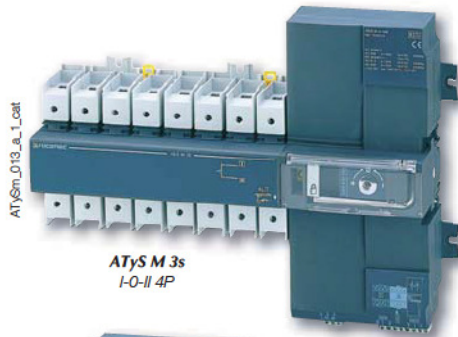




ATyS M

Motorised and automatic changeover switches from 40 to 160 A

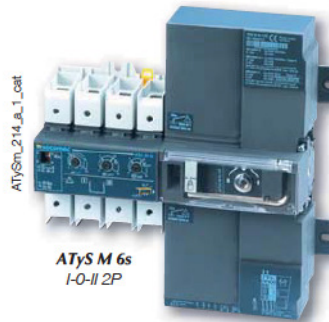
Changeover
switches



ATyS M 3s
I-O-II 4P



ATyS M 6e
I-O-II 4P



ATyS M 6s
I-O-II 2P

Function

ATyS M is a range of single-phase or three-phase modular motorised changeover switches with positive break indication. They enable on load changeover switching of two supply sources in remote control, automatic or manual mode. They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Proven technology

Two mechanically interlocked SIRCO MV load break switches provide rapid switching, excellent dynamic withstand and a high number of operations.

Stable positions

The ATyS M has three stable positions which are not affected by voltage drops or vibrations, thus protecting your load against network interference.

Secure operation

ATyS M provide positive break indication, confirming switch position, and a back-up manual operation function.

Choice of configuration interface

ATyS M 6 automatic changeover switches are available with a simple or an advanced integrated configuration and control interface:

- ATyS M 6s are configured through the adjustment of dip switches and potentiometers.
- ATyS M 6e are configured through the use of pushbuttons and a display.

Return to position 0

Depending on its configuration, the ATyS M 6e enables a return to position 0 if the power is cut.

The solution for

- > Healthcare buildings.
- > Generator manufacturers.
- > Data centres.



Strong points

- > Proven technology.
- > Stable positions.
- > Secure operation.
- > Choice of configuration interface.

Conformity to standards

- > IEC 60947-3
- > IEC 60947-6-1
- > GB 14048.11



Approvals and certifications⁽¹⁾



⁽¹⁾ Product reference on request.

Modes of operation



ATyS M 014_b

AUT/MAN control



ATyS M 015_b_1_cat

Back-up manual operation



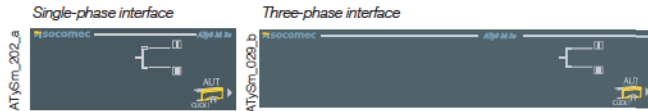
ATyS M 016_b_1_cat

Padlocking facility

What you need to know

On ATyS M 3s models

Power supply



ATyS M 3s is equipped with two independent 230 VAC power inputs (176-288 VAC), 50/60 Hz (45/65 Hz).

These two power supplies can be connected individually one to switch I and the other to switch II:

- Power supply 101-102 must be available to reach position I
- Power supply 201-202 must be available to reach position II.

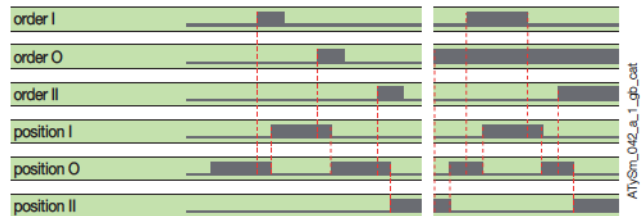
The use of a dual power supply (DPS), or an external supply module, provides full security of the 3 position commands with the availability of either supply.

In this case, both the supply inputs must be connected in parallel in order for them both to be supplied from the output of the DPS.

Electrical control

The positions are controlled by volt-free contacts which may come from an external automatic controller (e.g. ATyS C30) or, for example, pushbuttons. The positions are stable, even without a supply. Two types of control logic are available:

- Impulse logic
 - A switching command of at least 60 ms is necessary to initiate operation.
 - The first command (order) received (I or II) has priority as long as it remains present.
- Contactor logic
 - Order 0 must be maintained to activate contactor logic (313-317).
 - If command I or II disappears, the device returns to zero position, if power supply is available.



ATyS M 6s and M 6e models

Power supply

- ATyS M 6 products are self powered from incoming supplies: 230 VAC (176-288 VAC for the ATyS M 6s and 160-305 VAC for the ATyS M 6e), 50/60 Hz (45-65 Hz).
- For three-phase, two versions are available:
 - 230 / 400 VAC with distributed neutral conductor: Product is powered between phase and neutral (if there is no neutral, an autotransformer is required)
 - 127 / 230 VAC with or without distributed neutral conductor: product is powered between 2 phases.
- For single-phase, one version is available:
 - 230 VAC networks: Product is powered between phase and neutral.
- The neutral conductor can be connected to the left or right side of each switch.

Configuration

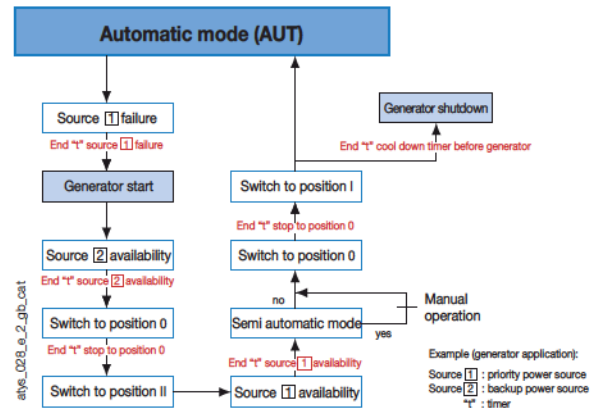
ATyS M 6s



- Common points between the three-phase and single-phase versions:
 - 2 potentiometers (normal supply loss and return time delays)
 - 2 dip-switches (Pause for 2 seconds in position 0 during switching I<->II; Transformer/Transformer or Transformer/Genset application).
- 4 LEDs (Source availability indicators; "AUT" Automatic mode; Fault).
- 3 inputs for external control (Inhibition of the automatic mode; Remote test on load (Priority selection for Transformer/Transformer); Manual retransfer from the alternate supply to the normal supply).
- 1 NO bi-stable output relay for generator starting/stopping.
- 1 NC relay for product availability.
- Specific to three-phase ATyS M:
 - 2 additional potentiometers (Nominal voltage; Voltage/frequency thresholds)
 - 2 additional dip switches (50 or 60 Hz; network selection)
- Specific to the single-phase ATyS M:
 - PRG button: voltage and nominal frequency auto configuration.

Automatic control

- ATyS M 6s and M 6e are equipped with a sequence logic.



ATyS M 6e



- Applications: Transformer/Genset, Transformer/Transformer, with or without priority.
- Display + keyboard (Device configuration; Displays supply measurements; Test and control mode access).
- LEDs (Product Power On; Source availability indicators; Position indication; "AUT" Automatic mode; TEST/CONTROL Mode; Fault).
- 3 configurable inputs.
- 3 configurable output relays.
- 1 configurable output relay for generator starting/stopping.
- Connection of a remote interface ATyS D10 or D20.
- RS485 MODBUS communication (COM version).

References

ATyS M 3s

Rating (A)	No. of poles	Power supply voltage	ATyS M 3s	Bridging bars	Voltage sensing and power supply tap	Terminal shrouds	Auxiliary contact block
40 A	2 P	230 VAC	1323 2004	2 P 1309 2006 4 P 1309 4006	2 pieces 1399 4006	2 pieces 2294 4016 ⁽¹⁾	1 st A/C block included
	4 P	230 VAC	1323 4004				
63 A	2 P	230 VAC	1323 2006				
	4 P	230 VAC	1323 4006				
80 A	2 P	230 VAC	1323 2008				
	4 P	230 VAC	1323 4008				
100 A	2 P	230 VAC	1323 2010				
	4 P	230 VAC	1323 4010				
125 A	2 P	230 VAC	1323 2012				
	4 P	230 VAC	1323 4012				
160 A	2 P	230 VAC	1323 2016	1309 2016			
	4 P	230 VAC	1323 4016	1309 4016			

(1) For the three-phase version (4 P), for upstream and downstream protection, please order the reference twice. For the single-phase version (2 P) please order the reference once.

(2) 1 NO/NC contact block for positions I, 0 and II.

ATyS M 6s

Rating (A)	No. of poles	Network (VAC)	ATyS M 6s	Bridging bars	Voltage sensing and power supply tap	Terminal shrouds	Auxiliary contact block	Sealable cover
40 A	2 P	230	1353 2004	2 P 1309 2006 4 P 1309 4006	2 pieces 1399 4006	2 pieces 2294 4016 ⁽¹⁾	1 piece	2 P 1359 2000 4 P 1359 0000
	4 P	127/230	1353 4004					
	4 P	230/400	1354 4004					
63 A	2 P	230	1353 2006					
	4 P	127 / 230	1353 4006					
	4 P	230 / 400	1354 4006					
80 A	2 P	230	1353 2008					
	4 P	127 / 230	1353 4008					
	4 P	230 / 400	1354 4008					
100 A	2 P	230	1353 2010					
	4 P	127 / 230	1353 4010					
	4 P	230 / 400	1354 4010					
125 A	2 P	230	1353 2012					
	4 P	127 / 230	1353 4012					
	4 P	230 / 400	1354 4012					
160 A	2 P	230	1353 2016	2 P 1309 2016				
	4 P	127 / 230	1353 4016	4 P 1309 4016				
	4 P	230 / 400	1354 4016	4 P 1309 4016				

(1) For the three-phase version (4 P), for upstream and downstream protection, please order the reference twice. For the single-phase version (2 P) please order the reference once.

(2) 1 NO/NC contact block for positions I, 0 and II.

ATyS M 6e

Rating (A)	No. of poles	Network (VAC)	ATyS M 6e	ATyS M 6e + COM	Bridging bars	Voltage sensing and power supply tap	Terminal shrouds	Auxiliary contact block	Remote control interface
40 A	4 P	127 / 230	1363 4004	1383 4004	4 P 1309 4006	2 pieces 1399 4006	2 pieces 2294 4016 ⁽¹⁾	1 piece	ATyS D10 1599 2010 ATyS D20 1599 2020
	4 P	230 / 400	1364 4004	1384 4004					
63 A	4 P	127 / 230	1363 4006	1383 4006					
	4 P	230 / 400	1364 4006	1384 4006					
80 A	4 P	127 / 230	1363 4008	1383 4008					
	4 P	230 / 400	1364 4008	1384 4008					
100 A	4 P	127 / 230	1363 4010	1383 4010					
	4 P	230 / 400	1364 4010	1384 4010					
125 A	4 P	127 / 230	1363 4012	1383 4012					
	4 P	230 / 400	1364 4012	1384 4012					
160 A	4 P	127 / 230	1363 4016	1383 4016	4 P 1309 4016				
	4 P	230 / 400	1364 4016	1384 4016	4 P 1309 4016				

(1) For upstream and downstream protection please order the reference twice.

(2) 1 NO/NC contact block for positions I, 0 and II.

Accessories

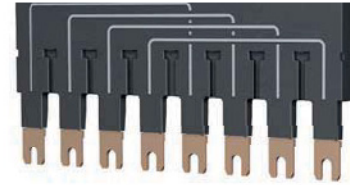
Bridging bars

Use

For providing a common connection between switches I & II on the incoming or outgoing side of the ATyS M (outgoing side only for ATyS M 6), to enable, for example, the load to be supplied from either incoming source (I or II).

The bridging bar set does not reduce the connection capacity of the ATyS M's cage terminals.

Rating (A)	No. of poles	Reference
40 ... 125	2 P	1309 2006
160	2 P	1309 2016
40 ... 125	4 P	1309 4006
160	4 P	1309 4016



atyam_025_a

Voltage sensing and power supply tap

Use

This single-pole voltage sensing tap allows the connection of 2 x ≤ 1.5 mm² voltage sensing or power cables to any ATyS M

power terminal without reducing its connection capacity.

Rating (A)	Pack	Reference
40 ... 160	2 pieces	1399 4006



atyam_026_a

Terminal shrouds

Use

Protection against direct contact with terminals or connecting parts.

Advantages of the terminal shrouds

Perforations allow remote thermographic inspection without the need to remove the shrouds. Tamper seals can be fitted for increased security.

Required quantity

For upstream and downstream protection with a three-phase ATyS M two sets are required. For the single-phase version only one set is required.

Rating (A)	Position	Reference
40 ... 160	top and bottom	2294 4016 ⁽¹⁾

(1) Reference composed of 2 pieces.



atyam_027_a

Auxiliary contact

Use

Auxiliary contacts for position indication. A maximum of two auxiliary contact blocks can be fitted to each product. Each auxiliary contact block integrates 3 NO/NC auxiliary contacts, one per position (I, 0, II). There are two versions of contact block, one with three separate sets of connections and one that has its three common terminals linked internally. With the common points linked the number of signal cables required is

reduced (4 cables instead of 6). The ATyS M 3s is supplied as standard with one auxiliary contact block fitted; this A/C block has separate common points.

Characteristics:

250 VAC / 5 A maximum.
24 VDC / 2 A maximum.

Rating (A)	Type	Reference
40 ... 160	Separate common points	1309 0001
40 ... 160	Linked common points	1309 0011



access_053_a

ATyS M

Motorised and automatic changeover switches
from 40 to 160 A

Accessories (continued)

Sealable cover

Use

It prevents access to the configuration panel of the ATyS M 6s.

Rating (A)	No. of poles	Reference
40 ... 160	2 P	1359 2000
40 ... 160	4 P	1359 0000



atysm_043_a_2_cat

Polycarbonate enclosure

Use

Dedicated to the implementation of a three-phase ATyS M, it enables easy access to a compact changeover solution.

Rating (A)	H x W x D (mm)	Reference
40 ... 160	385 x 385 x 193	1309 9006



atysm_001_a

Extension switch body

Use

Combined with the polycarbonate enclosure, the extension unit provides additional space to the enclosure in order to connect 70 mm² cables to the ATyS M.

Rating (A)	Reference
40 ... 160	1309 9007



atysm_009_a_1_x_cat

Residential enclosure

Use

Dedicated to the implementation of a single-phase ATyS M, it provides a compact IP41 changeover solution with easy access.

Rating (A)	H x W x D (mm)	Reference
40 ... 160	410 x 305 x 150	1309 9056



atysm_196_a_1_cat

Auto-transformer

Use

For use with ATyS M 6 in 400 VAC three-phase applications without a distributed neutral. As the ATyS M 6 has integrated measurement and power supply circuits, a neutral connection is required for 400 VAC three-phase applications. When no neutral connection is available this autotransformer (400/230 VAC, 400 VA) provides the 230 VAC required for the ATyS M 6 to function.

Rating (A)	Reference
40 ... 160	1599 4121



trafo_165_a_1

Double power supply - DPS

Use

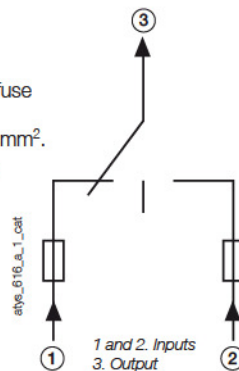
Provides 230 VAC to both ATyS M 3s power supply inputs, enabling remote transfer to any position with either incoming source available.

Input

- The input is considered "active" from 200 VAC.
- Maximum voltage: 288 VAC.
- Internal protection: each input is fuse protected 3.15 A.
- Connection on terminals: max. 6 mm².
- Modular device: 4 module width.

Input 1	Input 2	Output
230 VAC	0 VAC	230 VAC (Input 1)
0 VAC	230 VAC	230 VAC (Input 2)
230 VAC	230 VAC	230 VAC (Input 1)
0 VAC	0 VAC	0 VAC

Description of accessories	Reference
DPS: Double power supply for ATyS M 3s	1599 4001



atys_012_a_2_cat

Remote interfaces for ATyS M 6e

Use

To display source availability and position indication on the front of a panel.

Interfaces are powered from the ATyS M 6e, via the RJ45 connection cable.

Maximum connection distance: 3 m.

ATyS D10

To display source availability and position indication on the front panel of an enclosure.

Protection degree: IP21

ATyS D20

In addition to the functions of the ATyS D10, the D20 displays measurements and enables ATyS M 6e mode control and configuration from the front of a panel.

