

# **Enclosed Transfer Switches**

ATyS Bypass 40 to 3200 A





# **Function**

- Automatically transfers to the available source to ensure continuity of the supply to life safety and critical loads such as sprinklers, firefighting/evacuation lifts, water pumps, etc.
- · Assures continuity of service during preventative, maintenance and testing.
- Full isolation of the Automatic Transfer Switch ensures that maintenance work can be carried out safely without interruption to the load.
- General features
- 40 to 3200 A, 4-pole.
- 230/400 VAC ± 20%, 50/60 Hz (ATS is self-powered from incoming sources).
- Class PC Automatic Transfer Switch.
- No-break bypass solution.
- Voltage and frequency monitoring of both
- Phase rotation and neutral position control.
- Bi-stable output relay for genset start/stop command (NO/NC).
- Remote position control (I, 0, II) with dry contact.
- Manual emergency operation.
- Volt-free programmable outputs for BMS/ remote indication.
- ATS and bypass switch auxiliary contacts.

- Source availability, ATS position & status, and source measurements are displayed on the door-mounted D20 interface. Access to configuration parameters, test and control functions (password protected) is also available via the D20.
- ATS Bypass are required for compliance with installation stadards BS 9999:2017 and BS 8519:2020, where occupation of the building is conditional upon the availability of the life safety and fire-fighting equipment.
- RS485 JBus/Modbus communication (as standard).
- ATS Auto/Manual selector.
- Degree of protection: IP41 as standard (others available on request).
- · Hinged door with 3 mm double bar locking.
- Mounting: ≤160A wall-mounted (brackets) supplied loose), ≥250A floor-mounted on
- D20 remote interface (door-mounted).
- Mimic panel (3 LEDs for live voltage on source 1, source 2, and load; optional 15/17-LED mimic panel).
- Protection against direct contact from each functional unit.
- Enclosure material: Steel.
- Colour: RAL 7035 epoxy powder coating.

# The solution for

- > Data centres
- > Energy generation
- > Healthcare buildings
- > High-rise buildings
- > Banks and insurance companies
- > Transport



# **Strong points**

- > No-break bypass solution prevents interruption to the load when switching to bypass.
- > IEC 61439-2 type tested solution
- > Continuity of service for critical and life safety applications

# Compliance with standards

- > IEC 61439-2
- > IEC 60947-6-1
- > IEC 60947-3
- > BS 60947-6-1



## **Expert Services**

Technical site audit, solution specification, advice, commissioning, maintenance, training, etc. Our Expert Services extend to a complete offer of customised services to make your project a success.





## 2 model versions

# **ATyS Single Line Bypass**

 Comprises an Automatic Transfer Switch and a priority source bypass line. Bypass and isolation of the ATSE can be performed without interruption to the load.

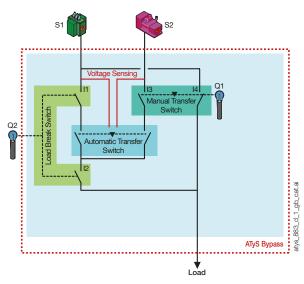
# ATyS Double Line Bypass

Comprises an Automatic Transfer Switch, a priority source bypass

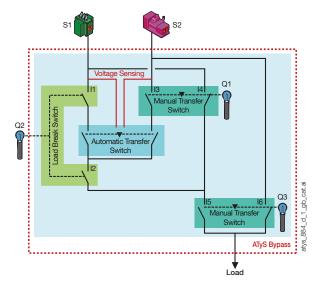
line and an alternative source bypass line. Priority source bypass, and isolation of the ATS, can be performed without interruption to the load.

 The addition of the alternative bypass line allows the backup source to be selected during maintenance work, should the priority source fail. ATyS Double Line Bypass provide an extra layer of power availability for the most critical applications.

## ATyS Bypass - SINGLE LINE



## ATyS Bypass - DOUBLE LINE



# **Functions**

# Normal position:

 The load is supplied by the priority source (S1). In the event of priority source failure, the ATS will automatically transfer to the alternative source (S2) when it is available.

#### Bypass position:

- Operating Q1 to Bypass creates a direct connection between the priority source (S1) and the load, without causing interruption.
  Opening switch Q2 provides complete isolation of the ATS from the sources and the load, thereby ensuring maintenance safety.
- Operating Q3 (Double Line only) to Bypass creates a direct connection between the alternative source (S2) and the load.
- While in bypass, tests can be performed (≥160A) without interruption to the load.

# References

# Standard device - 230 VAC for ATyS p M

Rating (A)	No. of poles <sup>(1)</sup>	Single line Reference	Double line Reference
40	4 P	1785 <b>4004</b>	1786 <b>4004</b>
63	4 P	1785 <b>4006</b>	1786 <b>4006</b>
80	4 P	1785 <b>4008</b>	1786 <b>4008</b>
100	4 P	1785 <b>4010</b>	1786 <b>4010</b>
125	4 P	1785 <b>4012</b>	1786 <b>4012</b>

(1) Standard ATyS Bypass require a distributed neutral to power the ATS and other components (230 VAC). If no neutral is available, please contact us for a solution.

