



# IDE

## Load break switches for machine control

Remotely trippable switch from 32 to 160 A



Load break switches



IDE 4x40 A  
External operation



IDE 4x40 A  
Direct operation

### The solution for

- > Industry.
- > Non critical buildings.
- > Public Access Sites.
- > High Rise Buildings.



### Strong points

- > Safety.
- > Easy to install.
- > Low consumption.

### Empty enclosure for IDE

> This drilled pre-equipped IP65 enclosure enables immediate installation of a direct control rear mounted IDE without auxiliary contact.



### Function

IDE are manually operated multipolar load break switches with a remote tripping function.

They make and break under load conditions and provide safety isolation for any low voltage electric circuit, particularly for compliance with the machine directive.

### General characteristics

- Positive break indication.
- IP2X protection with terminal shrouds (accessory).
- Shunt trip or undervoltage trip coil.

### Advantages

#### Safety

Remote tripping is especially adapted for protection against automatic machine restart after isolation and restoration of the mains voltage (EN 60204.1 § 7.5).

#### Low consumption

The device coils (including undervoltage) have a low consumption, providing increased reliability.

#### Easy to install

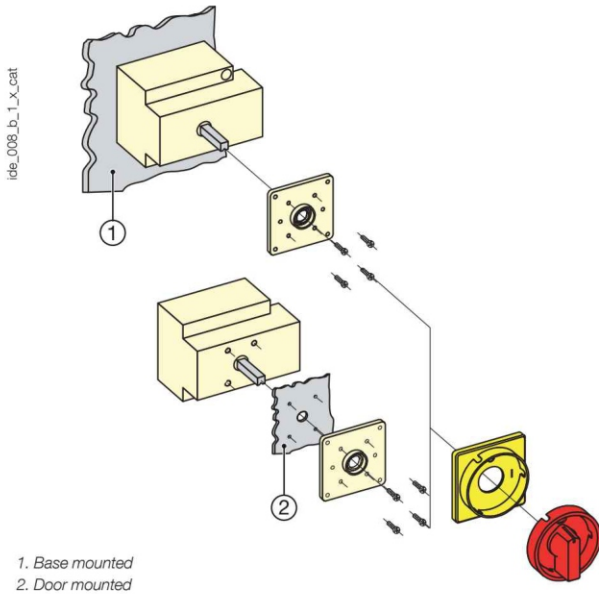
As standard the IDE is supplied with its tripping coil factory fitted and with its connections made internally.

For IDE 125 and 160A a factory fitted auxiliary contact is supplied as standard, simplifying product installation. The various fixing systems (front or rear mount with direct or external operation) enable easy device implementation.

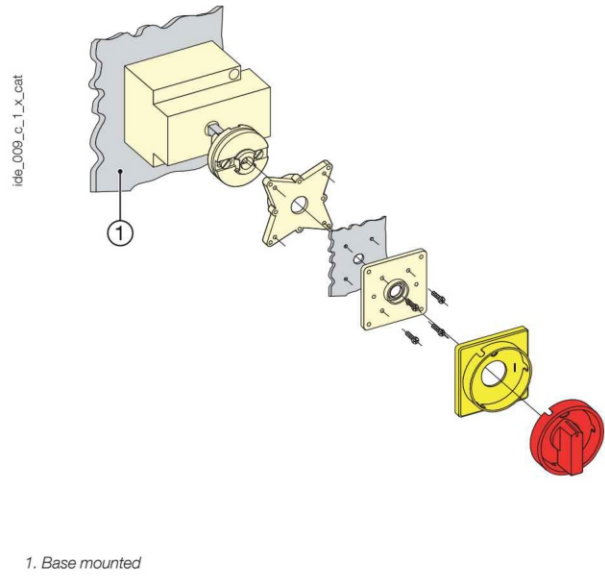
### What you need to know

- **Direct** and **external operation** handles are available for the IDE.
- IDEs are supplied in 3 or 4 pole versions, with two mounting types available:
  - rear mounting on a **back-plate** or **DIN-rail**, direct or external operation.
  - **door** or **panel** mounting, direct operation.

