

ATyS S - ATyS d S

Remotely operated Transfer Switching Equipment from 40 to 125 A

Transfer switches



The solution for

- > Genset < 90 kVA
- > Heating systems
- > Climate control
- > Ventilation systems
- > Telecommunications



Strong points

- > Extensive power supply range
- > Safety and reliability
- > Easy integration
- > Simplified maintenance
- > ATyS d S: Dual power supply

Conformity to standards

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



Approvals and certifications



Function

ATyS S products are 4 pole remotely operated transfer 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 supply systems where a brief 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:

- 12 VDC power supply.
- 24/48 VDC power supply.
- 230 VAC single power supply.
- 2 x 230 VAC dual 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 d S: Dual power supply

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

References

ATyS S

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 4013	Source side 2 pieces 9594 4012 Load side 2 pieces 9594 9012		2 pieces 9599 4003	4 modules 9599 4002				
	4 P	12 VDC	9505 4004									
	4 P	230 VAC	9503 4004						9599 4001			
63 A	4 P	24/48 VDC	9506 4006									
	4 P	12 VDC	9505 4006							9599 4001		
	4 P	230 VAC	9503 4006									
80 A	4 P	24/48 VDC	9506 4008									
	4 P	12 VDC	9505 4008							9599 4001		
	4 P	230 VAC	9503 4008									
100 A	4 P	24/48 VDC	9506 4010									
	4 P	12 VDC	9505 4010							9599 4001		
	4 P	230 VAC	9503 4010									
125 A	4 P	24/48 VDC	9506 4012									
	4 P	12 VDC	9505 4012			9599 4001						
	4 P	230 VAC	9503 4012									

ATyS d S

Rating (A)	No. of poles	Power supply	ATyS d S	Bridging bars	Terminal shrouds	Voltage tap	Terminal retainer	DIN rail
40 A	4 P	2 x 230 VAC	9513 4004	4 P 9509 4013	Source side 2 pieces 9594 4012 Load side 2 pieces 9594 9012	9599 4001	2 pieces 9599 4003	4 modules 9599 4002
63 A	4 P	2 x 230 VAC	9513 4006					
80 A	4 P	2 x 230 VAC	9513 4008					
100 A	4 P	2 x 230 VAC	9513 4010					
125 A	4 P	2 x 230 VAC	9513 4012					

Submitted by TECO Group

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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 4013



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Voltage tap

Use

Enables the required power supply for ATyS S 230 VAC and ATyS d S 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	9599 4001



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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



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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



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atys-s_020_a

Autotransformer 400/230 VAC

Use

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

Dimensions

75x80x72 mm

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



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Spares

Motorisation unit

Use

The motorisation module of the ATyS S can be easily replaced in case of problems, even when the load is supplied.

Rating (A)	ATyS S 12 VDC	ATyS S 24/48 VDC	ATyS S 230 VAC	ATyS d S 2x230 VAC
40	9505 5004	9506 5004	9503 5004	9513 5004
63	9505 5006	9506 5006	9503 5006	9513 5006
80	9505 5008	9506 5008	9503 5008	9513 5008
100	9505 5010	9506 5010	9503 5010	9513 5010
125	9505 5012	9506 5012	9503 5012	9513 5012



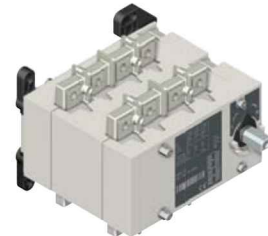
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Switching unit

Use

References to be used for replacing the switching module of ATyS S products.

Rating (A)	Reference
40	9509 1004
63	9509 1006
80	9509 1008
100	9509 1010
125	9509 1012



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Manual emergency operation handle

Use

This handle can be used on the product whether the motor unit is mounted or not.

Rating (A)	Reference
40 ... 125	9599 5012



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Connector kit

Use

This kit, including all the connector types for the different products, can be ordered in case of loss or breaking of one connector.

Rating (A)	Reference
40 ... 125	9509 0002



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ATyS S - ATyS d S

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Enclosed solutions

General characteristics



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ATyS S and ATyS d S

- Adapted to mechanical risk and dust hazard.
- Protection degree: IP3X (IP54 optional)
- Colour: RAL 7035, epoxy polyester powder.
- Wall mounting: 4 fixing lugs supplied loose.
- Connection of cables: top or bottom.
- Locking system: 3 mm double-bar Lock (key supplied)
- Power network 230/400 VAC +/-30%, 50/60 Hz.
- Two power supplies: 12 VDC and 2 x 230 VAC.
- Manual emergency operation handle provided with the enclosure.
- Bridging bars provided fitted on the product.

