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DEX
 Air circuit breaker

MM10012

THE GLOBAL SPECIALIST
 IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES



DEX

- | DEX range is made up of 4 frame sizes: DEX 1600, DEX 2000, DEX 3200 and DEX 4000.
- | DEX has 3 different breaking capacities, 55kA for DEX 1600, 80kA for DEX 2000, 100kA for DEX 3200 and DEX 4000.
- | DEX range covers rated current from 630A to 4000A.
- | Fixed version and draw-out version are available for the whole range.



Dimension and weight					
Fixed version					
		Width(W)	Height(H)	Depth(D)	Weight(Kg)
DEX N	3P	254mm	320mm	254mm	19.9
	4P	324mm	320mm	254mm	24.6
DEX S	3P	362mm	402mm	323mm	41
	4P	457mm	402mm	323mm	50
DEX L	3P	422mm	402mm	323mm	51
	4P	537mm	402mm	323mm	68
Draw-out version					
		Width(W)	Height(H)	Depth(D)	Weight(Kg)
DEX N	3P	282mm	351mm	355mm	43.3
	4P	352mm	351mm	355mm	51.3
DEX S	3P	375mm	432mm	421mm	71
	4P	470mm	432mm	421mm	91
DEX L	3P	435mm	432mm	421mm	96
	4P	550mm	432mm	421mm	118



Precise protection

DEX offers 5 different kinds of protection units to provide protection with easy operation.
 Protection units with LCD screen can manage to display data like breaker status and measurement.

LSIg Protection unit



Ig setting

I_{sd} setting

I_i setting

I_r setting

LEDs for temperature alarm and overload alarm indicator

test button

t_g setting

t_{sd} setting

t_r setting

mini-USB interface

neutral protection

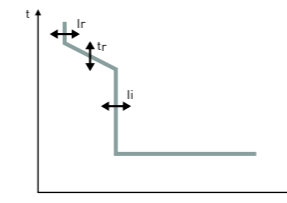
Basic protection unit LI



MP2 C LI frame 1600 668295
 MP2 LI frame 2000/3200/4000 668290

Setting by rotary switch:

- Overload protection current setting: I_r
- Overload protection time setting: t_r
- Instantaneous protection setting: I_i
- Neutral protection setting: N



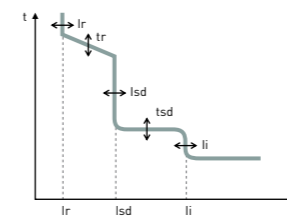
Basic protection unit LSI



MP2 C LSI frame 1600 668296
 MP2 LSI frame 2000/3200/4000 668291

Setting by rotary switch:

- Overload protection current setting: I_r
- Overload protection time setting: t_r
- Short time delay protection current setting: I_{sd}
- Short time delay protection time setting: t_{sd}
- Instantaneous protection setting: I_i
- Neutral protection setting: N



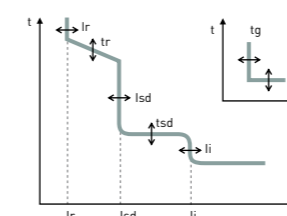
Basic protection unit LSIg



MP2 C LSIg frame 1600 668297
 MP2 LSIg frame 2000/3200/4000 668292

Setting by rotary switch:

- Overload protection current setting: I_r
- Overload protection time setting: t_r
- Short time delay protection current setting: I_{sd}
- Short time delay protection time setting: t_{sd}
- Instantaneous protection setting: I_i
- Ground fault protection current setting: I_g
- Ground fault protection time setting: t_g
- Neutral protection setting: N



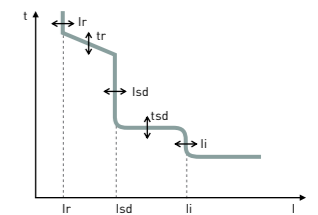
Screen type protection unit LSI



MP4 C LSI frame 1600 668298
 MP4 LSI frame 2000/3200/4000 668293

Setting by rotary switch:

- Overload protection current setting: I_r
- Overload protection time setting: t_r
- Short time delay protection current setting: I_{sd}
- Short time delay protection time setting: t_{sd}
- Instantaneous protection setting: I_i
- Neutral protection setting: N



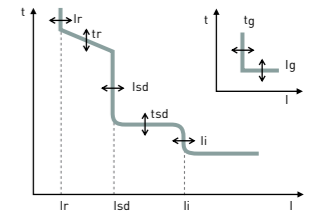
Screen type protection unit LSIg



MP4 C LSIg frame 1600 668299
 MP4 LSIg frame 2000/3200/4000 668294

Setting by rotary switch:

- Overload protection current setting: I_r
- Overload protection time setting: t_r
- Short time delay protection current setting: I_{sd}
- Short time delay protection time setting: t_{sd}
- Instantaneous protection setting: I_i
- Ground fault protection current setting: I_g
- Ground fault protection time setting: t_g
- Neutral protection setting: N



Technical parameters and selection

ACB	DEX 1600	DEX 2000	DEX 3200	DEX 4000		
Frame current Inm (A)	1600	2000	3200	4000		
Rated current In (A)	630 800 1000 1250 1600	630 800 1000 1250 1600 2000	2000 2500 3200	630-4000		
Poles	3, 4	3, 4	3, 4	3, 4		
Rated operational voltage Ue	AC 415V/AC 690V	AC 415V/AC 690V	AC 415V/AC 690V	AC 415V/AC 690V		
Rated insulation voltage Ui	1000V	1000V	1000V	1000V		
Rated impulse withstand voltage Uimp	12kV	12kV	12kV	12kV		
Installation mode	fixed	■	■	■		
	draw-out	■	■	■		
Ultimate breaking capacity Icu[kA]						
AC 415V 50/60Hz	55	80	100	100		
AC 690V 50/60Hz	25	50	65	85		
Service breaking capacity Ics[kA]						
AC 415V 50/60Hz	50	65	65	100		
AC 690V 50/60Hz	25	40	50	85		
Short time withstand current Icw (1s)kA						
AC 415V 50/60Hz	50	65	65	100		
AC 690V 50/60Hz	25	40	50	85		
Usage category	B	B	B	B		
Protection unit	LI(Ir,li)	■	■	■		
	LSI(Ir,li,lsd)	■	■	■		
	LSIG(Ir,li,lsd,lg)	■	■	■		
	LCD + LSI(Ir,li,lsd)	■	■	■		
	LCD+ LSIG(Ir,li,lsd,lg)	■	■	■		
Isolation	■	■	■	■		
Standard	IEC 60947-2					
Estimated maximum endurance	Mechanical endurance	20000	15000	10000	10000	
	Electrical endurance	8000	8000	5000	5000	
Dimension WxDxH(mm)	fixed	3P	254x254x320	362x323x402	422x323x402	419x308x415.5
		4P	324x254x320	457x323x402	537x323x402	545x308x415.5
	draw-out	3P	282x355x351	375x421x432	435x421x432	440x406.5x450
		4P	352x355x351	470x421x432	550x421x432	566x406.5x450
Weight(kg)	fixed	3P	19.9	41	56	66
		4P	24.6	50	68	80
	draw-out	3P	43.3	71	96	131
		4P	51.3	91	118	160

DEX selection table

Icu	55kA	80kA	100kA	Installation mode	Poles		PU	Frame1600	Frame2000/3200/4000	
Frame1600	N	-	-		fixed	F				3 pole
Frame2000	-	S	-	draw-out	D	4 pole	4P	Basic type LSI	MP2C LSI	MP2 LSI
Frame3200	-	-	L					Basic type LSIG	MP2C LSIG	MP2 LSIG
Frame4000	-	-	L	Screen type LSI	MP4C LSI	MP4 LSI				
				Screen type LSIG	MP4C LSIG	MP4 LSIG				

DEX N - 16 F 16 / 3P + MP2C LSI + Accessory

Product code	Frame size		Rated current	630A	800A	1000A	1250A	1600A	2000A	2500A	2900A	3200A	3600A	4000A	Accessory	
	DEX	Frame1600		16	Frame1600	06	08	10	12	16	-	-	-	-	-	-
	Frame2000	20	Frame2000	06	08	10	12	16	20	-	-	-	-	-	Closing coil	CC
	Frame3200	32	Frame3200	-	-	-	-	-	20	25	-	32	-	-	Shunt release	SHT
	Frame4000	40	Frame4000	06	08	10	12	16	20	25	29	32	36	40	Undervoltage release	UVR
															Auxiliary contact	OF
															Communication module	COM

Accessories

Shunt release and closing coil



shunt release closing coil

Shunt release and closing coil allow the circuit breaker to be controlled remotely. Opening is always possible by shunt release under (100%~70%) U_s , while closing is possible under (110%~85%) U_s only when closing spring of operation mechanism is charged and the circuit breaker is ready to close. Shunt release and closing coil are standard configured and customers need to specify the rated voltage when making the order.

Rated operational voltage(U_s): AC380V、AC220V
Rated duty: intermittent duty, onload time \leq 30ms

Undervoltage release



for DEX-1600

The undervoltage release opens the circuit breaker when there is a significant voltage drop or power failure of the main circuit. The power supply therefore is often obtained on the supply side of the circuit breaker. Undervoltage release is optional, customers need specify voltage, trip mode and delay time.

Rated operational voltage(U_e): AC380V、AC220V

Rated duty: uninterrupted duty

Trip mode: instantaneous mode and time delay mode. Delay time: 0.3s, 0.6s, 1s, 3s, 5s.
Accuracy: \pm 10%



for DEX-2000/3200/4000

Characteristic: when voltage drops to (70%~35%) U_e , the circuit breaker will trip instantaneously or with delay time; when voltage drops below 35% U_e , the circuit breaker will trip instantaneously, circuit breaker will not be closed.

Motor



DEX 1600

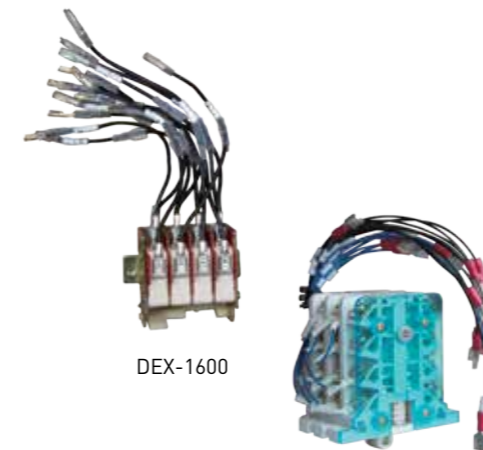
DEX 2000/3200/4000

The motor can automatically charge the operational mechanism spring under (110%~85%) U_s . The motor is standard configured and customers need to specify the rated voltage when making the order.

Rated operational voltage(U_s): AC380V、AC220V

Rated duty: intermittent duty

Auxiliary contact



DEX-1600

DEX-2000/3200/4000

Auxiliary contact can be used to signal the open or closed status of the circuit breaker. 4NC/NO is standard configured, additional 6NC/NO is optional.
Conventional thermal current: 6A

Accessories

Door frame



fixed



draw-out

Door frame is supplied with every circuit breaker and is installed on the door of switchgear to obtain IP 30 degree protection on the front part of the circuit breaker.

Insulating shields



Insulating shields can increase the insulation distance of phases. They are optional configured and to be ordered separately(recommended).

Terminal cover



Terminal cover is installed over the terminal area, reducing the risk of direct contact with live parts of the circuit breaker and dust accumulated in the terminal. Terminal cover is only available for frame 2000 and above.

Open position key lock



This accessory is used to lock the circuit breaker in open position.

Options available:

- 1 lock 1 key for 1 circuit breaker
- 2 locks 1 key for 2 circuit breakers
- 3 locks 1 key or 3 locks 2 keys for 3 circuit breakers
- 5 locks 3 keys for 5 circuit breakers

Door interlock



Door interlock is only available for draw-out version. It is used to prevent circuit breaker from being opened when mobile part in "connect" or "test" position.

Accessories

Auxiliary power supply



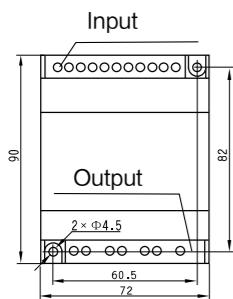
DEX-2000/3200/4000

Input voltage: (Us) AC 400V, AC 230V, auxiliary power supply can work under (110%~85%)Us
 Output voltage: DC 12V
 This type is used for DEX 2000 and above.
 The accessory can be installed on 35mm rail.

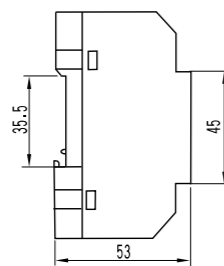


DEX-1600

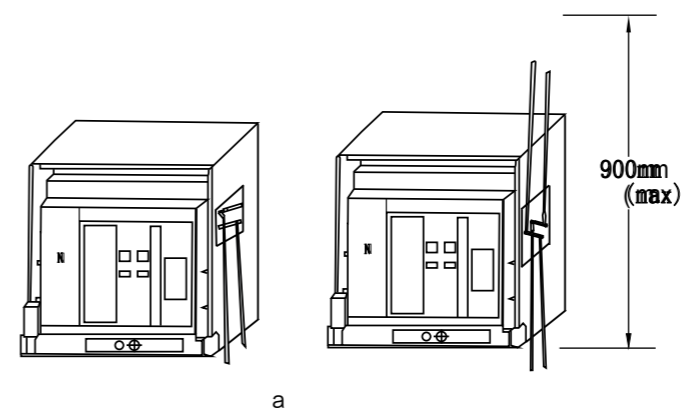
Input voltage: (Us) AC 400V, AC 230V, auxiliary power supply can work under (110%~85%)Us
 Output voltage: DC 24V
 This type is used for DEX 2000 and above.
 The accessory can be installed on 35mm rail.



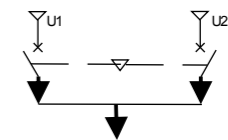
DEX-1600



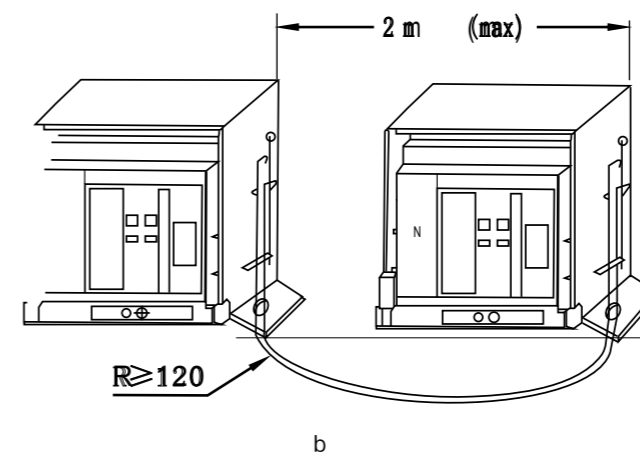
Mechanical interlock (fixed and draw-out)



Mechanical interlock with cable can be obtained between two circuit breakers, fixed or draw-out.



