

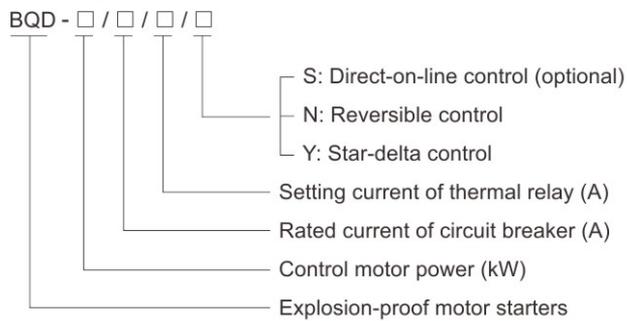
## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)



- ◆ 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 C, D
- ◆ Classified as IIB according to gas atmosphere.
- ◆ Different motor starters.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ 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, entry direction, enclosure material, etc. on request.

# Zones 1&2; 21&22

## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)

#### Technical data

#### Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

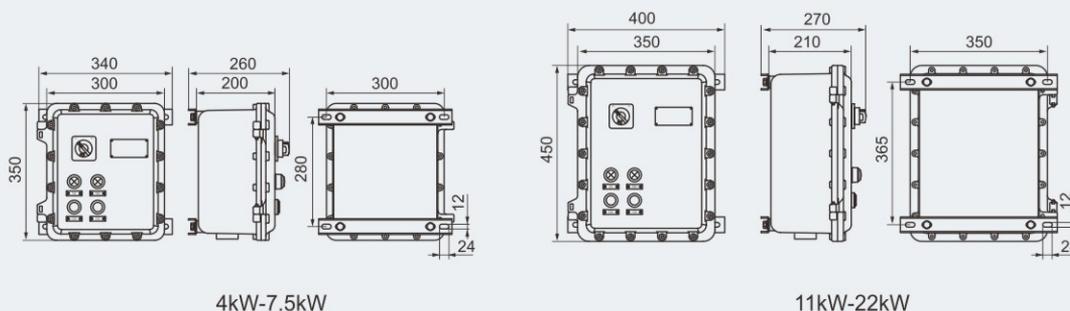
<b>Explosion protection</b>	IECEX CNEX 18.0035X Ex db IIB T6 or T5 Gb Ex tb IIIC T80°C or T95°C Db
Global (IECEX) Gas and dust	
Europe (ATEX) Gas and dust	CNEX 18 ATEX 0028 X ⊕ II 2 G Ex db IIB T6 or T5 Gb ⊕ II 2 D Ex tb IIIC T80°C or T95°C Db
<b>Certificates</b>	IECEX; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Components</b>	MCB (miniature circuit breaker) AC contactor Thermal overload relay Indicator, pushbutton
<b>Rated voltage</b>	380/400V AC 50/60Hz
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°C
<b>Cable entries</b>	Standard M □ x 1.5 plug; See Selection table as below
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	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)
BQD-4/10/7~10	4	10	7~10, Ie=9	12	2 x M25 x 1.5	20.00
BQD-5.5/16/9~13	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	20.00
BQD-7.5/20/12~18	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	20.00
BQD-11/32/16~24	11	32	16~24, Ie=21	32	2 x M32 x 1.5	30.00
BQD-15/40/30~40	15	40	30~40, Ie=32	40	2 x M32 x 1.5	30.00
BQD-18.5/50/37~50	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	30.00
BQD-22/63/37~50	22	63	37~50, Ie=48	65	2 x M40 x 1.5	30.00



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



## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)

#### Technical data

#### Explosion-proof motor starters (reversible control)

BQD-□/□/□/ N

#### Explosion protection

Global (IECEX)  
Gas and dust

IECEX CNEX 18.0035X  
Ex db IIB T6 or T5 Gb  
Ex tb IIIC T80°C or T95°C Db

Europe (ATEX)  
Gas and dust

CNEX 18 ATEX 0028 X  
⊕ II 2 G Ex db IIB T6 or T5 Gb  
⊕ II 2 D Ex tb IIIC T80°C or T95°C Db

#### Certificates

#### 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

380/400V AC 50/60Hz

#### Degree of protection

IP66

#### Internal&external earthing

M6/M8

#### Ambient temperature

T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°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 P7/22~31

