

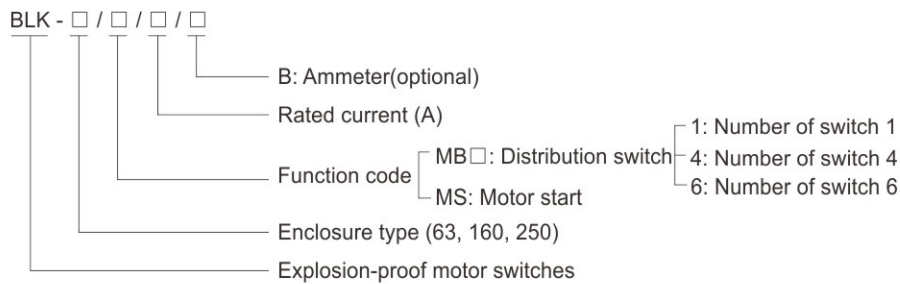
Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)



- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ Classified as IIC according to gas atmosphere.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Built-in MCB (miniature circuit breaker), MCCB (moulded case circuit breaker).
- ◆ Earth leakage protection device is optional.

■ Catalogue number logic



■ Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size and direction on request.

Zones 1&2; 21&22

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)

Technical data

Explosion-proof motor switches BLK-63/MB□/□

Explosion protection

Global (IECEX)	IECEX CQM 12.0037X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db IP66
Europe (ATEX)	Presafe 17 ATEX 10687X
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb ⊕ II 2 D Ex tb IIIC T80°C Db IP66

Certificates

IECEX; ATEX; CU-TR

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31

Enclosure material

Copper-free Aluminium Alloy, powder coated surface

Enclosure colour

Window grey (RAL7040)

Exposed fastener

Stainless steel

Circuit breaker

MCB (miniature circuit breaker)

Max. working voltage

Max.690V AC 50/60Hz; 500V DC

Rated voltage

1P/230V AC, 2P/3P/4P/400V AC 50/60Hz

Rated current

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

Number of pole

1P, 2P, 3P, 4P

Breaking capacity

6kA, 10kA, 15kA

Impulse withstand voltage

6kV

Tripping characteristic

Instantaneous tripping range (5~10) In, (7~10) In or (10~14) In

Degree of protection

IP66

Internal&external earthing

M5/M8

Ambient temperature

-60°C~+55°C

Cable entries

Standard 1~16A: 2 x M25 x 1.5 plugs
20~32A: 2 x M32 x 1.5 plugs
40~63A: 2 x M40 x 1.5 plugs

Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Entry direction

Bottom

Enclosure weight

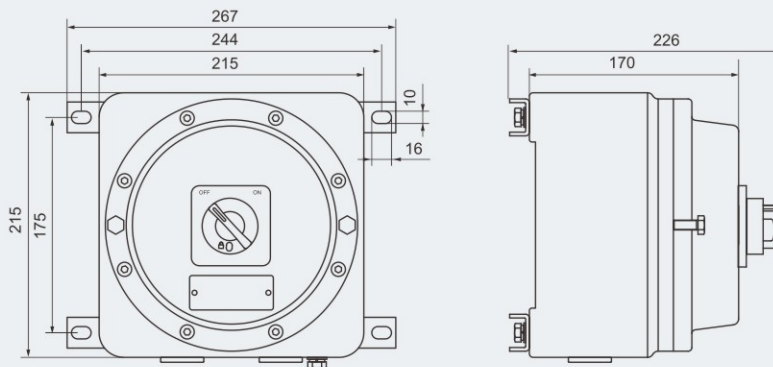
6.50 kg

Earth leakage protection

On request



Dimension drawings (all dimensions in mm) - subject to alteration



BLK-63/MB□/□

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)