References

Rating (A)	No. of poles	ATyS S 12 VDC	ATyS d S 2 x 230 VAC
40	4 P	3505 4004	3513 4004
63	4 P	3505 4006	3513 4006
80	4 P	3505 4008	3513 4008
100	4 P	3505 4010	3513 4010
125	4 P	3505 4012	3513 4012

Accessories

Factory fitted

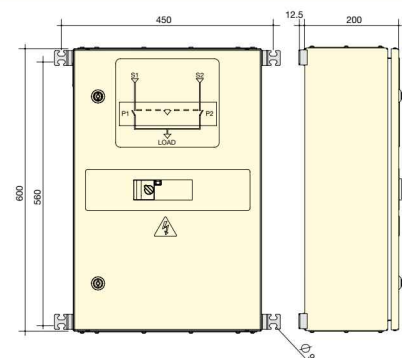
Description	Reference
LEDs indicating if voltage is present	9599 0005
LEDs for position indication	9599 0006
TESTS/AUTO modes selection (with C30 option)	9599 0007
Priority selection (with C30 option)	9599 0008
Surge arresters for enclosure (SURGYS D40)	9599 0010
Three-phase kit without neutral	9599 0012
Kit for auxiliary output (3Ph+N) 16A	9599 0016
Copper bar connection kit	9599 0019
IP54 kit	9599 0020
IPXXB protection screen (door open)	9599 0021
Battery charger	9599 0024
Kit for voltage sensing on terminals	9599 0028
Auxiliary kit for control on terminals	9599 0029
Kit for ATyS C30 control/command	9599 0030

Customer fit

Description	Reference
Copper bar connection kit	9599 0018
IP54 kit	9599 0020
IPXXB protection screen (door open)	9599 0021

Dimensions

Rating (A)	Connection cross-section (mm ²)	H (mm)	L (mm)	P (mm)	Weight (kg)
40	10	600	400	200	25
63	16	600	400	200	25
80	25	600	400	200	25
100	35	600	400	200	25
125	50	600	400	200	25



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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_e (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
Rated operational currents I_e (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
Fuse protected short-circuit withstand (kA rms prospective)						
Prospective short-circuit current (kA rms)		50	63	80	100	125
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 as per IEC 60947-6-1						
Rated short-time withstand current 0.03 s. (kA)		5	5	5	5	-
Rated short-circuit making capacity I_{cm} (kA peak)		7.65	7.65	7.65	7.65	-
Short-circuit capacity as per IEC 60947-3 (without protection)						
Rated short-time withstand current 1 s. I_{cw} (kA rms)		2.5	2.5	2.5	2.5	2.5
Rated peak withstand current (kA peak)		12	12	12	12	12
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
Supply 230 VAC inrush / nominal (VA)		200/40	200/40	200/40	200/40	200/40
Mechanical characteristics						
Durability (number of operating cycles)		25 000	25 000	25 000	25 000	25 000
Weight ATyS S and ATyS d S 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.

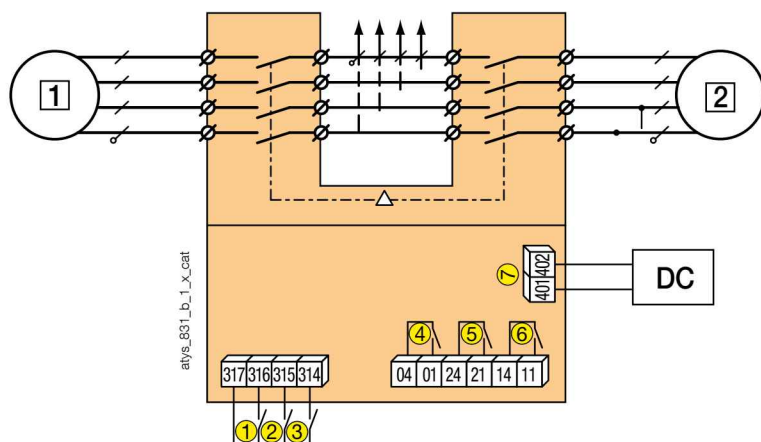
ATyS S - ATyS d S

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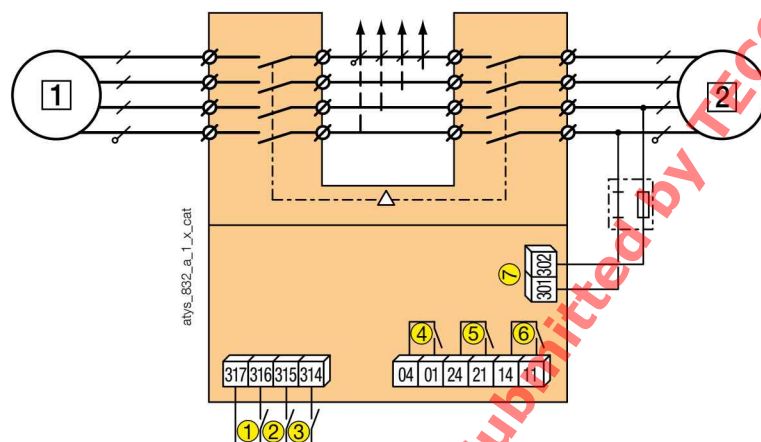
Terminals and connections

