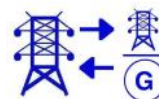


AUTOMATIC TRANSFER SWITCH (ATS) Plus Dual Bypass

Three Phase ATS - With Dual Line Bypass (BS8519:2020)

MAINS
TO
STANDBY



OVERVIEW

- Built in maintenance bypass (BS8519: 2020)
- Bypass of primary & standby supply (Dual Line Bypass)
- Bypass & Isolator switch with pad lockable handles
- BMS volt free contacts
- Changeover motorized switch to 60947-6-1
- No D.C power required (The ATS is self powered from either supply)
- Auto / Standby test switch
- 3 Phase voltage monitoring
- Configurable timers,
- Digital display
- Two wire standby start request (For diesel generators)



DESCRIPTION & FUNCTION

A range of Automatic Transfer Switch (ATS) panels with a built in dual maintenance bypass arrangement to allow for the bypass of the ATS switching element in accordance with BS8519:2020. Panel sizes are available from 40A to 400A.

The ATS can be combined with a bypass panel to provide an integrated ATS bypass solution. The ATS panel monitors the local primary mains supply and will switch to the standby supply if the primary supply should fail, or fall outside pre-set limits. On return of the primary supply the ATS panel will monitor it to ensure it is stable and then transfer the load from the standby supply back to the primary supply.

In accordance with BS 8519:2020 which states, "changeover devices should conform to BS EN 60947-6-1, and should be based on switch technology (PC classification), rather than circuit breakers or contactors. The ATS should be a single component from the same manufacturer", The ATS plus bypass uses a motorized switch with built in voltage monitoring, ATS control and timing in one switch unit. The motorized switch has many benefits to include. The switch mechanism is only powered when it is moving position, and no power source is required to hold it in position once a switch position has been reached, thus eliminating problems due to coil failure. The switch also comes with a manual override mechanism this allows the switch to be manually operated between the primary, Off and secondary supply if required.

The standby start signal is by means of volt free normally open (N/O) contact closing when the standby supply is required to run.

A two position selector switch is used for control. In the AUTO position all operations are automatic with the panel switching between the two supplies automatically when there is a failure of the primary mains supply. The second position TEST activates the standby start request signal and switches the ATS to the standby supply. Switching back to AUTO the ATS will switch the load back to the primary supply after any time sequences.

Dual line bypass is for the primary & secondary supply. The switching arrangement for bypass mode allows for the isolation of the ATS component of the panel from the load and both power sources. Whilst in bypass mode the primary or secondary supply is connected directly through to the load. Once in bypass mode the ATS component of the panel is isolated for maintenance, test and inspection purposes. The bypass switch is of the open transition type allowing for safe operation. The bypass system is accomplished with 3 switches. Switch 1 is a 2 position load break switch to isolate the ATS, switch 2 selects either "Normal operation" - "Off" - "Bypass Mode" and the 3rd switch selects either the primary or secondary source to bypass. A set of volt free contacts are provided for connection to a BMS / indication system.

Housed in a robust mild steel enclosure. Supplied with loose gland plate, and door key. Enclosure specification to EN 62208, RAL7035, EN 60529, IK10, EN 61439-1-2. Cable entry as standard is arranged for bottom entry. A 16A auxiliary output is provided for use with battery chargers, water jacket heaters etc.

Assembled in the UK using parts conforming to EN60529, EN60947. Provided with a 12-month warranty

SPECIFICATION

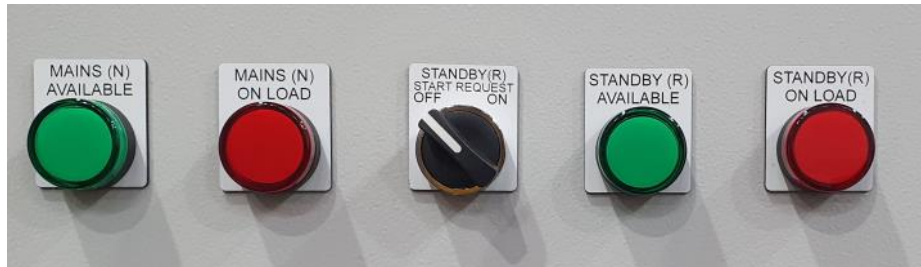
Application:	ATS installations to BS8519:2020
Bypass:	Dual line (Primary & secondary supply bypass)
Voltage:	Nominal 400 Vac
	380 - 440 Vac
	3 Phase + N
Frequency:	50 / 60Hz
ATS Switch:	Motorized Switch
<i>Utilization category</i>	AC 33, AC 23
	BS EN 60947-6-1
<i>Voltage Monitoring:</i>	3 phase primary & secondary
<i>Voltage range</i>	360–440 Phase – Phase
<i>Voltage hysteresis</i>	5–20% of nominal
<i>Frequency hysteresis</i>	3–10% of nominal
<i>Timers:</i>	Mains fail & mains return
<i>MFT (mains fail time)</i>	Yes
<i>MRT (mains return delay)</i>	Yes
<i>LED Indicators</i>	Primary supply available
	Secondary supply available.
<i>Switch position status indication</i>	Position I – OFF – Position II
<i>Manual over ride</i>	Yes via supplied over ride handle mechanism
Enclosure:	Mild steel
	RAL 7035
<i>Position</i>	Indoor
	EN 62208, EN 60529, IK10
	Bottom gland plate
Auxiliary output:	16A single phase
Two wire standby start :	Normally open contact, closes to call the standby supply.
Switch Control Modes (ATS):	
Auto	ATS switches automatically between primary & secondary supplies.
Test	Standby request signal activated.
Isolator Switch:	2 position “OFF–ON”
	IEC 60947-3
Bypass Switch:	3 Position “ NORMAL–OFF–BYPASS”
	IEC60947-3
Bypass Source Switch:	3 Position “ Primary –OFF–STANDBY”
	IEC60947-3
BMS Contacts (Volt Free) N/O	Primary supply selected on load
	Secondary supply selected on load
	Bypass selected