#### Entry direction

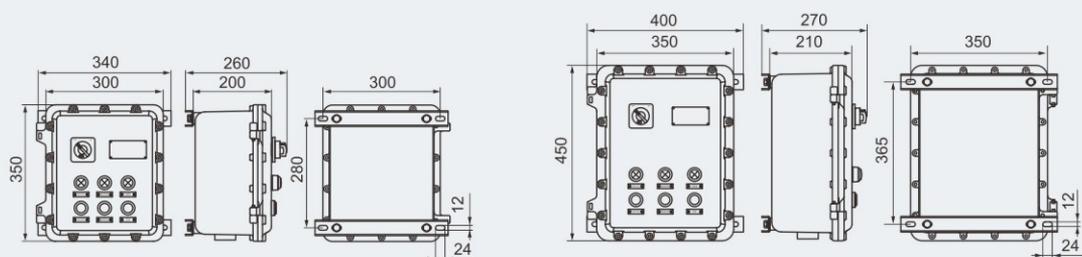
Bottom



#### 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)
BQD-4/10/7~10/N	4	10	7~10, Ie=9	12	2 x M25 x 1.5	20.50
BQD-5.5/16/9~13/N	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	20.50
BQD-7.5/20/12~18/N	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	20.50
BQD-11/32/16~24/N	11	32	16~24, Ie=21	32	2 x M32 x 1.5	30.50
BQD-15/40/30~40/N	15	40	30~40, Ie=32	40	2 x M32 x 1.5	30.50
BQD-18.5/50/37~50/N	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	30.50
BQD-22/63/37~50/N	22	63	37~50, Ie=48	65	2 x M40 x 1.5	30.50

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



4kW-7.5kW

11kW-22kW

## Standard Motor Starters BQD Series Explosion-proof Motor Starters (Ex db IIB)

Technical data	
Explosion-proof motor starters (star-delta control)      BQD-□/□/□/ Y	
<b>Explosion protection</b>	IECEX CNEX 18.0035X
Global (IECEX)	Ex db IIB T6 or T5 Gb
Gas and dust	Ex tb IIIC T80°C or T95°C Db
Europe (ATEX)	CNEX 18 ATEX 0028 X
Gas and dust	⊕ II 2 G Ex db IIB T6 or T5 Gb
	⊕ II 2 D Ex tb IIIC T80°C or T95°C Db
<b>Certificates</b>	IECEX; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Components</b>	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) AC contactor Thermal overload relay Indicator, pushbutton
<b>Rated voltage</b>	380/400V AC 50/60Hz
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°C
<b>Cable entries</b>	Standard M□ x 1.5 plug; See Selection table as below
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom

Selection table						
Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Setting value of delay time	Cable entry size	Enclosure weight (kg)
BQD-18.5/50/17~25/Y	18.5	50	17~25, Ie=23.5	13s	3 x M50 x 1.5	40.00
BQD-22/63/23~32/Y	22	63	23~32, Ie=28	15s	3 x M50 x 1.5	40.00
BQD-30/80/30~40/Y	30	80	30~40, Ie=38	17s	3 x M63 x 1.5	54.50
BQD-37/80/37~50/Y	37	80	37~50, Ie=47	18s	3 x M63 x 1.5	54.50
BQD-45/100/48~65Y	45	100	48~65, Ie=57	20s	3 x M63 x 1.5	54.50



Dimension drawings (all dimensions in mm) - subject to alteration	
18.5kW-22kW	30kW-45kW

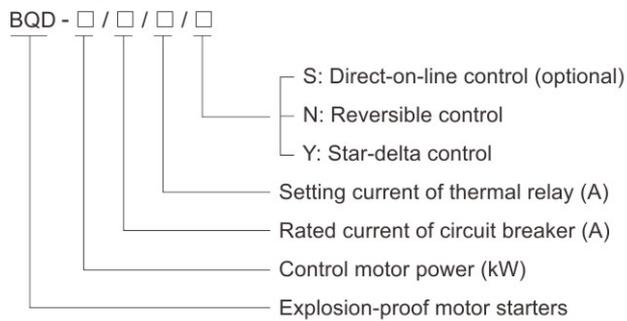
## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex d e IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Classified as IIC according to gas atmosphere.
- ◆ Different motor starters.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ 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, entry direction, enclosure material, etc. on request.

# Zones 1&2

## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex d e IIC)

#### Technical data

#### Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

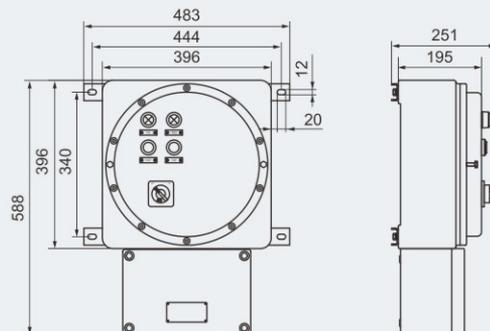
<b>Explosion protection</b>	IECEX CQM 11.0017X
Global (IECEX)	Ex d e IIC T6 Gb
Gas and dust	LCIE 10 ATEX 3075
Europe (ATEX)	Ⓔ II 2 G Ex d e IIC T6
Gas and dust	IECEX; ATEX
<b>Certificates</b>	EN 60079-0, EN 60079-1, EN 60079-7
<b>Conformity to standards</b>	IEC 60079-0, IEC 60079-1, IEC 60079-7
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Components</b>	MCB (miniature circuit breaker) AC contactor Thermal overload relay Indicator, pushbutton
<b>Rated voltage</b>	380/400V AC 50/60Hz
<b>Degree of protection</b>	IP65
<b>Internal&amp;external earthing</b>	M6/M6
<b>Ambient temperature</b>	-20°C~+55°C
<b>Cable entries</b>	Standard M□ x 1.5 plug; See Selection table as below
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/19~21
<b>Entry direction</b>	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)
BQD-4/10/7~10	4	10	7~10, Ie=9	12	2 x M25 x 1.5	33.00
BQD-5.5/16/9~13	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	33.00
BQD-7.5/20/12~18	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	33.00
BQD-11/32/16~24	11	32	16~24, Ie=21	32	2 x M32 x 1.5	33.00
BQD-15/40/30~40	15	40	30~40, Ie=32	40	2 x M32 x 1.5	33.00
BQD-18.5/50/37~50	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	33.00
BQD-22/63/37~50	22	63	37~50, Ie=48	65	2 x M40 x 1.5	33.00