ATyS S DC version



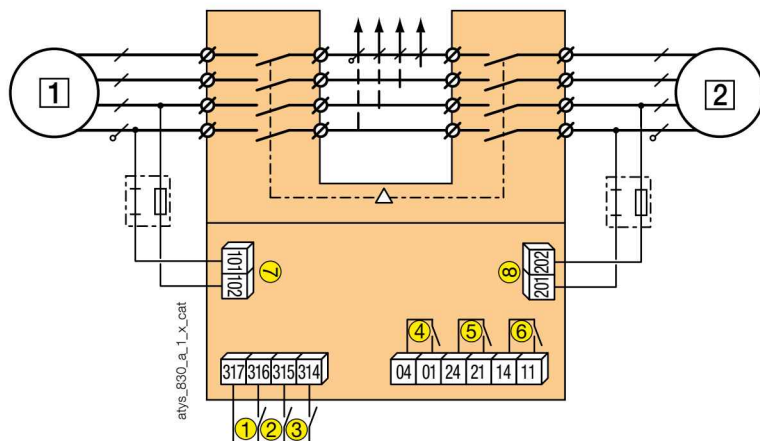
- 1 preferred source
- 2 alternate source
- 1: position 0 control
- 2: position I control
- 3: position II control
- 4: auxiliary contact, closed when the switch is in position 0
- 5: auxiliary contact, closed when the switch is in position II
- 6: auxiliary contact, closed when the switch is in position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

ATyS S: 230 VAC



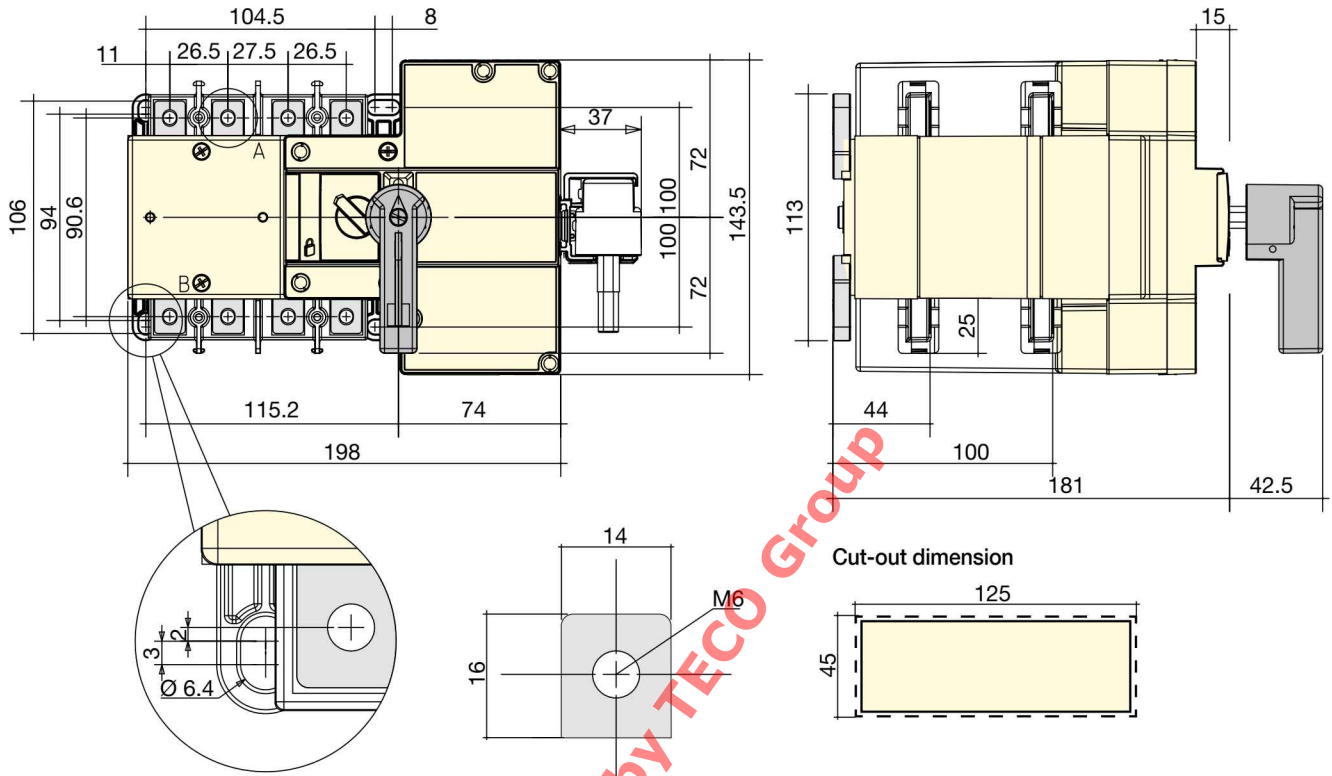
- 1 preferred source
- 2 alternate source
- 1: position 0 control
- 2: position I control
- 3: position II control
- 4: auxiliary contact, closed when the switch is in position 0
- 5: auxiliary contact, closed when the switch is in position II
- 6: auxiliary contact, closed when the switch is in position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

ATyS d S: 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)

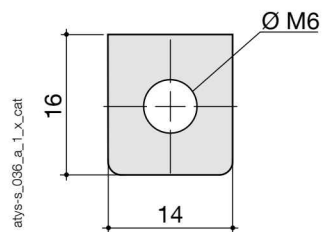
Dimensions



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Connection terminal



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