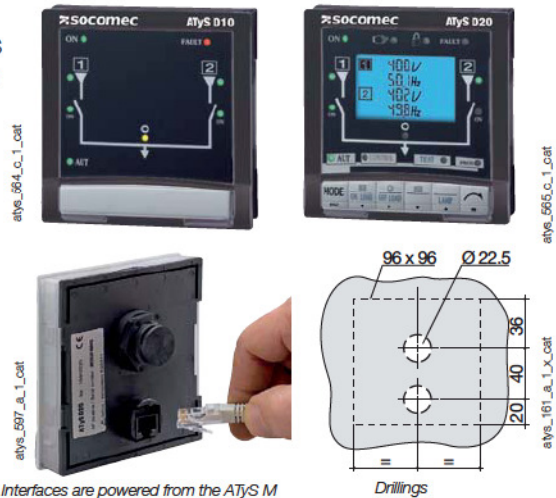
Protection degree: IP21

Door mounting

2 holes $\varnothing 22.5$.

ATyS M connection via RJ45 cable, not isolated.

Cable available as an accessory.



Interfaces are powered from the ATyS M

Drillings

Description of accessories	Reference
ATyS D10	1599 2010
ATyS D20	1599 2020

Connecting cable for remote interfaces

Use

To connect between a remote interface (type D10 or D20) and an ATyS M 6e.

Characteristics:

RJ45 8 wire straight-through, non isolated cable. Length 3m.

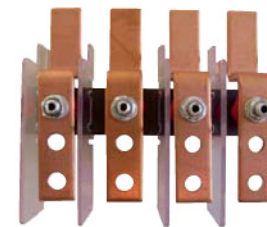


Type	Length	Reference
RJ45 cable	3 m	1599 2009

Power connection terminals

Use

The power connection terminals allow conversion of the cage terminals into bolt-on-type connection terminals, enabling connection of up to two 35mm² cables or one 70mm² cable. Each power connection terminal is provided with separation screens.



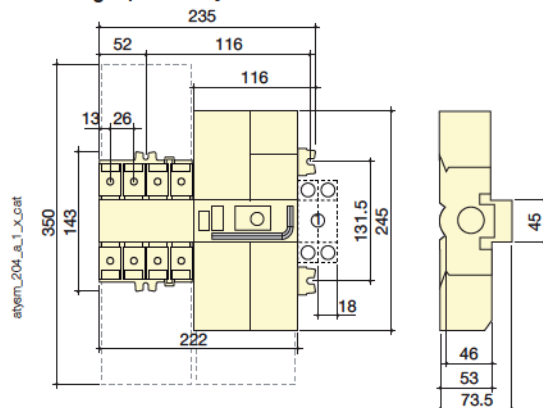
Rating (A)	Reference
40 ... 160	1399 4017 ⁽¹⁾

⁽¹⁾For complete conversion, order 3 times the reference.

Dimensions

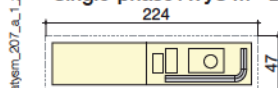
ATyS M 40 to 160 A

Single-phase ATyS M

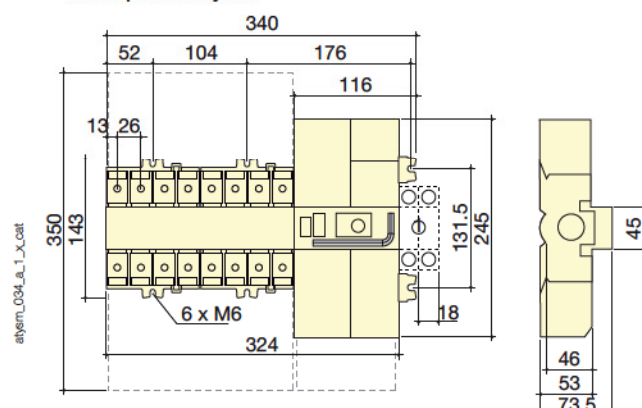


1. Auxiliary contact blocks (2 max).

Single-phase ATyS M - Door cut-out

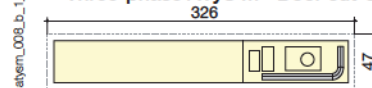


Three-phase ATyS M



1. Auxiliary contact blocks (2 max).

Three-phase ATyS M - Door cut-out

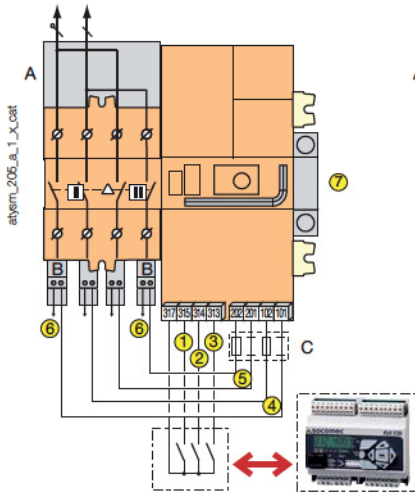


ATyS M

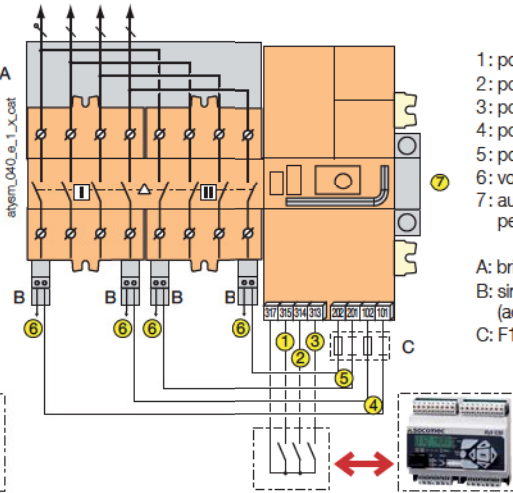
Motorised and automatic changeover switches
from 40 to 160 A

Terminals and connections

Single-phase ATyS M 3s



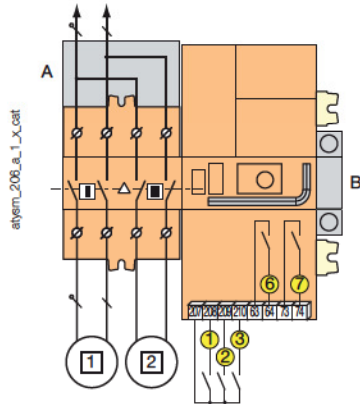
Three-phase ATyS M 3s



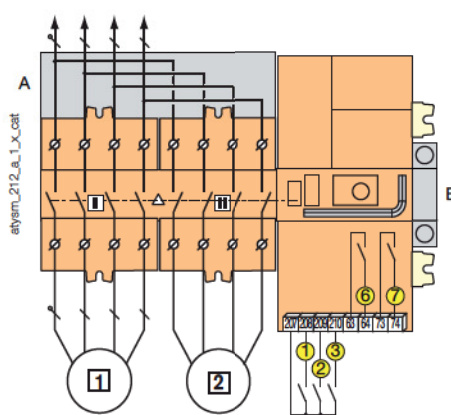
- 1: position I control
- 2: position II control
- 3: position 0 control
- 4: power supply I (230 VAC)
- 5: power supply II (230 VAC)
- 6: voltage tap
- 7: auxiliary contact block - 1 NO/NC contact per position I, 0, II (factory fitted)

- A: bridging bar (accessories)
- B: single-phase voltage sensing tap (accessories)
- C: F1 / F2 = fuse 10 A gG

Single-phase ATyS M 6s



Three-phase ATyS M 6s

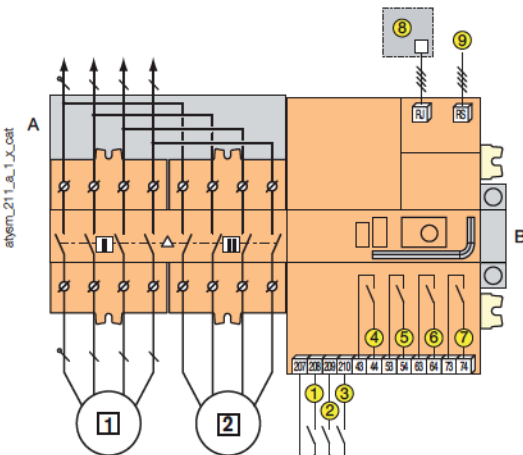


- 1 preferred source
- 2 alternate source

- 1: manual retransfer / priority change
- 2: test on load
- 3: automatic mode inhibition
- 6: relay for product availability
- 7: genset start / stop control

- A: bridging bar (accessories)
- B: auxiliary contact block - 1 NO/NC contact per position I, 0, II (accessories)

Three-phase ATyS M 6e



- 1 preferred source
- 2 alternate source

- 1 - 2 - 3: programmable inputs
- 4 - 5 - 6: programmable outputs
- 7: genset start / stop control
- 8: RJ 45 for connecting a ATyS D10/D20 remote interface
- 9: RS485 for communication on versions with COM.

- A: bridging bar (accessories)
- B: auxiliary contact block - 1 NO/NC contact per position I, 0, II (accessories)

Characteristics according to IEC 60947-3 and IEC 60947-6-1

40 to 160 A

Thermal current I_{th} at 40°C	40 A	63 A	80 A	100 A	125 A	160 A
Rated insulation voltage U_i (V) (power circuit)	800	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV) (power circuit)	6	6	6	6	6	6
Rated insulation voltage U_i (V) (operation circuit)	300	300	300	300	300	300
Rated impulse withstand voltage U_{imp} (kV) (operation circuit) - ATyS M 3s	4	4	4	4	4	4
Rated impulse withstand voltage U_{imp} (kV) (operation circuit) - ATyS M 6	2.5	2.5	2.5	2.5	2.5	2.5

 Rated operational currents I_o (A) according to IEC 60947-3

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	40/40	63/63	80/80	100/100	125/125	160/160
415 VAC	AC-21 A / AC-21 B	40/40	63/63	80/80	100/100	125/125	160/160
415 VAC	AC-22 A / AC-22 B	40/40	63/63	80/80	100/100	125/125	160/160
415 VAC	AC-23 A / AC-23 B	40/40	63/63	80/80	100/100	125/125	125/160
690 VAC ⁽⁵⁾	AC-21 A / AC-21 B	40/40	63/63	80/80	100/100	125/125	160/160
690 VAC ⁽⁵⁾	AC-22 A / AC-22 B	40/40	63/63	80/80	80/80	100/125	100/125
690 VAC ⁽⁵⁾	AC-23 A / AC-23 B	40/40	63/63	63/63	80/80	80/80	80/80

 Rated operational currents I_o (A) according to IEC 60947-6-1

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-31 A / AC-31 B	40/40	63/63	80/80	100/100	100/125	100/160
415 VAC	AC-32 A / AC-32 B	40/40	63/63	80/80	100/100	100/125	100/160
415 VAC	AC-33 A / AC-33 B	-/40	-/63	-/80	-/100	-/125	-/125

Fuse protected short-circuit withstand as per IEC 60947-3 at 415 VAC

Prospective short-circuit current (kA rms)	50	50	50	50	50	40
Associated fuse rating (A)	40	63	80	100	125	160

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s

Rated short-time withstand current 0.3s I_{cw} (kA rms)	7	7	7	7	7	7
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Short-circuit capacity (without protection)

Rated short-time withstand current 1 s. I_{cw} (kA rms)	4	4	4	4	4	4
Rated short-circuit making capacity I_{cm} (kA peak)	5.88	5.88	5.88	5.88	5.88	5.88

Connection

Minimum connection cross-section	10	10	10	10	10	10
Maximum Cu cable cross-section (mm ²)	70	70	70	70	70	70
Tightening torque (Nm)	5	5	5	5	5	5

Switching time (Standard setting)

I - 0 or II - 0 (ms) ⁽³⁾	45	45	45	45	45	45
I - II or II - I (ms) ⁽³⁾	180	180	180	180	180	180
Duration of "electrical blackout" I - II (ms) minimum	90	90	90	90	90	90

Power supply

Power supply voltage 230 VAC min / max (VAC) (ATyS M 3s and ATyS M 6s)	176/288	176/288	176/288	176/288	176/288	176/288
Power supply voltage 230 VAC min / max (VAC) (ATyS M 6e)	160/305	160/305	160/305	160/305	160/305	160/305

Control supply power demand

Nominal power (VA)	6	6	6	6	6	6
Max current under 230 VAC (A) - ATyS M 3s and M 6s	30	30	30	30	30	30
Max current under 230 VAC (A) - ATyS M 6e	20	20	20	20	20	20

Mechanical characteristics

Durability (number of operating cycles)	10 000	10 000	10 000	10 000	10 000	10 000
Weight of single-phase versions - without packaging (kg)	2.8	2.8	2.8	2.8	2.8	2.8
Weight of single-phase versions - with packaging (kg)	3.5	3.5	3.5	3.5	3.5	3.5
Weight of three-phase versions - without packaging (kg)	3.5	3.5	3.5	3.5	3.5	3.5
Weight of three-phase versions - with packaging (kg)	4.2	4.2	4.2	4.2	4.2	4.2

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

 (2) For a rated operational voltage $U_o = 400$ VAC.

 (3) Between the command given and reaching of position at U_n (under nominal conditions).

(4) Value for coordination with any circuit breaker that ensures tripping in less than 0.3s. For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

(5) Only on ATyS M 3s.

Services and technical assistance

> Our expertise extends to a complete offer of customised services such as technical site audit and solution specification, commissioning, training, maintenance, and project engineering.



ATyS S - ATyS Sd

Motorised changeover switches
from 40 to 125 A

Changeover
switches

new



Function

ATyS S is a range of 4 pole motorised changeover switches with positive break indication. They enable the on load transfer of two three-phase supplies via remote volt-free contacts, from either an external automatic controller, using pulse logic, or a switch. They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Extensive power supply range

The ATyS S is available in four supply versions, each with a broad range (+/-30%). The four versions are:

- 230 VAC single power supply,
- 2 x 230VAC dual power supply,
- 12 VDC power supply and
- 24/48 VDC power supply.

Safety and reliability

ATyS S products use stable position technology, ensuring constant pressure on the contacts and preventing premature faults. In addition, they do not require a power supply to maintain position, thus protecting their loads from voltage fluctuations.

Easy integration

ATyS S products can be easily installed inside enclosures. Their design, and in particular their compact size, enables integration within most 200 mm deep enclosures.

Simplified maintenance

Maintenance can be carried out easily under load, with manual operation still available. The control and motorisation section can be replaced simply by removing 4 screws, with no work required on the installation cabling.

ATyS Sd: Dual power supply

In addition to the functions offered by the ATyS S, the ATyS Sd incorporates supply redundancy without the need for additional wiring. This is obtained by integrating a double supply (2 independent supplies) directly within the product.

The solution for

- > Generator manufacturers.
- > Heating.
- > Air conditioning.
- > Ventilation.
- > Telecommunications.



Strong points

- > Extensive power supply range.
- > Safety and reliability.
- > Easy integration.
- > Simplified maintenance.
- > ATyS Sd Dual power supply.

Conformity to standards

- > IEC 60947-6-1
- > IEC 60947-3
- > GB 14048-11



Approvals and certifications⁽¹⁾



⁽¹⁾ Product reference on request.

References

Rating (A)	No. of poles	Power supply	ATyS S	Bridging bars	Terminal shrouds	Voltage tap	Terminal retainer	DIN rail
40 A	4 P	24/48 VDC	9506 4004	4 P 9509 4012	Source side 2 pieces 9594 4012 Load side 2 pieces 9594 9012	9599 4001	2 pieces 9599 4003	4 modules 9599 4002
	4 P	12 VDC	9505 4004					
	4 P	2 x 230 VAC	9513 4004					
	4 P	230 VAC	9503 4004					
63 A	4 P	24/48 VDC	9506 4006					
	4 P	12 VDC	9505 4006					
	4 P	2 x 230 VAC	9513 4006					
	4 P	230 VAC	9503 4006					
80 A	4 P	24/48 VDC	9506 4008					
	4 P	12 VDC	9505 4008					
	4 P	2 x 230 VAC	9513 4008					
	4 P	230 VAC	9503 4008					
100 A	4 P	24/48 VDC	9506 4010					
	4 P	12 VDC	9505 4010					
	4 P	2 x 230 VAC	9513 4010					
	4 P	230 VAC	9503 4010					
125 A	4 P	24/48 VDC	9506 4012					
	4 P	12 VDC	9505 4012					
	4 P	2 x 230 VAC	9513 4012					
	4 P	230 VAC	9503 4012					

ATyS S - ATyS Sd

Motorised changeover switches

from 40 to 125 A

Accessories

Bridging bars

Use

For bridging power terminals on the top or bottom side of the switch

Rating (A)	No. of poles	Reference
40 ... 125	4 P	9509 4012



atyS-s_019_a

Voltage tap

Use

Enables the required power supply for ATyS S 230 VAC and ATyS Sd products to be tapped directly from the product's incoming power terminals. Can also be utilised in applications without neutral, to provide 400 VAC to the autotransformer.