#### Direct operation

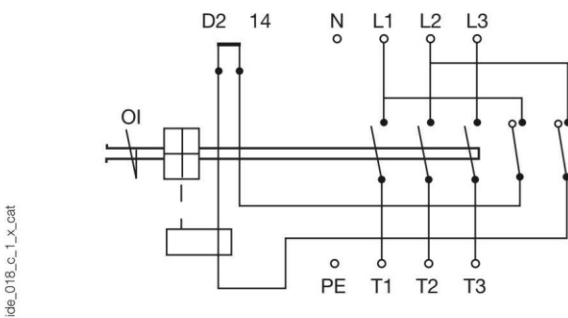


#### External operation

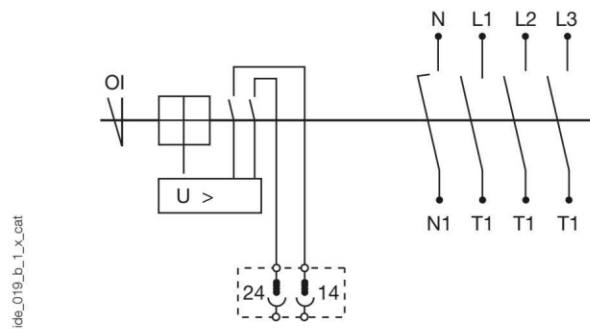


- Available in 230 or 400 VAC versions, the IDEs can be tripped remotely via a **shunt trip** or **undervoltage** coil. They are used to protect against automatic restarting and to prevent damage caused by the network malfunctions and is then re-established.
- Factory fitted, the IDE's tripping coil is connected internally. The coil is supplied between:
  - L1 and N for 230 VAC devices.
  - L1 and L2 for 400 VAC devices.
 For an IDE 32 A, an actuator relay can be incorporated between D2 and D14 (other wiring on request).

#### IDE 32 A



#### Internal cabling IDE 40 to 160 A



## References

### Base mounted

Rating (A)	No. of poles	Switch body Undervoltage coil	Switch body Shunt trip coil	Direct handle	External operation 200 mm	Position auxiliary contact	Terminal covers top/ bottom (2 sets)	Empty enclosure
32 A	3 P	1260 <b>3003</b> <sup>(1)</sup> 1270 <b>3003</b> <sup>(2)</sup>		Black IP65 1299 <b>5012</b> Red / Yellow IP65 1299 <b>5013</b>	Black IP65 1299 <b>6022</b> Red / Yellow IP65 1299 <b>6023</b>	1 contact NO+NC 1299 <b>5001</b>	3/4 P 1299 <b>8003</b>	1295 <b>9001</b> <sup>(5)</sup>
	4 P							
40 A	3 P	1260 <b>3004</b> <sup>(1)(3)</sup> 1270 <b>3004</b> <sup>(2)(3)</sup>	1280 <b>3004</b> <sup>(1)(3)</sup> 1290 <b>3004</b> <sup>(2)(3)</sup>	Black IP65 1299 <b>6142</b> <sup>(4)</sup> Red / Yellow IP65 1299 <b>6143</b> <sup>(4)</sup>	Black IP65 1299 <b>6032</b> Red / Yellow IP65 1299 <b>6033</b>	1 contact NO+NC 1299 <b>0031</b>	3/4 P 1299 <b>8007</b>	Please consult us
	4 P	1260 <b>4004</b> <sup>(1)(3)</sup> 1270 <b>4004</b> <sup>(2)(3)</sup>	1280 <b>4004</b> <sup>(1)(3)</sup> 1290 <b>4004</b> <sup>(2)(3)</sup>					
63 A	3 P	1260 <b>3007</b> <sup>(1)(3)</sup> 1270 <b>3007</b> <sup>(2)(3)</sup>	1280 <b>3007</b> <sup>(1)(3)</sup> 1290 <b>3007</b> <sup>(2)(3)</sup>					
	4 P	1260 <b>4007</b> <sup>(1)(3)</sup> 1270 <b>4007</b> <sup>(2)(3)</sup>	1280 <b>4007</b> <sup>(1)(3)</sup> 1290 <b>4007</b> <sup>(2)(3)</sup>					
125 A	3 P	1260 <b>3013</b> <sup>(1)</sup> 1270 <b>3013</b> <sup>(2)</sup>	1280 <b>3013</b> <sup>(1)</sup> 1290 <b>3013</b> <sup>(2)</sup>	Black IP65 1299 <b>5032</b> Red / Yellow IP65 1299 <b>5033</b>	Black IP65 1299 <b>6042</b> Red / Yellow IP65 1299 <b>6043</b>	1 contact NO+NC 1299 <b>0021</b>	3/4 P 1299 <b>8013</b>	
	4 P	1260 <b>4013</b> <sup>(1)</sup> 1270 <b>4013</b> <sup>(2)</sup>	1280 <b>4013</b> <sup>(1)</sup> 1290 <b>4013</b> <sup>(2)</sup>					
160 A	3 P	1260 <b>3016</b> <sup>(1)</sup> 1270 <b>3016</b> <sup>(2)</sup>	1280 <b>3016</b> <sup>(1)</sup> 1290 <b>3016</b> <sup>(2)</sup>					
	4 P	1260 <b>4016</b> <sup>(1)</sup> 1270 <b>4016</b> <sup>(2)</sup>	1280 <b>4016</b> <sup>(1)</sup> 1290 <b>4016</b> <sup>(2)</sup>					

(1) 230 VAC.

