

Atec Air Circuit Breakers



Techna's high performance Atec Air Circuit Breakers provide protection and switching for electrical equipment from 630A to 6300A. With 3 different model sizes, the Atec ACBs are available as a fixed or withdrawable design.

Atec ACBs can be configured to feature a wide range of accessories, such as Switches, Undervoltage Releases, Shunt Trips, Hand and Motor Drives, Covers and Connecting Sets. They can therefore be customised for use in complex installations and operations.

Due to the extensive configurations available, please contact Techna to find the most suited breaker for your requirements.

For an overview of possible configurations, please see page 75.

Atec Configuration Guide

- Step 1:** Choose a Size (see page 76)
- Step 2:** Select Rated Current (see page 76)
- Step 3:** Select Rated Short Circuit Ultimate Breaking Capacity (see page 76)
- Step 4:** Pick an Overcurrent Release (contact us for more info)
- Step 5:** Select Number of Poles (see page 76)
- Step 6:** Choose a Design and type of Connection (contact us for more info)
- Step 7:** Pick a Drive and Closing Release (see page 77)
- Step 8:** Choose a 1st Auxiliary Release (see page 77)
- Step 9:** Choose a 2nd Auxiliary Release (see page 77)
- Step 10:** Add Auxiliary Switches (see page 77)
- Step 11:** Add Additional Accessories (see page 77)

Atec Circuit Breaker / Switch Disconnecter Standard Equipment

Fixed Design:

- Push-button for mechanical ON
- Push-button for mechanical OFF
- Hand Drive with storage device
- Mechanical indicator of circuit breaker state - ON/OFF state
- Mechanical storage device state - wound up/released
- Mechanical indicator "ready-to-close"
- Auxiliary Switches - 2NO + 2NC Contacts
- Terminals blocks and connectors for connection of Auxiliary Circuits - the Circuit Breaker / Switch Disconnecter is always equipped with all necessary terminal blocks and connectors; terminal block has screw terminals
- Mechanical indicator of switching off by Overcurrent Release
- Mechanical interlocking of reset after switching off by Overcurrent Release

Withdrawable Design:

Same as Fixed Design with the addition of:

- Mechanical indicator of the circuit breaker in the withdrawable device
- Locking device against shifting of circuit breaker using a padlock

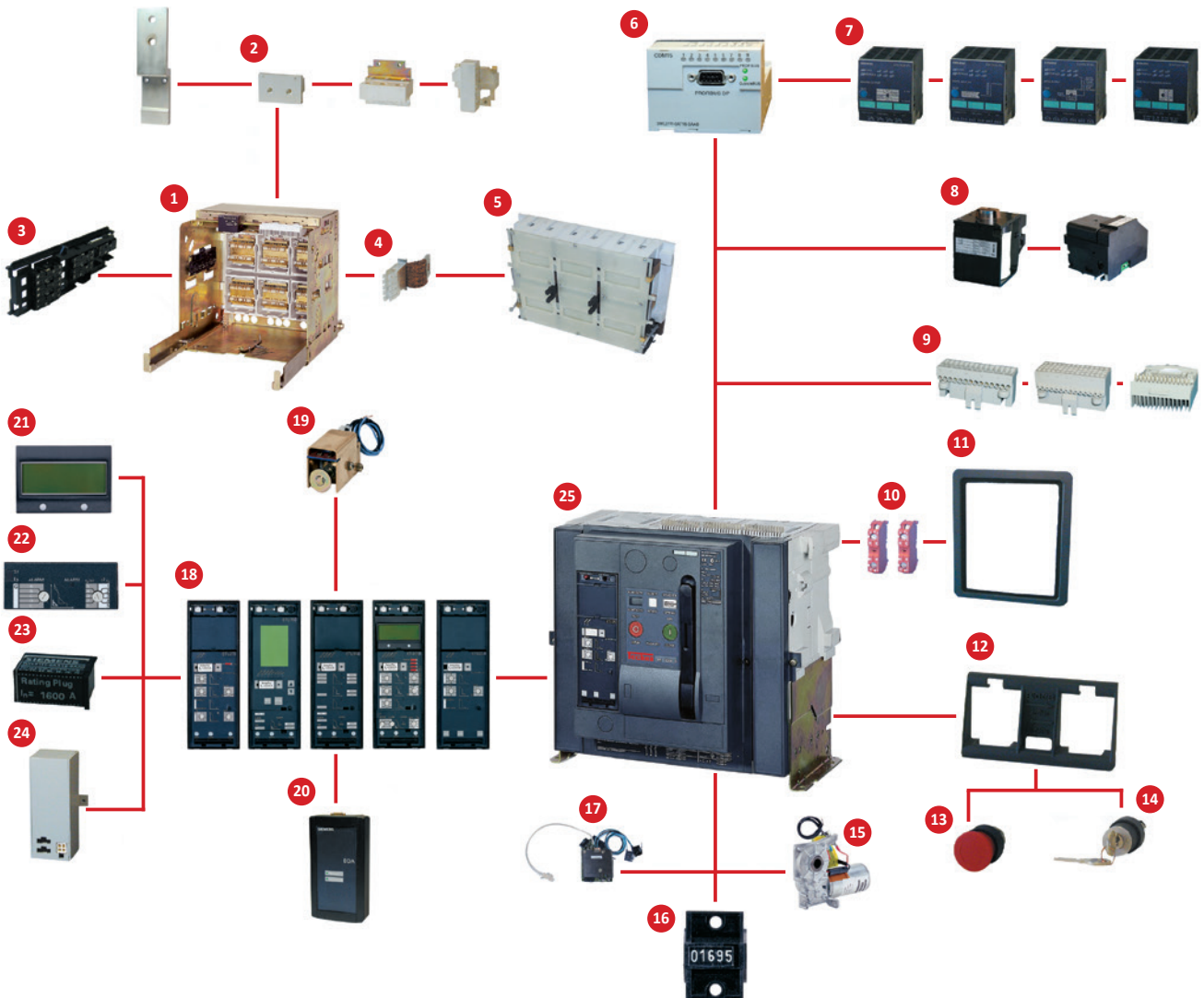
BUS Module Systems:
PROFIBUS and MODBUS Modules
are also available to order