Rating (A)	Reference
40 ... 125	9509 4001



atyS-s_022_a

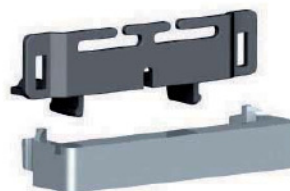
Terminal retainer

Use

These clips have a dual function:

- To prevent direct access to the power supply and control terminals and
- To secure these connector terminals.

Rating (A)	Pack	Reference
40 ... 125	2 pieces	9599 4003



atyS-s_021_a

Terminal shrouds

Use

IP2X protection against direct contact with terminals or connecting parts.

Terminal shrouds for the source side

Rating (A)	Pack	Reference
40 ... 125	2 pieces	9594 4012

Terminal shrouds for the load side

Rating (A)	Pack	Reference
40 ... 125	2 pieces	9594 9012



atyS-s_020_a

atyS-s_020_a

Autotransformer 400/230 VAC

Use

For applications without neutral, this autotransformer provides the 230 VAC required to power ATyS S 230 VAC and ATyS Sd products.

Rating (A)	Reference
40 ... 125	9599 4004

DIN rail

Use

This 4-module DIN rail can be installed directly on the front of the ATyS S and can be utilised, for example, for the installation of a surge protection device.

Rating (A)	Reference
40 ... 125	9599 4002

Surge protection device

Use

Provides transient overvoltage protection for one of the incoming supply sources. This device can be installed to the front of the ATyS S, by way of its DIN rail accessory.

Rating (A)	Reference
40 ... 125	9599 4005

Characteristics according to IEC 60947-3 and IEC 60947-6-1

40 to 125 A

Thermal current I_{th} at 40°C	40 A	63 A	80 A	100 A	125 A
Rated insulation voltage U_i (V) (power circuit)	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV) (power circuit)	6	6	6	6	6
Rated insulation voltage U_i (V) (operation circuit)	300	300	300	300	300
Rated impulse withstand voltage U_{imp} (kV) (operation circuit)	4	4	4	4	4

Rated operational currents I_o (A) according to IEC 60947-3

Rated voltage	Utilisation category	A/B	A/B	A/B	A/B	A/B
415 VAC	AC-20 A / AC-20 B	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-21 A / AC-21 B	40/40	63/63	80/80	100/100	100/125
415 VAC	AC-22 A / AC-22 B	40/40	63/63	80/80	100/100	100/100
415 VAC	AC-23 A / AC-23 B	-/40	-/63	-/63	-/63	-/63

Rated operational currents I_o (A) according to IEC 60947-6-1

Rated voltage	Utilisation category	A/B	A/B	A/B	A/B	A/B
415 VAC	AC-31 B	40	63	80	100	125
415 VAC	AC-32 B	40	63	80	80	80

Fuse protected short-circuit withstand (kA rms prospective)

Prospective short-circuit current (kA rms)	50	50	50	25	15
Associated fuse rating (A)	40	63	80	100	125

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s⁽¹⁾

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	3.5	3.5	3.5	3.5	3.5
--	-----	-----	-----	-----	-----

Short-circuit capacity (without protection)

Rated short-time withstand current 1 s. I_{cw} (kA rms)	2.5	2.5	2.5	2.5	2.5
Rated short-circuit making capacity	4.5	4.5	4.5	4.5	4.5

Connection

Maximum Cu cable cross-section (mm ²)	50	50	50	50	50
Tightening torque mini / maxi (Nm)	1.2/3	1.2/3	1.2/3	1.2/3	1.2/3

Switching time (Standard setting)

I - 0 or II - 0 (ms)	500	500	500	500	500
I - II or II - I (ms)	1000	1000	1000	1000	1000
Duration of "electrical blackout" I - II (ms) minimum	500	500	500	500	500

Power supply

Power supply 12 VDC min / max (VDC)	9/15	9/15	9/15	9/15	9/15
Power supply 24/48 VDC min / max (VDC)	17/62	17/62	17/62	17/62	17/62
Power supply 230 VAC min / max (VAC)	160/310	160/310	160/310	160/310	160/310

Control supply power demand

Power supply 12 VDC inrush / nominal (VA)	200/40	200/40	200/40	200/40	200/40
Power supply 24/48 VDC inrush / nominal (VA)	200/40	200/40	200/40	200/40	200/40
Power supply 230 VAC inrush / nominal (VA)	200/40	200/40	200/40	200/40	200/40

Mechanical characteristics

Durability (number of operating cycles)	10 000	10 000	10 000	10 000	10 000
Weight ATyS S and ATyS Sd 4 P (kg)	3	3	3	3	3

(1) Value for coordination with any circuit breaker that ensures tripping in less than 0.3s. For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

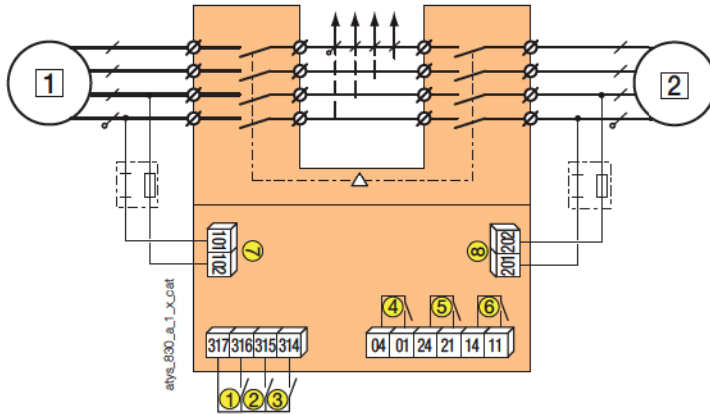
ATyS S - ATyS Sd

Motorised changeover switches

from 40 to 125 A

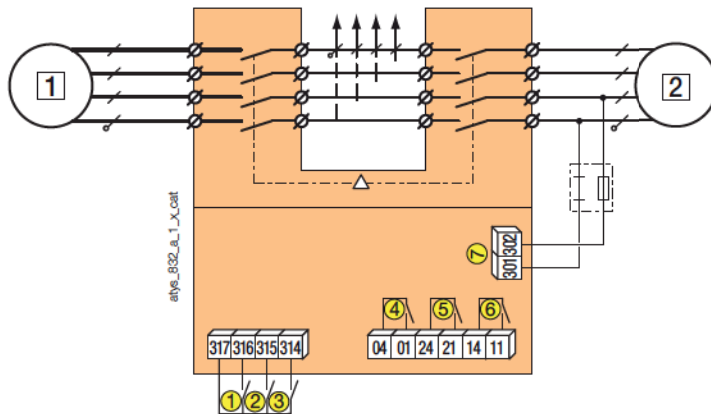
Terminals and connections

ATyS Sd: 2 x 230 VAC



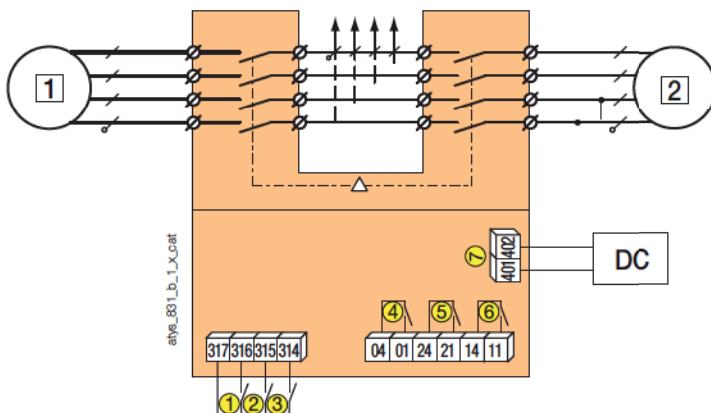
- 1** preferred source
- 2** alternate source
- 1: position 0 control
- 2: position I control
- 3: position II control
- 4: auxiliary contact, closed when the switch is in position 0
- 5: auxiliary contact, closed when the switch is in position II
- 6: auxiliary contact, closed when the switch is in position I
- 7: power supply kit I: 230 VAC (160-310 VAC)
- 8: power supply kit II: 230 VAC (160-310 VAC)

ATyS S: 230 VAC



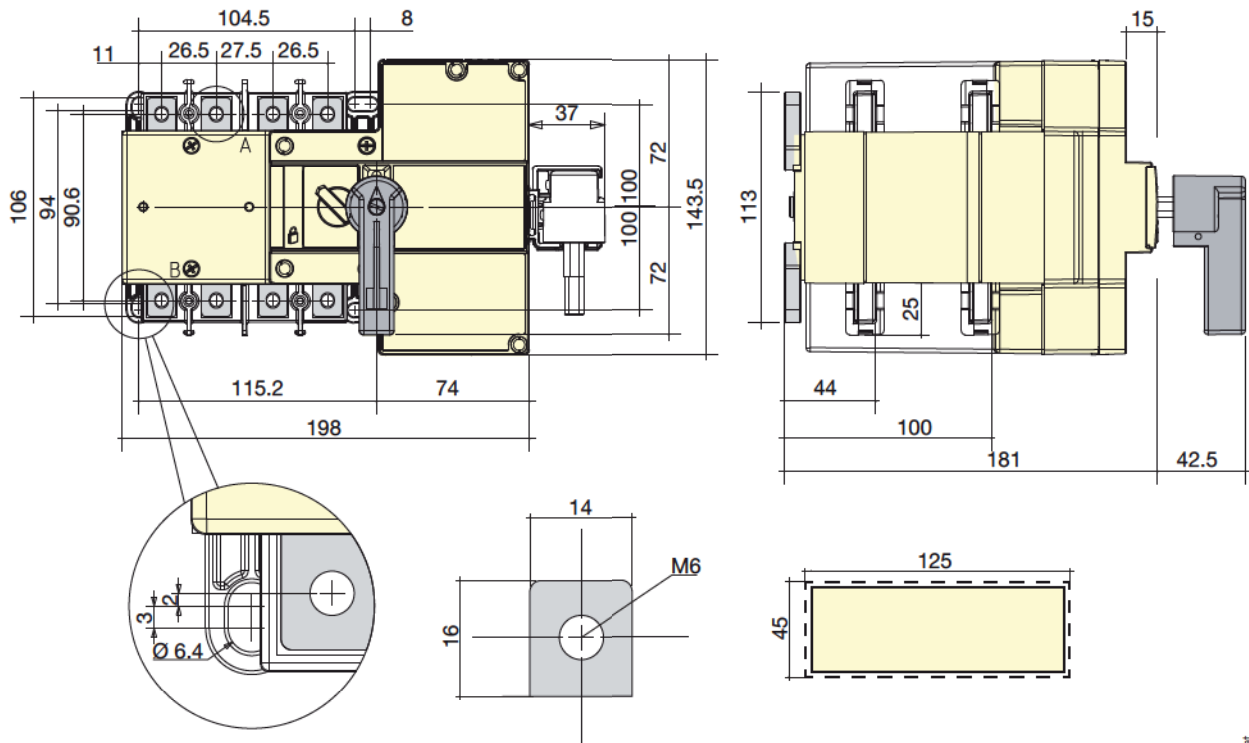
- 1** preferred source
- 2** alternate source
- 1: position 0 control
- 2: position I control
- 3: position II control
- 4: auxiliary contact, closed when the switch is in position 0
- 5: auxiliary contact, closed when the switch is in position II
- 6: auxiliary contact, closed when the switch is in position I
- 7: power supply kit: 230 VAC (160-310 VAC)

ATyS S DC version



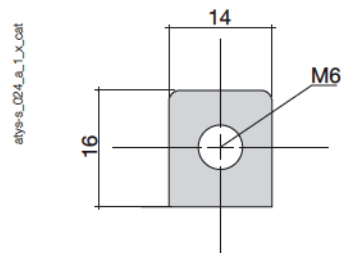
- 1** preferred source
- 2** alternate source
- 1: position 0 control
- 2: position I control
- 3: position II control
- 4: auxiliary contact, closed when the switch is in position 0
- 5: auxiliary contact, closed when the switch is in position II
- 6: auxiliary contact, closed when the switch is in position I
- 7: power supply 12 VDC (9-15 VDC) or 24 VDC / 48 VDC (17-62 VDC) depending on the version.

Dimensions



atyS_024_a_1_x_cat

Connection terminal



atyS_024_a_1_x_cat



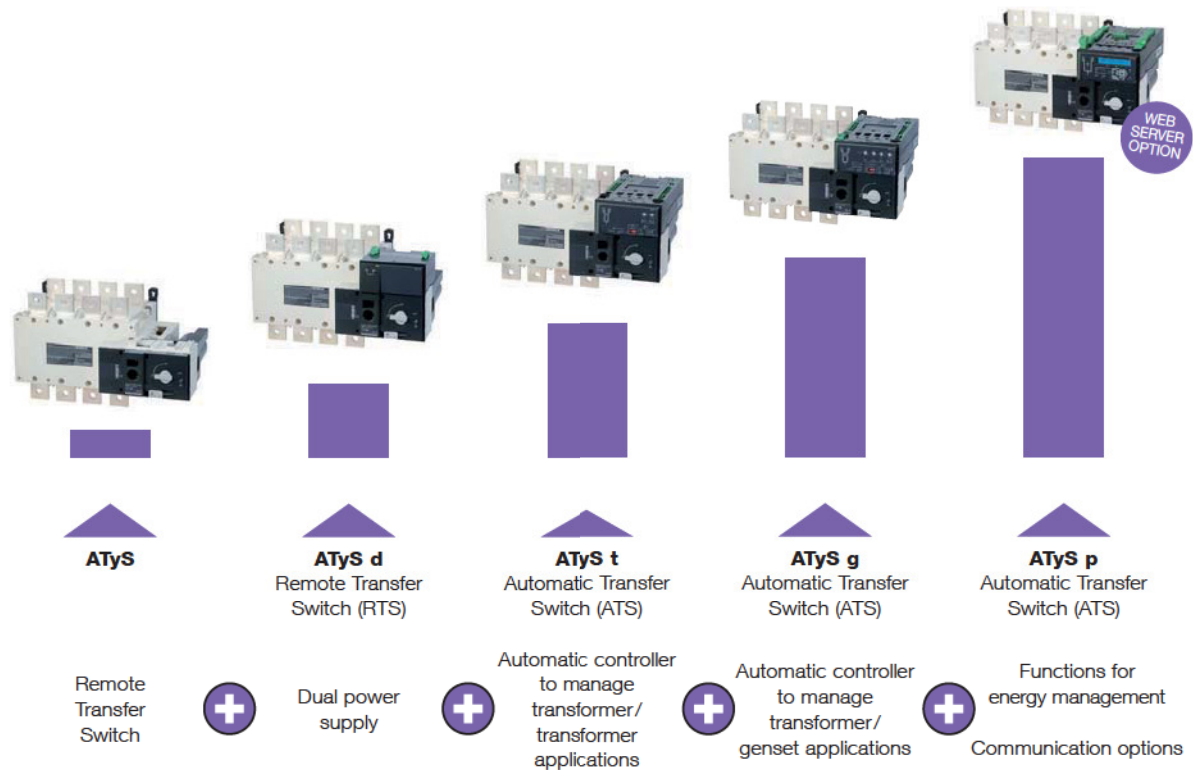
new The new ATyS range: intuitive, safe and robust devices

Changeover switches

A complete range of motorised and automatic changeover switches from 125 to 3200 A

To meet the increasing demands of its users, the ATyS range is constantly evolving to offer new functions.

Five models are available to perfectly meet the needs of your application.



ATyS p special functions:

- Automatic load shedding: Load management based on source power.
- Power and energy monitoring: Measurement of kW, kVar, kVA, kWh, kVarh, kVAh.
- Installation monitoring: Time-stamped event recording, remote access via the Webserver.
- Generator management: Programmed periodic generator starting (Engine Exerciser), on load and off load tests.
- EASY CONFIG configuration software.

Product description	Existing range	New range
Motorised changeover switch with single power supply	ATyS 3s 1523 YXXX*	ATyS 9523 YXXX*
Motorised changeover switch with double power supply	ATyS 3e 1533 YXXX*	ATyS d 9533 YXXX*
Automatic changeover switch for transformer/transformer applications; potentiometer configuration	not available	ATyS t 9543 YXXX*
Automatic changeover switch for transformer/generator applications; potentiometer configuration	not available	ATyS g 9553 YXXX*
Automatic changeover switch for any application, with measurement / configuration display + keypad	ATyS 6e 1563 YXXX*	See ATyS t, ATyS g or ATyS p
Automatic changeover switch for any application, with measurement/configuration display + keypad and power management functions	ATyS 6m 1573 YXXX*	ATyS p 9573 YXXX*

*YXXX:

Y = 3 for a 3 pole device and 4 for a 4 pole device.