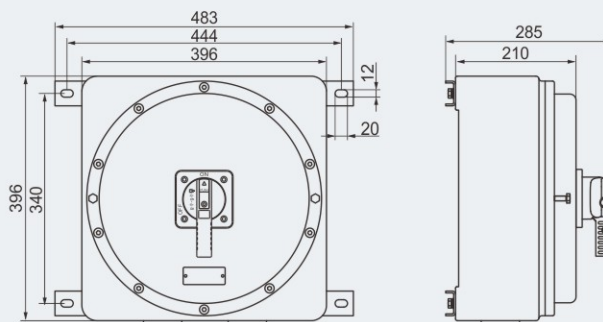
Technical data

Explosion-proof motor switches BLK-160/MB□/□

Explosion protection	IECEX CQM 12.0037X
Global (IECEX)	Ex db IIC T6 Gb
Gas and dust	Ex tb IIIC T80°C Db IP66
Europe (ATEX)	Presafe 17 ATEX 10687X
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb
	⊕ II 2 D Ex tb IIIC T80°C Db IP66
Certificates	IECEX; ATEX; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free Aluminium Alloy, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
Max. working voltage	MCB: 440V AC 50/60Hz; MCCB: 690V AC 50/60Hz; 500V DC
Rated voltage	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50) MCCB: 80A, 100A, 125A, 160A
Number of pole	MCB: 1P, 2P, 3P, 4P MCCB: 3P, 4P
Breaking capacity	MCB: 6kA, 10kA, 15kA MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
Impulse withstand voltage	MCB: 6kV; MCCB: 8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60°C~+55°C
Cable entries	Standard 4 x 1~16A: 1 x M40 x 1.5 + 4 x M25 x 1.5 plugs 4 x 20~32A: 1 x M50 x 1.5 + 4 x M32 x 1.5 plugs 4 x 40~63A: 1 x M63 x 1.5 + 4 x M40 x 1.5 plugs 1 x 80~100A: 2 x M50 x 1.5 plugs 1 x 125~160A: 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	28.00kg
Earth leakage protection	On request



Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/MB□/□

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)

Technical data

Explosion-proof motor switches BLK-160/MS/□

Explosion protection

Global (IECEX)

IECEX CQM 12.0037X

Gas and dust

Ex db IIC T6 Gb

Ex tb IIIC T80°C Db IP66

Europe (ATEX)

Presafe 17 ATEX 10687X

Gas and dust

⊕ II 2 G Ex db IIC T6 Gb

⊕ II 2 D Ex tb IIIC T80°C Db IP66

Certificates

IECEX; ATEX; CU-TR

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Enclosure material

Copper-free Aluminium Alloy, powder coated surface

Enclosure colour

Window grey (RAL7040)

Exposed fastener

Stainless steel

Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

Rated voltage

Max.440V AC 50/60Hz

Degree of protection

IP66

Internal&external earthing

M6/M8

Ambient temperature

-60°C~+55°C

Cable entries

Standard M□ x 1.5 plug; See Selection table as below

Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Entry direction

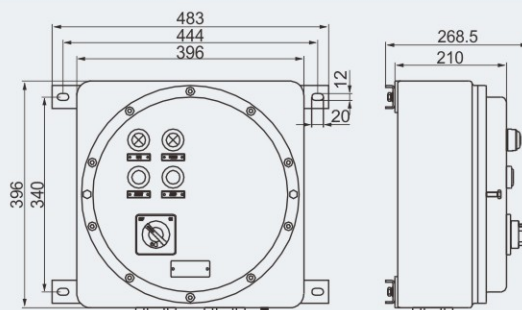
Bottom

Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-160/MS/10	4	10	7~10, Ie=9	12	2 x M25 x 1.5	28.00
BLK-160/MS/16	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	28.00
BLK-160/MS/20	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	28.00
BLK-160/MS/32	11	32	16~24, Ie=21	32	2 x M32 x 1.5	28.00
BLK-160/MS/40	15	40	30~40, Ie=32	40	2 x M32 x 1.5	28.00
BLK-160/MS/50	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	28.00
BLK-160/MS/63	22	63	37~50, Ie=48	65	2 x M40 x 1.5	28.00



Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/MS/□

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)

