

## Product Selection

## Types LD, HLD and LDC Thermal-Magnetic Circuit Breakers with Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40 °C ①	Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac	Thermal-Magnetic Trip Unit Only	Standard Terminals Only
	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	For Use with Standard or High or Ultra High Interrupting Frames Catalog Number	See Page V4-T2-203 for Optional Terminals Catalog Number
<b>Two-Pole</b>					
300	LD2300	HLD2300	LDC2300	LT2300T	TA602LD ②
350	LD2350	HLD2350	LDC2350	LT2350T	TA602LD ②
400	LD2400	HLD2400	LDC2400	LT2400T	TA602LD ②
450	LD2450	HLD2450	LDC2450	LT2450T	TA602LD ②
500	LD2500	HLD2500	LDC2500	LT2500T	TA602LD ②
600	LD2600	HLD2600	LDC2600	LT2600T	2TA603LDK ③
<b>Three-Pole</b>					
300	LD3300	HLD3300	LDC3300	LT3300T	TA602LD ②
350	LD3350	HLD3350	LDC3350	LT3350T	TA602LD ②
400	LD3400	HLD3400	LDC3400	LT3400T	TA602LD ②
450	LD3450	HLD3450	LDC3450	LT3450T	TA602LD ②
500	LD3500	HLD3500	LDC3500	LT3500T	TA602LD ②
600	LD3600	HLD3600	LDC3600	LT3600T	3TA603LDK ③
<b>Four-Pole ④</b>					
300	LD4300	HLD4300	LDC4300	LT4300T	TA602LD ②
350	LD4350	HLD4350	LDC4350	LT4350T	TA602LD ②
400	LD4400	HLD4400	LDC4400	LT4400T	TA602LD ②
450	LD4450	HLD4450	LDC4450	LT4450T	TA602LD ②
500	LD4500	HLD4500	LDC4500	LT4500T	TA602LD ②
600	LD4600	HLD4600	LDC4600	LT4600T	4TA603LDK ③

## Types LD, HLD and LDC Thermal-Magnetic Circuit Breakers—Frame Only

Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Number	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac Catalog Number	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac Catalog Number
<b>Two-Pole</b>		
LD2600F	HLD2600F	LDC2600F
<b>Three-Pole</b>		
LD3600F	HLD3600F	LDC3600F
<b>Four-Pole</b>		
LD4600F	HLD4600F	LDC4600F

**Notes**

- ① Magnetic trip range 5–10 times continuous ampere rating.
- ② Individually packed.
- ③ Terminal kits contain one terminal for each pole and one terminal cover.
- ④ Neutral is in right pole.

#### Type LDB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units <sup>①</sup>

Maximum Continuous Ampere Rating	600 Vac Rated, 250 Vdc Complete Circuit Breaker	
	Without Line and Load Terminals Catalog Number	With Standard Line and Load Terminals Only Catalog Number
<b>Two-Pole</b>		
300	LDB2300W	LDB2300
350	LDB2350W	LDB2350
400	LDB2400W	LDB2400
450	LDB2450W	LDB2450
500	LDB2500W	LDB2500
600	LDB2600W	LDB2600
<b>Three-Pole</b>		
300	LDB3300W	LDB3300
350	LDB3350W	LDB3350
400	LDB3400W	LDB3400
450	LDB3450W	LDB3450
500	LDB3500W	LDB3500
600	LDB3600W	LDB3600

#### Molded Case Switches

Eaton's molded case switches are used as compact switches in applications requiring high current switching capabilities. Molded case switches are constructed of circuit breaker

components and are of the high instantaneous automatic type. Molded case switches are listed in accordance with Underwriters Laboratories Standard UL 489.