XXX =

012: 125 A	050: 500 A	180: 1800 A
016: 160 A	063: 630 A	200: 2000 A
020: 200 A	080: 800 A	250: 2500 A
025: 250 A	100: 1000 A	320: 3200 A
031: 315 A	125: 1250 A	
040: 400 A	160: 1600 A	

The advantages

Safe operation

- Permanent indication of product availability (Watchdog relay).
- Positive break indication.
- Mechanical position interlocking.
- Padlocked mode to secure maintenance operations (lockout).
- Secure access to the product configuration.

Robust integrated solution

A single product with all functions:

- Integrated and tested solution: Components factory assembled and wired.
- Greater reliability: Compliance with IEC 60947-6-1, the standard governing changeover switches.

Proven SOCOMEC technology:

- Combination of two "back-to-back" PC (load break switch) class switches.
- Switching based on stable positions guaranteeing constant pressure on the contacts at all times.
- SIRCO contact technology used in numerous products for over 40 years.

Intuitive use

- Manual emergency control: The product can be controlled **quickly and safely** using an emergency handle (motor installed or removed).
- Simple selection of operating mode (Auto/Manual) using an integrated selector.

Rapid commissioning

- **ATyS** and **ATyS d**: No configuration necessary.
- **ATyS t** and **ATyS g**: Configuration in just a few minutes using a screwdriver.
- **ATyS p**: Simplified configuration (EASY CONFIG software and LCD screen on the device).
- **ATyS t, g, p**: Auto-configuration of the network parameters.

Easy maintenance

- Self-cleaning sliding contacts.
- Easy replacement of the motor and electronic unit, even on load.

Improved on load characteristics

IEC 60947-6-1/GB 14048-11

- AC 31B - up to 3200 A
- AC 32B - up to 2000 A
- AC 33B - up to 1250 A

IEC 60947-3

- AC 23B - up to 1250 A

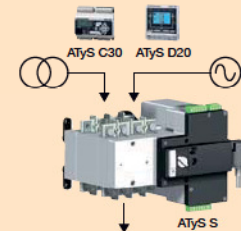
Extended power supply range

- from 166 to 332 VAC.

Also available: ATyS S from 40 to 125 A

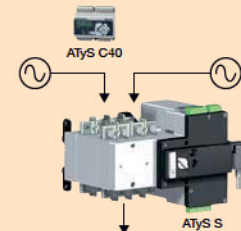
Specially developed for manufacturers of small generators, the ATyS S is a **motorised changeover switch** which enables on load switching between two power supply sources of up to 125 A (< 90 kVA).

• Transformer/generator



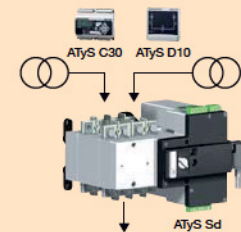
ATyS-S 027 B

• Generator/generator



ATyS-S 028 B

• Transformer/transformer



ATyS-S 029 B

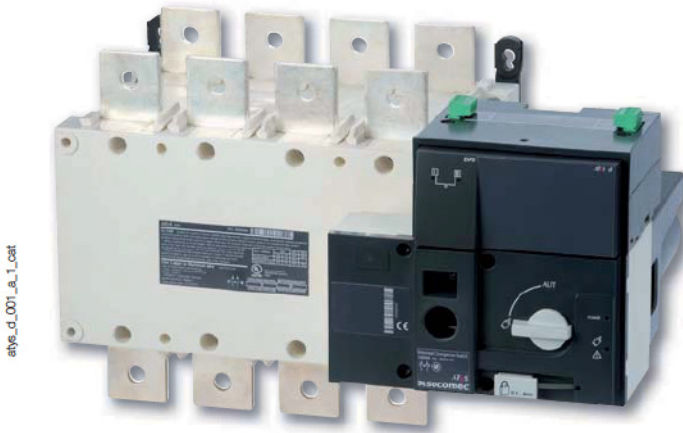


ATyS - ATyS d

Motorised changeover switches
from 125 to 3200 A

Changeover
switches

new



atyse_d_001_aa_1_cat

Function

The **ATyS** and **ATyS d** are three-phase motorised changeover switches with positive break indication. They enable the on load transfer of two three-phase supplies via remote volt-free contacts, from either an external automatic controller, using pulse logic, or a switch.

They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Watchdog relay to check product availability

ATyS and ATyS d products are equipped with a Watchdog relay which constantly monitors the product, thereby securing your installation.

This relay informs the user of the product's availability, i.e. whether it is operational and ready for source switching.

Integrated auxiliary contacts

As part of the product monitoring function, the ATyS and ATyS d enable the transmission of information relating to their position.

This is possible thanks to the standard integration of an auxiliary contact for each position.

Extended power supply range

ATyS and ATyS d products offer greater availability thanks to their extensive power supply range of 208 to 277 VAC \pm 20%.

ATyS d: ATyS with integrated DPS

In addition to the functions offered by the ATyS, the ATyS d incorporates supply redundancy without the need for additional wiring. This is obtained by integrating a double supply (2 independent supplies) directly within the product.

The solution for

- > Non critical buildings.
- > OEM.



Strong points

- > Watchdog relay to check product availability
- > Integrated auxiliary contacts.
- > Extended power supply range.
- > ATyS d: ATyS with integrated DPS.

Conformity to standards

- > IEC 60947-6-1
- > IEC 60947-3



Enclosed solution

- > Please consult us.

External automatic controller

- > The ATyS and ATyS d are compatible with our **ATyS C30 external controllers** (for transformer/transformer and transformer/generator applications) and **ATyS C40 controllers** (for generator/generator applications).

References

Rating (A)	No. of poles	ATyS	ATyS d ⁽⁶⁾	Bridging bars	Terminal shrouds	Terminal screens	Auxiliary contact	3 position padlocking	Autotransformer			
125 A	3 P	9523 3012	9533 3012	4109 0019	3 P 2694 3014 ⁽²⁾ 4 P 2694 4014 ⁽²⁾	3 P 1509 3012 4 P 1509 4012						
	4 P	9523 4012	9533 4012									
180 A	3 P	9523 3016	9533 3016									
	4 P	9523 4016	9533 4016									
200 A	3 P	9523 3020	9533 3020									
	4 P	9523 4020	9533 4020									
250 A	3 P	9523 3025	9533 3025		4109 0025	3 P 2694 3021 ⁽²⁾ 4 P 2694 4021 ⁽²⁾				3 P 1509 3025 4 P 1509 4025	1599 0002 ⁽⁴⁾	1599 0003 ⁽⁴⁾
	4 P	9523 4025	9533 4025									
315 A	3 P	9523 3031	9533 3031		4109 0039							
	4 P	9523 4031	9533 4031									
400 A	3 P	9523 3040	9533 3040									
	4 P	9523 4040	9533 4040									
500 A	3 P	9523 3050	9533 3050	4109 0050								
	4 P	9523 4050	9533 4050									
630 A	3 P	9523 3063	9533 3063	4109 0063	3 P 2694 3051 ⁽²⁾ 4 P 2694 4051 ⁽²⁾		3 P 1509 3063 ⁽³⁾ 4 P 1509 4063 ⁽³⁾	1599 0032 ⁽⁴⁾	400/230 VAC 1599 4064			
	4 P	9523 4063	9533 4063									
800 A	3 P	9523 3080	9533 3080	4109 0080								
	4 P	9523 4080	9533 4080									
1000 A	3 P	9523 3100	9533 3100									
	4 P	9523 4100	9533 4100									
1250 A	3 P	9523 3120	9533 3120	4109 0120								
	4 P	9523 4120	9533 4120									
1600 A	3 P	9523 3160	9533 3160	4109 0160		3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾				1599 0004 ⁽⁴⁾		
	4 P	9523 4160	9533 4160									
1800 A	3 P	9523 3180	9533 3180									
	4 P	9523 4180	9533 4180									
2000 A	3 P	9523 3200	9533 3200	(1)	included		included					
	4 P	9523 4200	9533 4200									
2500 A	3 P	9523 3250	9533 3250									
	4 P	9523 4250	9533 4250									
3200 A	3 P	9523 3320	9533 3320									
	4 P	9523 4320	9533 4320									

(1) See "Copper bar connection kits" page 393.

(2) To fully shroud front, rear, top and bottom 4 references required.

To shroud front switch top and bottom 2 references required.

(3) 2 pieces: one for top side and another for bottom side.

(4) Factory mounting only.

(5) An optional key operated Auto/Manual selector is available on request.

If required, this option must be requested when ordering the switch; please refer to "Auto/Manual key selector" in the accessory section.

Technical information

- > Accessories: see page 392.
- > Characteristics: see page 398.
- > Terminals and connections: see page 400.
- > Dimensions: see page 402.

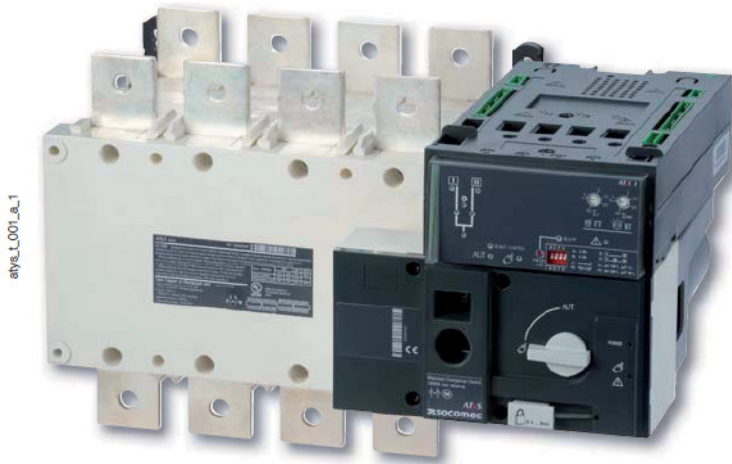


ATyS t

Automatic changeover switches
from 125 to 3200 A

Changeover
switches

new



atvs_L001_a_1

Function

ATyS t is a range of three-phase automatic changeover switches with positive break indication. They incorporate all the functions offered by the ATyS d, as well as functions intended for **transformer/transformer** applications.

In automatic mode they enable the monitoring of, and the on load changeover switching between, two power supply sources, in accordance with the parameters configured via two potentiometers and four DIP switches.

They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Rapid commissioning

ATyS t switches offer significant time saving during commissioning (process takes 2 to 3 minutes). Because they have only two potentiometers and four DIP switches, a simple screwdriver is all you need to configure the parameters.

For added simplicity, they also offer an autoconfiguration function which enables automatic adjustment of the rated voltage and frequency.

Functions adapted to transformer/transformer applications

ATyS t products are automatic changeover switches intended specifically for transformer/transformer applications. Their integrated controller has been designed to provide all the functions necessary for these applications, including monitoring the voltage and frequency of both sources, for three-phase and single-phase networks.

The solution for

- > Transformer/Transformer applications.



Strong points

- > Rapid commissioning.
- > Functions adapted to transformer/transformer applications.

Conformity to standards

- > IEC 60947-6-1
- > IEC 60947-3



Enclosed solution

- > Please consult us.

References

Rating (A)	No. of poles	ATyS t ⁽⁵⁾	Bridging bars	Terminal shrouds	Terminal screens	Auxiliary contact	3 position padlocking	Autotransformer										
125 A	3 P	9543 3012	4109 0019	3 P 2694 3014 ⁽²⁾ 4 P 2694 4014 ⁽²⁾	3 P 1509 3012 4 P 1509 4012													
	4 P	9543 4012																
160 A	3 P	9543 3016																
	4 P	9543 4016																
200 A	3 P	9543 3020																
	4 P	9543 4020																
250 A	3 P	9543 3025							4109 0025	3 P 2694 3021 ⁽²⁾ 4 P 2694 4021 ⁽²⁾	3 P 1509 3025 4 P 1509 4025	1599 0002 ⁽⁴⁾	1599 0003 ⁽⁴⁾					
	4 P	9543 4025																
315 A	3 P	9543 3031	4109 0039															
	4 P	9543 4031																
400 A	3 P	9543 3040																
	4 P	9543 4040																
500 A	3 P	9543 3050	4109 0050	3 P 2694 3051 ⁽²⁾ 4 P 2694 4051 ⁽²⁾	3 P 1509 3063 ⁽³⁾ 4 P 1509 4063 ⁽³⁾													
	4 P	9543 4050																
630 A	3 P	9543 3063	4109 0063															
	4 P	9543 4063																
800 A	3 P	9543 3080	4109 0080							3 P 1509 3080 ⁽³⁾ 4 P 1509 4080 ⁽³⁾			400/230 VAC 1599 4064					
	4 P	9543 4080																
1000 A	3 P	9543 3100																
	4 P	9543 4100																
1250 A	3 P	9543 3120	4109 0120			1599 0032 ⁽⁴⁾												
	4 P	9543 4120																
1600 A	3 P	9543 3160	4109 0160												3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾			
	4 P	9543 4160																
1800 A	3 P	9543 3180																
	4 P	9543 4180																
2000 A	3 P	9543 3200	(1)							included								
	4 P	9543 4200																
2500 A	3 P	9543 3250																
	4 P	9543 4250																
3200 A	3 P	9543 3320																
	4 P	9543 4320																

(1) See "Copper bar connection kits" page 393.

(2) To fully shroud front, rear, top and bottom 4 references required.

To shroud front switch top and bottom 2 references required.

(3) 2 pieces: one for top side and another for bottom side.

(4) Factory mounting only.

(5) An optional key operated Auto/Manual selector is available on request.

If required, this option must be requested when ordering the switch; please refer to "Auto/Manual key selector" in the accessory section.

Technical information

- > Accessories: see page 392.
- > Characteristics: see page 398.
- > Terminals and connections: see page 400.
- > Dimensions: see page 402.

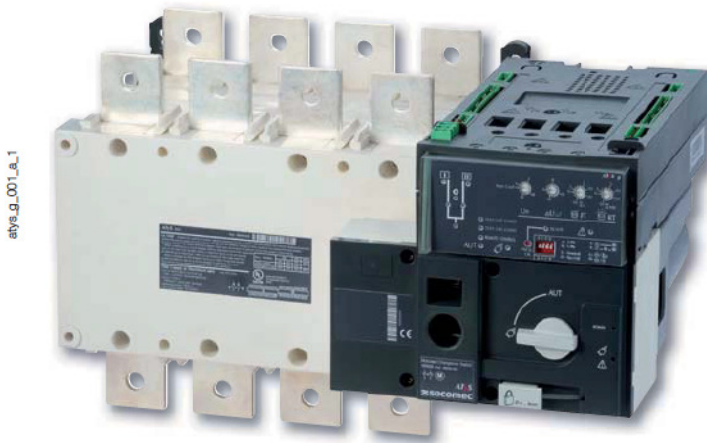


ATyS g

Automatic changeover switches
from 125 to 3200 A

Changeover
switches

new



atySg_001_a_1

Function

ATyS g is a range of three-phase automatic changeover switches with positive break indication. They incorporate all the functions offered by the ATyS d, as well as functions intended for **transformer/generator** applications.

In automatic mode they enable the monitoring of, and the on load changeover switching between, two power supply sources, in accordance with the parameters configured via four potentiometers and four DIP switches.

They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Rapid commissioning

ATyS g switches offer significant time saving during commissioning (process takes approximately 5 minutes). Because they have only four potentiometers and four DIP switches, a screwdriver is all that is needed to configure the parameters.

For added simplicity, they also offer an autoconfiguration function which enables automatic adjustment of the rated voltage and frequency.

Functions adapted to transformer/generator applications

ATyS g products are automatic changeover switches intended specifically for **transformer/generator** applications. Their integrated controller has been designed to provide all the functions necessary for these applications, including monitoring the voltage and frequency of both sources, for three-phase and single-phase networks.

Generator test functions

To ensure compatibility with transformer/generator applications, ATyS g switches integrate the following generator test functions:

Test on load and test off load.

The solution for

- > Transformer/generator applications.



Strong points

- > Rapid commissioning.
- > Functions adapted to transformer/genset applications.
- > Generator test functions.

Conformity to standards

- > IEC 60947-6-1
- > IEC 60947-3



Enclosed solution

- > Please consult us.