Atec Ordering Scheme

NOTE: Due to the extensive configurations available, please contact Techna to find the most suited breaker for your requirements.

Atec Overview of possible Configurations of Types and Accessories

- | | |
|---|--|
| 1 Withdrawable Device | 14 Locking Device against unauthorised closing |
| 2 Front, Flanged, Horizontal and Vertical Connection | 15 Motor Drive |
| 3 Position Signal Switches | 16 Counter of Cycles |
| 4 Earthing Contact | 17 BSS (Breaker System Status) Module |
| 5 Insulation Cover | 18 Overcurrent Release |
| 6 COM 15 Module PROFIBUS | 19 Remote Reset Electromagnet |
| 7 BUS Modules | 20 BDA Adapter |
| 8 Closing Release / Shunt Trip, Undervoltage Release | 21 Display |
| 9 Connector and Terminal Blocks of Auxiliary Circuits | 22 Earth Fault Module |
| 10 Auxiliary Switches | 23 Rated Current Module |
| 11 Door Sealing Frame | 24 Measuring Function Module |
| 12 Protective Caps for Mechanical ON/OFF | 25 Atec Air Circuit Breaker |
| 13 Emergency OFF Push-Button | |



Techna CIRCUIT PROTECTION

Atec ACBs

Atec Circuit Breakers & Switch Disconnectors Technical Specification - AC Operation



Model Size	Atec I	Atec II	Atec III	
Number of Poles	3 or 4	3 or 4	3 or 4	
Rated Current (I_n)	630, 800, 1000, 1250, 1600, 2000A	800, 1000, 1250, 1600, 2000, 2500, 3200, 4000A	4000, 5000, 6300A	
Rated Operating Voltage (U_e)	690 Vac (1000 Vac)	690 Vac (1000 / 1150 Vac)	690 Vac (1000 / 1150 Vac)	
Rated Frequency (f_n)	50/60Hz	50/60Hz	50/60Hz	
Rated Short Circuit Ultimate Breaking Capacity (I_{cu}) <i>*Circuit Breakers Only*</i>	N - 55kA / 415 Vac S - 66kA / 415 Vac H - 85kA / 415 Vac	N - 66kA / 415 Vac S - 80kA / 415 Vac H - 100kA / 415 Vac C - 130kA / 415 Vac	H - 100kA / 415 Vac C - 150kA (3 Pole) / 415 Vac C - 130kA (4 Pole) / 415 Vac	
Rated Conditional Short Circuit Current (I_{cs}) <i>*Switch Disconnectors Only*</i>	N - 55kA / 415 Vac S - 66kA / 415 Vac H - 75kA / 415 Vac	N - 66kA / 415 Vac S - 80kA / 415 Vac H - 100kA / 415 Vac C - 130kA / 415 Vac	H - 100kA / 415 Vac C - 100kA / 415 Vac	
Rated Short Time Withstand Current (I_{cw})	N - 42kA / 1s S - 50kA / 1s H - 66kA / 1s	N - 55kA / 1s S - 66kA / 1s H - 85kA / 1s C - 100kA / 1s	H - 100kA / 1s C - 100kA / 1s	
Rated Short Circuit Making Capacity (I_{cm})	N - 121kA / 415 Vac S - 145kA / 415 Vac H - 187kA / 415 Vac	N - 145kA / 415 Vac S - 176kA / 415 Vac H - 220kA / 415 Vac C - 286kA / 415 Vac	H - 220kA / 415 Vac C - 330kA (3 Pole) / 415 Vac C - 286kA (4 Pole) / 415 Vac	
Dimensions (W x H x D)	Fixed Design (3-Pole/4-Pole)	320/410 x 440 x 291mm	460/590 x 440 x 291mm	704/914 x 440 x 291mm
	Withdrawable Design (3-Pole/4-Pole)	320/410 x 468 x 385mm	460/590 x 468 x 385mm	704/914 x 468 x 385mm