U1	U2
1	0
0	1
0	0



DEX 1600/2000/3200/4000
fixed version



Standard configuration*: breaker body+PU (with communication)
+shunt release+closing coil
+motor+6NC/6NO auxiliary contact+horizontal rear terminal connector
+door frame+insulating shields
+power supply

Conform to IEC 60947-2

Pack	Reference		
	3P	4P	Frame 1600A
			Icu 55kA(415Vac)
			In (A) Design code
1	6 680 00	6 680 10	630 DEX N - 16 F 06 / 3P(4P)
1	6 680 01	6 680 11	800 DEX N - 16 F 08 / 3P(4P)
1	6 680 02	6 680 12	1000 DEX N - 16 F 10 / 3P(4P)
1	6 680 03	6 680 13	1250 DEX N - 16 F 12 / 3P(4P)
1	6 680 04	6 680 14	1600 DEX N - 16 F 16 / 3P(4P)
			Frame 2000A
			Icu 80kA(415Vac)
			In (A) Design code
1	6 680 26	6 680 46	630 DEX S - 20 F 06 / 3P(4P)
1	6 680 27	6 680 47	800 DEX S - 20 F 08 / 3P(4P)
1	6 680 28	6 680 48	1000 DEX S - 20 F 10 / 3P(4P)
1	6 680 29	6 680 49	1250 DEX S - 20 F 12 / 3P(4P)
1	6 680 30	6 680 50	1600 DEX S - 20 F 16 / 3P(4P)
1	6 680 31	6 680 51	2000 DEX S - 20 F 20 / 3P(4P)
			Frame3200A
			Icu 100kA(415Vac)
			In (A) Design code
1	6 680 66	6 680 76	2000 DEX L - 32 F 20 / 3P(4P)
1	6 680 67	6 680 77	2500 DEX L - 32 F 25 / 3P(4P)
1	6 680 68	6 680 78	3200 DEX L - 32 F 32 / 3P(4P)
			Frame4000A
			Icu 100kA(415Vac)
			In (A) Design code
1	6 688 00	6 688 01	630 DEX L - 40 F 06 / 3P(4P)
1	6 688 02	6 688 03	800 DEX L - 40 F 08 / 3P(4P)
1	6 688 04	6 688 05	1000 DEX L - 40 F 10 / 3P(4P)
1	6 688 06	6 688 07	1250 DEX L - 40 F 12 / 3P(4P)
1	6 688 08	6 688 09	1600 DEX L - 40 F 16 / 3P(4P)
1	6 688 10	6 688 11	2000 DEX L - 40 F 20 / 3P(4P)
1	6 688 12	6 688 13	2500 DEX L - 40 F 25 / 3P(4P)
1	6 688 14	6 688 15	2900 DEX L - 40 F 29 / 3P(4P)
1	6 688 16	6 688 17	3200 DEX L - 40 F 36 / 3P(4P)
1	6 688 18	6 688 19	3600 DEX L - 40 F 36 / 3P(4P)
1	6 688 20	6 688 21	4000 DEX L - 40 F 40 / 3P(4P)

*"6NC/6NO auxiliary contact +door frame+insulating shield +power supply"no need to select;
other standard accessories need to be selected, such as shunt release, because of different voltages.

DEX 1600/2000/3200/4000
draw-out version



Standard configuration*: breaker body+PU (with communication)
+shunt release+closing coil
+motor+6NC/6NO auxiliary contact+horizontal rear terminal connector
+door frame+insulating shields
+power supply+chassis

Conform to IEC 60947-2

Pack	Reference		
	3P	4P	Frame 1600A
			Icu 55kA(415Vac)
			In (A) Design code
1	6 680 90	6 681 00	630 DEX N - 16 D 06 / 3P(4P)
1	6 680 91	6 681 01	800 DEX N - 16 D 08 / 3P(4P)
1	6 680 92	6 681 02	1000 DEX N - 16 D 10 / 3P(4P)
1	6 680 93	6 681 03	1250 DEX N - 16 D 12 / 3P(4P)
1	6 680 94	6 681 04	1600 DEX N - 16 D 16 / 3P(4P)
			Frame 2000A
			Icu 80kA(415Vac)
			In (A) Design code
1	6 681 16	6 681 36	630 DEX S - 20 D 06 / 3P(4P)
1	6 681 17	6 681 37	800 DEX S - 20 D 08 / 3P(4P)
1	6 681 18	6 681 38	1000 DEX S - 20 D 10 / 3P(4P)
1	6 681 19	6 681 39	1250 DEX S - 20 D 12 / 3P(4P)
1	6 681 20	6 681 40	1600 DEX S - 20 D 16 / 3P(4P)
1	6 681 21	6 681 41	2000 DEX S - 20 D 20 / 3P(4P)
			Frame3200A
			Icu 100kA(415Vac)
			In (A) Design code
1	6 681 56	6 681 66	2000 DEX L - 32 D 20 / 3P(4P)
1	6 681 57	6 681 67	2500 DEX L - 32 D 25 / 3P(4P)
1	6 681 58	6 681 68	3200 DEX L - 32 D 32 / 3P(4P)
			Frame4000A
			Icu 100kA(415Vac)
			In (A) Design code
1	6 688 30	6 688 31	630 DEX L - 40 D 06 / 3P(4P)
1	6 688 32	6 688 33	800 DEX L - 40 D 08 / 3P(4P)
1	6 688 34	6 688 35	1000 DEX L - 40 D 10 / 3P(4P)
1	6 688 36	6 688 37	1250 DEX L - 40 D 12 / 3P(4P)
1	6 688 38	6 688 39	1600 DEX L - 40 D 16 / 3P(4P)
1	6 688 40	6 688 41	2000 DEX L - 40 D 20 / 3P(4P)
1	6 688 42	6 688 43	2500 DEX L - 40 D 25 / 3P(4P)
1	6 688 44	6 688 45	2900 DEX L - 40 D 29 / 3P(4P)
1	6 688 46	6 688 47	3200 DEX L - 40 D 32 / 3P(4P)
1	6 688 48	6 688 49	3600 DEX L - 40 D 36 / 3P(4P)
1	6 688 50	6 688 51	4000 DEX L - 40 D 40 / 3P(4P)

DEX 1600
Protection unit



668295 668296 668298

Conform to IEC 60947-2

Pack	Reference	Basic type	Design code
1	6 682 95	LI protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _i =2-15I _n	MP2C LI
1	6 682 96	LSI protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _{sd} =1.5-2-2.5-3-4-5-6-8-10I _r t _{sd} =0.1-0.2-0.5-1s I _i =2-3-4-6-8-10-12-15I _n -I _{cw}	MP2C LSI
1	6 682 97	LSIg protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _{sd} =1.5-2-2.5-3-4-5-6-8-10I _r t _{sd} =0.1-0.2-0.5-1s I _i =2-3-4-6-8-10-12-15I _n -I _{cw} I _g =0.2-0.3-0.4-0.5-0.6-0.7-0.8-1I _n (ON/OFF) t _g =0.1-0.2-0.5-1s	MP2C LSIg
1	6 682 98	LCDscreen type LSI protection I _r , t _r , I _{sd} , t _{sd} , I _i (adjustable)	MP4C LSI
1	6 682 99	LSIg protection I _r , t _r , I _{sd} , t _{sd} , I _i , I _g , t _g (adjustable)	MP4C LSIg

DEX 2000/3200/4000
Protection unit

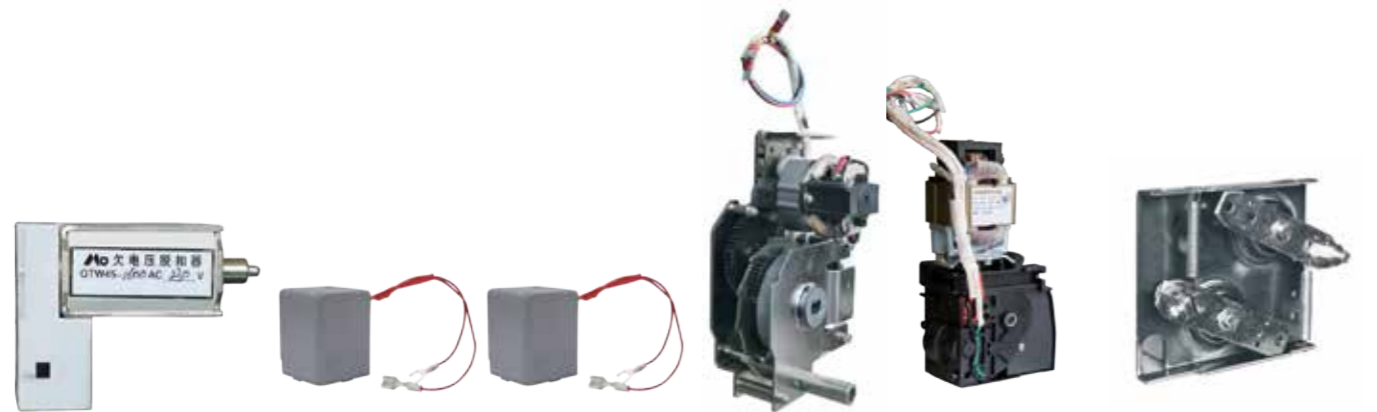


668290 668291 668294

Conform to IEC 60947-2

Pack	Reference	Basic type	Design code
1	6 682 90	LI protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _i =2-15I _n	MP2 LI
1	6 682 91	LSI protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _{sd} =1.5-2-2.5-3-4-5-6-8-10I _r t _{sd} =0.1-0.2-0.5-1s I _i =2-3-4-6-8-10-12-15I _n -I _{cw}	MP2 LSI
1	6 682 92	LSIg protection I _r =0.4-1 I _n t _r =5-10-20-30s(6I _r) I _{sd} =1.5-2-2.5-3-4-5-6-8-10I _r t _{sd} =0.1-0.2-0.5-1s I _i =2-3-4-6-8-10-12-15I _n -I _{cw} I _g =0.2-0.3-0.4-0.5-0.6-0.7-0.8-1I _n (ON/OFF) t _g =0.1-0.2-0.5-1s	MP2 LSIg
1	6 682 93	LCDscreen type LSI protection I _r , t _r , I _{sd} , t _{sd} , I _i (adjustable)	MP4 LSI
1	6 682 94	LSIg protection I _r , t _r , I _{sd} , t _{sd} , I _i , I _g , t _g (adjustable)	MP4 LSIg

DEX 1600/2000/3200/4000 accessories



Undervoltage release Shunt release Closing coil Motor Motor Mechanical interlock

Pack Reference **Control and electrical accessory**

Pack	Reference	Control and electrical accessory
Motor		
1	6 681 90	DEX 1600 motor 400V AC
1	6 681 91	DEX 1600 motor 230V AC
1	6 681 93	DEX 2000 motor 400V AC
1	6 681 94	DEX 2000 motor 230V AC/DC
1	6 681 96	DEX 3200/4000 motor 400V AC
1	6 681 97	DEX 3200/4000 motor 230V AC/DC
Closing coil		
1	6 681 99	DEX 1600 closing coil 230V AC
1	6 682 00	DEX 1600 closing coil 400V AC
1	6 682 03	DEX 2000/3200/4000 closing coil 230V AC
1	6 682 04	DEX 2000/3200/4000 closing coil 400V AC
Shunt release		
1	6 682 07	DEX 1600 shunt release 230V AC
1	6 682 08	DEX 1600 shunt release 400V AC
1	6 682 11	DEX 2000/3200/4000 shunt release 230V AC
1	6 682 12	DEX 2000/3200/4000 shunt release 400V AC
Undervoltage release (UVR)		
1	6 682 15	DEX 1600 UVR 230V AC
1	6 682 16	DEX 1600 UVR 400V AC
1	6 682 17	DEX 1600 UVR 230V AC delay time 1s, 0.3s, 0.5s, 0.7s
1	6 682 18	DEX 1600 UVR 400V AC delay time 1s, 0.3s, 0.5s, 0.7s
1	6 682 19	DEX 1600 UVR 230V AC delay time 3s, 0.3s, 0.5s, 0.7s
1	6 682 20	DEX 1600 UVR 400V AC delay time 3s, 0.3s, 0.5s, 0.7s
1	6 682 21	DEX 1600 UVR 230V AC delay time 5s, 0.3s, 0.5s, 0.7s
1	6 682 22	DEX 1600 UVR 400V AC delay time 5s, 0.3s, 0.5s, 0.7s
1	6 682 23	DEX 2000 UVR 230V AC
1	6 682 24	DEX 2000 UVR 400V AC
1	6 682 25	DEX 2000 UVR 230V AC delay time [0.3-5s]
1	6 682 26	DEX 2000 UVR 400V AC delay time [0.3-5s]
1	6 682 27	DEX 3200/4000 UVR 230V AC
1	6 682 28	DEX 3200/4000 UVR 400V AC
1	6 682 29	DEX 3200/4000 UVR 230V AC delay time [0.3-5s]
1	6 682 30	DEX 3200/4000 UVR 400V AC delay time [0.3-5s]
Auxiliary contact		
1	6 682 31	DEX 1600 auxiliary contact 6NC/6NO
1	6 682 32	DEX 2000/3200/4000 auxiliary contact 6NC/6NO

Pack Reference **Lock and interlock**

Pack	Reference	Lock and interlock
Lever mechanical interlock		
1	6 682 33	DEX 1600 between 2 draw-out circuit breakers
1	6 682 34	DEX 2000/3200 between 2 fixed circuit breakers
1	6 682 35	DEX 2000/3200 between 2 draw-out circuit breakers
Cable mechanical interlock		
1	6 682 36	DEX 1600 between 2 draw-out circuit breakers
1	6 682 37	DEX 2000/3200 between 2 fixed circuit breakers
1	6 682 38	DEX 2000/3200 between 2 draw-out circuit breakers
1	6 689 20	DEX 4000 between 2 circuit breakers(fixed or draw-out)
1	6 689 21	DEX 4000 between 3 circuit breakers(fixed or draw-out)
Open position key lock		
1	6 682 39	DEX 1600 1lock 1key
1	6 682 40	DEX 1600 2 locks 1key
1	6 682 41	DEX 1600 3 locks 1key
1	6 682 42	DEX 1600 3 locks 2key
1	6 682 43	DEX 1600 5 locks 3key
1	6 682 44	DEX 2000/3200/4000 3 locks 1key
1	6 682 45	DEX 2000/3200/4000 3 locks 2key
1	6 682 46	DEX 2000/3200/4000 5 locks 3key
1	6 682 47	DEX 2000/3200/4000 1lock 1key
1	6 682 48	DEX 2000/3200/4000 2 locks 1key
Door interlock		
1	6 682 49	DEX 1600 door interlock
1	6 682 50	DEX 2000/3200 door interlock
1	6 689 30	DEX 4000 door interlock