References

Rating (A)	No. of poles	ATyS g ⁽⁶⁾	Bridging bars	Terminal shrouds	Terminal screens	Auxiliary contact	3 position padlocking	Autotransformer										
125 A	3 P	9553 3012	4109 0019	3 P 2694 3014 ⁽²⁾ 4 P 2694 4014 ⁽²⁾	3 P 1509 3012 4 P 1509 4012													
	4 P	9553 4012																
160 A	3 P	9553 3016																
	4 P	9553 4016																
200 A	3 P	9553 3020																
	4 P	9553 4020																
250 A	3 P	9553 3025							4109 0025	3 P 2694 3021 ⁽²⁾ 4 P 2694 4021 ⁽²⁾	3 P 1509 3025 4 P 1509 4025	1599 0002 ⁽⁴⁾	1599 0003 ⁽⁴⁾					
	4 P	9553 4025																
315 A	3 P	9553 3031							4109 0039									
	4 P	9553 4031																
400 A	3 P	9553 3040																
	4 P	9553 4040																
500 A	3 P	9553 3050	4109 0050	3 P 2694 3051 ⁽²⁾ 4 P 2694 4051 ⁽²⁾	3 P 1509 3063 ⁽³⁾ 4 P 1509 4063 ⁽³⁾													
	4 P	9553 4050																
630 A	3 P	9553 3063	4109 0063															
	4 P	9553 4063																
800 A	3 P	9553 3080	4109 0080							3 P 1509 3080 ⁽³⁾ 4 P 1509 4080 ⁽³⁾			400/230 VAC 1599 4064					
	4 P	9553 4080																
1000 A	3 P	9553 3100																
	4 P	9553 4100																
1250 A	3 P	9553 3120	4109 0120													1599 0032 ⁽⁴⁾		
	4 P	9553 4120																
1600 A	3 P	9553 3160	4109 160		3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾													
	4 P	9553 4160																
1800 A	3 P	9553 3180																
	4 P	9553 4180																
2000 A	3 P	9553 3200	(1)							included	included							
	4 P	9553 4200																
2500 A	3 P	9553 3250																
	4 P	9553 4250																
3200 A	3 P	9553 3320																
	4 P	9553 4320																

(1) See "Copper bar connection kits" page 393.

(2) To fully shroud front, rear, top and bottom 4 references required.
To shroud front switch top and bottom 2 references required.

(3) 2 pieces: one for top side and another for bottom side.

(4) Factory mounting only.

(5) An optional key operated Auto/Manual selector is available on request.
If required, this option must be requested when ordering the switch;
please refer to "Auto/Manual key selector" in the accessory section.

Technical information

- > Accessories: see page 392.
- > Characteristics: see page 398.
- > Terminals and connections: see page 400.
- > Dimensions: see page 402.



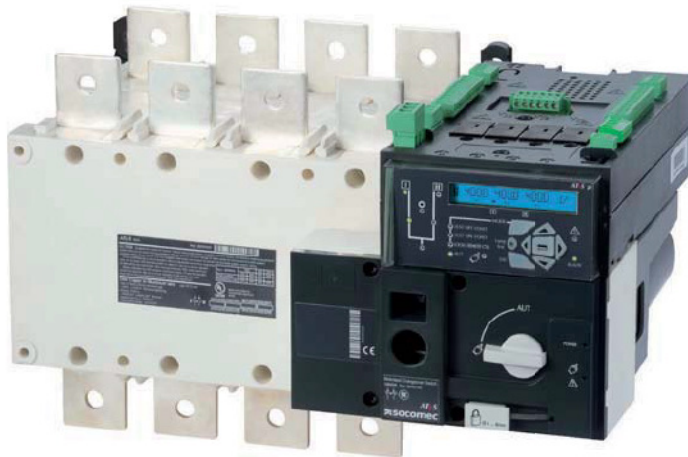
ATyS p

Automatic changeover switches
from 125 to 3200 A

Changeover
switches

new

aty_s_003_lb_1_cat



Function

ATyS p is a range of three-phase automatic changeover switches with positive break indication. They incorporate all the functions offered by the ATyS g, as well as functions designed for **power management and enabling communication**.

In automatic mode they enable the monitoring of, and the on load changeover switching between, two power supply sources, in accordance with the parameters configured via pushbuttons and an LCD screen.

They are intended for use in low voltage power systems where interruption of the load supply is acceptable during transfer.

Advantages

Recording of events

ATyS p switches enable effective monitoring of your installation thanks to timestamped event recording. Events can be retrieved and read via the communication system.

Optional communication modules

The ATyS p offers communication functions thanks to the addition of optional modules, such as the RS485 module for Modbus communication or the Ethernet module, which includes a Webserver.

Configuration software

Software (Easyconfig) is available enabling the ATyS p parameters to be easily configured and the existing configuration to be saved.

Power measurements

ATyS p products are particularly suited to energy management and monitoring. In addition to their integrated power and energy measurement functions, programmable inputs/outputs can be utilised to control load shedding based on a load level or tariff.

Generator periodic startup programming (option)

ATyS p switches offer additional functions for maintenance. They include the programmed generator starting function which allows the starting dates and operating times to be configured.

The solution for

- > Applications requiring power management and communication.



Strong points

- > Optional communication modules.
- > Recording of events.
- > Power measurements.
- > Possibility to set periodic genset startup.

Conformity to standards

- > IEC 60947-6-1
- > IEC 60947-3



Enclosed solution

- > Please consult us.

Webserver

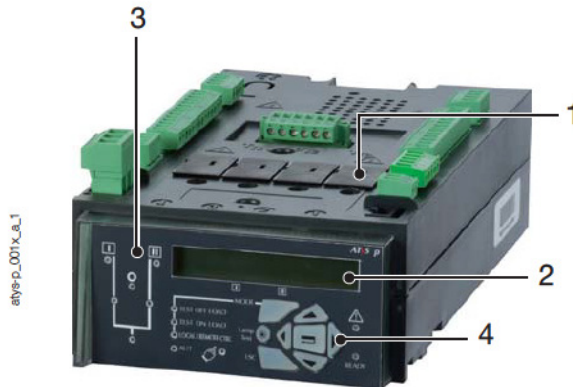
The Webserver function comprises HTML pages embedded in the Ethernet communication module.

These pages can be accessed via an internet browser, simply by entering the IP address.

The webserver offers the following functionalities:

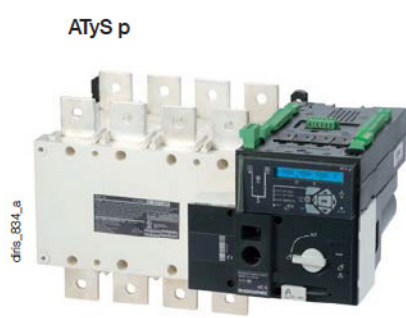
- > Display of source status and switch position.
- > Display of the main measurements.
- > Extraction of the latest logged events.
- > Display of the product configuration.

Front panel









1. Slots for optional plug-in modules.
2. Backlit LCD display.
3. Source availability and position indication LEDs.
4. Pushbuttons for programming and mode selection.

Plug-in modules



ATyS p

Number of usable modules per product:
A maximum of four modules can be fitted to each ATyS p, however with the installation of either Ethernet communication module only two additional modules can be installed.
Only one pulse output, one analogue output and one communication module can be installed.

 dfrs_447_a_1_cat	<p>RS485 JBUS/MODBUS® communication</p> <ul style="list-style-type: none"> • RS485 link with JBUS / MODBUS® protocol (speed up to 38400 bauds).
 dfrs_449_a_1_cat	<p>2 inputs - 2 outputs</p> <ul style="list-style-type: none"> • Each module has 2 programmable inputs and 2 programmable outputs available.
 dfrs_777_a_1_cat	<p>Ethernet communication</p> <ul style="list-style-type: none"> • Ethernet link with MODBUS/TCP or JBUS/MODBUS RTU over TCP. • Embedded Ethernet Webserver software.
 dfrs_778_a_1_cat	<p>Ethernet communication with RS485 JBUS/MODBUS gateway</p> <ul style="list-style-type: none"> • Ethernet link with MODBUS/TCP or JBUS/MODBUS RTU over TCP. • Connection of 1 to 247 RS485 JBUS/MODBUS slaves. • Embedded Ethernet Webserver software.
 dfrs_448_a_1_cat	<p>Analogue outputs</p> <ul style="list-style-type: none"> • Outputs assignable to: 3I, In, 3V, 3U, F, ±ΣP, ±ΣQ, ΣS.
 dfrs_445_a_1_cat	<p>Pulse outputs</p> <ul style="list-style-type: none"> • 2 configurable pulse outputs (type, weight and duration) on ± kWh, ±kvarh and kWh.

References

Rating (A)	No. of poles	ATyS p ⁽⁶⁾	Bridging bars	Terminal shrouds	Terminal screens	Optional modules	Auxiliary contact	Autotransformer								
125 A	3 P	9573 3012	4109 0019	3 P 2694 3014 ⁽²⁾ 4 P 2694 4014 ⁽²⁾	3 P 1509 3012 4 P 1509 4012											
	4 P	9573 4012														
180 A	3 P	9573 3016														
	4 P	9573 4016														
200 A	3 P	9573 3020							4109 0025				1599 0002 ⁽⁴⁾			
	4 P	9573 4020														
250 A	3 P	9573 3025	4109 0039													
	4 P	9573 4025														
315 A	3 P	9573 3031	4109 0039	3 P 2694 3021 ⁽²⁾ 4 P 2694 4021 ⁽²⁾	3 P 1509 3025 4 P 1509 4025	RS485 JBUS/ MODBUS communication 4825 0092										
	4 P	9573 4031														
400 A	3 P	9573 3040	4109 0050						2 inputs / 2 outputs 4825 0094							
	4 P	9573 4040														
500 A	3 P	9573 3050	4109 0063						3 P 2694 3051 ⁽²⁾ 4 P 2694 4051 ⁽²⁾			3 P 1509 3063 ⁽³⁾ 4 P 1509 4063 ⁽³⁾	Ethernet communication 4825 0203		400/230 VAC 1599 4064	
	4 P	9573 4050														
630 A	3 P	9573 3063	4109 0080					Ethernet communication + RS485 MODBUS gateway 4825 0204								
	4 P	9573 4063														
800 A	3 P	9573 3080	4109 0120					Analogue outputs 4825 0093								
	4 P	9573 4080														
1000 A	3 P	9573 3100	4109 0160					3 P 1509 3080 ⁽³⁾ 4 P 1509 4080 ⁽³⁾					3 P 1509 3080 ⁽³⁾ 4 P 1509 4080 ⁽³⁾	Pulse outputs 4825 0090	1599 0032 ⁽⁴⁾	
	4 P	9573 4100														
1250 A	3 P	9573 3120	4109 0160													
	4 P	9573 4120														
1600 A	3 P	9573 3160	4109 0160	3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾	3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾											
	4 P	9573 4160														
1800 A	3 P	9573 3180	4109 0160	3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾	3 P 1509 3160 ⁽³⁾ 4 P 1509 4160 ⁽³⁾											
	4 P	9573 4180														
2000 A	3 P	9573 3200	(1)													
	4 P	9573 4200														
2500 A	3 P	9573 3250	(1)													
	4 P	9573 4250														
3200 A	3 P	9573 3320	(1)													
	4 P	9573 4320														

(1) See "Copper bar connection kits" page 393.

(2) To fully shroud front, rear, top and bottom 4 references required.

To shroud front switch top and bottom 2 references required.

(3) 2 pieces: one for top side and another for bottom side.

(4) Factory mounting only.

(5) An optional key operated Auto/Manual selector is available on request.

If required, this option must be requested when ordering the switch;
please refer to "Auto/Manual key selector" in the accessory section.

References

Rating (A)	No. of poles	ATyS p	DC power supply	3 position padlocking	Key handle interlocking system	Door protective surround	Mounting spacers	Remote control interface
125 A	3 P	9573 3012	12 VDC / 230 VAC 1599 5012 24 VDC / 230 VAC 1599 5112	1599 0003 ⁽¹⁾	Using lock RONIS EL11AP in position 0 1509 1006 ⁽¹⁾	1539 0012	1 set of 2 spacers 1509 0001	ATyS D20 9599 2020 + RJ45 cable connection 1599 2009
	4 P	9573 4012						
160 A	3 P	9573 3016						
	4 P	9573 4016						
200 A	3 P	9573 3020						
	4 P	9573 4020						
250 A	3 P	9573 3025						
	4 P	9573 4025						
315 A	3 P	9573 3031						
	4 P	9573 4031						
400 A	3 P	9573 3040						
	4 P	9573 4040						
500 A	3 P	9573 3050						
	4 P	9573 4050						
630 A	3 P	9573 3063						
	4 P	9573 4063						
800 A	3 P	9573 3080						
	4 P	9573 4080						
1000 A	3 P	9573 3100						
	4 P	9573 4100						
1250 A	3 P	9573 3120						
	4 P	9573 4120						
1600 A	3 P	9573 3160						
	4 P	9573 4160						
1800 A	3 P	9573 3180						
	4 P	9573 4180						
2000 A	3 P	9573 3200						
	4 P	9573 4200						
2500 A	3 P	9573 3250						
	4 P	9573 4250						
3200 A	3 P	9573 3320						
	4 P	9573 4320						
				1599 0004 ⁽¹⁾	Using lock RONIS EL11AP in position 0 1509 1004 ⁽¹⁾	1539 0080		

⁽¹⁾ Factory mounting only.



ATyS range

ATyS, ATyS *d*, ATyS *t*, ATyS *g*, ATyS *p*
from 125 to 3200 A

Changeover switches

Accessories

Terminal shrouds

Use

IP2X protection against direct contact with terminals or connecting parts.

Advantages

Perforations allow remote thermographic inspection without the need to remove the shrouds.

Rating (A)	No. of poles	Position	Reference
125 ... 200	3 P	top / bottom / front (1) / rear (1)	2694 3014 ⁽¹⁾⁽²⁾
125 ... 200	4 P	top / bottom / front (1) / rear (1)	2694 4014 ⁽¹⁾⁽²⁾
250 ... 400	3 P	top / bottom / front (1) / rear (1)	2694 3021 ⁽¹⁾⁽²⁾
250 ... 400	4 P	top / bottom / front (1) / rear (1)	2694 4021 ⁽¹⁾⁽²⁾
500 ... 630	3 P	top / bottom / front (1) / rear (1)	2694 3051 ⁽¹⁾⁽²⁾
500 ... 630	4 P	top / bottom / front (1) / rear (1)	2694 4051 ⁽¹⁾⁽²⁾

(1) To shroud front switch top and bottom 2 references required.

(2) To fully shroud front, rear, top and bottom 4 references required.



access_2016_a_2_cat

Terminal screens

Use

Top and bottom protection against direct contact with terminals or connection parts.

For upstream and downstream protection, order the reference once.

Rating (A)	No. of poles	Position	Reference
125 ... 200	3 P	top / bottom	1509 3012
125 ... 200	4 P	top / bottom	1509 4012
250 ... 400	3 P	top / bottom	1509 3025
250 ... 400	4 P	top / bottom	1509 4025
500 ... 630	3 P	top / bottom	1509 3063
500 ... 630	4 P	top / bottom	1509 4063
800 ... 1250	3 P	top / bottom	1509 3080
800 ... 1250	4 P	top / bottom	1509 4080
1600 ... 1800	3 P	top / bottom	1509 3160
1600 ... 1800	4 P	top / bottom	1509 4160
2000 ... 3200	3 P	top / bottom	1509 3200
2000 ... 3200	4 P	top / bottom	1509 4200



access_2017_a_2_cat

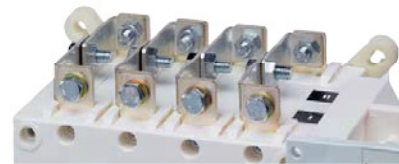
Bridging bars

Use

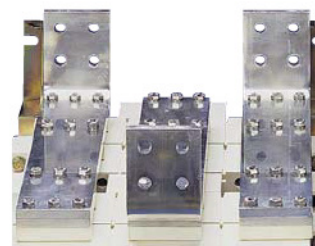
For bridging power terminals on the top or bottom side of the switch.

One piece required per pole.

Rating (A)	Section (mm)	Reference
125 ... 200	20 x 2.5	4109 0019
250	25 x 2.5	4109 0025
400	32 x 5	4109 0039
500	32 x 5	4109 0050
630	50 x 5	4109 0063
800 ... 1000	50 x 8	4109 0080
1250	60 x 8	4109 0120
1600 ... 1800	90 x 10	4109 0160



access_2015_a_2_cat



access_041_a_1_cat

Copper bar connection kits

Use

Enables:

- connection between the two power terminals of the same pole for 2000 to 3200 A ratings (Fig. 1 and Fig 2).
- top or bottom bridging connection (Fig. 3).
 For 3200 A rating, the connection pieces (part A) are delivered bridged from factory.

Bolt sets must be ordered separately.
 The technical notice for these specific accessories can be downloaded from www.socomec.com.