Atec Switch Disconnectors Technical Specification - DC Operation

Model Size	Atec I	Atec II	Atec III	
Number of Poles	4	3 or 4	-	
Rated Current (I_n)	2000A	1000, 2000, 4000A	-	
Rated Operating Voltage (U_e)	1000 Vdc	600 Vdc (1000 Vdc)	-	
Rated Conditional Short Circuit Current (I_{cs})	20kA / 1000 Vdc	35kA / 220 Vdc	-	
Rated Short Time Withstand Current (I_{cw})	20kA / 1s	35kA / 1s	-	
Rated Short Circuit Making Capacity (I_{cm})	20kA / 1000 Vdc	35kA / 220 Vdc	-	
Dimensions (W x H x D)	Fixed Design (3-Pole/4-Pole)	410 x 440 x 291mm	460/590 x 440 x 291mm	-
	Withdrawable Design (3-Pole/4-Pole)	-	460/590 x 468 x 385mm	-

Atec Basic Accessories (Steps 7, 8, 9 & 10 of Configuration)

Drives	
Function	Operational Voltage
Hand Drives with Mechanical Closing (A crank lever pre-charges the internal spring mechanism, which is released by pressing a button on the ACB)	-
Hand Drives with Electrical Closing (Same as above, but the spring can be activated remotely)	110 - 127 Vac / 110 - 125 Vdc
	208 - 240 Vac / 220 - 250 Vdc
Motor Drives with Electrical Closing (A motor pre-charges an internal spring mechanism, which is activated remotely)	24 - 30 Vdc
	110 - 127 Vac / 110 - 125 Vdc
	208 - 240 Vac / 220 - 250 Vdc

Auxiliary Releases	
Function	Operational Voltage
Shunt Trips	24, 30, 48, 60 Vdc
	110 - 127 Vac / 110 - 125 Vdc
	208 - 240 Vac / 220 - 250 Vdc
Undervoltage Releases (Short Time Delayed 80 or 200ms)	24, 30, 48, 60 Vdc
	110 - 127 Vac / 110 - 125 Vdc
	208 - 240 Vac / 220 - 250 Vdc
	380 - 415 Vac
Undervoltage Releases (Delayed 0.2 up to 3.2s)	48 Vdc
	110 - 127 Vac / 110 - 125 Vdc
	208 - 240 Vac / 220 - 250 Vdc
	380 - 415 Vac

Auxiliary Switches				
Function	Contact Arrangements			
Contact Blocks	2x NO + 2x NC	4x NO + 4x NC	6x NO + 2x NC	5x NO + 3x NC

Atec Additional Accessories (Step 11 of Configuration)

There are a wide range of additional Accessories available for the Atec Circuit Breakers and Switch Disconnectors, for example:

- Various Connection Terminals
- Auxiliary Circuit Terminal Blocks
- Closing Releases and Motor Drives
- Shunt Trips
- Tinned Connections
- Rated Current Modules
- Signal Switches
- Control Push Buttons
- Data Communication Devices
- Measuring Function Module
- Mechanical Interlockings
- Blocking Devices
- Arc Chute & Insulation Covers
- Door Sealing Frames (IP41)

This is only a small list of additional Accessories that are available, so please contact Techna for more information.

Atec Optional Accessories (Ordered Separately)

We also have a range of optional Accessories that are available separately, from Protection Covers to BUS Modules. Please contact Techna for more information on the available optional Accessories.