(2) 400 VAC.

(3) Modular device.

(4) Modular handle.

(5) This drilled pre-equipped enclosure enables immediate installation of a direct control rear mounted IDE without auxiliary contact, with protection rating of IP65.

## Door mounted

Rating (A)	No. of poles	Switch body Undervoltage coil	Switch body Shunt trip coil	Direct handle	Auxiliary contact position	Terminal covers top/ bottom (2 sets)
32 A	3 P	1210 <b>3003</b> <sup>(1)</sup> 1220 <b>3003</b> <sup>(2)</sup>		Black IP65 1299 <b>5012</b> Red / Yellow IP65 1299 <b>5013</b>	1 contact NO+NC 1299 <b>5001</b>	3/4 P 1299 <b>8003</b>
	4 P					
40 A	3 P	1210 <b>3004</b> <sup>(1)</sup> 1220 <b>3004</b> <sup>(2)</sup>	1230 <b>3004</b> <sup>(1)</sup> 1240 <b>3004</b> <sup>(2)</sup>	Black IP65 1299 <b>5022</b> Red / Yellow IP65 1299 <b>5023</b>	1 contact NO+NC 1299 <b>0031</b>	3/4 P 1299 <b>8007</b>
	4 P	1210 <b>4004</b> <sup>(1)</sup> 1220 <b>4004</b> <sup>(2)</sup>	1230 <b>4004</b> <sup>(1)</sup> 1240 <b>4004</b> <sup>(2)</sup>			
63 A	3 P	1210 <b>3007</b> <sup>(1)</sup> 1220 <b>3007</b> <sup>(2)</sup>	1230 <b>3007</b> <sup>(1)</sup> 1240 <b>3007</b> <sup>(2)</sup>	Black IP65 1299 <b>5032</b> Red / Yellow IP65 1299 <b>5033</b>	1 contact NO+NC 1299 <b>0021</b>	3/4 P 1299 <b>8013</b>
	4 P	1210 <b>4007</b> <sup>(1)</sup> 1220 <b>4007</b> <sup>(2)</sup>	1230 <b>4007</b> <sup>(1)</sup> 1240 <b>4007</b> <sup>(2)</sup>			
125 A	3 P	1210 <b>3013</b> <sup>(1)</sup> 1220 <b>3013</b> <sup>(2)</sup>	1230 <b>3013</b> <sup>(1)</sup> 1240 <b>3013</b> <sup>(2)</sup>	Black IP65 1299 <b>5032</b> Red / Yellow IP65 1299 <b>5033</b>	1 contact NO+NC 1299 <b>0021</b>	3/4 P 1299 <b>8013</b>
	4 P	1210 <b>4013</b> <sup>(1)</sup> 1220 <b>4013</b> <sup>(2)</sup>	1230 <b>4013</b> <sup>(1)</sup> 1240 <b>4013</b> <sup>(2)</sup>			
160 A	3 P	1210 <b>3016</b> <sup>(1)</sup> 1220 <b>3016</b> <sup>(2)</sup>	1230 <b>3016</b> <sup>(1)</sup> 1240 <b>3016</b> <sup>(2)</sup>	Black IP65 1299 <b>5032</b> Red / Yellow IP65 1299 <b>5033</b>	1 contact NO+NC 1299 <b>0021</b>	3/4 P 1299 <b>8013</b>
	4 P	1210 <b>4016</b> <sup>(1)</sup> 1220 <b>4016</b> <sup>(2)</sup>	1230 <b>4016</b> <sup>(1)</sup> 1240 <b>4016</b> <sup>(2)</sup>			

(1) 230 VAC.  
 (2) 400 VAC.

## Accessories

### Direct operation handle for base mounting

Rating (A)	Handle colour	External IP	Reference
32	Black	IP65	1299 <b>5012</b>
32	Red/Yellow	IP65	1299 <b>5013</b>
40 ... 63	Black	IP65	1299 <b>6142<sup>(1)</sup></b>
40 ... 63	Red/Yellow	IP65	1299 <b>6143<sup>(1)</sup></b>
125 ... 160	Black	IP65	1299 <b>5032</b>
125 ... 160	Red/Yellow	IP65	1299 <b>5033</b>

(1) Modular handle.