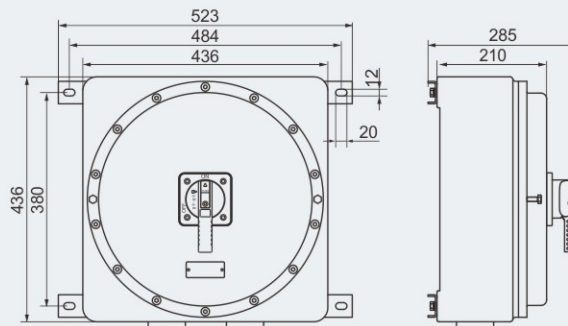
Technical data

Explosion-proof motor switches BLK-250/MB□/□

Explosion protection	IECEX CQM 12.0037X
Global (IECEX)	Ex db IIC T6 Gb
Gas and dust	Ex tb IIIC T80°C Db IP66
Europe (ATEX)	Presafe 17 ATEX 10687X
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb
	⊕ II 2 D Ex tb IIIC T80°C Db IP66
Certificates	IECEX; ATEX; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free Aluminium Alloy, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
Max. working voltage	MCB: 440V AC 50/60Hz; MCCB: 690V AC 50/60Hz; 500V DC
Rated voltage	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50) MCCB: 200A, 250A
Number of pole	MCB: 1P, 2P, 3P, 4P MCCB: 3P, 4P
Breaking capacity	MCB: 6kA, 10kA, 15kA MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
Impulse withstand voltage	MCB: 6kV; MCCB: 8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60°C~+55°C
Cable entries	Standard 6 x 1~16A: 1 x M40 x 1.5 + 6 x M25 x 1.5 plugs 6 x 20~32A: 1 x M50 x 1.5 + 6 x M32 x 1.5 plugs 6 x 40~63A: 1 x M63 x 1.5 + 6 x M40 x 1.5 plugs 1 x 200~250A: 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	31.00kg
Earth leakage protection	On request



Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MB□/□

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex db IIC)

Technical data

Explosion-proof motor switches BLK-250/MS/□/B

Explosion protection

Global (IECEX)

Gas and dust

IECEX CQM 12.0037X

Ex db IIC T6 Gb

Ex tb IIIC T80°C Db IP66

Europe (ATEX)

Gas and dust

Presafe 17 ATEX 10687X

⊕ II 2 G Ex db IIC T6 Gb

⊕ II 2 D Ex tb IIIC T80°C Db IP66

Certificates

IECEX; ATEX; CU-TR

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Enclosure material

Copper-free Aluminium Alloy, powder coated surface

Enclosure colour

Window grey (RAL7040)

Exposed fastener

Stainless steel

Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

Ammeter

Rated voltage

Max.440V AC 50/60Hz

Degree of protection

IP66

Internal&external earthing

M6/M8

Ambient temperature

-60°C~+55°C

Cable entries

Standard M□ x 1.5 plug; See Selection table as below

Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Entry direction

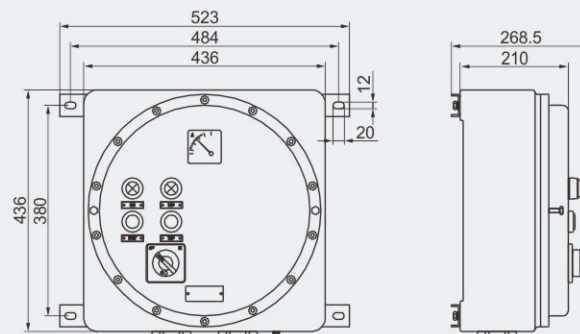
Bottom

Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-250/MS/10/B	4	10	7~10, Ie=9	12	2 x M25 x 1.5	31.00
BLK-250/MS/16/B	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	31.00
BLK-250/MS/20/B	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	31.00
BLK-250/MS/32/B	11	32	16~24, Ie=21	32	2 x M32 x 1.5	31.00
BLK-250/MS/40/B	15	40	30~40, Ie=32	40	2 x M32 x 1.5	31.00
BLK-250/MS/50/B	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	31.00
BLK-250/MS/63/B	22	63	37~50, Ie=48	65	2 x M40 x 1.5	31.00



Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MS/□/B