DEX 1600/2000/3200/4000 accessories



Rear vertical terminal Horizontal extended terminal Auxiliary power supply Door frame for fixed version Door frame for draw-out version Insulating shield

Pack Reference **Assemble and connection**

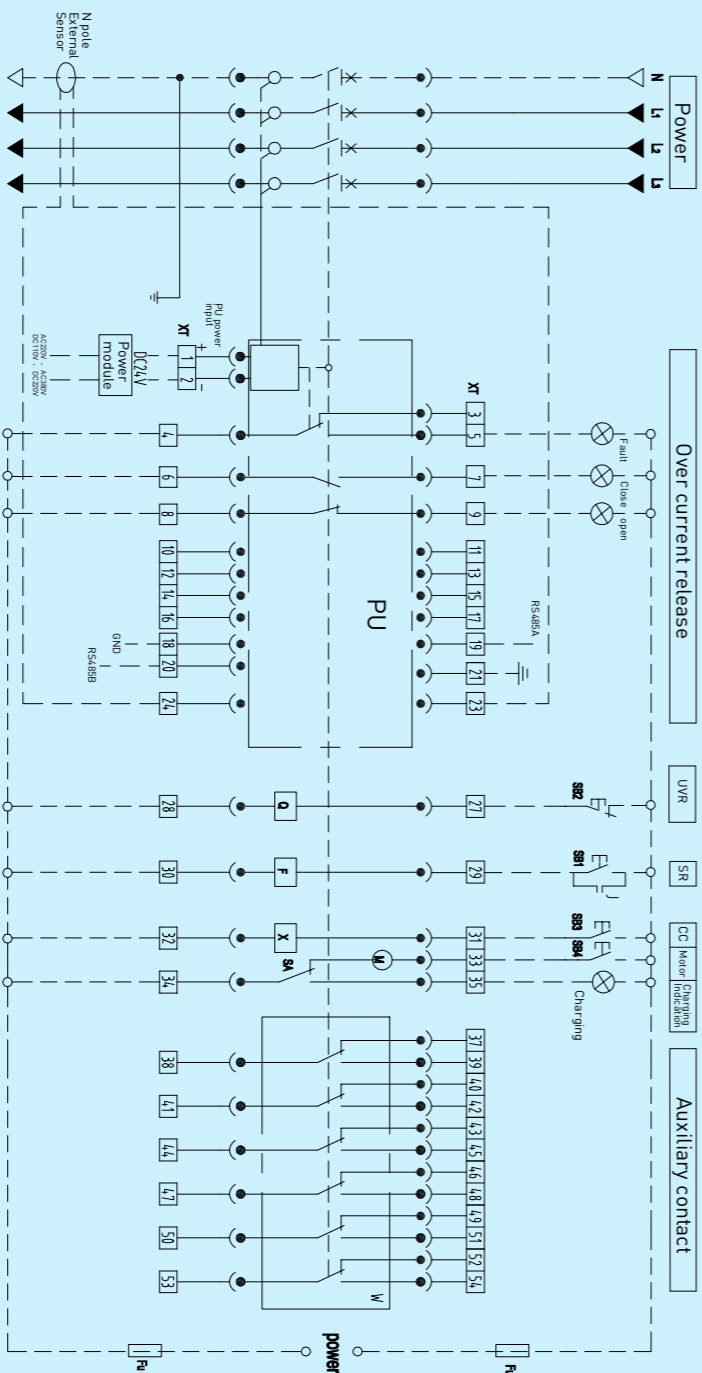
Pack	Reference	Assemble and connection
1	668259	DEX 1600 fixed/draw-out vertical extended terminal 3P (6 per set)
1	668265	DEX 1600 fixed/draw-out vertical extended terminal 4P (8 per set)
1	668261	DEX 2000 fixed/draw-out rear vertical terminal 3P (≤1000A) (6 per set)
1	668186	DEX 2000 fixed/draw-out rear vertical terminal 3P (≤2000A) (6 per set)
1	668263	DEX 3200 fixed rear vertical terminal 3P (6 per set)
1	668187	DEX 3200 draw-out rear vertical terminal 3P (6 per set)
1	668267	DEX 2000 fixed/draw-out vertical extended terminal 4P (≤1000A) (8 per set)
1	668188	DEX 2000 fixed/draw-out vertical extended terminal 4P (≤2000A) (8 per set)
1	668269	DEX 3200 fixed vertical extended terminal 4P (8 per set)
1	668189	DEX 3200 draw-out vertical extended terminal 4P (8 per set)
1	668260	DEX 1600 fixed/draw-out horizontal extended terminal 3P (6 per set)
1	668262	DEX 2000 fixed horizontal extended terminal 4P (≤2000A) (8 per set)
1	668300	DEX 2000 draw-out horizontal extended terminal 4P (≤2000A) (8 per set)
1	668301	DEX 2000 fixed horizontal extended terminal 3P (≤2000A) (6 per set)
1	668302	DEX 2000 draw-out horizontal extended terminal 3P (≤2000A) (6 per set)
1	668264	DEX 3200 fixed horizontal extended terminal 3P (6 per set)
1	668303	DEX 3200 draw-out horizontal extended terminal 3P (6 per set)
1	668266	DEX 1600 fixed/draw-out horizontal extended terminal 4P (8 per set)
1	668268	DEX 2000 fixed horizontal extended terminal 4P (≤1000A) (8 per set)
1	668304	DEX 2000 draw-out horizontal extended terminal 4P (≤1000A) (8 per set)
1	668305	DEX 2000 fixed horizontal extended terminal 3P (≤1000A) (6 per set)
1	668306	DEX 2000 draw-out horizontal extended terminal 3P (≤1000A) (6 per set)
1	668270	DEX 3200 fixed horizontal extended terminal 4P (8 per set)
1	668307	DEX 3200 draw-out horizontal extended terminal 4P (8 per set)

Pack Reference **Insulation and protection accessory**

Pack	Reference	Insulation and protection accessory
Insulating shield		
1	6 682 51	DEX 1600 fixed 3P
1	6 682 52	DEX 1600 fixed 4P
1	6 682 53	DEX 1600 draw-out 3P
1	6 682 54	DEX 1600 draw-out 4P
1	6 682 55	DEX 2000/3200/4000 fixed 3P
1	6 682 56	DEX 2000/3200/4000 fixed 4P
1	6 682 57	DEX 2000/3200/4000 draw-out 3P
1	6 682 58	DEX 2000/3200/4000 draw-out 4P
Door frame and secondary cover		
1	6 682 74	DEX 1600 door frame for fixed version
1	6 682 75	DEX 1600 door frame for draw-out version
1	6 682 76	DEX 2000 door frame for fixed version
1	6 682 77	DEX 2000 door frame for draw-out version
1	6 682 79	DEX 3200/4000 door frame for fixed version
1	6 682 80	DEX 3200/4000 door frame for draw-out version
1	6 682 78	DEX 2000/3200/4000 secondary terminal cover
Other accessory		
Auxiliary power supply		
1	6 682 81	DEX 1600 , input 400V AC output 24V DC
1	6 682 82	DEX 1600 , input 230V AC output 24V DC
1	6 682 83	DEX 2000/3200/4000, input 400V AC output 12V DC
1	6 682 84	DEX 2000/3200/4000 , input 230V AC output 12V DC
External neutral transformer		
1	6 682 86	DEX 2000/3200/4000
1	6 682 87	DEX 1600

DEX-1600 fixed/draw-out diagram

- 1, 2—PU power input DC12V, 1+12V , 2GND (connected to AC380V/DC12V, AC220V/DC12V power supply)
- 3, 4, 5—Fault output contact, contact capacity AC250V/16A
- 6, 7—NO Aux contact, capacity AC250V/16A
- 8, 9—NC Aux contact, capacity AC250V/16A
- 10, 11—signal contact OUT1A, OUT1B output, contact capacity: AC250V/5A; DC24V/7A
- 12, 13—signal contact OUT2A, OUT2B output, contact capacity: AC250V/5A; DC24V/7A
- 14, 15—signal contact OUT3A, OUT3B output, contact capacity: AC250V/5A; DC24V/7A
- 16, 17—signal contact IN1A, IN1B input
- 18, 19, 20—communicationGND, RS485A, RS485B
- 21—PE ground connection(connected by custom)
- 23, 24—N pole external sensor, custom option
- 27, 28—Under voltage release, custom option
- 29, 30—Shunt release
- 31, 32—Closing coil
- 33, 34—Charing motor
- 34, 35—charged indication
- 37~54—6NO/NC Aux contact



- SB1—SR Button (option)
- SB2—UVR Button (option)
- SB3—CC Button (option)
- SB4—Motor Button (option)
- SA—Motor travel switch
- J—Secondary circuit connector
- X—Relay
- F—SR
- Q—UVR
- W—Aux contact
- Fu—Fuse
- M—Motor

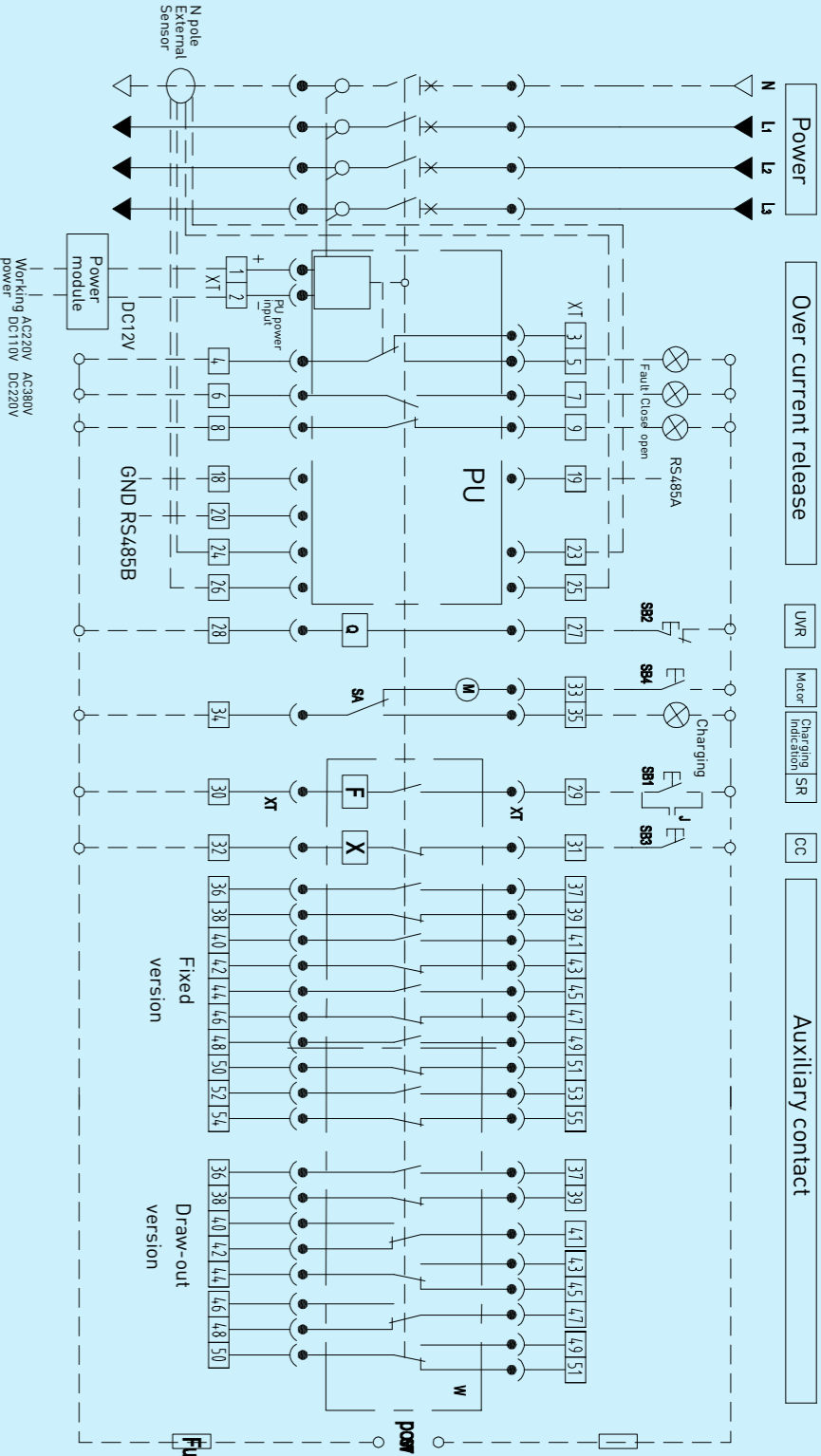
Notes: 1.Power—if there are different power of Q, F, X, M, PU, Please separated the power.
 2.If the current loaded by main circuit is smaller than 0.4In, external power supplier must be used.

DEX2000/3200/4000 fixed /draw-out diagram

- 1, 2—PU power input DC12V, 1+12V , 2GND (connected to AC380V/DC12V, AC220V/DC12V power supply)
- 3, 4, 5—Fault output contact, contact capacity AC250V/16A
- 6, 7—NO Aux contact, capacity AC250V/16A
- 8, 9—NC Aux contact, capacity AC250V/16A
- 18, 19, 20—communicationGND, RS485A, RS485B
- 23, 24, 25, 26—N pole external sensor, custom option
- 27, 28—Under voltage release, custom option
- 29, 30—Shunt release
- 31, 32—Closing coil
- 33, 34—Charing motor
- 34, 35—charged indication
- 36~51—Draw-out version 6NO/NC Aux contact
- 36~57—Fixed version 6NO/NC Aux contact

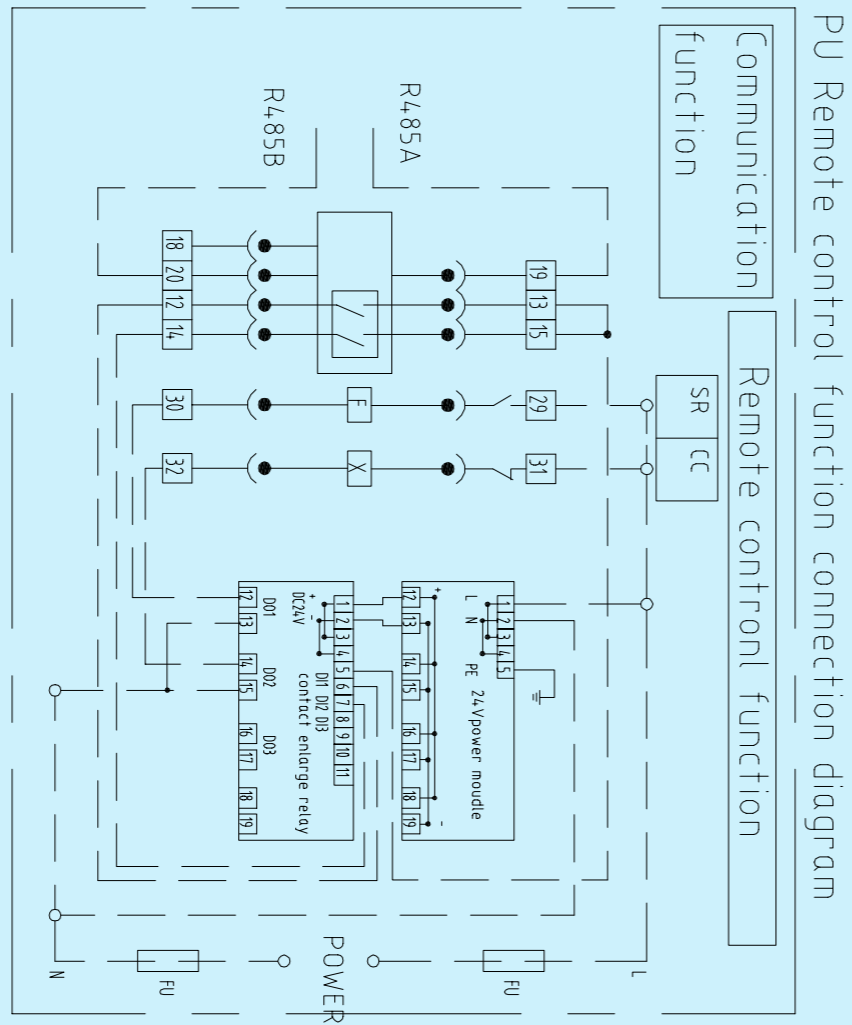
Note: 1.Power—if there are different power of Q, F, X, M, PU, Please separated the power.