#### Molded Case Switches

Maximum Continuous Ampere Rating at 40 °C	600 Vac Maximum, 250 Vdc Circuit Breaker Only without Line and Load Terminals	
	Catalog Number	Standard Terminals Only See Page V4-T2-203 for Optional Terminals Catalog Number
<b>Two-Pole</b>		
600	LD2600WK	2TA603LDK
600	LDB2600WK <sup>①</sup>	2TA603LDK
600	HLD2600WK	2TA603LDK
<b>Three-Pole</b>		
600	LD3600WK	3TA603LDK
600	LDB3600WK <sup>①</sup>	3TA603LDK
600	HLD3600WK	3TA603LDK
<b>Four-Pole</b>		
600	LD4600WK	4TA603LDK
600	LDB4600WK <sup>①</sup>	4TA603LDK
600	HLD4600WK	4TA603LDK

#### Notes

- <sup>①</sup> Factory sealed—suitable for reverse feed application.
- Molded case switch will trip above 6000 amperes.

**Accessories Selection Guide and Ordering Information**

**Line and Load Terminals**

Eaton’s line and load terminals provide wire connecting capabilities for specific ranges of continuous current ratings and wire types. All terminals comply with Underwriters Laboratories Standards UL 486A and UL 486B and CSA Standard C22.2 No. 65M. Unless otherwise specified,

L-Frame circuit breaker line and load terminals are shipped separately for field installation.

The wire connecting terminal is secured with two pan-head, slotted screws and lockwashers that can be checked for the correct torque loading or retightened from the front of the circuit

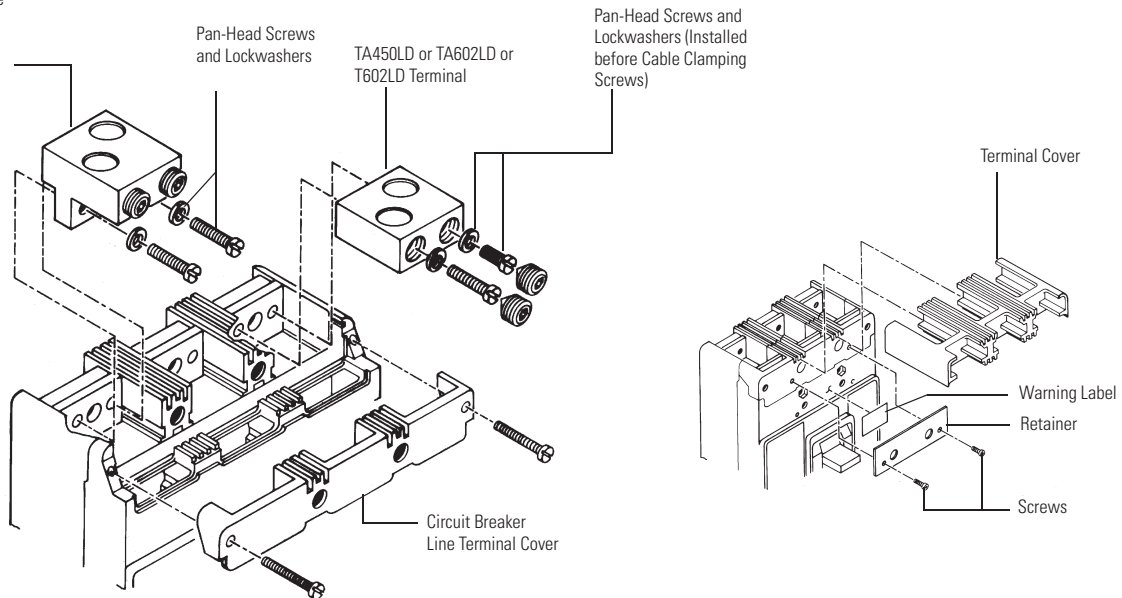
breaker before installation of the conductors. (Applies to all styles.) The circuit breaker line/load terminal conductors are positioned in the conducting holes in the wire connecting terminal and are secured with recessed socket screws that are tightened to the correct torque loading from the front of the circuit breaker.

**Ordering Information**

L-Frame circuit breakers use Cu/Al terminals as standard. When optional copper terminals are required, order by catalog Number. Specify if factory installation is required.

**Terminals**

TA401LD or TA603LD Terminal (Step-Type Terminal Requires Terminal Cover and Warning Label. See Inset.)