Top or bottom flat connection - Fig. 1			
Rating (A)	Piece	Quantity to order per pole ⁽¹⁾	Reference
2000 ... 2500	Connection - part A	2	2619 1200
2000 ... 2500	Bolt set - part B	2	2699 1200
3200	Connection - part A		included
3200	Bolt set - part B	2	2699 1200

Top or bottom edgewise connection - Fig. 2			
Rating (A)	Piece	Quantity to order per pole ⁽¹⁾	Reference
2000 ... 2500	Connection - part A	2	2619 1200
2000 ... 2500	T piece - part C	2	2629 1200 ⁽²⁾
2000 ... 2500	Bracket- part D	2	2639 1200 ⁽²⁾
3200	Connection - part A		included
3200	T piece - part C	2	2629 1200 ⁽²⁾
3200	Bracket- part D	2	2639 1200 ⁽²⁾

Top or bottom bridging connection - Fig. 3			
Rating (A)	Piece	Quantity to order per pole ⁽¹⁾	Reference
2000 ... 2500	Connection - part A	2	2619 1200
2000 ... 2500	Bolt set - part B	2	2699 1200
2000 ... 2500	Bar - part E	1	4109 0250 ⁽²⁾
2000 ... 2500	T piece - part C	1	2629 1200 ⁽²⁾
3200	Connection - part A		included
3200	Bolt set - part B	2	2699 1200
3200	Bar - part E	1	4109 0320 ⁽²⁾
3200	T piece - part C	1	2629 1200 ⁽²⁾

(1) Example for 3 pole device equipped upstream only: Order 3 times the indicated quantities.
 (2) Bolt set is provided with the accessories.

Fig. 1

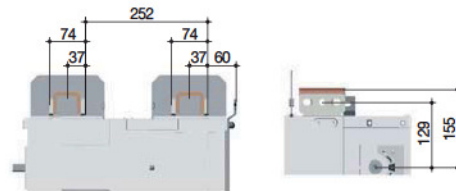


Fig. 2

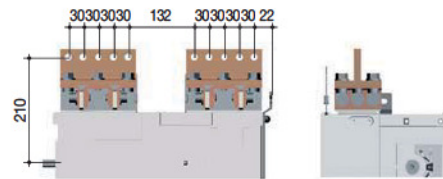
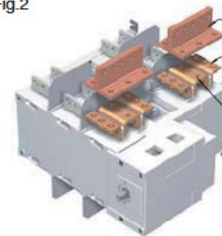
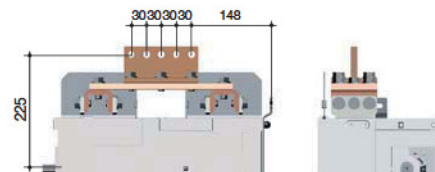
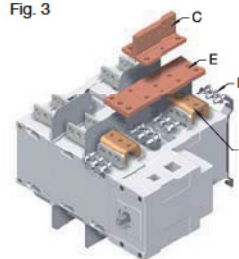


Fig. 3



access_226_b_1_x_cat

access_232_a_1_cat

access_228_b_1_x_cat

access_233_a_1_cat

access_230_b_1_x_cat

access_234_a_1_cat

ATyS range

ATyS, ATyS d, ATyS t, ATyS g, ATyS p
from 125 to 3200 A

Accessories (continued)

Autotransformer 400/230 VAC

Use

For applications without neutral, this autotransformer provides the 230 VAC required to power these ATyS products.

Rating (A)	Reference
125 ... 3200	1599 4064

DC power supply

Use

Allows an ATyS to be supplied from a 12 or 24 VDC source.
To be positioned as close as possible to the DC power supply source.

Rating (A)	Operating voltage	Reference
125 ... 1800	12 VDC / 230 VAC	1599 5012
125 ... 1800	24 VDC / 230 VAC	1599 5112

Voltage sensing and power supply kit

Use

For power supply and voltage measurement (4 wire, three-phase) for the ATyS t, g and p.
Routing of the conductors is controlled, which means that no specific protective device is necessary for these connections.

The kit can be fitted on the top or bottom of the switch.

Note: the 3-pole version does not integrate the power supply.

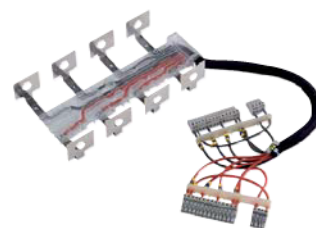
For ATyS t, g and p - 3 poles

Rating (A)	Reference
125 ... 180	1559 3012
250	1559 3025
400	1559 3040
630	1559 3063
800 ... 1000	1559 3080
1250	1559 3120
1800 ... 1800	1559 3160
2000 ... 3200	1559 3200

For ATyS t, g and p - 4 poles

Rating (A)	Neutral on the right	Neutral on the left
	Reference	Reference
125 ... 180	1559 4012	1559 4013
250	1559 4025	1559 4026
400	1559 4040	1559 4041
630	1559 4063	1559 4064
800 ... 1000	1559 4080	1559 4081
1250	1559 4120	1559 4121
1800 ... 1800	1559 4160	1559 4161
2000 ... 3200	1559 4200	1559 4201

From 125 to 630 A.



aty_s_606_a_1_cat

From 800 to 3200 A.



aty_s_603_a_2_cat

ATyS DS voltage relay

Use

The ATyS DS is a voltage relay for monitoring a single three-phase power supply source.
Upon failure of the power supply source, the voltage relay's fault contact closes.

This output can be utilised, for example, to order the transfer of an ATyS motorised changeover switch.

Rating (A)	Reference
ATyS DS	192X 0056



aty_s_762_a_1_cat

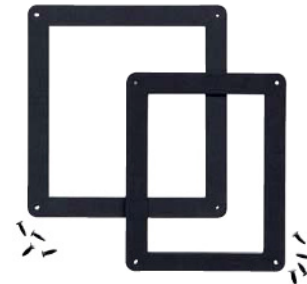
Door protective surround

Use

When direct access to the ATyS front face (mode selection, manual operation, display...) is required, the door surround can be utilised to provide a clean and safe finish to the panel's cut-out.

For	
Rating (A)	Reference
125 ... 630	1529 0012
800 ... 1800	1529 0080

For ATyS d, t, g and p	
Rating (A)	Reference
125 ... 630	1539 0012
800 ... 3200	1539 0080



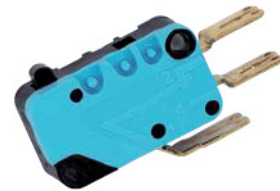
atyS_596_a_2_cat

Auxiliary contact

Use

Pre-breaking and signalling of positions I and II. Each reference provides a single factory fitted NO/NC contact for both positions.

Low level auxiliary contacts: Please consult us. If additional auxiliary contacts are required please consult us.



access_065_a_1_cat

Rating (A)	Nominal current (A)	Operating current I _o (A)			
		A - 250 13 VAC	400 VAC AC-13	24 VDC DC-13	48 VDC DC-13
125 ... 3200	16	12	8	14	6

Rating (A)	Reference
125 ... 630	1599 0002 ⁽¹⁾
800 ... 1800	1599 0032 ⁽¹⁾
2000 ... 3200	included

⁽¹⁾ Up to 2 auxiliary contacts can be ordered.

Mounting spacers

Use

Increases the distance between the rear power terminals and the backplate by 10 mm.

This accessory may also be used to replace the original mounting spacers.

Rating (A)	Description of accessory	Reference
125 ... 630	1 set of 2 spacers	1509 0001



atyS_009_a_2_cat

Auto/Manual key selector

Use

Replaces the standard Auto/Manual selector knob with a key selector, providing added security by preventing unauthorised use of product.

This is a factory fitted option which must be requested when ordering the ATyS switch (ATyS, ATyS d, t, g and p). To order this option simply add "-K" after the ATyS reference.

For example:

9533 4012-K: 4 pole 125 A ATyS d with Auto/Manual key selector. If this option is not required the "-K" should not be added to the product reference.



atyS_865_a_1_cat

3 position padlocking (I-0-II)

Use

Enables the ATyS to be padlocked in positions 0, I and II (factory fitted).

Rating (A)	Reference
125 ... 630	1599 0003
800 ... 3200	1599 0004



atyS_864_a_1_cat

ATyS range

ATyS, ATyS d, ATyS t, ATyS g, ATyS p
from 125 to 3200 A

Accessories (continued)

Key handle interlocking system

Use

With the product in manual mode, it enables locking in position 0 using a RONIS EL11AP lock (factory fitted).

Locking in all three positions (I-0-II) requires, in addition, the "3 position padlocking" accessory.

Rating (A)	Reference
125 ... 630	1509 1006
800 ... 3200	1509 1004



atyS_0183_a_1_cat

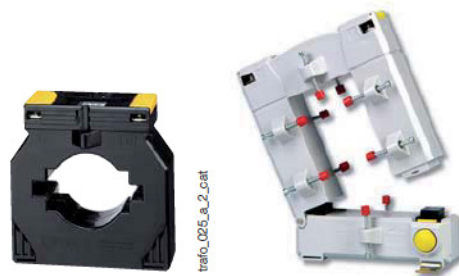
Current transformers

Use - For ATyS p only

Used with ATyS p switches, current transformers enable information to be obtained on the load current.

Reference

See page 488.



trfo_0215_a_2_cat

trfo_0277_b_1_cat

Plug-in optional modules

Use - For ATyS p only

Description of accessories	Reference
RS485 MODBUS communication	4825 0092
2 inputs/2 outputs	4825 0094
Ethernet communication (embedded Ethernet webserver software)	4825 0203
Ethernet communication + RS485 JBUS/MODBUS gateway (embedded Ethernet webserver software)	4825 0204
Analogue outputs	4825 0093
Pulse outputs	4825 0090



atyS_0116_c_1_cat

Remote interfaces

Use

To display source availability and position indication on the front of a panel.
 Interfaces are powered from the ATyS changeover switch, via the RJ45 connection cable.
 Maximum connection distance: 3 m.

ATyS D10 - for ATyS d, t and g

To display source availability and position indication on the front panel of an enclosure. Protection degree: IP21.

ATyS D20 - for ATyS p

In addition to the functions of the ATyS D10, the D20 displays measurements and enables ATyS p mode control and configuration from the front of a panel. Protection degree: IP21.

Door mounting

2 holes $\varnothing 22.5$. ATyS changeover switch connection via RJ45 cable, not isolated.
 Cable available as an accessory.



atys_564_d_1_cat

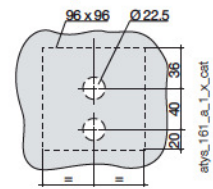
atys_565_d_1_cat

Interfaces are powered from the ATyS.

Drillings



atys_597_a_1_cat



atys_161_a_1_x_cat

Description of accessories	Reference
ATyS D10	9599 2010
ATyS D20	9599 2020

Connection cable for remote interfaces

Use

To connect between a remote interface (type D10 or D20) and an ATyS changeover switch (ATyS d, t, g or p).

Characteristics

RJ45 8 wire straight-through, non isolated cable. Length 3m.



access_209_a_2_cat

For ATyS d, t, g and p		
Type	Length	Reference
RJ45 cable	3 m	1599 2009

Sealable cover

Use - for ATyS t and g

Prevents access to the ATyS t and g configuration potentiometers and DIP switches (seals supplied).

Rating (A)	No. of poles	Reference
40 ...160	2 P	9599 0000



atysm_043_a_2_cat

ATyS range

ATyS, ATyS d, ATyS t, ATyS g, ATyS p

from 125 to 3200 A

Characteristics according to IEC 60947-3 and IEC 60947-6-1

125 to 630 A

Thermal current I_{th} at 40°C	125 A	160 A	200 A	250 A	315 A	400 A	500 A	630 A
Rated insulation voltage U_i (V)	800	800	800	1000	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	12	12	12	12	12
Rated operational currents I_e (A) according to IEC 60947-3								
Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
415 VAC	AC-21 A / AC-21 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
415 VAC	AC-22 A / AC-22 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
415 VAC	AC-23 A / AC-23 B	125/125	160/160	200/200	200/200	315/315	400/400	500/500
500 VAC	AC-20 A / AC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
500 VAC	AC-21 A / AC-21 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
500 VAC	AC-22 A / AC-22 B	125/125	160/160	200/200	200/250	200/315	200/400	500/500
500 VAC	AC-23 A / AC-23 B	80/80	80/80	80/80	200/200	200/200	200/200	400/400
690 VAC	AC-20 A / AC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
690 VAC	AC-21 A / AC-21 B	125/125	160/160	200/200	200/200	200/200	200/200	500/500
690 VAC	AC-22 A / AC-22 B	125/125	125/125	125/125	160/160	160/160	160/160	400/400
690 VAC	AC-23 A / AC-23 B	63/80	63/80	63/80	125/125	125/125	125/125	400/400
220 VDC ⁽²⁾	DC-20 A / DC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
220 VDC ⁽²⁾	DC-21 A / DC-21 B	125/125	160/160	200/200	250/250	250/250	250/250	500/500
220 VDC ⁽²⁾	DC-22 A / DC-22 B	125/125	160/160	200/200	250/250	250/250	250/250	500/500
220 VDC ⁽²⁾	DC-23 A / DC-23 B	125/125	125/125	125/125	200/200	200/200	200/200	500/500
440 VDC ⁽²⁾	DC-20 A / DC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500
440 VDC ⁽²⁾	DC-21 A / DC-21 B	125/125	125/125	125/125	200/200	200/200	200/200	500/500
440 VDC ⁽²⁾	DC-22 A / DC-22 B	125/125	125/125	125/125	200/200	200/200	200/200	500/500
440 VDC ⁽²⁾	DC-23 A / DC-23 B	125/125	125/125	125/125	200/200	200/200	200/200	500/500
Rated operational currents I_e (A) according to IEC 60947-6-1								
Rated voltage	Utilisation category							
415 VAC	AC-31 B	125	160	200	250	315	400	500
415 VAC	AC-32 B				200	315	400	500
415 VAC	AC-33 B				200	200	200	400
Fuse protected short-circuit withstand as per IEC 60947-3 at 690 VAC								
Prospective short-circuit current (kA rms)	100 ⁽³⁾	100 ⁽³⁾	50 ⁽³⁾	50	50	50	50	50
Associated fuse rating (A)	125	160	200	250	315	400	500	630
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s ⁽⁴⁾								
Rated short-time withstand current 0.3s I_{sc} (kA rms)	12 ⁽⁵⁾	12 ⁽⁵⁾	12 ⁽⁵⁾	15	15	15	17	17
Short-circuit withstand without protection as per IEC 60947-3 at 690 VAC								
Rated short-time withstand current 1s I_{sc} (kA rms)	7 ⁽⁵⁾	7 ⁽⁵⁾	7 ⁽⁵⁾	8	8	8	10	10
Rated short-circuit making capacity I_{cm} (kA peak)	11.9	11.9	11.9	22	22	22	17	17
Rated short-time withstand current 60ms I_{sc} (kA rms) as per IEC 60947-6-1 at 415 VAC				10 ⁽⁵⁾	10 ⁽⁵⁾	10 ⁽⁵⁾	10	12.6
Connection								
Maximum Cu cable cross-section (mm ²)	35	50	70	95	150	185	240	2 x 150
Minimum Cu busbar cross-section (mm ²)								2 x 30 x 5
Maximum Cu cable cross-section (mm ²)	50	95	120	150	240	240	2 x 185	2 x 300
Maximum Cu busbar width (mm)	25	25	25	32	32	32	50	50
Tightening torque mini / maxi (Nm)	9/13	9/13	9/13	20/26	20/26	20/26	20/26	20/26
Switching time (Standard setting)								
I-II or II-I (s)	0.75	0.75	0.75	1.3	1.3	1.3	1.3	1.3
I-0 or 0-II (s)	0.45	0.45	0.45	0.85	0.85	0.85	0.85	0.85
Duration of "electrical blackout" I-II (s) minimum	0.3	0.3	0.3	0.6	0.6	0.6	0.6	0.6
Power supply								
min / max (VAC)	166/332	166/332	166/332	166/332	166/332	166/332	166/332	166/332
Control supply power demand								
Power supply 230 VAC inrush / nominal (VA) - ATyS	184/92	184/92	184/92	276/115	276/115	276/115	276/150	276/150
Power supply 230 VAC inrush / nominal (VA) - ATyS d, t, g, p	206/114	206/114	206/114	298/137	298/137	298/137	298/172	298/172
Mechanical characteristics								
Durability (number of operating cycles)	10 000	10 000	10 000	8 000	8 000	8 000	5 000	5 000
Weight ATyS 3 P (kg)	5.7	5.7	5.7	6.6	6.7	6.7	11.4	11.9
Weight ATyS 4 P (kg)	6.9	6.9	6.9	7.4	7.8	7.8	13.3	14.0
Weight ATyS d 3 P (kg)	6.3	6.3	6.3	7.2	7.3	7.3	12.0	12.5
Weight ATyS d 4 P (kg)	7.5	7.5	7.5	8.0	8.4	8.4	13.9	14.6
Weight ATyS t, g, p 3 P (kg)	6.8	6.8	6.8	7.7	7.8	7.8	12.5	13.0
Weight ATyS t, g, p 4 P (kg)	8.0	8.0	8.0	8.5	8.9	8.9	14.4	15.1

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

(2) 3-pole device with 2 poles in series for the "+" and 1 pole for the "-". 4-pole device with 2 poles in series by polarity.