- SB1—SR Button (option)
- SB2—UVR Button (option)
- SB3—CC Button (option)
- SB4—Motor Button (option)
- SA—Motor travel switch
- J—Secondary circuit connector
- F—Relay
- X—SR
- Q—UVR
- W—Aux contact
- Fu—Fuse
- M—Motor

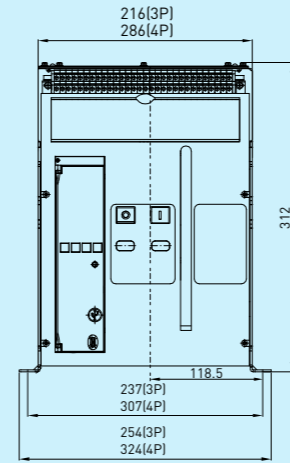


■ DEX-1600 remote control

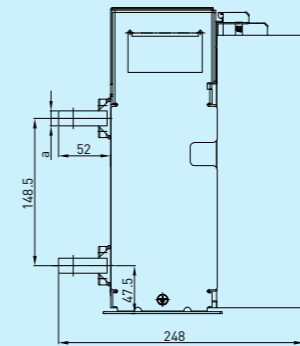
- 10, 11—signal contact OUT1A, OUT1B output, contact capacity: AC250V/5A; DC24V/7A
- 12, 13—signal contact OUT2A, OUT2B output, contact capacity: AC250V/5A; DC24V/7A
- 14, 15—signal contact OUT3A, OUT3B output, contact capacity: AC250V/5A; DC24V/7A
- 16, 17—signal contact IN1A, IN1B input
- 18, 19, 20—communication GND, RS485A, RS485B
- 29, 30—shunt release
- 31, 32—closing coil



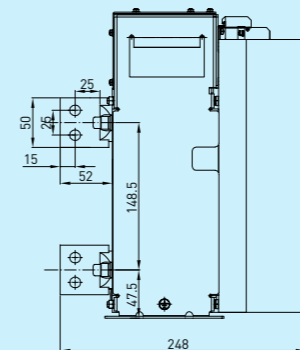
■ DEX-1600 fixed version outline dimension



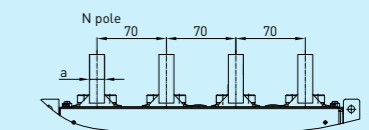
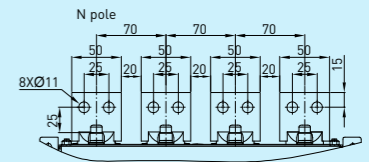
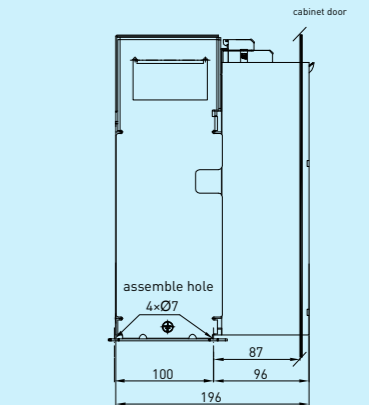
horizontal rear connection



vertical rear connection

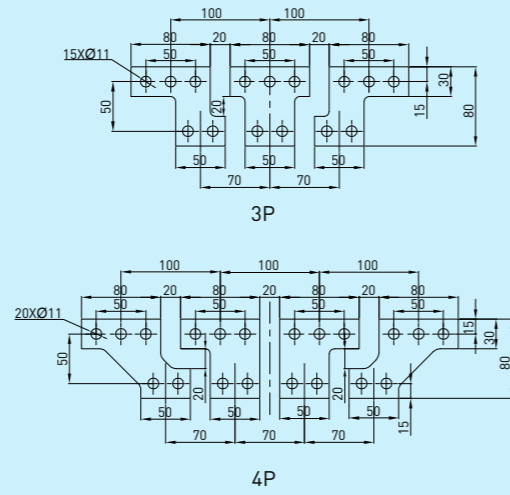
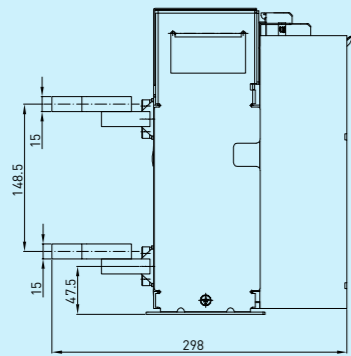


In [A]	a [mm]
630-1000	10
1250-1600	15

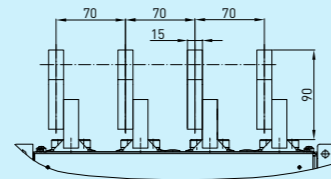
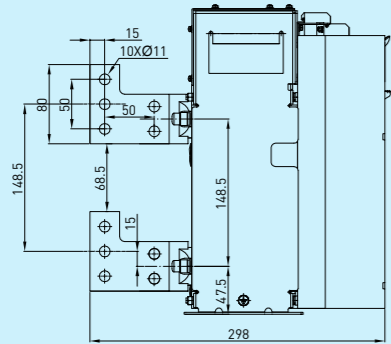


■ DEX-1600 fixed version outline dimension

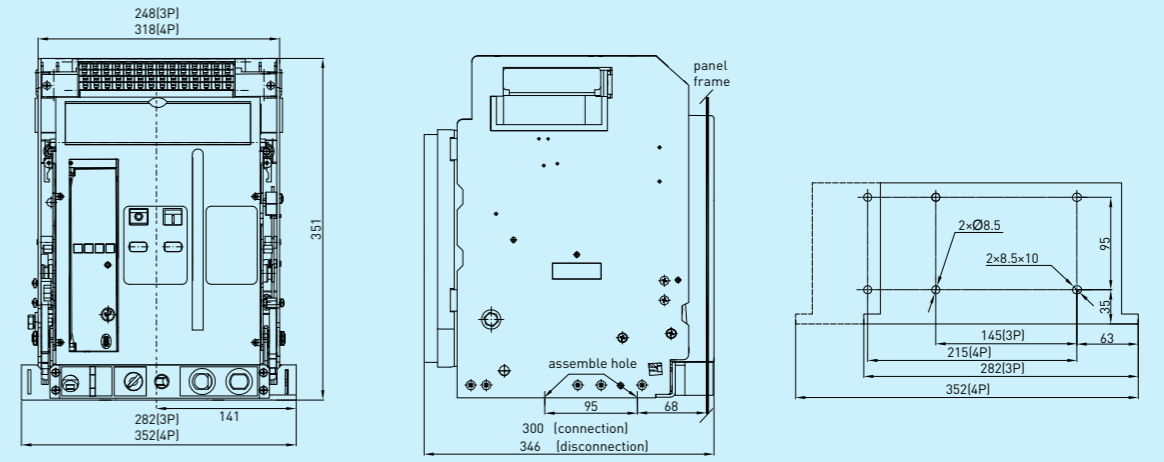
horizontal extended connection



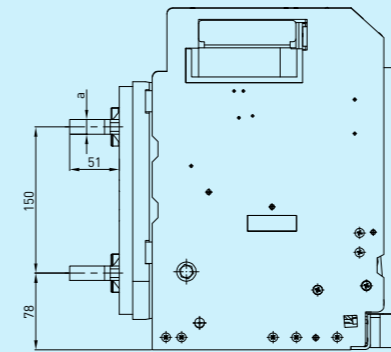
vertical extended connection



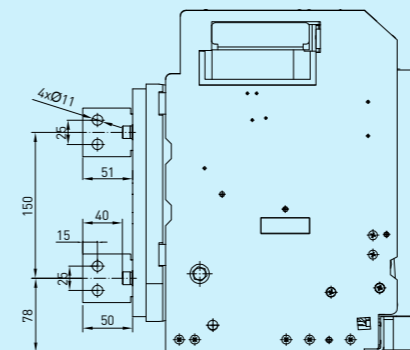
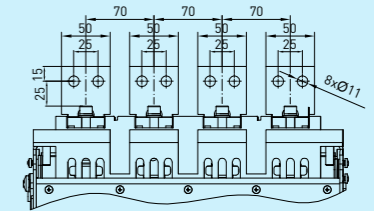
■ DEX-1600 draw out version outline dimension



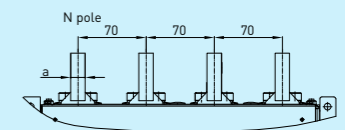
horizontal rear connection



vertical rear connection

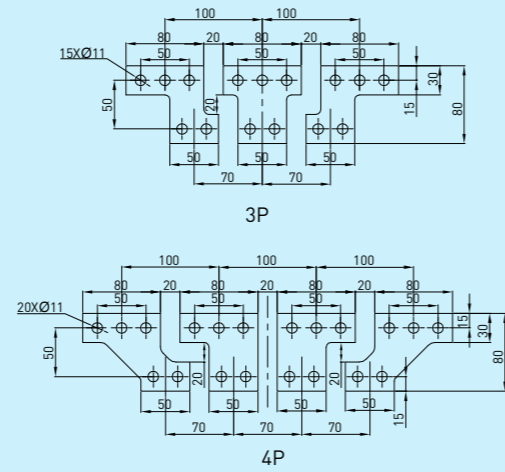
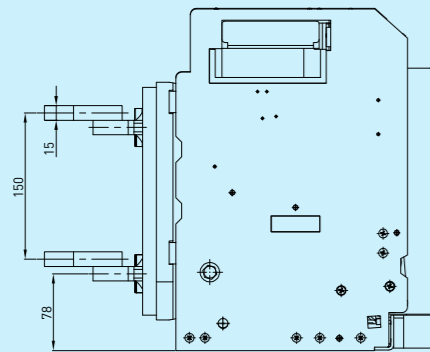


mm	
I n [A]	a
630-1000	10
1250-1600	15

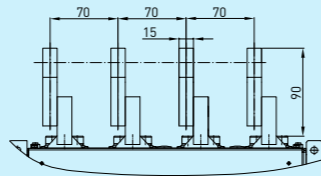
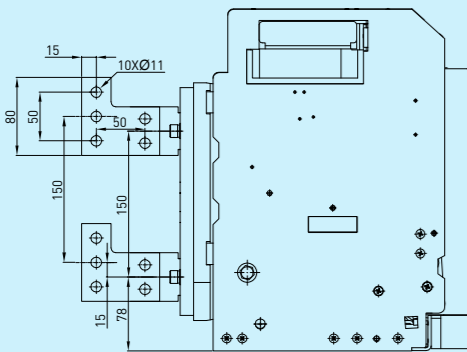


■ DEX-1600 draw out version extended connection

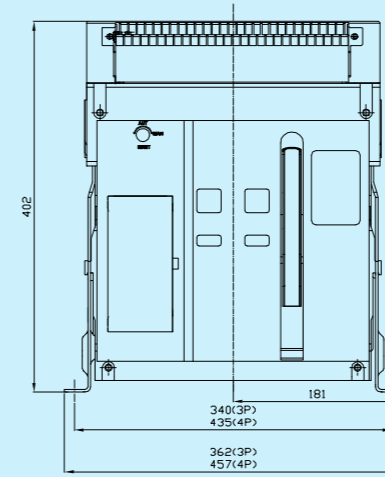
horizontal extended connection



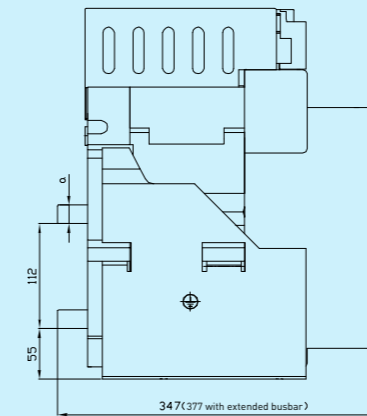
vertical extended connection



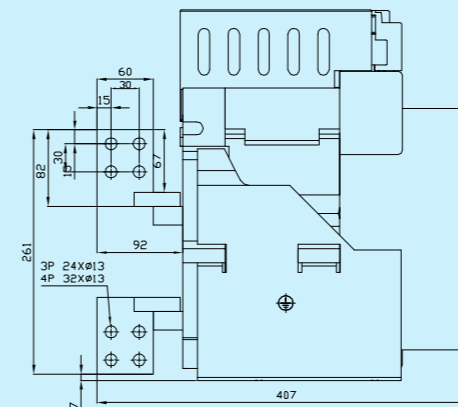
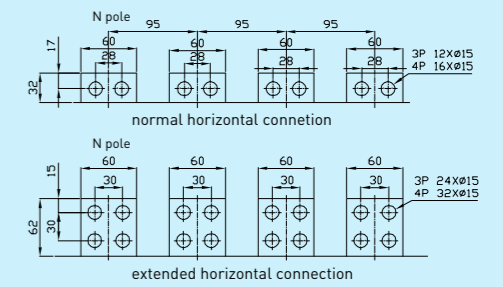
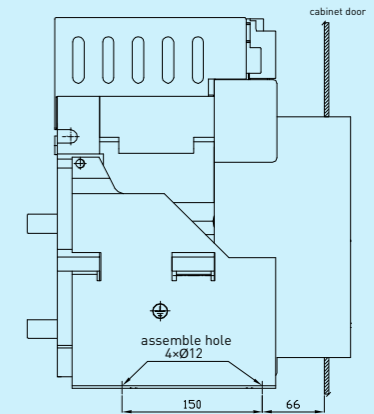
■ DEX-2000 fixed version outline dimension