ATS

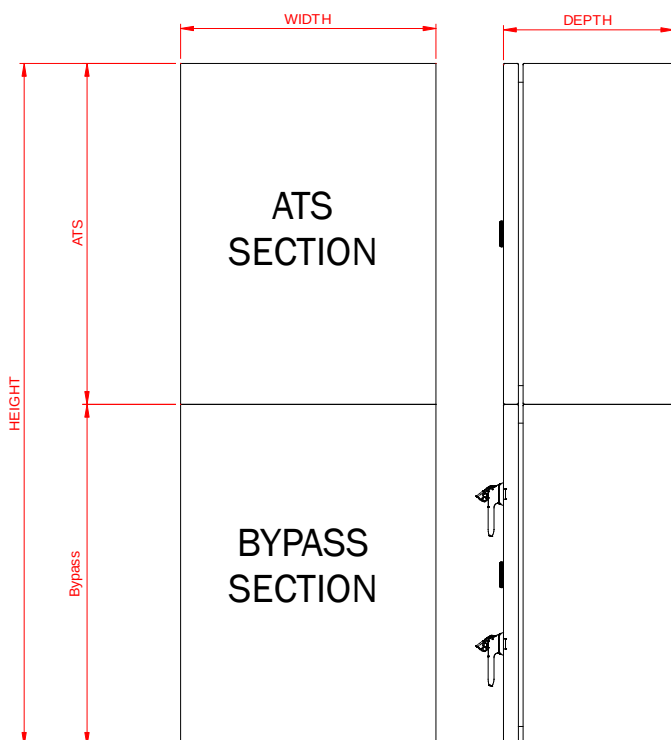
Please see the following pages for part codes

FRONT PANEL INDICATION & Control

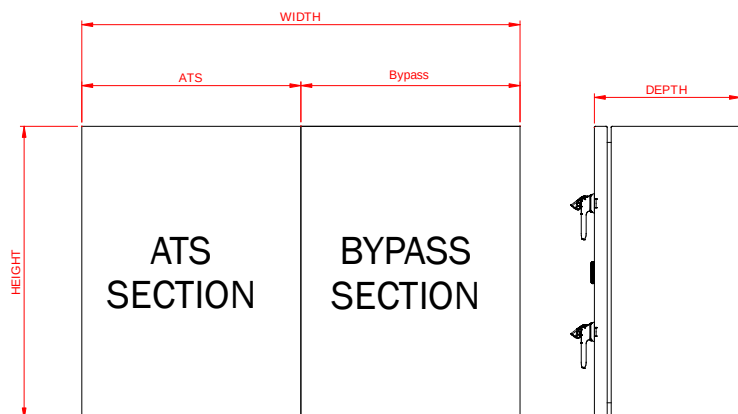


DIMENSIONS

ATS



Standard arrangement—Vertical
Top enclosure—ATS
Lower enclosure—Bypass



Alternative arrangement—Horizontal

Alternative arrangement available on request
Left hand enclosure—ATS
Right hand enclosure—Bypass

PART CODES

ATS PLUS SINGLE LINE BYPASS - THREE PHASE

Amps	Utilisation Category 415 VAC	Part Code	Enclosure Size * (mm)						Terminal
			ATS			Bypass			
			Height	Width	Depth	Height	Width	Depth	
40A	AC 33 B	PAN-ATS4-40-ATSE-DLB	400	500	200	500	500	200	Cage clamp (10mm)
63A	AC 33 B	PAN-ATS4-63-ATSE-DLB	600	600	250	800	600	250	Cage clamp (16mm)
100A	AC 33 B	PAN-ATS4-100-ATSE-DLB	600	600	250	800	600	250	Cage clamp (35mm)
125A	AC 33 B	PAN-ATS4-125-ATSE-DLB	600	600	250	800	600	250	Cage clamp (35mm)
160A	AC 33 B	PAN-ATS4-160-ATSE-DLB	600	600	250	1000	600	250	M8
200A	AC 33 B	PAN-ATS4-200-ATSE-DLB	TBA	TBA	TBA	TBA	TBA	TBA	M8
250A	AC 33 B	PAN-ATS4-250-ATSE-DLB	TBA	TBA	TBA	TBA	TBA	TBA	M8
315A	AC 33 B	PAN-ATS4-315-ATSE-DLB	TBA	TBA	TBA	TBA	TBA	TBA	M10
400A	AC 33 B	PAN-ATS4-400-ATSE-DLB	TBA	TBA	TBA	TBA	TBA	TBA	M10

ATS

* Overall dimensions are the ATS and Bypass dimensions combined.

E.g A 100Amp panel with standard vertical arrangement is:-

Height 500 + 500 = 1000mm

Width = 500mm

Depth = 200mm