(3) At 415 VAC

(4) Value for coordination with any circuit breaker that ensures tripping in less than 0.3s.

For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

(5) At 30ms

800 to 3200 A

Thermal current I _{th} at 40°C	800 A	1000 A	1250 A	1600 A	1800 A	2000 A	2500 A	3200 A
Rated insulation voltage U _i (V)	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage U _{imp} (kV)	12	12	12	12	12	12	12	12
Courants assignés d'emploi I_e (A) selon CEI 60947-3								
Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500
415 VAC	AC-21 A / AC-21 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	-/2000	-/2500
415 VAC	AC-22 A / AC-22 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	-/2000	-/2500
415 VAC	AC-23 A / AC-23 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250	-/1600	-/1600
500 VAC	AC-20 A / AC-20 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500
500 VAC	AC-21 A / AC-21 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	-/2000	-/2500
500 VAC	AC-22 A / AC-22 B	630/630	800/800	1000/1000	1000/1000	1000/1000		
500 VAC	AC-23 A / AC-23 B	400/400	630/630	800/800	800/800	800/800		
690 VAC	AC-20 A / AC-20 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500
690 VAC	AC-21 A / AC-21 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800	-/2000	-/2500
690 VAC	AC-22 A / AC-22 B	630/630	800/800	1000/1000	1600/1600	1600/1600		
690 VAC	AC-23 A / AC-23 B	400/400	630/630	800/800	1000/1000	1000/1000		
220 VDC ⁽²⁾	DC-20 A / DC-20 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800		
220 VDC ⁽²⁾	DC-21 A / DC-21 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
220 VDC ⁽²⁾	DC-22 A / DC-22 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
220 VDC ⁽²⁾	DC-23 A / DC-23 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
440 VDC ⁽²⁾	DC-20 A / DC-20 B	800/800	1000/1000	1250/1250	1600/1600	1800/1800		
440 VDC ⁽²⁾	DC-21 A / DC-21 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
440 VDC ⁽²⁾	DC-22 A / DC-22 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
440 VDC ⁽²⁾	DC-23 A / DC-23 B	800/800	1000/1000	1250/1250	1250/1250	1250/1250		
Rated operational currents I_e (A) according to IEC 60947-6-1								
Rated voltage	Utilisation category	800	1000	1250	1600	1800	2000	2500
415 VAC	AC-31 B	800	1000	1250	1600	1800	2000	2500
415 VAC	AC-32 B	800	1000	1250	1600	1600	2000	2000
415 VAC	AC-33 B	800	800	800	1000	1000	1250	1250
Fuse protected short-circuit withstand as per IEC 60947-3 at 415 VAC								
Prospective short-circuit current (kA rms)	50	100	100	100	100			
Associated fuse rating (A)	800	1000	1250	2x800	2x800			
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s⁽³⁾								
Rated short-time withstand current 0.3s I _{cw} (kA rms)	47	64	64	78	78	78	78	78
Short-circuit withstand without protection as per IEC 60947-3 at 415 VAC								
Rated short-time withstand current 1s I _{cw} (kA rms)	26	35	35	50	50	50	50	50
Rated short-circuit making capacity	48	73.5	73.5	110	110	110	110	110
Rated short-time withstand current 60ms I _{cw} (kA rms) as per IEC 60947-6-1 at 415 VAC	16	20	25	32	32	40	50	50
Connection								
Maximum Cu cable cross-section (mm ²)	2 x 185	2 x 240						
Minimum Cu busbar cross-section (mm ²)	2 x 40 x 5	2 x 50 x 5	2 x 60 x 5	2 x 80 x 5	3 x 100 x 5	2 x 100 x 10	2 x 100 x 10	2 x 100 x 10
Maximum Cu cable cross-section (mm ²)	2 x 300	4 x 185	4 x 185	6 x 185	6 x 185			
Maximum Cu busbar width (mm)	63	63	63	100	100	100	100	100
Tightening torque mini / maxi (Nm)	20/26	20/26	20/26	40/45	40/45	40/45	40/45	40/45
Switching time (Standard setting)								
I-II or II-I (s)	2.6	2.6	2.6	2.6	2.6	2	2	2
I-0 or 0-II (s)	1.6	1.6	1.6	1.6	1.6	1	1	1
Duration of "electrical blackout" I - II (s) minimum	1.5	1.5	1.5	1.6	1.6	1	1	1
Power supply								
min / max (VAC)	166/332	166/332	166/332	166/332	166/332	166/332	166/332	166/332
Control supply power demand								
Power supply 230 VAC inrush / nominal (VA) - ATyS	460/184	460/184	460/184	460/230	460/230	812/322	812/322	812/322
Power supply 230 VAC inrush / nominal (VA) - ATyS d, t, g, p	482/206	482/206	482/206	482/252	482/252	834/344	834/344	834/344
Mechanical characteristics								
Durability (number of operating cycles)	4 000	4 000	4 000	3 000	3 000	3 000	3 000	3 000
Weight ATyS 3 P (kg)	27.9	28.4	28.9	33.1	33.1	50.7	50.7	61.0
Weight ATyS 4 P (kg)	32.2	32.9	33.6	39.4	39.4	61.6	61.6	75.3
Weight ATyS d 3 P (kg)	28.5	29.0	29.5	33.7	33.7	51.3	51.3	61.6
Weight ATyS d 4 P (kg)	32.8	33.5	34.2	40.0	40.0	62.2	62.2	75.9
Weight ATyS t, g, p 3 P (kg)	29.0	29.5	30.0	34.2	34.2	51.8	51.8	62.1
Weight ATyS t, g, p 4 P (kg)	33.3	34.0	34.7	40.5	40.5	62.7	62.7	76.4

(1) Category with index A = frequent operation - Category with index B = infrequent operation.
 (2) 3-pole device with 2 poles in series for the "+" and 1 pole for the "-". 4-pole device with 2 poles in series by polarity.

(3) Value for coordination with any circuit breaker that ensures tripping in less than 0.3s.
 For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

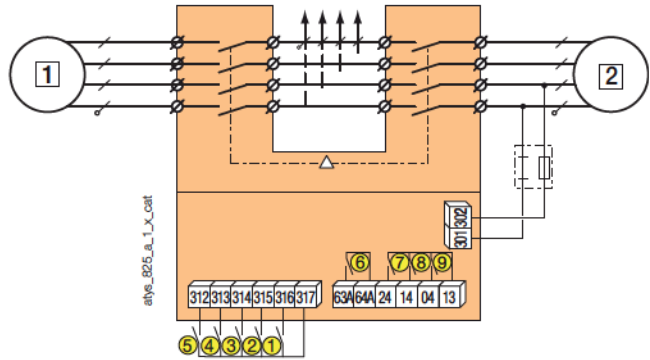
ATyS range

ATyS, ATyS d, ATyS t, ATyS g, ATyS p

from 125 to 3200 A

Terminals and connections

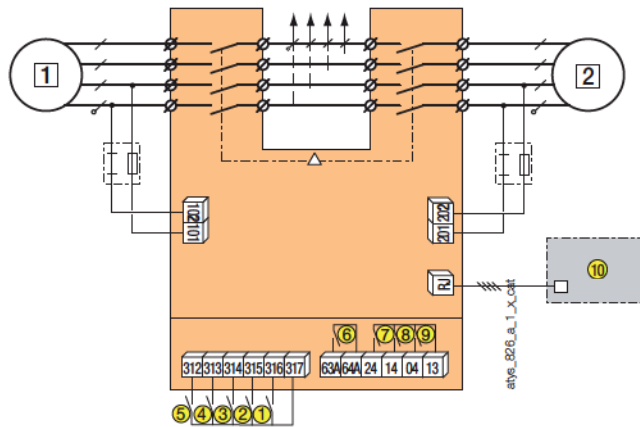
ATyS



- 1 preferred source
- 2 alternate source

- 1: position 0 control
- 2: position 1 control
- 3: position II control
- 4: priority control position 0
- 5: closure of this contact enables the position control orders
- 6: product availability relay
- 7: auxiliary contact, closed when the switch is in position II
- 8: auxiliary contact, closed when the switch is in position I
- 9: auxiliary contact, closed when the switch is in position 0

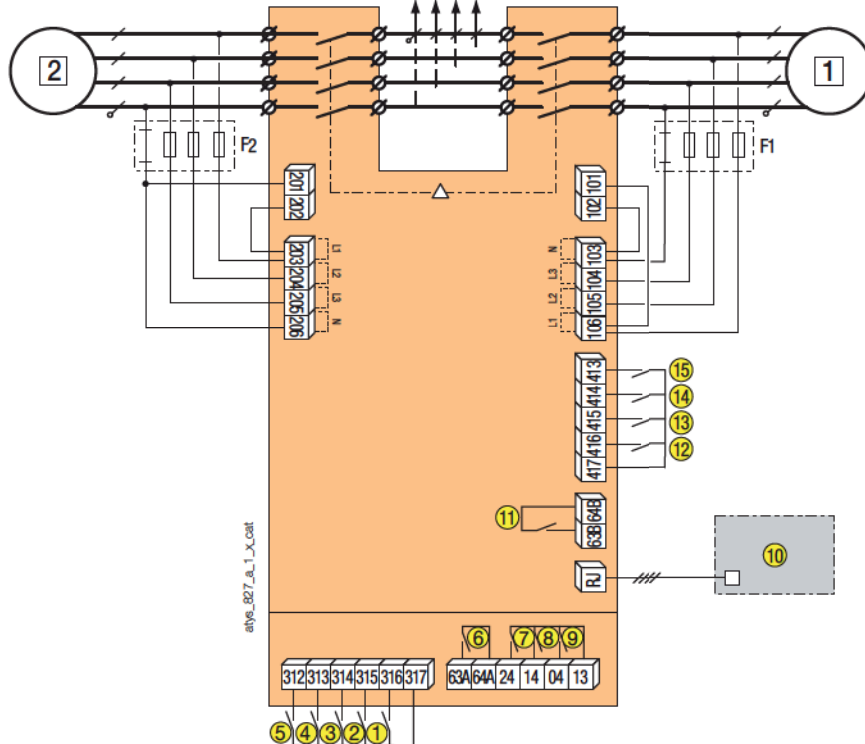
ATyS d



- 1 preferred source
- 2 alternate source

- 1: position 0 control
- 2: position 1 control
- 3: position II control
- 4: priority control position 0
- 5: closure of this contact enables the position control orders
- 6: product availability relay
- 7: auxiliary contact, closed when the switch is in position II
- 8: auxiliary contact, closed when the switch is in position I
- 9: auxiliary contact, closed when the switch is in position 0
- 10: Remote display D10

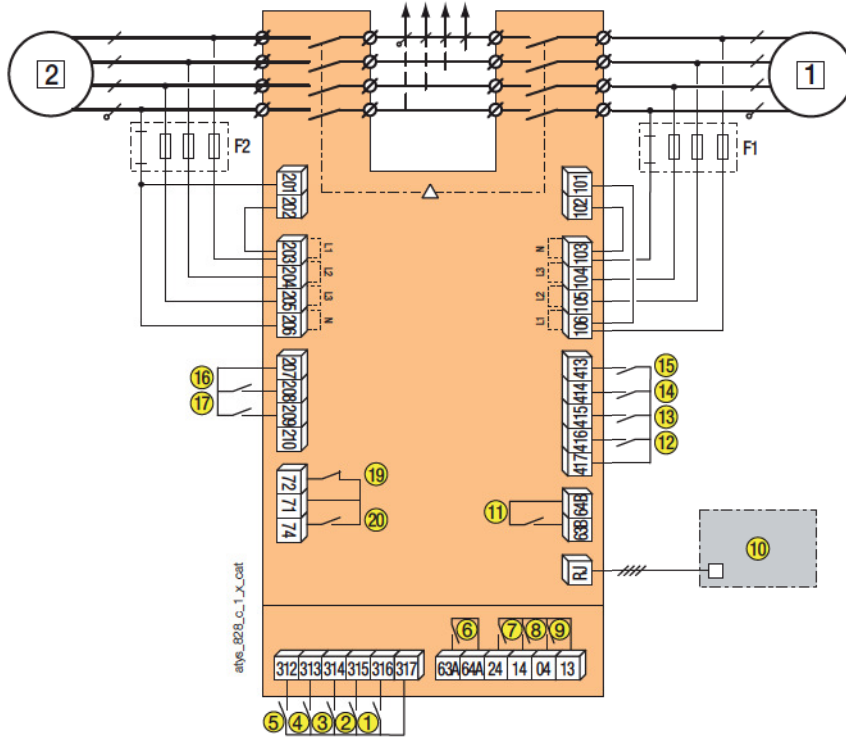
ATyS t



- 1 preferred source
- 2 alternate source

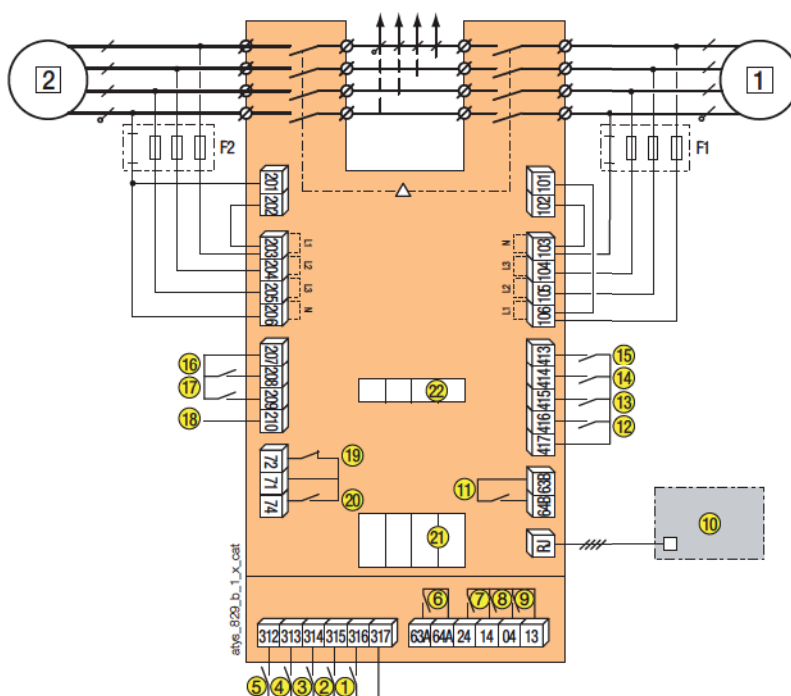
- 1: position 0 control
- 2: position 1 control
- 3: position II control
- 4: priority control position 0
- 5: closure of this contact enables the position control orders
- 6: motorisation unit availability relay
- 7: auxiliary contact, closed when the switch is in position II
- 8: auxiliary contact, closed when the switch is in position I
- 9: auxiliary contact, closed when the switch is in position 0
- 10: remote display D10
- 11: electronic unit availability relay
- 12: automatic operation inhibited
- 13: manual retransfer confirmation
- 14: preferred source selection
- 15: operation with or without priority

ATyS g



- 1** preferred source
- 2** alternate source
- 1: position 0 control
- 2: position 1 control
- 3: position II control
- 4: priority control position 0
- 5: closure of this contact enables the position control orders
- 6: motorisation unit availability relay
- 7: auxiliary contact, closed when the switch is in position II
- 8: auxiliary contact, closed when the switch is in position I
- 9: auxiliary contact, closed when the switch is in position 0
- 10: remote display D10
- 11: electronic unit availability relay
- 12: automatic operation inhibited
- 13: manual retransfer confirmation
- 14: 2AT time delay bypass
- 15: priority for on load test
- 16: remote test off load
- 17: remote test on load
- 19: generator starting and stopping order (NC)
- 20: generator starting and stopping order (NO)

ATyS p



- 1** preferred source
- 2** alternate source
- 1: position 0 control
- 2: position 1 control
- 3: position II control
- 4: priority control position 0
- 5: closure of this contact enables the position control orders
- 6: motorisation unit availability relay
- 7: auxiliary contact, closed when the switch is in position II
- 8: auxiliary contact, closed when the switch is in position I
- 9: auxiliary contact, closed when the switch is in position 0
- 10: remote control interface D20
- 11: electronic unit availability relay
- 12-17: programmable inputs
- 18: auxiliary power supply for the use of optional modules
- 19: generator starting and stopping order (NC)
- 20: generator starting and stopping order (NO)
- 21: 4 slots for optional modules
- 22: current transformer connection