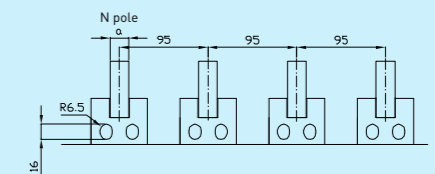
horizontal rear connection



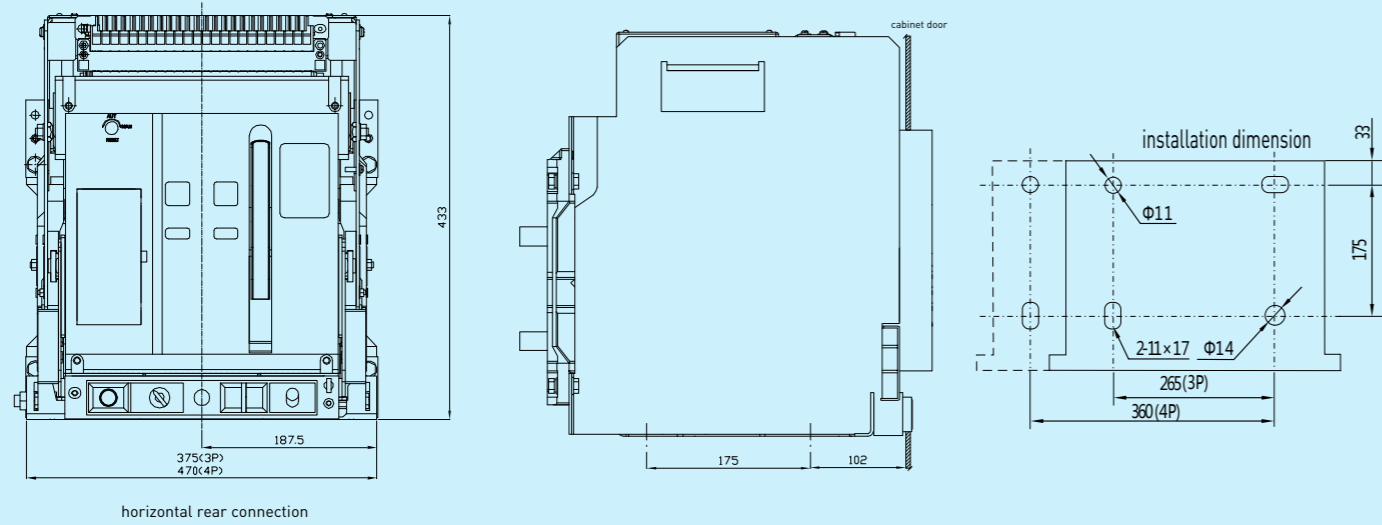
vertical rear connection



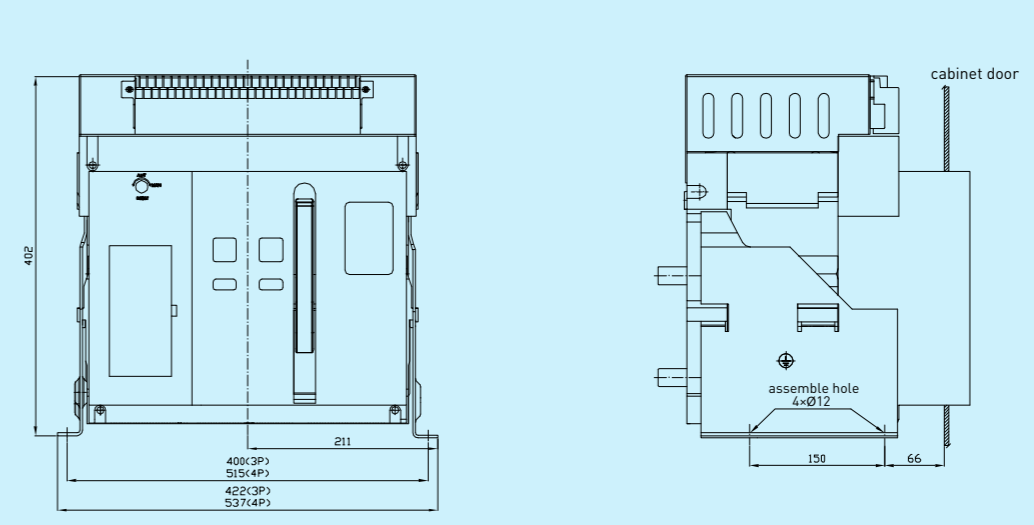
mm	
I n(A)	a
630-1000	10
1250-2000	20



■ DEX-2000 draw out version outline dimension

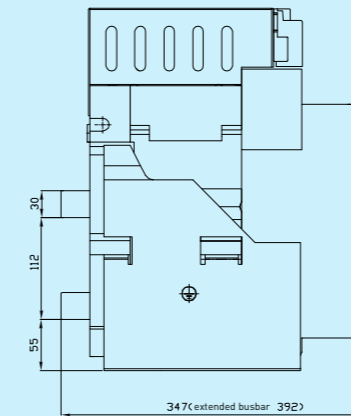
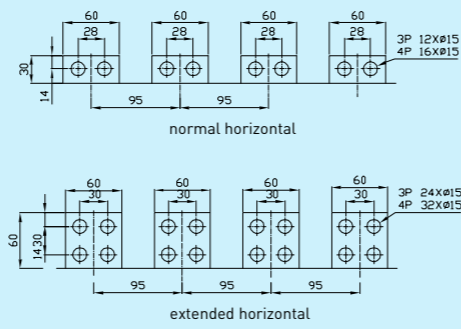
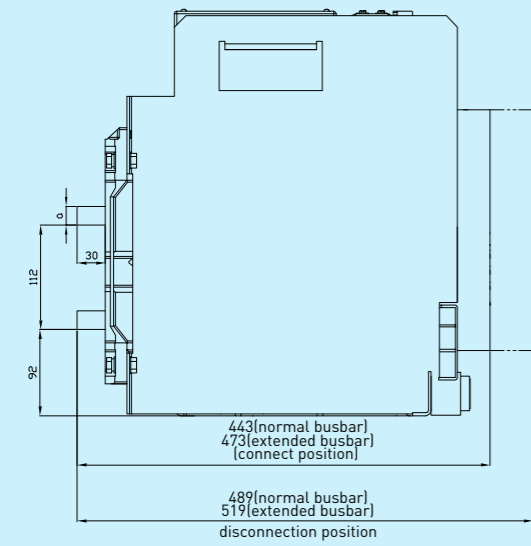


■ DEX-3200 fixed version outline dimension



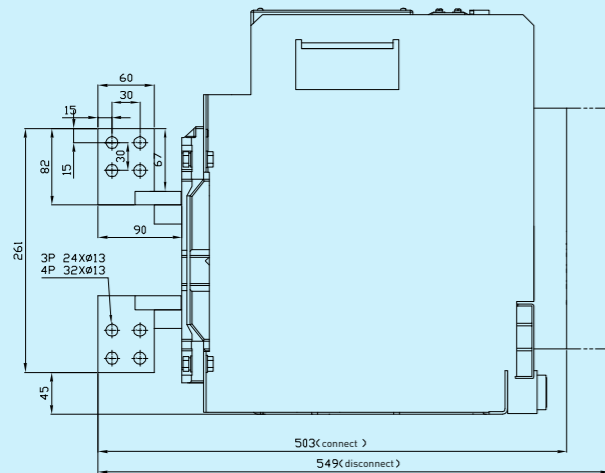
horizontal rear connection

horizontal rear connection

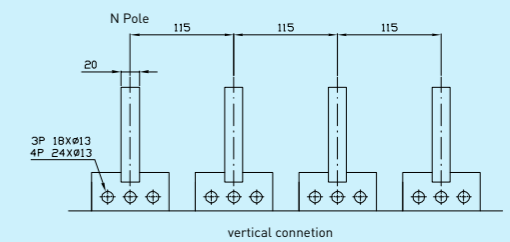
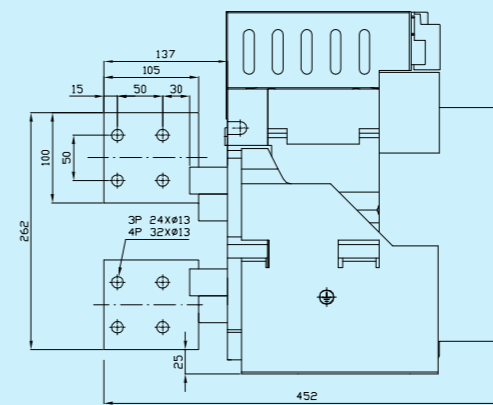
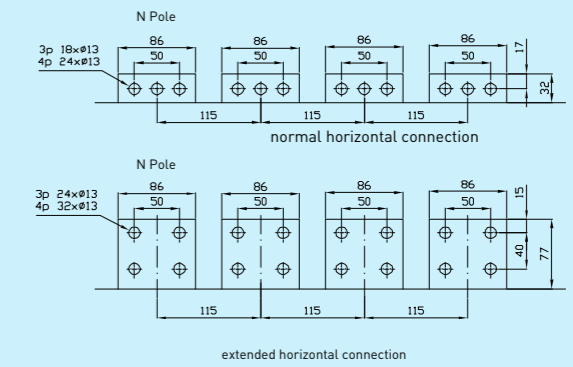
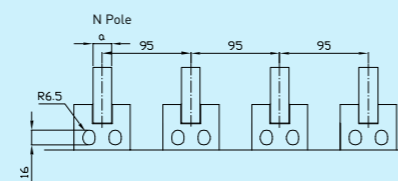