**Line and Load Terminals**

Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG Wire Range/Number of Conductors	Metric Wire Range mm <sup>2</sup>	Terminal Poles	Catalog Number	Terminals with Control Wire Termination Catalog Number
<b>Standard Cu/Al Pressure Terminals</b>							
400	Aluminum	Cu/Al	4/0–600 (1)	120–300	Two-pole kit ①	<b>2TA401LDK</b>	—
400	Aluminum	Cu/Al	4/0–600 (1)	120–300	Three-pole kit ①	<b>3TA401LDK</b>	—
400	Aluminum	Cu/Al	4/0–600 (1)	120–300	Four-pole kit ①	<b>4TA401LDK</b>	—
450	Aluminum	Cu/Al	4–4/0 (2)	25–95	②	<b>TA450LD</b>	—
500	Aluminum	Cu/Al	3/0–350 (2)	95–150	②	<b>TA602LD</b>	<b>TA602LDCW</b>
600	Aluminum	Cu/Al	400–500 (2)	185–240	Two-pole kit ①	<b>2TA603LDK</b>	<b>2TA603LDCW</b>
600	Aluminum	Cu/Al	400–500 (2)	185–240	Three-pole kit ①	<b>3TA603LDK</b>	<b>3TA603LDCW</b>
600	Aluminum	Cu/Al	400–500 (2)	185–240	Four-pole kit ①	<b>4TA603LDK</b>	<b>4TA603LDCW</b>
<b>Optional Copper and Cu/Al Pressure Type Terminals</b>							
600	Copper	Cu	250–350 (2)	120–250	②	<b>T602LD</b>	<b>T602LDCW</b>

**Notes**

- ① Terminal kits contain one terminal for each pole and one terminal cover.
- ② Individually packed.

# 2.4

## Molded Case Circuit Breakers

### Definite Purpose

#### Features

2

##### Base Mounting Hardware

English base mounting hardware is included with GP frame only. For all other frames, order base mounting hardware separately as per the table to the right.

##### Line and Load Terminals

Both line and load terminals are included with GP-Frame Definite Purpose breakers. For all other frames, add "L" for line and load terminals to be included or "W" for no terminals.

##### Base Mounting Hardware

Frame	Catalog Number	
	English	Metric
GP	Included	—
FP	<b>BMH1</b>	<b>BMH1M</b>
KP	<b>BMH3</b>	<b>BMH3M</b>
LP	<b>BMH4</b>	<b>BMH4M</b>
MP	<b>BMH5</b>	<b>BMH5M</b>

**Note:** Base mounting hardware, is included with GP-Frame breakers. A separate catalog number is not required.

##### Line and Load Termination

Breaker	Termination Type	Awg Wire Range	Metric Wire Range (mm)	Wire Type	Bolt Size English	Bolt Size Metric	Torque Lb-In	Torque Nm	Catalog Number
GP	Wire	#14–1/0	2.5–50	Cu only	—	—	45	5.1	<b>Included</b>

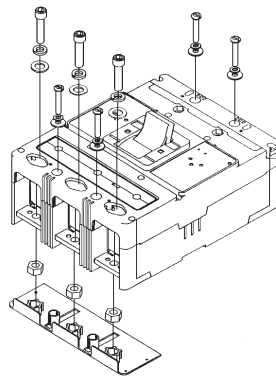
##### Optional Line and Load Terminals

Breaker	Maximum Amperes	Awg Wire Range	Wire Type	Catalog Number	Catalog Number with Control Wire Termination
FP	100	#14–#10	Cu/Al	<b>3T100FB</b> ①	—
	100	#8	Cu/Al	<b>3T100FB</b> ①	—
	100	#6–#4	Cu/Al	<b>3T100FB</b> ①	—
	100	#3–4/0	Cu/Al	<b>3T100FB</b> ①	—
	200	#3–4/0	Cu only	<b>3T150FB</b> ①	—
	225	#4–4/0	Cu/Al	<b>3TA225FB</b> ①	—
	225	#6–300	Cu/Al	<b>3TA225FDK</b> ①	—
KP	400	250–500 (1)	Cu/Al	<b>TA350K</b>	—
	400	3/0–250 (2)	Cu/Al	<b>3TA400K</b> ①	<b>3TA400KCW</b>
LP	500	250–350 (2)	Cu/Al	<b>TA602LD</b>	<b>TA602LDCW</b>
	600	400–500 (2)	Cu/Al	<b>3TA603LDK</b> ①	<b>3TA603LDCW</b>
MP	800	3/0–400 (3)	Cu/Al	<b>TA800MA2</b>	<b>TA800MA2CWT</b>
	800	500–750 (2)	Cu/Al	<b>TA801MA</b>	<b>TA801MACWT</b>

##### Note

① Package of three terminals.

