tested and delivered ready for use (no risk or loss of time assembling a kit made up of different parts).
- **Greater reliability** compared to solutions assembled from parts: The ATYS S has been designed, tested and proven according to the criteria in the international standard IEC 60947-6-1 governing transfer switching requirements.
- **More safety** with mechanical interlocking that ensures that the primary and alternative sources are never selected simultaneously.
- **Easy ordering:** a single catalogue part number for the complete solution.



## Easy to use

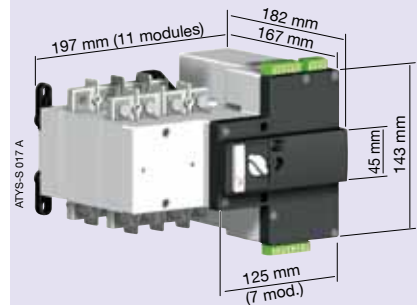
- **Three clearly indicated operating modes** (Automatic, Manual and Padlocked) can be chosen easily using the user-friendly selector.
- **Emergency manual operation is easy and secure,** designed to be carried out with complete confidence by most users.



## Economical

- **Low energy consumption** due to switching based on stable positions: energy is only required during power source transfer.
- **Its small footprint** means the ATYS S can be installed in any enclosure with a depth equal to 200 mm.
- **Quick and easy installation:** only four fixing points, with simplified wiring of connectors and power cable connections.
- **Shorter bridging bars,** more economical than those offered by competitors.

### Compact design



By combining two transfer switches mounted "back-to-back", the ATYS S offers significant space savings in terms of width compared to a "side by side" solution. They are suitable for almost all enclosures with a depth of 200 mm.

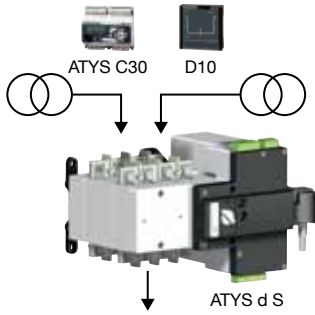
### Utilisation categories

- **Complies with standards IEC 60947-6 -1 and GB 14048-11 governing transfer switching equipment:**
  - AC 32B to 415 VAC: up to 80 A
  - AC 31B to 415 VAC: up to 125 A
- **Complies with IEC 60947-3, the standard governing load break switches:**
  - AC 23A to 415 VAC: up to 63 A
  - AC 22A to 415 VAC: up to 100 A
  - AC 21B to 415 VAC: up to 125 A