### Direct operation handle for door mounting

Rating (A)	Handle colour	External IP	Reference
32	Black	IP65	1299 <b>5012</b>
32	Red/Yellow	IP65	1299 <b>5013</b>
40 ... 63	Black	IP65	1299 <b>5022</b>
40 ... 63	Red/Yellow	IP65	1299 <b>5023</b>
125 ... 160	Black	IP65	1299 <b>5032</b>
125 ... 160	Red/Yellow	IP65	1299 <b>5033</b>

### External operation for rear mounting device

#### Use

Standard shaft length: 200 mm.

Other lengths: Please consult us.

#### Shaft extension and black handle

Rating (A)	Shaft length (mm)	External IP	Reference
32	200	IP65	1299 <b>6022</b>
40 ... 63	200	IP65	1299 <b>6032</b>
125 ... 160	200	IP65	1299 <b>6042</b>

#### Shaft extension and red handle

Rating (A)	Shaft length (mm)	External IP	Reference
32	200	IP65	1299 <b>6023</b>
40 ... 63	200	IP65	1299 <b>6033</b>
125 ... 160	200	IP65	1299 <b>6043</b>

### Position auxiliary contact

**Use**

1 NO+NC auxiliary contact for position 0 and I signalling.

**Connection to the control circuit**

By terminal.

**Characteristics**

Rating (A)	Contact type	Nominal current (A)
32 ... 63	NO + NC	12
125 ... 160	NO + NC	5



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Rating (A)	Mounting	Contact(s)	Reference
32	by customer	1 NO+NC	1299 <b>5001</b>
40 ... 63	by customer	1 NO+NC	1299 <b>0031</b>
125 ... 160	by customer	1 NO+NC	1299 <b>0021</b>
125 ... 160	factory fitted	1 NO+NC	1299 <b>0121</b>

### Terminal shrouds

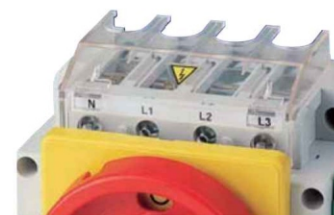
**Use**

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

Top and bottom pair.

Rating (A)	Position	Reference
32	top / bottom	1299 <b>8003</b> <sup>(1)</sup>
40 ... 63	top / bottom	1299 <b>8007</b> <sup>(1)</sup>
125 ... 160	top / bottom	1299 <b>8013</b> <sup>(1)</sup>

<sup>(1)</sup> Reference composed of 2 pieces.



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### IP65 enclosure for direct operation IDE

**Use**

This drilled pre-equipped IP65 enclosure enables immediate installation of a direct operation, rear mounted IDE without auxiliary contact.

Rating (A)	Reference
32	1295 <b>9001</b>
40 ... 160	Please consult us

## Characteristics

### Characteristics according to IEC 60947-3

	IDE - 32 to 160 A				
	32 A	40 A	63 A	125 A	160 A
<b>Thermal current <math>I_{th}</math> (40 °C)</b>					
Rated insulation voltage $U_i$ (V)	690	690	690	690	690
$U_{imp}$ (kV)	6	6	6	6	6
<b>Rated operational currents <math>I_e</math> (A)</b>					
<b>Rated voltage</b>	<b>Utilisation category</b>	<b>A/B<sup>(1)</sup></b>	<b>A/B<sup>(1)</sup></b>	<b>A/B<sup>(1)</sup></b>	<b>A/B<sup>(1)</sup></b>
415 VAC	AC-20 A / AC-20 B	32/32	40/40	63/63	125/125
415 VAC	AC-21 A / AC-21 B	32/32	40/40	63/63	125/125
415 VAC	AC-22 A / AC-22 B	32/32	40/40	63/63	125/125
415 VAC	AC-23 A / AC-23 B	14/14	40/40	63/63	125/125
415 VAC	AC-3	14	30	44	100
690 VAC	AC-20 A / AC-20 B	32/32	40/40	63/63	125/125
690 VAC	AC-21 A / AC-21 B	32/32	40/40	63/63	125/125
690 VAC	AC-22 A / AC-22 B	13/13	32/32	40/40	125/125
690 VAC	AC-23 A / AC-23 B	4.9/4.9	17.5/17.5	21/21	42/42
<b>Operational power in AC-23 A (kW)<sup>(2)</sup></b>					
415 VAC without pre-break AC	7.5	22	30	63	80
<b>Operational power in AC-3 A (kW)<sup>(2)</sup></b>					
415 VAC without pre-break AC	7.5	15	22	55	55
<b>Fuse protected short-circuit withstand (kA rms prospective)<sup>(3)</sup></b>					
Prospective short-circuit current (kA rms)	10	3	3	10	-
Associated fuse rating (A)	32	40	63	125	-
<b>Short-circuit capacity (without protection)</b>					
Rated short-time withstand current 1s. $I_{cw}$ (kA rms)	1	1.5	1.5	2.5	2.5
$I_{cm}$ (prospective kA peak)	3	5.2	5.2	6.6	6.6
<b>Connection</b>					
Minimum Cu cable cross-section (mm <sup>2</sup> )	1	2.5	2.5	6	6
Maximum Cu cable cross-section (mm <sup>2</sup> )	4	10	10	70	70
Tightening torque min/max (Nm)	1.2/1.5	2/2.5	2/2.5	6/12	6/12
<b>Mechanical characteristics</b>					
Durability (number of operating cycles)	100 000	50 000	50 000	30 000	30 000
Operating effort - 3 pole device (Nm)	0.35	0.38	0.45	1.6	2
Weight of a 3 pole device (kg)	0.26	0.35	0.39	1.35	1.45