vertical rear connection

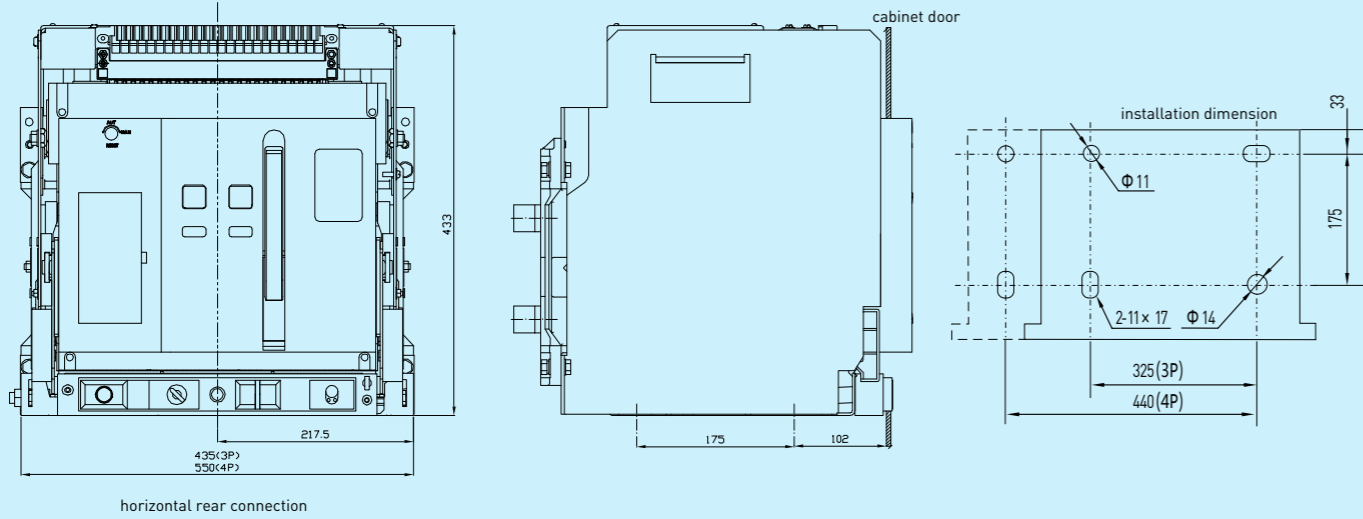
vertical rear connection



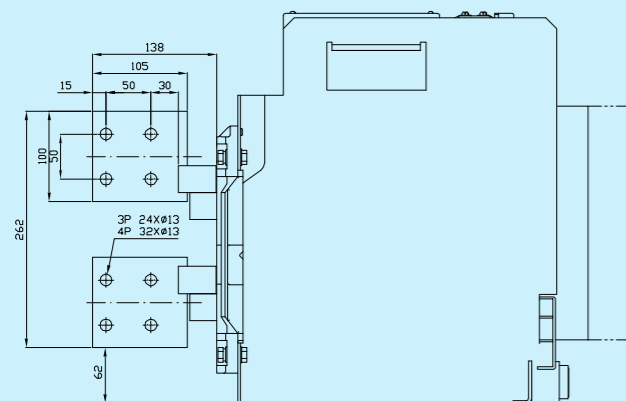
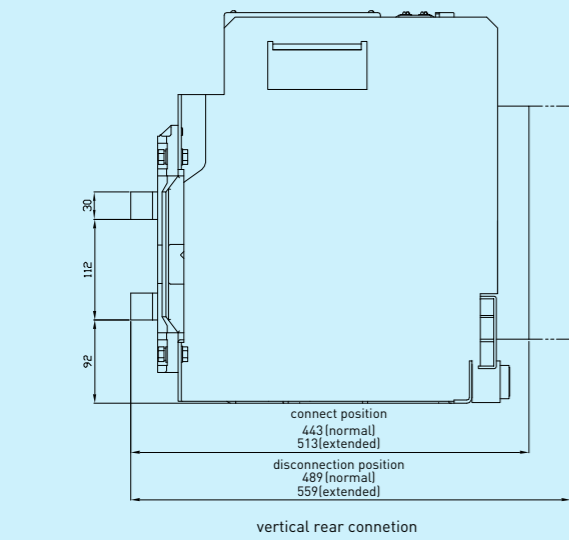
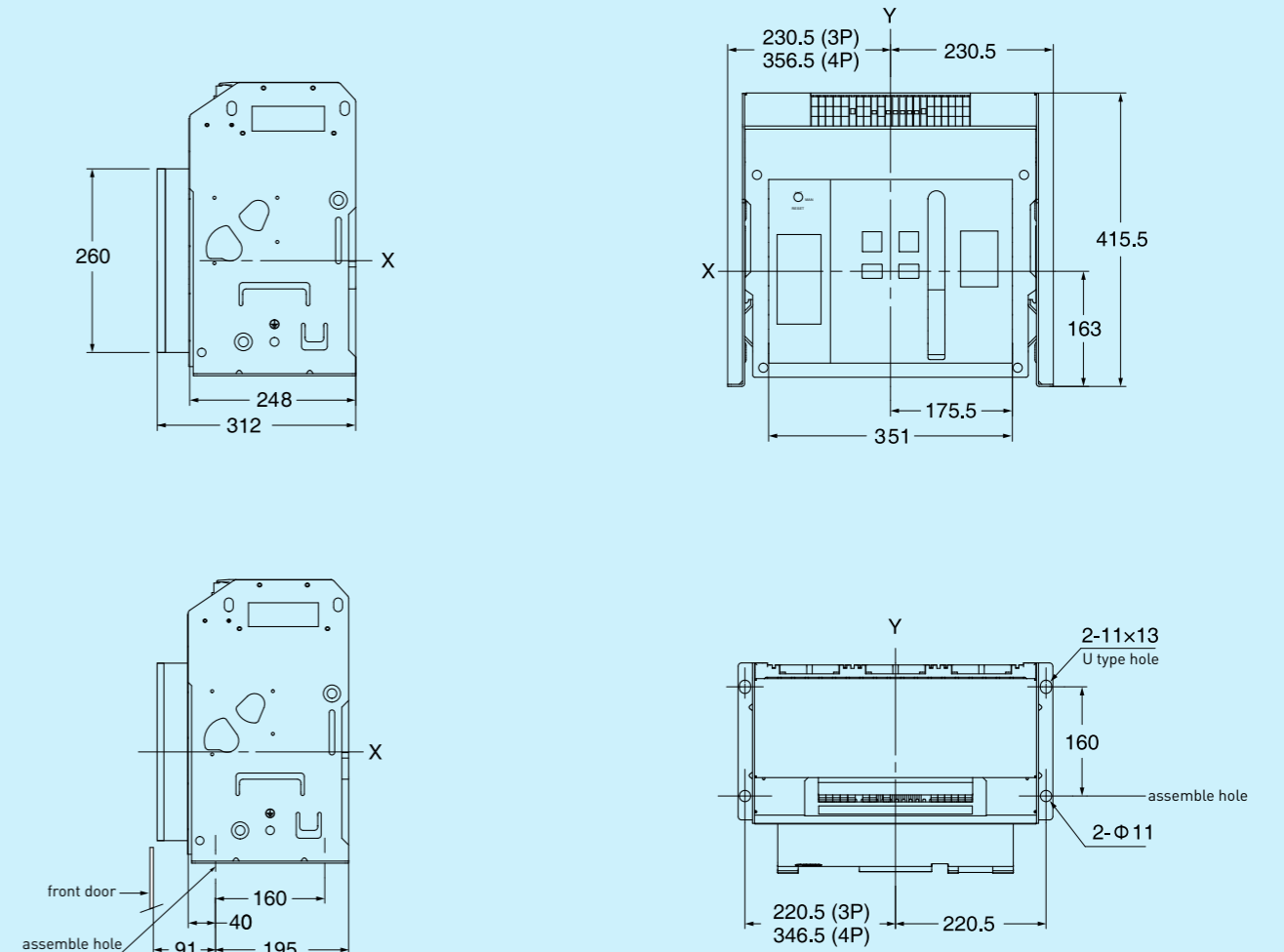
I_n [A]	a [mm]
630-1000	10
1250-2000	20



■ DEX-3200 draw out version outline dimension

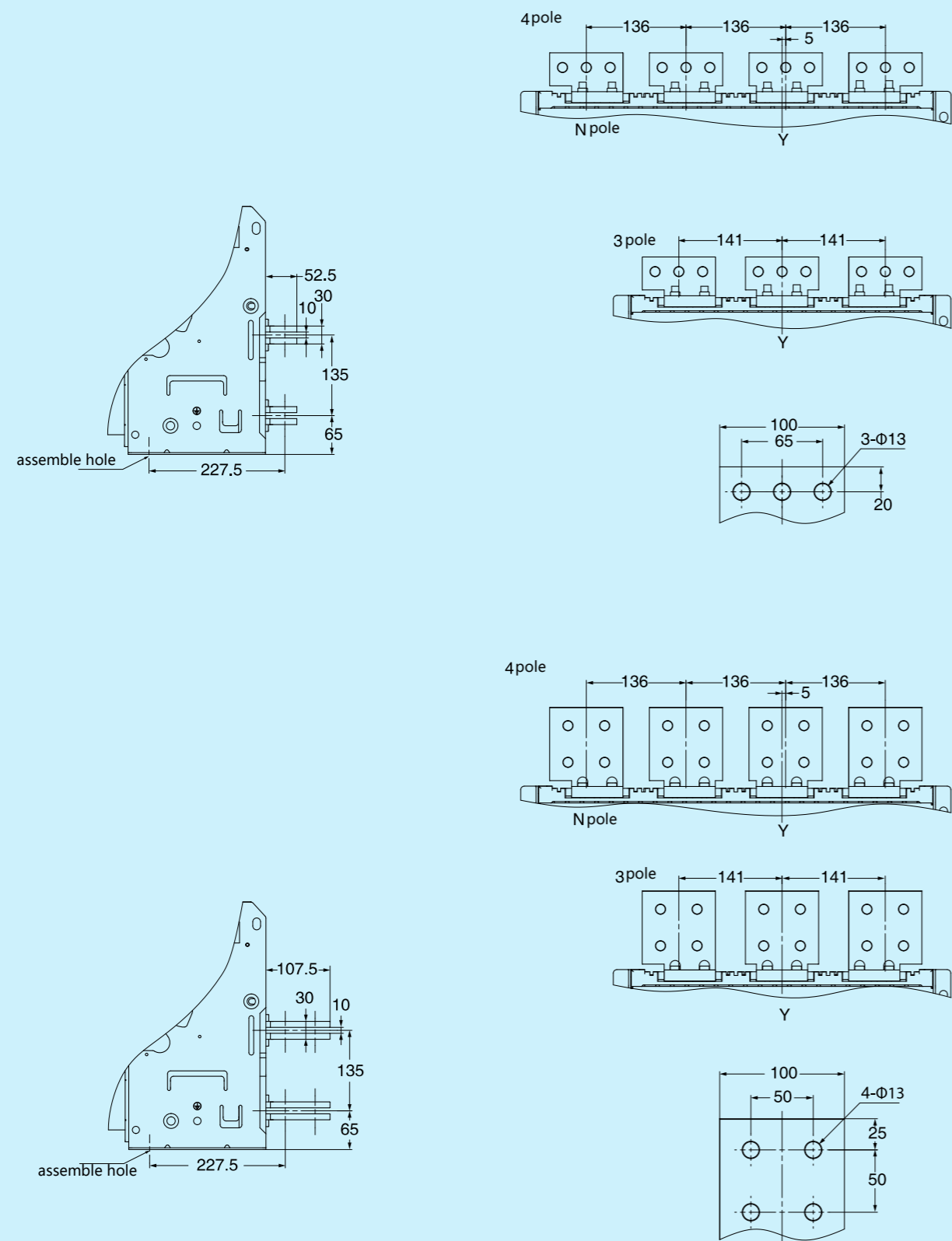


■ DEX-4000 fixed version outline dimension

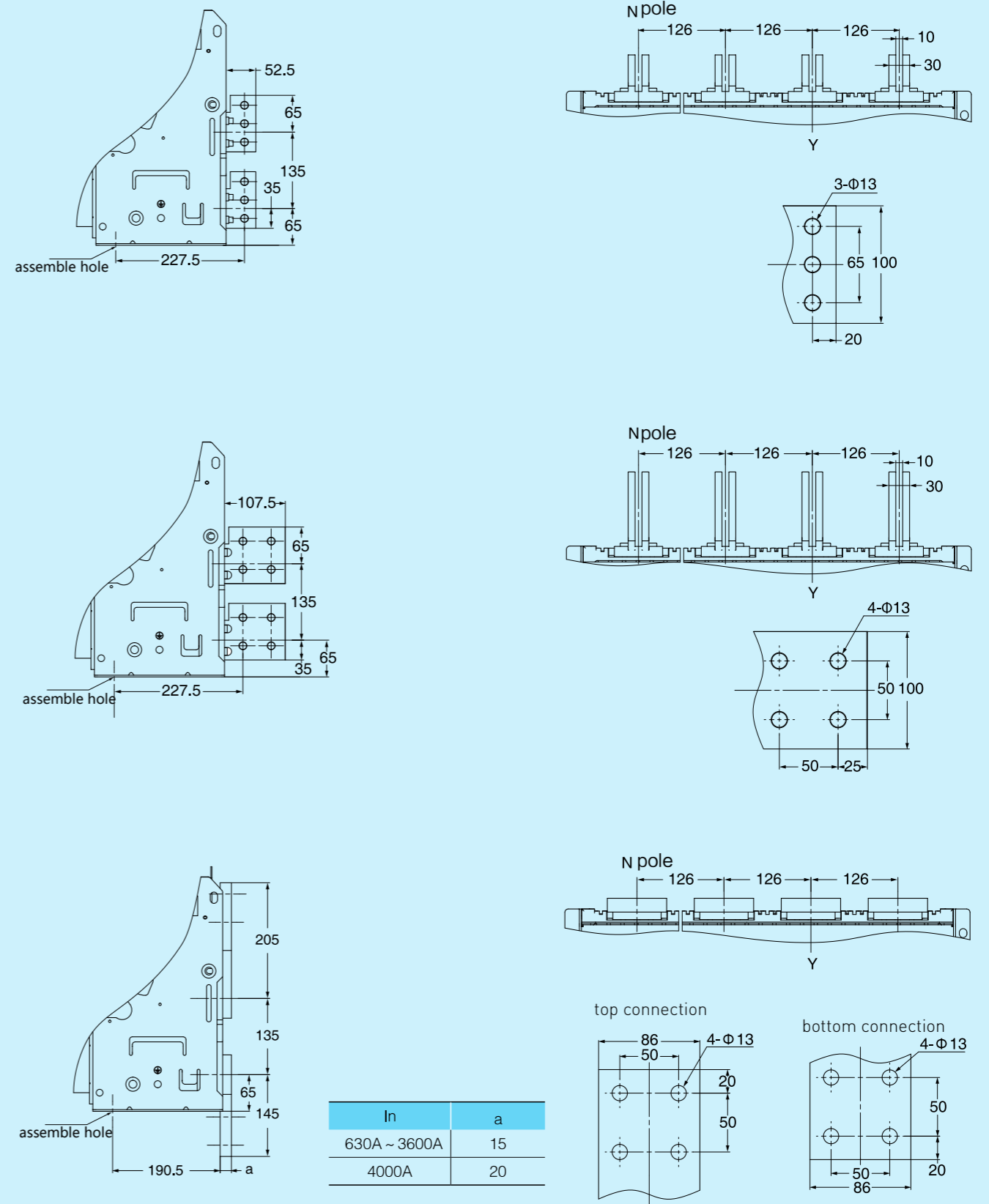


	insulation	metal	live part
A	0	0	100
B	0	0	60

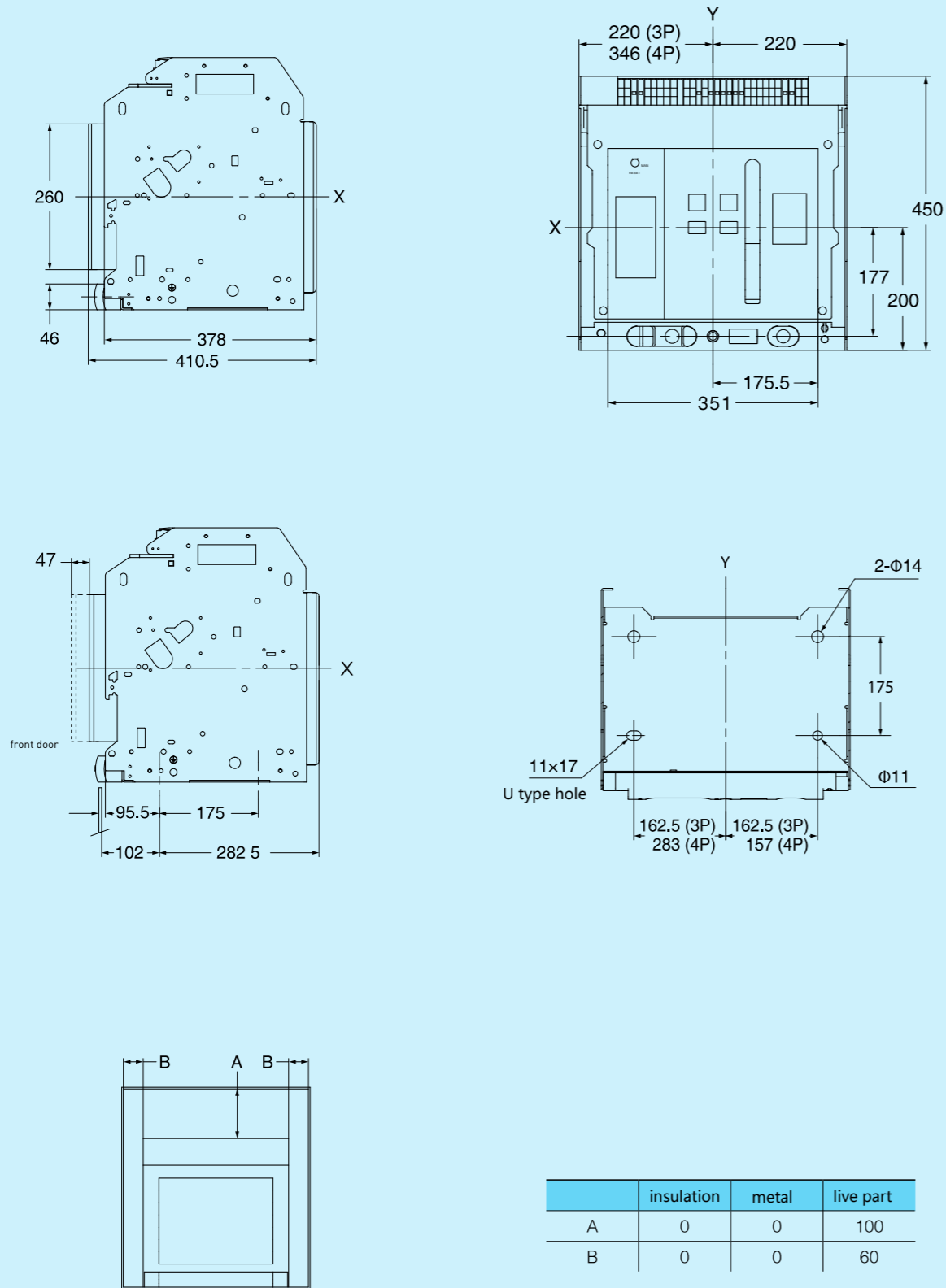
■ DEX-4000 fixed version outline dimension