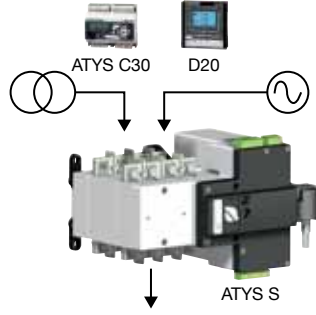
# Three types of application

Transformer/Transformer permutation



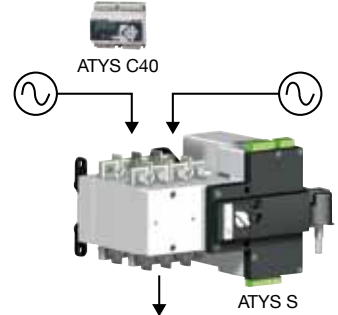
ATYS-S 026 C

Transformer/Gen-set permutation



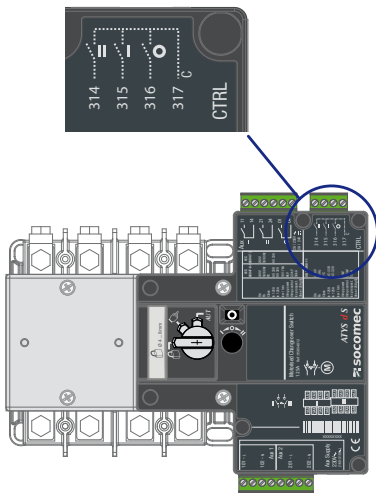
ATYS-S 027 D

Gen-set/Gen-set permutation



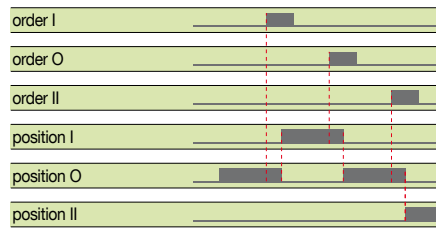
ATYS-S 028 B

# Three stable positions



ATYS-S 029 B

## • Impulse logic



ATYS-S 030 A

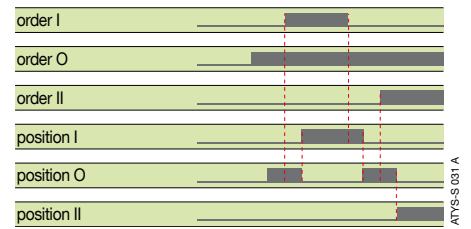
Excludes position switching delays(I-0-II < 700 ms).

■ = 60 ms    ■ = maintained

The ATYS S is driven to a stable position after receiving an impulse order of at least 60 ms.

Orders I and II have priority over order O.

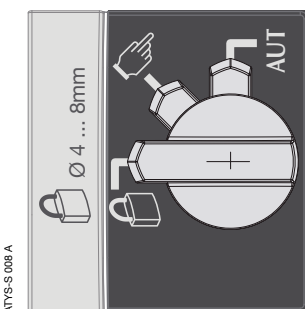
## • Contactor logic



ATYS-S 031 A

The ATYS S is driven to a specific position (I or II) for as long as the order is maintained.

# Three operating modes



ATYS-S 036 A

## • AUTOMATIC

In this mode, source transfer is remotely operated via contacts 314 to 317. It also inhibits use of the handle for manual operation.

## • MANUAL

Ideal for local emergency manual operation, this mode inhibits the remote control inputs and maintains the performance of the power supply transfer switch.

## • PADLOCKED

This mode inhibits both the automatic (remote) control inputs and the insertion of the emergency handle in order to fully secure maintenance operations. This function is only available in 0 Position.

It also allows the use of up to three standard 8 mm padlocks to facilitate electrical lock-out (NFC 18-510).



# Selection guide

What rating ?

What power supply ?

		ATyS S	ATyS S	ATyS S	ATyS d S
SUPPLY		12 VDC (9 - 15 VAC)	24/48 VDC (17 - 62 VAC)	230 VAC (160 - 310 VAC)	2x 230 VAC (160 - 310 VAC)
RATING					
4 x 40 A	≤ 28 kVA (415 V)	9505 4004	9506 4004	9503 4004	9513 4004
4 x 63 A	≤ 45 kVA (415 V)	9505 4006	9506 4006	9503 4006	9513 4006
4 x 80 A	≤ 57 kVA (415 V)	9505 4008	9506 4008	9503 4008	9513 4008
4 x 100 A	≤ 70 kVA (415 V)	9505 4010	9506 4010	9503 4010	9513 4010
4 x 125 A	≤ 90 kVA (415 V)	9505 4012	9506 4012	9503 4012	9513 4012

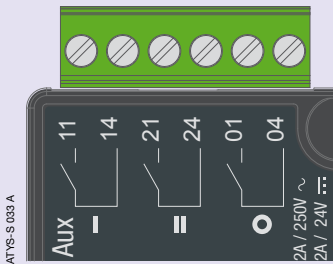
## Accessories

SUPPLY SIDE TERMINAL SHROUDS <sup>(1)</sup>	LOAD SIDE TERMINAL SHROUDS <sup>(1)</sup>	VOLTAGE TAPPING KIT	DIN RAIL 4 MODULES	4-POLE BRIDGING BARS	EASY SECURE CONNECTOR BRACKET <sup>(1)</sup>	400 VAC/230 VAC VOLTAGE TRANSFORMER
9594 4012	9594 9012	9599 4001	9599 4002	9509 4013	9599 4003	9599 4004