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

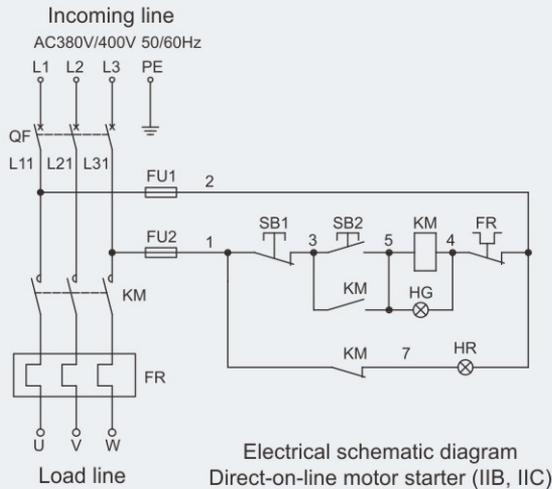


4kW-22kW



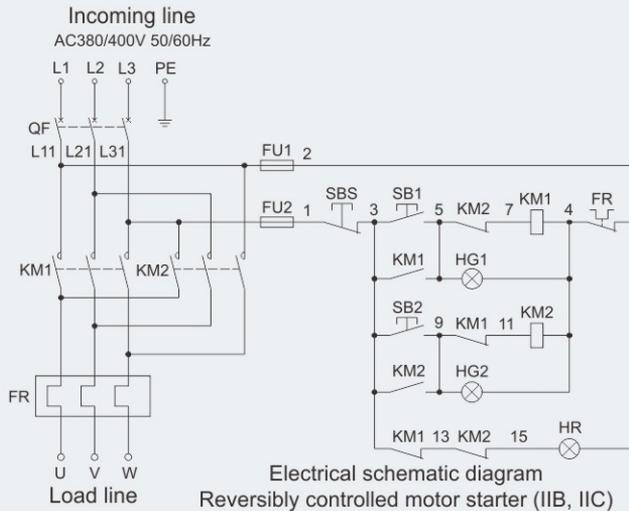
## Standard Motor Starters BQD Series Explosion-proof Motor Starters (Ex d e IIC)

### Electrical schematic diagram



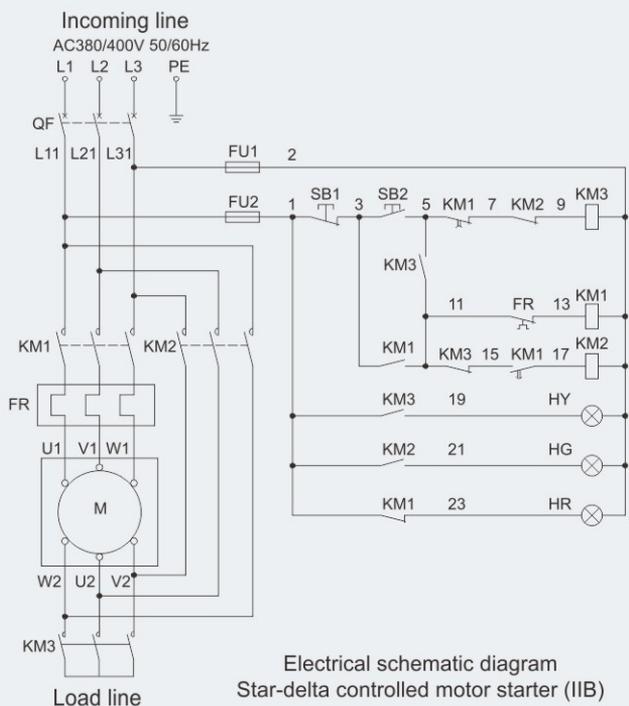
#### Code of electric components

- QF: circuit breaker
- KM: AC contactor
- FR: thermal relay
- FU1, FU2: fuse
- SB1: stop button
- SB2: start button
- HR: stop indicator
- HG: running indicator



#### Code of electric components

- QF: circuit breaker
- KM1, KM2: AC contactor
- FR: thermal relay
- FU1, FU2: fuse
- SBS: stop button
- SB1: non-reversible start button
- SB2: reversible start button
- HR: stop indicator
- HG1: non-reversible running indicator
- HG2: reversible running indicator



#### Code of electric components

- QF: circuit breaker
- KM1: main contactor
- KM3: star start contactor
- KM2: delta running contactor
- FR: thermal relay
- FU1, FU2: fuse
- SB1: stop button
- SB2: start button
- HR: stop indicator
- HY: star start indicator
- HG: delta running indicator