##### End Cap Accessory Kit



#### Accessories

##### End Cap Accessory Kit

End caps for line and load conductor termination are optional with each breaker. End caps secure the conductor with a ring-type connector. The kit includes one end cap, three cap screws, three nuts and three lock washers.

##### Series C Accessories

For internal accessories, see **Page V4-T2-273**.

For external accessories, see **Page V4-T2-304**.

## Accessories Selection Guide and Ordering Information

### Enclosures

#### Type 1 General Purpose

- Surface or flush mounting
- 15–1200 ampere range
- 600 Vac, 500 Vdc

Type 1 enclosed breakers are designed for use in commercial buildings, apartment buildings and other areas where a general purpose enclosure is applicable. The breaker is front operable and is capable of being padlocked in either the ON or OFF position. Ratings through 1200 amperes are listed with Underwriters Laboratories as approved for service entrance application. Both surface and flush mounted enclosures are available.

#### Type 3R Rainproof Surface Mounting

- Interchangeable hubs (through 400 amperes)
- 15–1200 ampere range
- 600 Vac, 500 Vdc

This general purpose outdoor service center employs a circuit breaker inside a weatherproof sheet steel breaker enclosure to serve

as a main disconnect and protective device for feeder circuits. Ratings through 1200 amperes are listed by Underwriters Laboratories as suitable for service entrance application.

#### Type 12 Dustproof Surface Mounting

- No knockouts or other openings
- 15–1200 ampere range
- 600 Vac, 500 Vdc

The Type 12 enclosure is designed in line with specifications for special industry applications where unusually severe conditions involving oil, coolant, dust and other foreign materials exist in the operating atmosphere. The handle padlocks in the OFF position and the cover is interlocked with the handle mechanism to prevent opening the cover with the circuit breaker in the ON position. Ratings through 1200 amperes are listed by Underwriters Laboratories as suitable for service entrance application.

### Enclosure Selection Data

Breaker Frame Amperes	Enclosure Type Class	Catalog Number
FG 15–225	Type 1	SFDN225
	Type 3R	RFDN225
	Type 12	JFDN225
JG 175–250	Type 1	SJDN250
	Type 3R	RJDN250
	Type 12	JJDN250
KG 300–400	Type 1	SKDN400
	Type 3R	RKDN400
	Type 12	JKDN400
LG 450–600	Type 1	SLDN600
	Type 3R	RLDN600
	Type 12	JLDN600
NG 700–1200	Type 1	SNDN1200
	Type 3R	RNDN1200
	Type 12	JNDN1200

## Options and Accessories

### Standard Terminals

Breaker Frame	Max. Amp Rating	AWG Wire Range	Metric Wire Range mm <sup>2</sup>	Catalog Number
FG	100	14–1/0	2.5–50	3T100FB <sup>①</sup>
FG	150	4–4/0	25–95	3TA225FD <sup>①</sup>
JG	250	4–350 kcmil	25–185	TA250KB
KG	350	250–500 kcmil	120–240	TA350K
KG	400	3/0–250 kcmil (2)	95–120	3TA400K <sup>①</sup>
LG	600	250–500 kcmil (2)	120–240	3TA603LDK
NG	700	1–500 kcmil (2)	50–300	TA700NB1
NG	1000	3/0–400 kcmil (3)	95–185	TA1000NB1
NG	1200	4/0–500 kcmil (4)	120–300	TA1200NB1