# Standard device - 230 VAC for ATyS p

Rating (A)	No. of poles <sup>(1)</sup>	Single line Reference	Double line Reference
160	4 P	1785 <b>4016</b>	1786 <b>4016</b>
250	4 P	1785 <b>4025</b>	1786 <b>4025</b>
400	4 P	1785 <b>4040</b>	1786 <b>4040</b>
630	4 P	1785 <b>4063</b>	1786 <b>4063</b>
800	4 P	1785 <b>4080</b>	1786 <b>4080</b>
1000	4 P	1785 <b>4100</b>	1786 <b>4100</b>
1250	4 P	1785 <b>4120</b>	1786 <b>4120</b>
1600	4 P	1785 <b>4160</b>	1786 <b>4160</b>
2000	4 P	1785 <b>4200</b>	1786 <b>4200</b>
2500	4 P	1785 <b>4250</b>	1786 <b>4250</b>
3200	4 P	1785 <b>4320</b>	1786 <b>4320</b>

(1) Standard ATyS Bypass require a distributed neutral to power the ATS and other components (230 VAC). If no neutral is available, please contact us for a solution.



# **Enclosed Transfer Switches**

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# Accessories

## Customer fit

Designation	Reference
2 input/2 output plug-in programmable output module (ATyS p only)	1599 <b>2001</b> <sup>(1)</sup>

(1) Maximum 3 modules can be installed.

# Factory-fitted

# Cable entry/exit configuration

#### Use

To permit any cable entry and exit configuration (e.g. top/top), specific mounting brackets ( $\leq$  160 A) or a factory-fitted side extension cabinet ( $\geq$  250 A) can be provided. For  $\geq$  250 A solutions, power terminals can be factory-mounted within the extension cabinet to facilitate connection. Please contact us for more information.



lrys\_504

# Surge protection

# Use

Factory-fitted surge protection for either or both incoming sources is available on request.



690<sup>-s</sup>

# Load measurement

#### Use

≥160A: Factory-fit installation of current transformers on the outgoing side of the ATyS Bypass provides current, power and energy load measurements. Available on request.

# Tin-plated bars

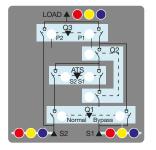
#### Use

≥250A: For harsh environments, tinned copper can be factory-fitted in place of the standard copper bars. Please contact us for details.

# Signalling

# Use

For a full overview of the system's state, opt for a 17-LED (15 for single line bypass) mimic panel (live voltage LED per phase and switch positions). Available on request.



ss 275 b 1 x cat

# Factory-fitted (continued)

# Connectivity

#### Use

≤125A: DIRIS Digiware M-70 gateway with WEBVIEW-M (Webserver) can be factory-fitted.

≥160A: Ethernet plug-in module (4825 0203) can be customer-fitted in place of the standard RS485 MODBUS module (plug-in Ethernet module populates 2 of the 4 ATyS p slots).

The above options provide the following:

- Remote Ethernet connectivity with real-time monitoring via a Web browser
- ATS status (position, mode, fault)
- Availability of sources (including measurements)
- Access to ATS parameters (viewing)
- ATS input and output status
- Event history

Easy Config System Software (free download) allows the following to be performed via Ethernet connectivity:

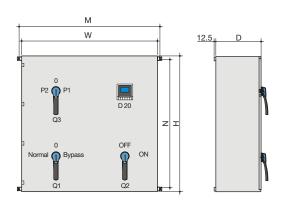
- ATS parameter configuration (1)
- Controls (remote transfers, auto inhibit, test ON/OFF load) (1)

(1) Password required.



# **Dimensions**

# 40 to 160 A



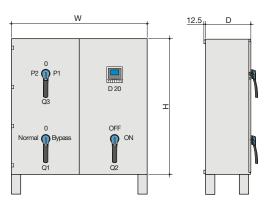
#### Wall-mounted

Rating (A)	Recommended cross-section (mm²)	H (mm)	W (mm)	D (mm)	M (mm)	N (mm)	Weight (kg)
40	10	800	800	300	840	758	80
63	16	800	800	300	840	758	80
80	25	800	800	300	840	758	80
100	35	1000	800	300	840	958	80
125	50	1000	800	300	840	958	80
160	70	1000	800	400	840	958	160

# Connection (input/output)

• Standard cable entry and exit is at the bottom. Other configurations may, according to cable size, require specific mounting brackets (≤160A) or a factory-fitted side extension cabinet (≥250A). Please contact us for more information.

## $\geq 250 \, \text{A}$



#### Floor-mounted

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Rating (A)	Recommended cross-section (mm²)	H (mm)	W (mm)	D (mm)	Weight (kg)
250	120	1200 (1)	1000	520	180
400	240	1200 (1)	1000	520	200
630	2 x 185	1600 <sup>(2)</sup>	1200	600	600
800	2 x 240	1800 <sup>(2)</sup>	1600	800	1000
1000	4 x 150	1800 <sup>(2)</sup>	1600	800	1000
1250	4 x 185	2000 (3)	2000	1000	2000
1600	4 x 240	2000 (3)	2000	1000	2000
2000	8 x 150	2000 (4)	2200	1000	2500
2500	8 x 185	2000 (4)	2200	1000	2500
3 200	8 x 240	2000 (4)	2200	1000	2500

- (1) Add 200 mm for the base feet.
- (2) Add 100 mm for the base feet.
- (3) Add 125 mm for the base feet.
- (4) Add 120 mm for the base feet (allow for an additional 160 mm for roof fan).