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

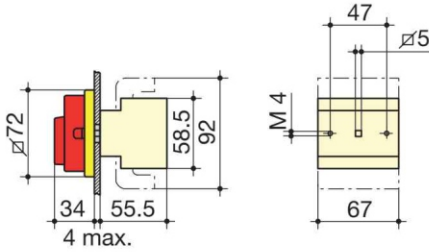
(2) The power value is given for information only, the current values vary from one manufacturer to another.

(3) For a rated operational voltage  $U_e = 415$  VAC.

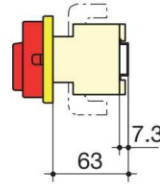
## Dimensions

### IDE 32 A

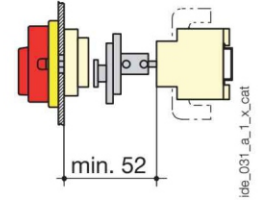
Direct operation with door or panel mounting



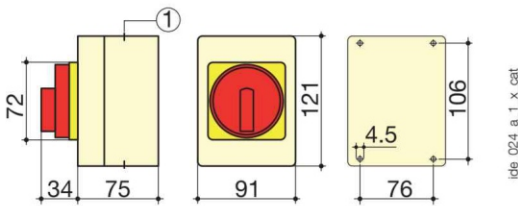
Direct operation with DIN-rail mounting



Door interlocked external front operation with DIN-rail mounting



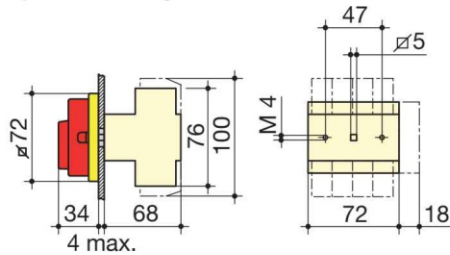
Enclosure for IDE 32 A



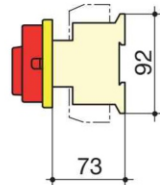
1. For PE 16 mm

### IDE 40 to 63 A

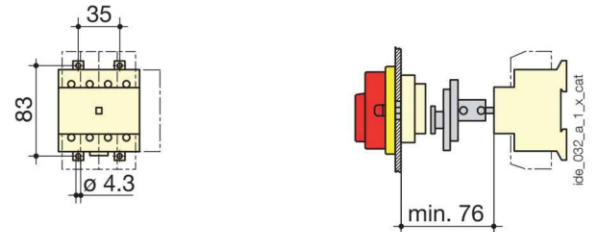
Direct operation with door or panel mounting



Direct operation with DIN-rail or back plate mounting

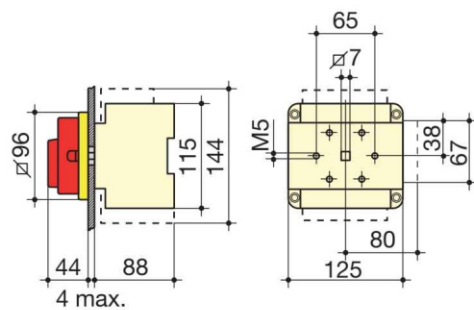


Door interlocked external front operation with DIN-rail or back plate mounting

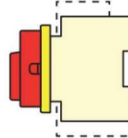


### IDE 125 to 160 A

Direct operation with door or panel mounting



Direct operation with DIN-rail or back plate mounting



Door interlocked external front operation with DIN-rail or back plate mounting