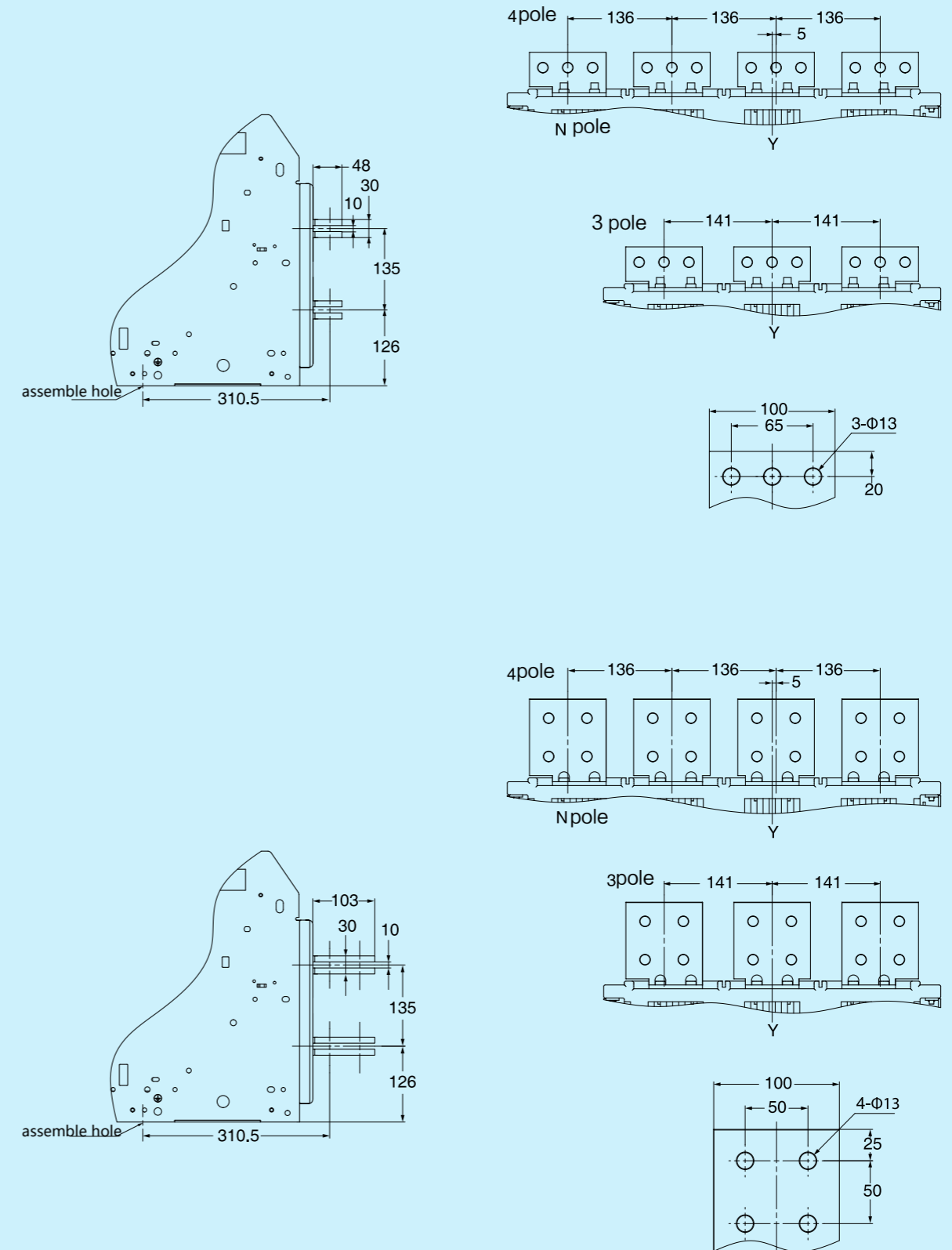
■ DEX-4000 fixed version outline dimension



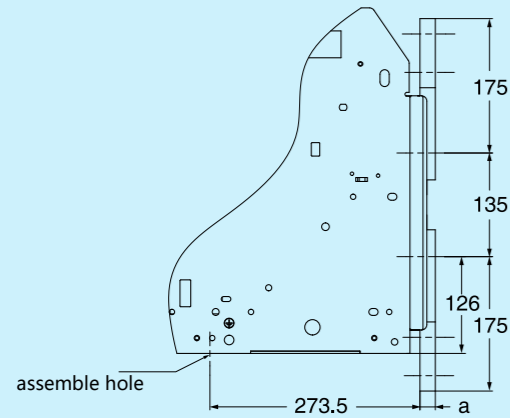
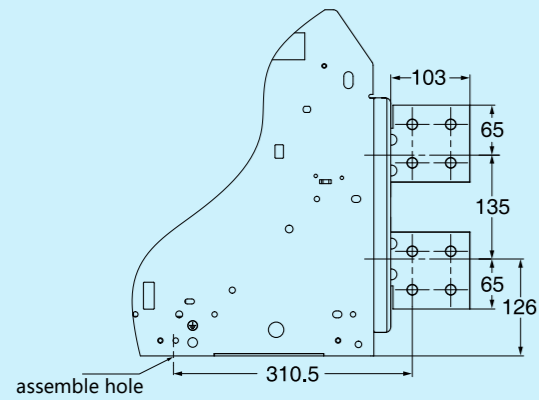
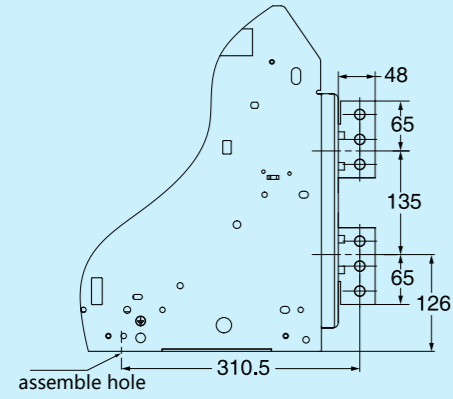
■ DEX-4000 draw out version outline dimension



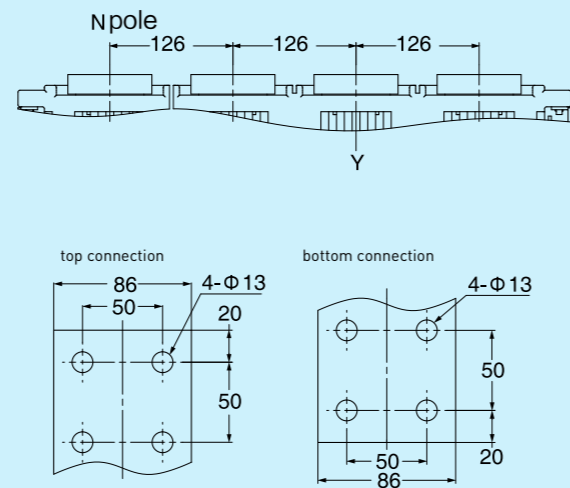
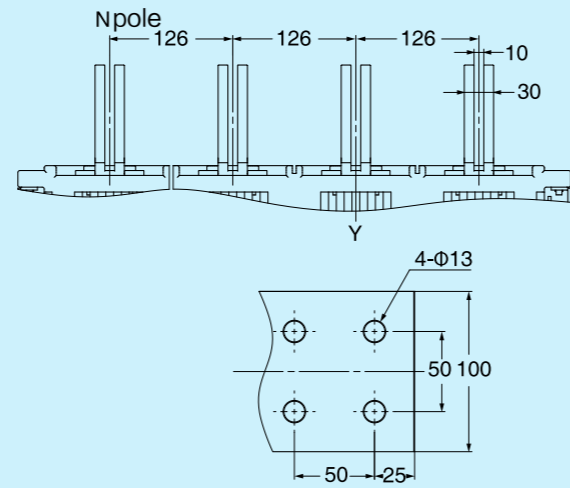
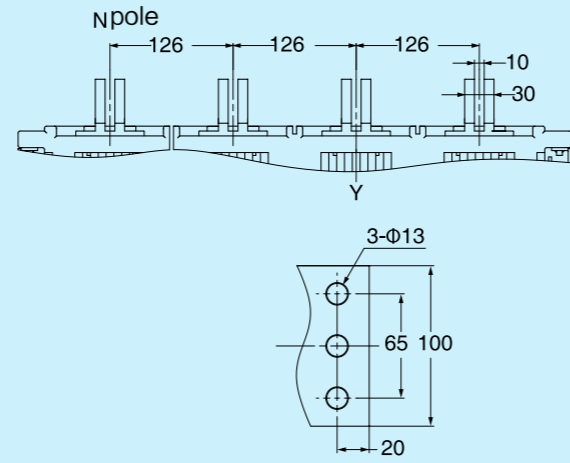
■ DEX-4000 draw out version outline dimension



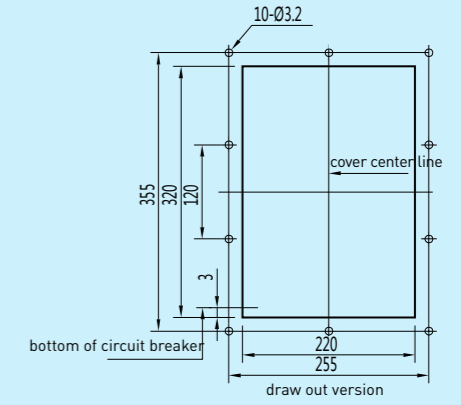
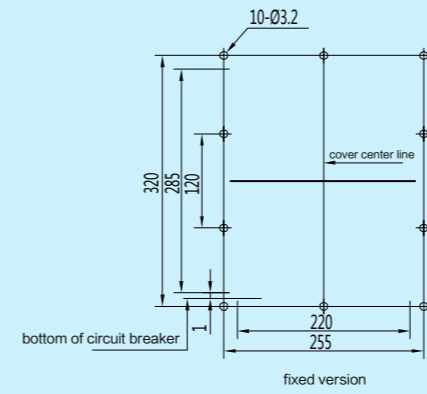
■ DEX-4000 draw out version outline dimension



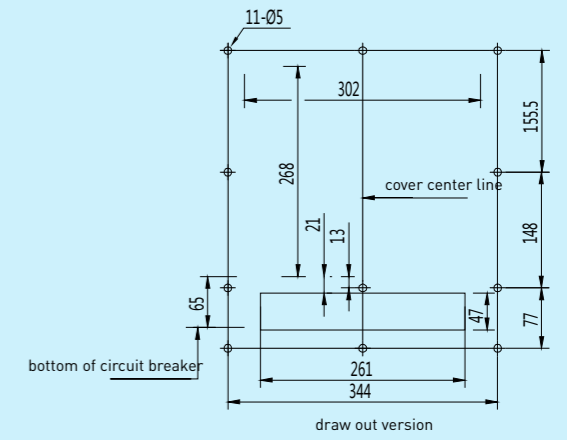
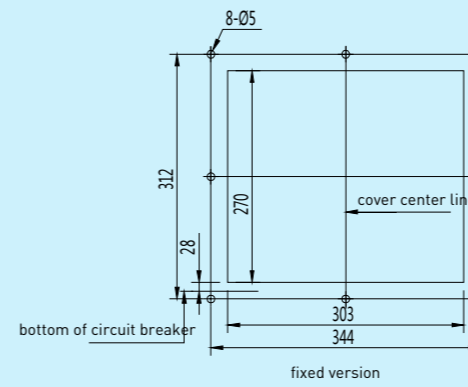
In	a
630A ~ 3600A	15
4000A	20



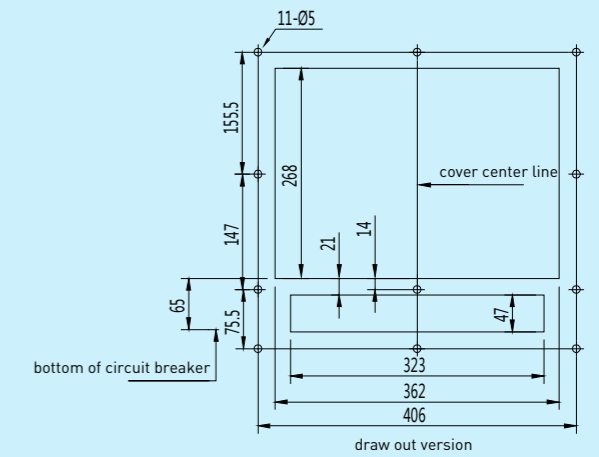
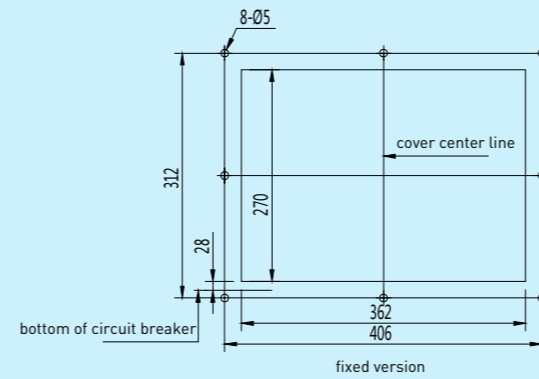
■ DEX-1600 door frame dimension



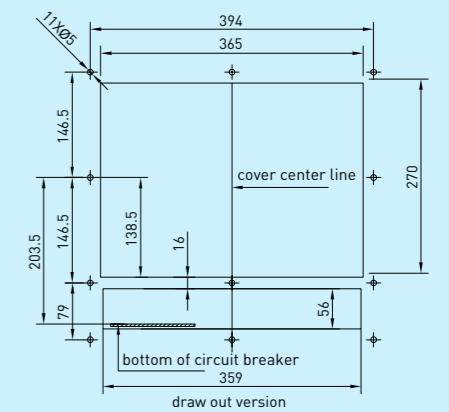
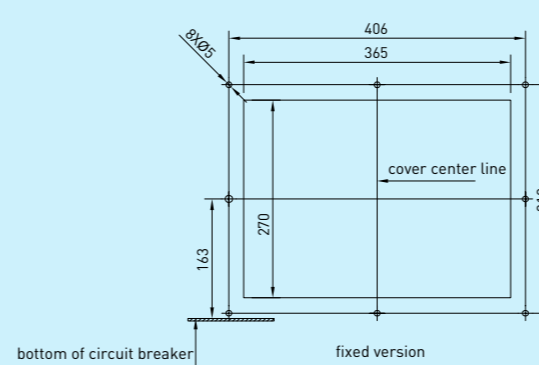
■ DEX-2000 door frame dimension



■ DEX-3200 door frame dimension



■ DEX-4000 door frame dimension



■ Main connection copper bar

Frame current $I_{nm}(A)$	Rated operational current $I_n(A)$	Copper bar	
		cross-section	amount
1600、2000	630	50×5	2
	800	(50)60×5	2
	1000	(50)60×5	2
	1250	(50)60×5	3
	1600	(50)60×10	2
3200	2000	(50)60×10	3
	2500	100×5	3
	3200	100×5	4
4000	3200	100×10	4
	630	100×10	1
	800	100×10	1
	1000	100×10	1
	1250	100×10	1
	1600	100×5	3
	2000	100×5	3
	2500	100×10	2
	2900	100×10	3
	3200	100×10	3
	3600	100×10	4
4000	100×10	4	