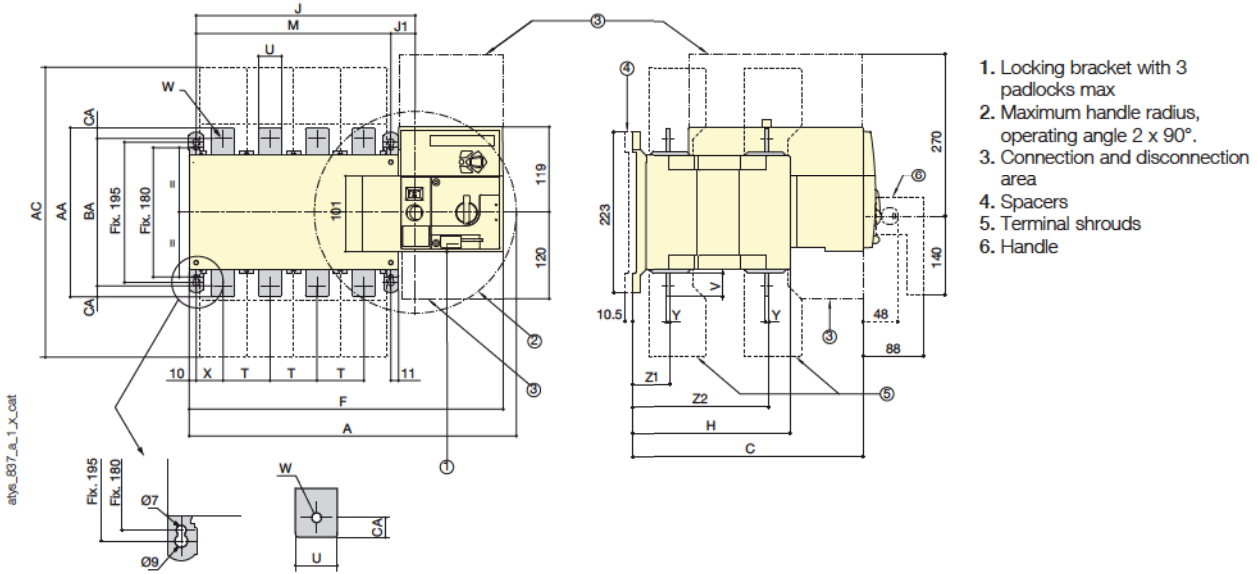
ATyS range

ATyS, ATyS d, ATyS t, ATyS g, ATyS p

from 125 to 3200 A

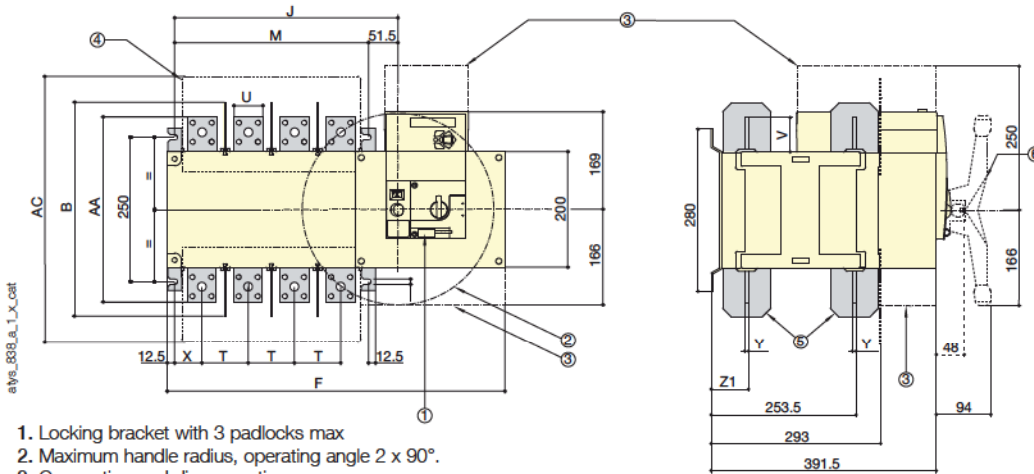
Dimensions

ATyS 125 to 630 A



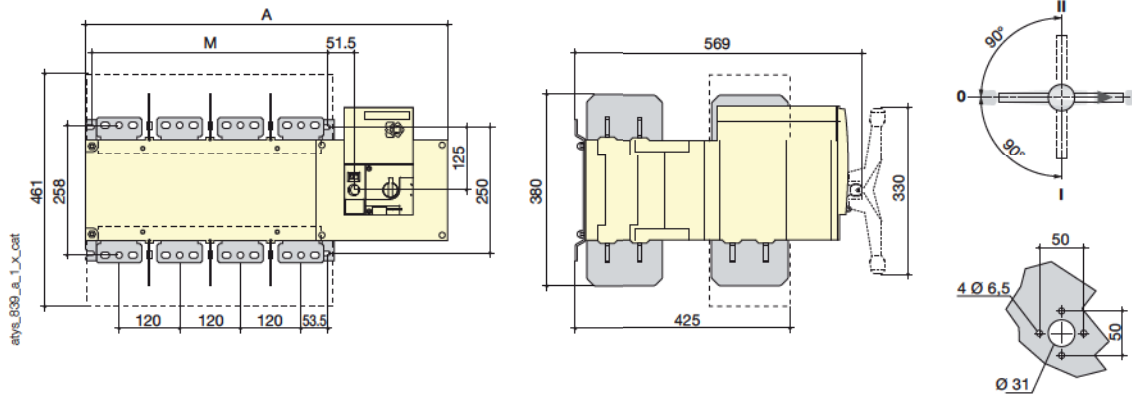
Rating (A)	Overall dimensions			Terminal shrouds	Body								Switch mounting				Connection							
	A 3p.	A 4p.	C	AC	F 3p.	F 4p.	H	J 3p.	J 4p.	J1	M 3p.	M 4p.	T	U	V	W	X 3p.	X 4p.	Y	Z1	Z1	AA	BA	CA
125	304	334	244	233	286.5	317	151	154	184	34	120	150	38	20	25	9	28	22	3.5	38	134	135	115	10
160	304	334	244	233	286.5	317	151	154	184	34	120	150	38	20	25	9	28	22	3.5	38	134	135	115	10
200	304	334	244	233	286.5	317	151	154	184	34	120	150	38	20	25	9	28	22	3.5	38	134	135	115	10
250	345	395	244	288	328	378	152	195	245	35	160	210	50	25	30	11	33	3.5	39.5	133.5	160	130	15	15
315	345	395	244	288	328	378	152	195	245	35	160	210	50	25	30	11	33	3.5	39.5	133.5	160	130	15	15
400	345	395	244	288	328	378	152	195	245	35	160	210	50	35	35	11	33	3.5	39.5	133.5	170	140	15	15
500	394	454	320.5	402	377	437	221	244	304	34	210	270	65	45	50	13	42.5	37.5	5	53	190	280	220	20
630	394	454	320.5	402	377	437	221	244	304	34	210	270	65	45	50	13	42.5	37.5	5	53	190	280	220	20

ATyS 800 to 1800 A



Rating (A)	Overall dimensions		Terminal shrouds	Body				Switch mounting				Connection			
	B	AC	F 3p.	F 4p.	J 3p.	J 4p.	M 3p.	M 4p.	T	U	V	X	Y	Z1	AA
800	370	461	504	584	306.5	386.5	255	335	80	50	60.5	47.5	7	66.5	321
1000	370	461	504	584	306.5	386.5	255	335	80	50	60.5	47.5	7	66.5	321
1250	370	461	504	584	306.5	386.5	255	335	80	60	65	47.5	7	66.5	330
1600	380	531	596	716	398.5	518.5	347	467	120	90	44	53	8	67.5	288
1800	380	531	596	716	398.5	518.5	347	467	120	90	44	53	8	67.5	288

ATyS 2000 to 3200 A

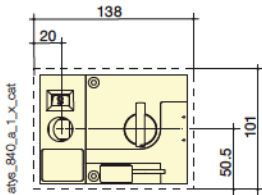


Rating (A)	Overall dimensions		Switch mounting	
	A 3p.	A 4p.	M 3p.	M 4p.
2000 ... 3200	596	716	347	467

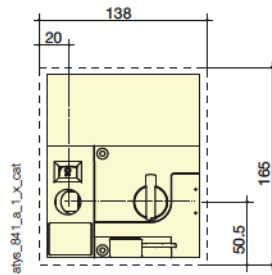
Cut of dimensions

ATyS 125 to 630 A

ATyS

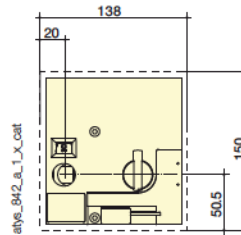


ATyS d, t, g, p

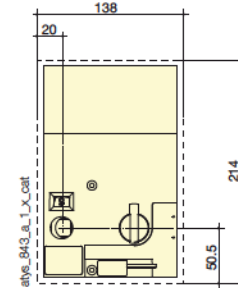


ATyS 800 to 1800 A

ATyS

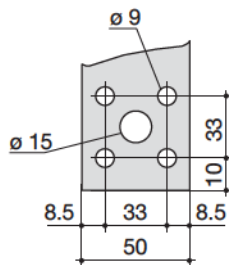


ATyS d, t, g, p

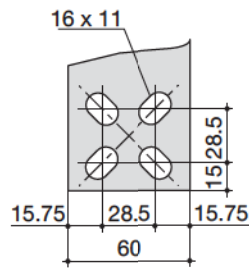


Connection terminals

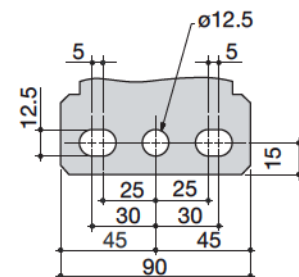
ATyS 800 to 1000 A



ATyS 1250 A



ATyS 1600 to 3200 A

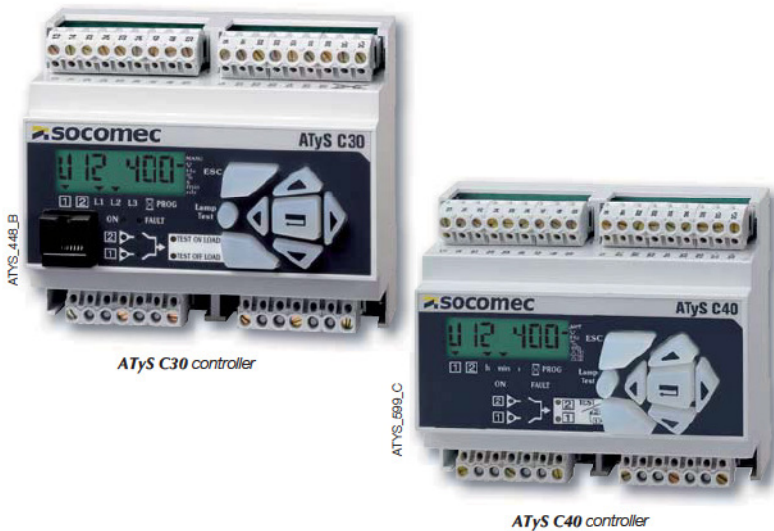




ATyS C30/C40

Control relays

Changeover switches



ATyS C30 controller

ATyS C40 controller

Function

ATyS C30/C40 are modular control relays. ATyS C30/C40 allows any type of motorised changeover control: ATyS and ATyS M, contactors, circuit breakers or other motorised switches.

General characteristics

ATyS C30

- ATyS D10 or D20 connection available.
- Inputs for auxiliary contact position information.
- 3U measurement on network 1 and 1U on network 2.
- 2 programmable inputs for the following functions: test on/off load, manual retransfer, priority source selection, automatic inhibit...
- Up to 2 programmable outputs for the following functions: source availability information, load shedding relay and circuit breaker control.
- 1 relay output for generator control.

ATyS C40

- Dual genset controller with a redundant genset application cycle (basic cycle).
- 1U measurement on each source - generator 1 & generator 2.
- 3 programmable inputs for the following functions: start/stop transfer cycle, manual retransfer, automatic inhibit...
- 1 programmable output for the following functions: source availability information and circuit breaker control.
- 2 generator control contacts (Gen1 & Gen2).

Advantages

Auxiliary power supply

Two versions of the ATyS C30 are available. One version with an AC supply via the measurement inputs and another with a DC auxiliary supply.

Modular device

The ATyS C30 and C40 are modular products (6 modules, 105 mm wide) which can be DIN rail mounted.

Extended compatibility of use

The product is used with Socomec changeover switches, or those using identical technology. It is also compatible with contactor and circuit breaker technologies.

The solution for

- > Non critical buildings.



Strong points

- > Auxiliary power supply.
- > Modular device.
- > Extended compatibility of use.

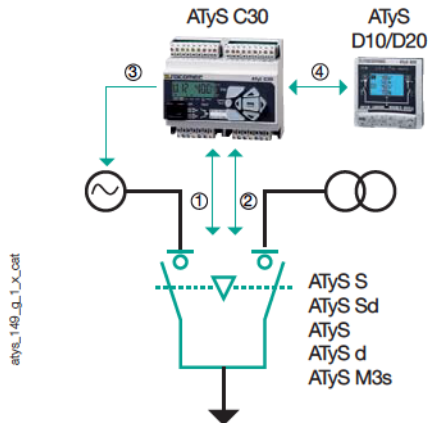
Conformity to standards

- > IEC 61010-1
- > IEC 61000-4-x
- > IEC 60068-2-x



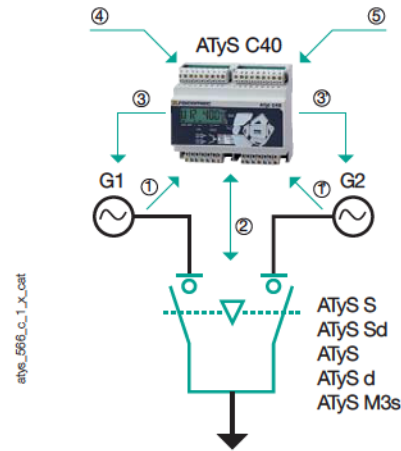
Configurations

ATyS C30:
Transformer/transformer and transformer/generator applications



1. Measurement and power supply
2. Control and position information feedback
3. Generator start / stop control
4. ATyS display/interface connection

ATyS C40:
Generator/generator applications



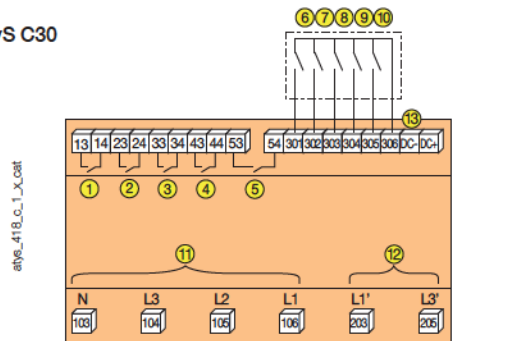
- 1 and 1'. 1U measurement for each generator
2. Control and position information feedback
- 3 and 3'. Generator "start/stop" control
4. External "start/stop" command for basic cycle
5. DC power supply

Electrical characteristics

Supplied from measurement circuit	110 ... 400 VAC
DC power supply	9 ... 30 VDC
Measurement range	110 ... 400 VAC / ± 10 %
Frequency	50/60 Hz
Accuracy	± 1 %

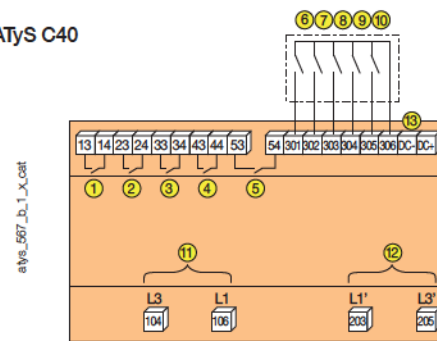
Terminals

ATyS C30



1. Generator start / stop control
2. Position 1 control
3. Position 2 control
4. O1: programmable output
5. O2: programmable output
6. AC1: auxiliary contact position 1
7. AC1: auxiliary contact position 0
8. AC0: auxiliary contact position 2
9. I1: programmable input
10. I2: programmable input
11. Source 1: 3 U network measurement and power supply
12. Source 2: 1 U network measurement and power supply
13. DC power supply 9-30 VDC (version 1599 3031)

ATyS C40



1. Generator G1 start / stop control
2. Position 1 control
3. Position 2 control
4. O1: programmable output
5. Generator G2 start / stop control
6. AC1: auxiliary contact position 1
7. I3: programmable input
8. AC2: auxiliary contact position 2
9. I1: programmable input
10. I2: programmable input
11. Generator G1 : 1U measurement
12. Generator G2 : 1U measurement
13. DC power supply 9-30 VDC

References

Type	ATyS C30 Reference	ATyS C40 Reference
Supplied from measurement circuit	1599 3030	
DC power supply	1599 3031	1599 3040