### Neutral Kits, Insulated and Groundable

Max. Enclosure Rating (Amperes)	Main Lug Number Size Cu/Al	Ground Lug Size Cu/Al	Catalog Number
100	(1) 14–1/0	(1) 14–1/0	INK100
250	(1) 6–350 kcmil	(1) 4–300 kcmil	INK250
400	(1) 4–750 kcmil or (2) 1/0–250 kcmil	(1) 4–300 kcmil	INK400
600	(2) 250–500 kcmil	(1) 4–300 kcmil	INK600
1200	(3) 1/0 to 750 kcmil or (4) 1/0 to 750 kcmil	(1) 6–250 kcmil	INK1200

### Internal Accessories

#### Auxiliary Switch<sup>②</sup>

Breaker Frame	Factory Mounted	1A-1B	2A-2B
		Field Kit Catalog Number	Field Kit Catalog Number
FG <sup>③</sup>	A06	A1X1PK	A2X1RPK
JG	A06	A1X2PK	A2X2PK
KG	A06	A1X3PK	A2X3PK
LG	A06	A1X4PK	A2X4PK
NG	A06	A1X5PK	A2X5PK

#### Shunt Trip<sup>②</sup>

Breaker Frame	Rating	Factory Mounted	Field Kit Catalog Number
FG <sup>③</sup>	12–24 Vdc	S02	SNT1LP03K
JG	12–24 Vdc	S42	SNT2P04K
KG	12–24 Vdc	S42	SNT3P04K
LG	12–24 Vdc	S02	SNT4LP03K
NG	12–24 Vdc	S02	SNT5LP03K

#### Notes

- ① Package of three terminals.
- ② Other accessories are available. Same as standard frame breakers.
- ③ Field installation on the FG Frame is not UL listed.

### Type LGHDC DC Circuit Breakers— Three-Pole High Interrupting Capacity 65 kAIC at 600 Vdc

Maximum Continuous Ampere Rating at 40 °C	Complete Breaker Catalog Number	Circuit Breaker Frame Only <sup>①</sup> Catalog Number	Thermal-Magnetic Trip Unit Catalog Number	Standard Terminals Catalog Number
250	LGHDC3250FAG	LGHDC3630NN	LT3250FA	TA350LK
300	LGHDC3300FAG	LGHDC3630NN	LT3300FA	TA350LK
350	LGHDC3350FAG	LGHDC3630NN	LT3350FA	TA350LK
400	LGHDC3400FAG	LGHDC3630NN	LT3400FA	TA350LK
500	LGHDC3500FAG	LGHDC3630NN	LT4500FA	3TA632LK <sup>②</sup>
600	LGHDC3600FAG	LGHDC3630NN	LT3600FA	3TA632LK <sup>②</sup>

### HLDDC



### Type HLDDC DC Circuit Breakers— Three-Pole High Interrupting Capacity 35 kAIC at 600 Vdc

Maximum Continuous Ampere Rating at 40 °C	Circuit Breaker Frame Only <sup>①</sup> Catalog Number	Thermal-Magnetic Trip Unit Catalog Number	Standard Terminals Catalog Number
300	HLDDC3600F	LT3300T	TA602LD
350	HLDDC3600F	LT3350T	TA602LD
400	HLDDC3600F	LT3400T	TA602LD
450	HLDDC3600F	LT3450T	TA602LD
500	HLDDC3600F	LT3500T	TA602LD
600	HLDDC3600F	LT3600T	3TA603LDK <sup>②</sup>

### Type HLDDC DC Circuit Breakers— Two-Pole High Interrupting Capacity 50 kAIC at 250 Vdc <sup>③④</sup>

Maximum Continuous Ampere Rating at 40 °C	Complete Breaker Catalog Number
600	HLDDC20600
700	HLDDC20700
800	HLDDC20800
900	HLDDC20900
1000	HLDDC21000
1200	HLDDC21200

#### Notes

- ① For complete breaker, order individual frame, trip unit and terminals for field installation.
- ② Three-pole kit.
- ③ Includes breaker frame, trip unit and terminals.
- ④ Four-pole breaker with two poles wired in parallel.