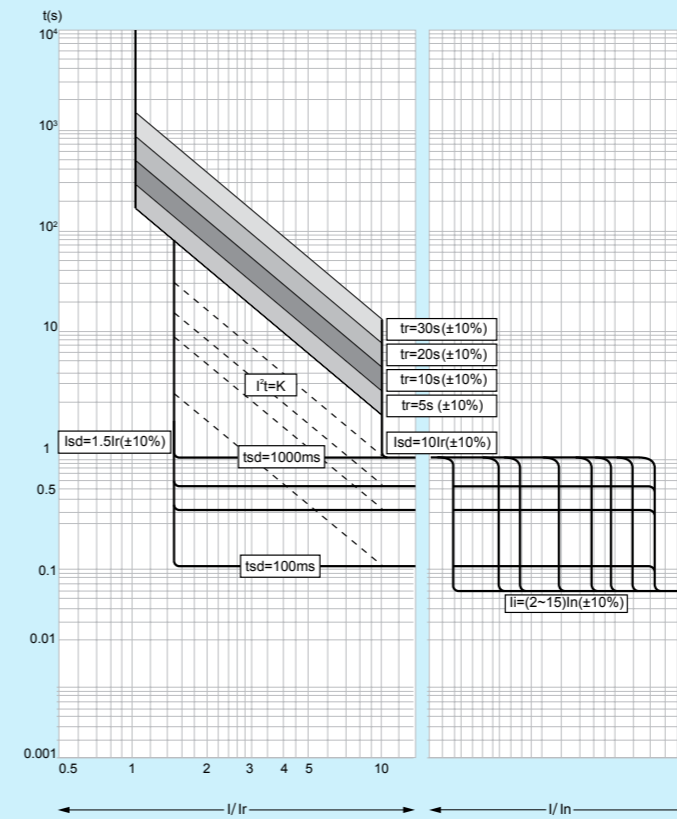
- Remark: 1.The parameters are tested below 40 °C.
 2.The table use only as a general guideline to select products. Due to extensive variety of switchgear constructions shapes and conditions that can affect the behaviour of the apparatus, the solution used must always be verified.
 3.The copper width of frame 1600 are 50mm.

■ Temperature derating

Under certain installation conditions, the circuit breaker can operate at higher temperature than the reference temperature of 40 °C. However, the current-carrying capacity of the circuit breaker may be lower than rated current-carrying capacity at the reference temperature. The derating coefficients are shown in the table.

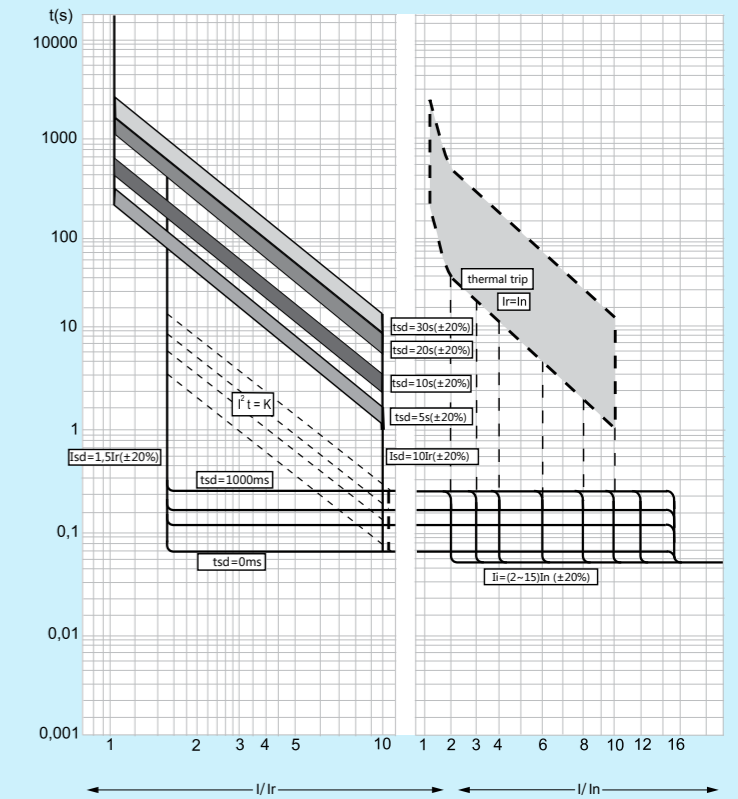
ambient temperature		+40 °C	+45 °C	+50 °C	+55 °C	+60 °C
current-carrying capacity	$I_{nm}=1600A$	$1I_{nm}$	$0.98I_{nm}$	$0.92I_{nm}$	$0.88I_{nm}$	$0.83I_{nm}$
	$I_{nm}=2000A$	$1I_{nm}$	$0.97I_{nm}$	$0.91I_{nm}$	$0.87I_{nm}$	$0.82I_{nm}$
	$I_{nm}=3200A$	$1I_{nm}$	$0.96I_{nm}$	$0.90I_{nm}$	$0.86I_{nm}$	$0.80I_{nm}$
	$I_{nm}=4000A$	$1I_{nm}$	$0.95I_{nm}$	$0.89I_{nm}$	$0.85I_{nm}$	$0.79I_{nm}$

■ DEX1600 LSI characteristic curve



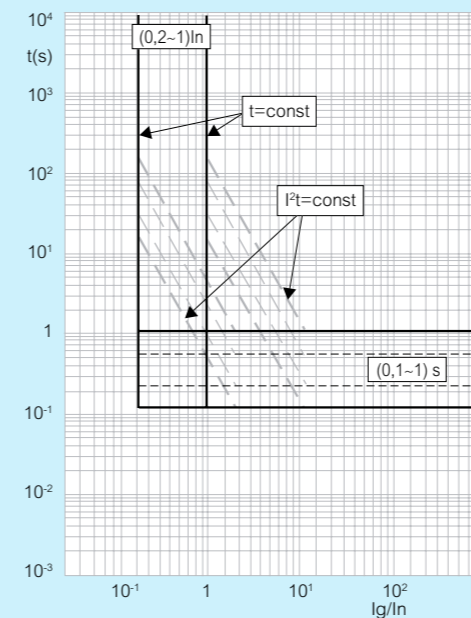
I_r = overload current setting
 t_r = overload time setting
 I_{sd} = short circuit short time current setting
 t_{sd} = short circuit short time delay time setting
 I_i = instantaneous current setting

■ DEX2000、3200 and 4000 LSI characteristic curve

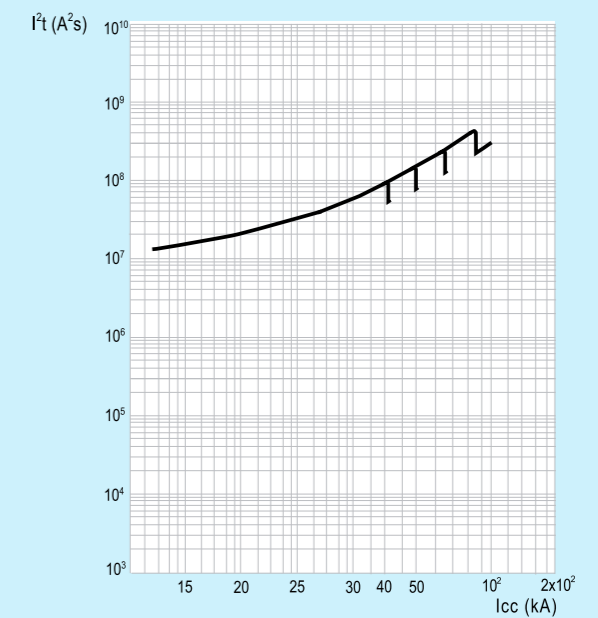


I_r = overload current setting
 t_r = overload time setting
 I_{sd} = short circuit short time current setting
 t_{sd} = short circuit short time delay time setting
 I_i = instantaneous current setting

■ DEX ground fault current curve



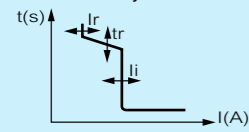
■ DEX let-through energy curve



■ DEX 1600 2000 3200 4000PU parameter setting

MP2/MP2C LI

I_r, I_i, t_r are adjustable



• Overload protection

Two rotary switches(coarse and fine adjustable)I_r from 0.4 to 1 x I_n (0.4 ~ 0.9, step 0.1; 0.00 ~ 0.1, step 0.02)

• Overload protection time setting

t_r = 0.6 x I_r (4 step+ 4 step)

• Instantaneous protection

t_r = 5-10-20-30 s (memory ON) 30-20-10-5 s (memory OFF)

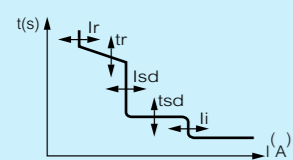
I_i from 2 to 15 x I_n or I_{cw} (9 steps) I_i = 2-3-4-6-8-10-12-15 x I_n or I_{cw}

• Neutral protection

I_N = OFF-50-100% x I_r

MP2/MP2C/MP4/MP4C LSIg

I_r, t_r, I_{sd}, t_{sd}, I_i are adjustable



• Overload protection

Two rotary switches(coarse and fine adjustable)I_r from 0.4 to 1 x I_n (0.4 ~ 0.9, step 0.1and 0.00 ~ 0.1, step 0.02)

• Overload protection time setting

t_r = 0.6 x I_r (4steps + 4 steps)
t_r = 5-10-20-30 s(memory ON)30-20-10-5 s (memory OFF)

• Short circuit short time setting

I_{sd} from 1.5 to 10 x I_r (9steps)I_{sd} = 1.5-2-2.5-3-4-5-6-8-10 x I_r

• Short circuit short time delay time setting

t_{sd} from 0 to 1 s (4steps +4steps) t_{sd} = 0-0.1-0.2-0.5-1.0s (t=cost)

(reference: 668296 and 668298 are 0.1-0.2-0.5-1s) ,

1.0-0.5-0.2-0.1 (I²t=cost)

• Instantaneous protection

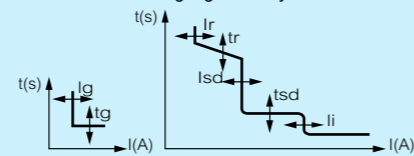
I_i from 2 to 15 x I_n or I_{cw} (9steps) I_i = 2-3-4-6-8-10-12-15 x I_n or I_{cw}

• Neutral protection :

I_N =OFF-50-100% x I_r

MP2/MP2C/MP4/MP4C LSIg

I_r, t_r, I_{sd}, t_{sd}, I_i, I_{lg}, t_{lg} are adjustable



• Overload protection

Two rotary switches(coarse and fine adjustable)I_r from 0.4 to 1 x I_n (0.4 ~ 0.9, step 0.1; 0.00 ~ 0.1, step 0.02)

• Overload protection time setting

t_r = 0.6 x I_r (4 step+ 4 step)

t_r = 5-10-20-30 s (memory ON) 30-20-10-5 s (memory OFF)

• Short circuit short time setting

I_{sd} from 1.5 to 10 x I_r (9steps)I_{sd} = 1.5-2-2.5-3-4-5-6-8-10 x I_r

• Short circuit short time delay time setting

t_{sd} from 0 to 1 s (4steps + 4 steps) t_{sd} = 0-0.1-0.2-0.5-1.0s (t=cost)

(reference: 668297 and 668299 0.1-0.2-0.5-1s) ,

1.0-0.5-0.2-0.1 (I²t=cost)

• Instantaneous protection

I_i from 2 to 15 x I_n or I_{cw} (9steps) I_i = 2-3-4-6-8-10-12-15 x I_n or I_{cw}

• Ground fault current

I_{lg}=0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 1.0, OFF I x I_n

• Ground fault time

t_{lg}=0,1;0,2;0,5;1s (t=cost)

t_{lg}=0,1;0,2;0,5;1s (I²t=0.12 I_r)

• Neutral protection : I_N =OFF- 50-100% x I_r

■ Ordering

User:

order amount:

Order date:

Frame size	<input type="checkbox"/> DEX 1600	<input type="checkbox"/> DEX 2000	<input type="checkbox"/> DEX 3200	<input type="checkbox"/> DEX 4000		
Rated current(A)	630 800 1000 1250 1600	630 800 1000 1250 1600 2000	2000 2500 3200	630 800 1000 1250 1600 2000 2500 2900 3200 3600 4000		
Poles	<input type="checkbox"/> 3P <input type="checkbox"/> 4P					
Installation	<input type="checkbox"/> fixed <input type="checkbox"/> draw-out					
Connection	<input type="checkbox"/> horizontal <input type="checkbox"/> vertical <input type="checkbox"/> extended horizontal (frame 1600) <input type="checkbox"/> extended vertical (frame1600) <input type="checkbox"/> extended (frame 2000、 3200)					
PU	PU version	protection version				
	MP2 or MP2C(basic type)	<input type="checkbox"/> LI	<input type="checkbox"/> LSI (standard)	<input type="checkbox"/> LSIg		
	MP4 or MP4C(screen type)	<input type="checkbox"/> LSI	<input type="checkbox"/> LSIg			
Setting in factory	overload current ____ A overload time ____ s					
	short circuit short time current ____ A delay time ____ s					
	instantaneous current ____ A					
	ground fault current ____ A delay time ____ s					
Standard accessory	shunt release	<input type="checkbox"/> AC400V	<input type="checkbox"/> AC230V (standard)			
	closing coil	<input type="checkbox"/> AC400V	<input type="checkbox"/> AC230V (standard)			
	motor	<input type="checkbox"/> AC400V	<input type="checkbox"/> AC230V (standard)			
	auxiliary power supply	<input type="checkbox"/> AC400V	<input type="checkbox"/> AC230V			
Optional accessory	UVR	voltage	<input type="checkbox"/> AC400V <input type="checkbox"/> AC230V			
		delay time	frame 1600 <input type="checkbox"/> 1s <input type="checkbox"/> 3s <input type="checkbox"/> 5s <input type="checkbox"/> instantaneous frame 2000/3200/4000 <input type="checkbox"/> 0.3-5s <input type="checkbox"/> instantaneous			
	open position key lock	<input type="checkbox"/> 1 lock 1 key	<input type="checkbox"/> 2 locks 1 key	<input type="checkbox"/> 3 locks 1 key	<input type="checkbox"/> 3 locks 2 keys	<input type="checkbox"/> 5 locks 3 keys
	external neutral transformer	<input type="checkbox"/> apply to 3P circuit breaker with LSIg PU				
	mechanical interlock	<input type="checkbox"/> lever version 2 breakers <input type="checkbox"/> cable version 2 breakers <input type="checkbox"/> cable version 3 breakers (only frame 4000)				
	<input type="checkbox"/> secondary terminal cover					
	<input type="checkbox"/> door interlock					