

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

DPX³ 250 HP only magnetic circuit breakers



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1. USE

DPX³ HP platform has been developed to give a new solution of protection devices for a more precise approach in power installations in order to offer the correct answer for different project needs.

DPX³ HP platform provide a complete project approach in premium market segment, offering a range completely suitable for high power application with high performance breakers in compact dimensions and at a competitive costs.

2. RANGE

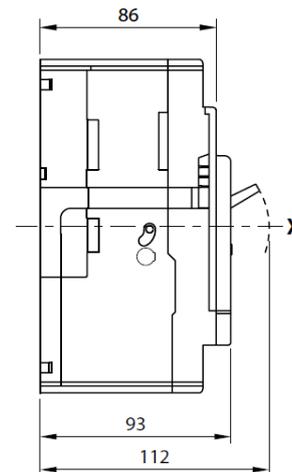
Circuit breakers

I _n (A)	DPX ³ 250 HP							
	36 kA		50 kA		70 kA		100 kA	
6.3	423901	423913	423925	423937	423949	423961	423973	423985
12.5	423902	423914	423926	423938	423950	423962	423974	423986
25	423903	423915	423927	423939	423951	423963	423975	423987
32	423904	423916	423928	423940	423952	423964	423976	423988
50	423905	423917	423929	423941	423953	423965	423977	423989
80	423906	423918	423930	423942	423954	423966	423978	423990
100	423907	423919	423931	423943	423955	423967	423979	423991
160	423908	423920	423932	423944	423956	423968	423980	423992
220	423909	423921	423933	423945	423957	423969	423981	423993

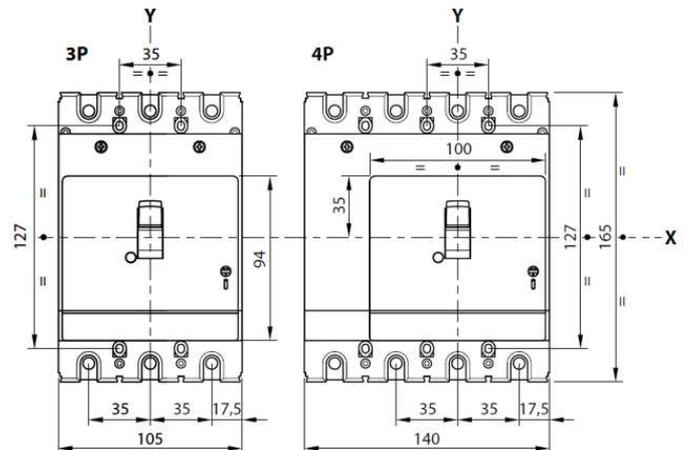
3. DIMENSIONS AND WEIGHTS

3.1 Dimensions

Lateral view



Frontal view (3 and 4 poles)

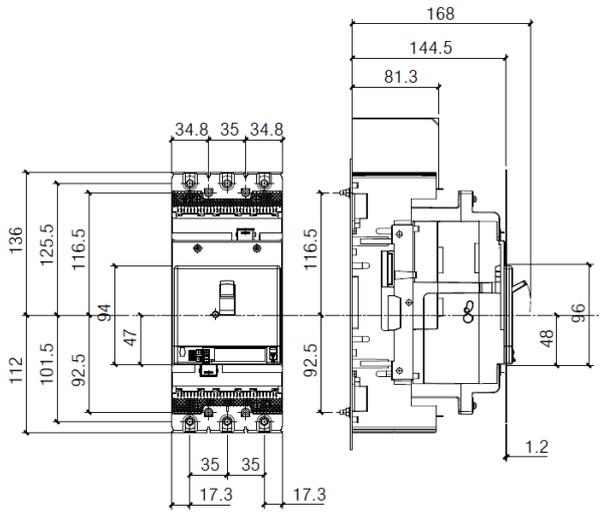


DPX³ 250 HP only magnetic circuit breakers

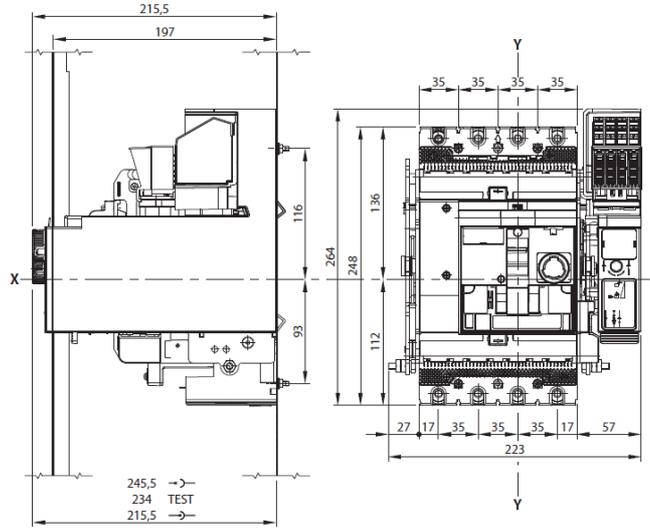
Reference(s) :

- from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
- from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
- from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
- from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