# 2.6

## Molded Case Circuit Breakers

### Specialty Breakers

2

#### DC Breaker Terminal Wire Ranges

Breaker Frame	Maximum Breaker Ampacity	Terminal Body Material	Wire Type	AWG Wire Range/ Number of Conductors	Metric Wire Range mm <sup>2</sup>	Number of Terminals Included	Standard Terminal Catalog Number
EGEDC, EGSDC, EGHDC	100	Aluminum	Cu/Al	14–1/0	2.5–50	3	3TA125EF
HFDDC	20	Steel	Cu/Al	14–10 (1)	2.5–4 (1)	3	3T20FB
	100	Steel	Cu/Al	14–1/0 (1)	2.5–50 (1)	3	3T100FB
	225	Aluminum	Cu/Al	4–4/0 (1)	25–95 (1)	3	3TA225FD
JGEDC, JGSDC, JGHDC	250	Stainless steel	Cu	4–350 (1)	25–185 (1)	1	T250FJ
HJDDC	250	Aluminum	Cu/Al	4–350 kcmil (1)	25–185 (1)	1	TA250KB
HKDDC	225	Aluminum	Cu/Al	3–350 kcmil (1)	35–185 (1)	1	TA300K
	350	Aluminum	Cu/Al	250–500 kcmil (1)	120–240 (1)	1	TA350K
	400	Aluminum	Cu/Al	3/0–250 kcmil (2)	95–120 (1)	3	3TA400K
LGEDC, LGSDC, LGHDC	400	Aluminum	Cu/Al	2–500 (1)	35–240 (1)	1	TA350LK
	630	Aluminum	Cu/Al	2–500 kcmil (2)	35–240 (2)	1	TA632L
	630	Aluminum	Cu/Al	2–500 kcmil (2)	35–240 (2)	3	3TA632LK
HLDDC	500	Aluminum	Cu/Al	3/0–350 kcmil (2)	95–150 (2)	1	TA602LD
	600	Aluminum	Cu/Al	400–500 kcmil (2)	185–240 (2)	3	3TA603LDK
HMDLDC	600	Aluminum	Cu/Al	1–500 kcmil (2)	—	1	TA700MA1
	800	Aluminum	Cu/Al	3/0–400 kcmil (3)	—	1	TA800MA2
NBDC	700	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	800	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	900	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	1000	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	1200	Aluminum	Cu/Al	4/0–500 kcmil (4)	120–240 (4)	1	TA1200NB1

**Note:** RGHDC breakers include six rear connectors as standard.

#### Molded Case Switches

Eaton’s DC molded case switches are used in applications requiring a compact, high-capacity disconnect. They are UL 489 listed and have automatic high instantaneous current protection. These devices do not provide overload protection.

#### Molded Case Switches

Maximum Continuous Ampere Rating at 40 °C	Interrupting Capacity (Volts DC)	Poles in Series	With Line and Load Terminals	Without Line and Load Terminals
			Catalog Number	Catalog Number
<b>600 Vdc Maximum</b>				
100	42	3	HFDDC3100KL	HFDDC3100KW
150	42	3	HFDDC3150KL	HFDDC3150KW
225	42	3	HFDDC3225KL	HFDDC3225KW
250	65	3	JGKDC3250KSG	JGKDC3250KSW
250	42	3	HJDDC3250K	HJDDC3250KW
400	35	3	HKDDC3400K	HKDDC3400KW
	65	3	LGKDC3400KSG	LGKDC3400KSW
600	65	3	LGKDC3630KSG	LGKDC3630KSW
	35	3	HLDDC3600K	HLDDC3600WK
800	35	3	HMDLDC3800K	HMDLDC3800WK
<b>500 Vdc Maximum</b>				
100	65	3	EGK3100KSG	EGK3100KSW
<b>250 Vdc Maximum</b>				
100	50	2	HFDDC2100KL	HFDDC2100KW
150	50	2	HFDDC2150KL	HFDDC2150KW
225	50	2	HFDDC2225KL	HFDDC2225KW
1200	50	①	HLDDC21200K ①	HLDDC21200WK ①

**Note**

① Four-pole frame with two-pole connected in parallel.