(1) 2 parts

## FAQ

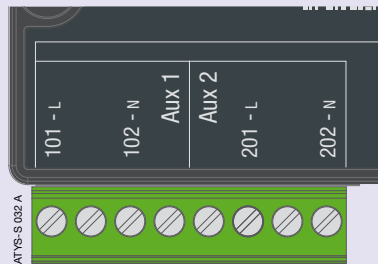
### Fully integrated auxiliary contacts



This terminal block (included in the standard package) has three auxiliary contacts with three independent contacts for providing extra possibilities options:

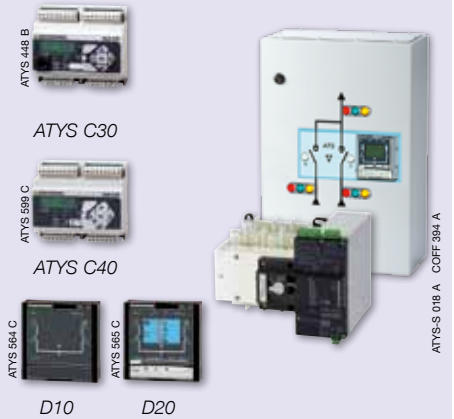
- remote display of the product's operating mode,
- connection to an external control circuit, etc.

### Double power supply (DPS)



- The ATYS d S model includes a 230 VAC double power supply housed in the same compact case. This supply redundancy ensures the switch's operating reliability, even if there is an outage on the main power source.
- The double supply can tolerate fluctuations of +/- 30%, an important factor in areas affected by heavy mains disturbance.


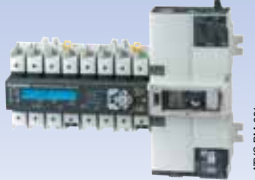

### Other solutions in enclosures



- The ATYS S interface is compatible will almost all brands of generators fitted with a loss of mains timer (ATYS C30 or C40 type) or an external generator controller.
- SOCOMEC designs and manufactures **customised transfer switching solutions in enclosure** (with optional integration of such controllers) to meet any customer requirements.

# The **ATyS** family: three ranges of motorised transfer switches for a response adapted to your application

More than 400,000 SOCOMEC motorised transfer switches in operation since 1990. **Trust a product family that is recognised by major end-users worldwide.**

<p><b>ATyS S</b> range "Back-to-back" format from 40 to 125 A</p>  <p>ATyS S   ATyS d S</p> <p>transfer applications with gen-set(s)</p>	<p><b>Gamme ATyS M</b> Modular format from 40 to 160 A</p>  <p>ATyS d M   ATyS t M   ATyS g M   ATyS p M</p> <p>transfer applications for industrial and commercial buildings</p>	<p><b>ATyS</b> range "Back-to-back" format from 125 to 3200 A</p>  <p>ATyS r   ATyS d   ATyS t   ATyS g   ATyS p</p> <p>Any transfer application with transformer and/or gen-set</p>
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Remote or automatic motorised version												
Remote controlled (RTSE)	•	•	•				•	•				
Automatic (ATSE)				•	•	•			•	•	•	
Dual power supply												
Integrated		•	•	•	•	•		•	•	•	•	•
Switching PLC controller												
Not integrated	•	•	•				•	•				
Transformer/Transformer application				•	•	•			•	•	•	•
Transformer/Gen-set application					•	•				•	•	•
Specific functions												
On-load and off-load tests for generators						• <sup>(1)</sup>	•				•	•
Periodic start up of generators												•
Energy management												•
Communication options							•					•
Embedded web server												•

(1) On-load test only

## IEC 60947-6-1: glossary of terms for transfer switching equipment

Definitions:

- **RTSE:** Remote-operated Transfer Switching Equipment,
- **ATSE:** Automatic Transfer Switching Equipment

ATSE equipment differs from RTSE equipment in that it integrates a PLC.

This means that **these products are self-monitoring in terms of power source availability, and will start up the generator set if required and switch automatically** to the power source that is present.

RTSE equipment however, requires **the presence of an external controller** to give the transfer orders.

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