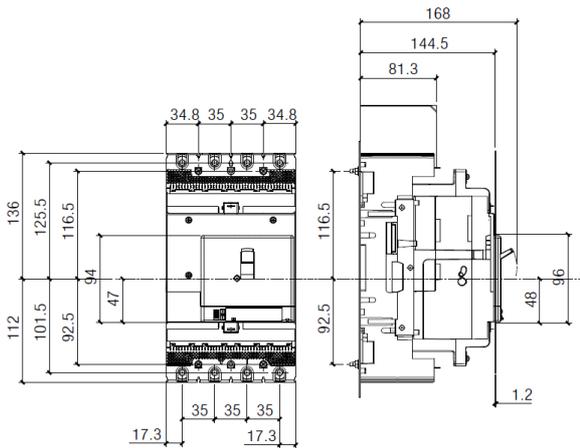
Plug-in version (3P)



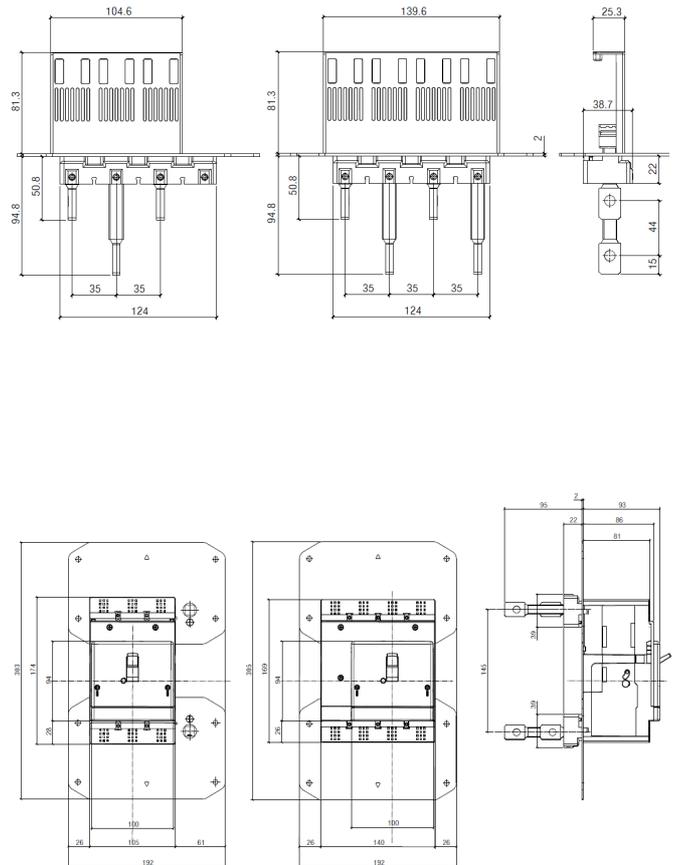
Draw-out version (4P)



Plug-in version (4P)



Rear terminals



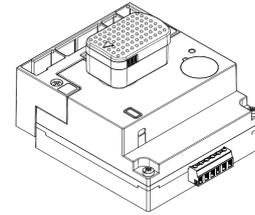
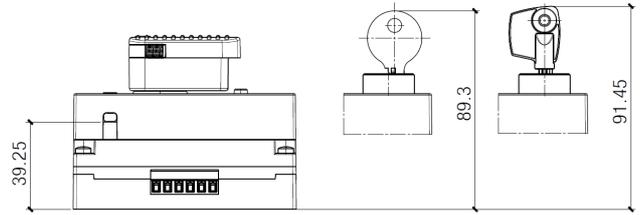
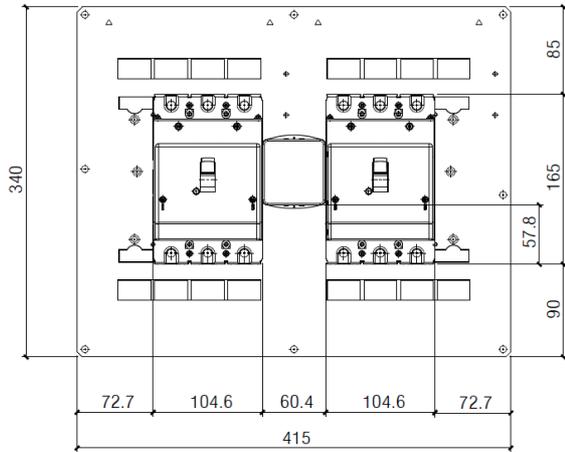
DPX³ 250 HP only magnetic circuit breakers

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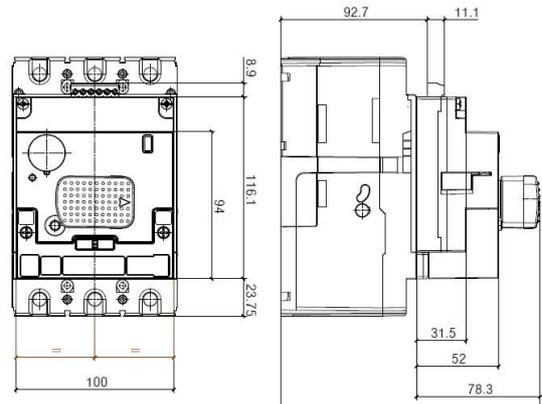
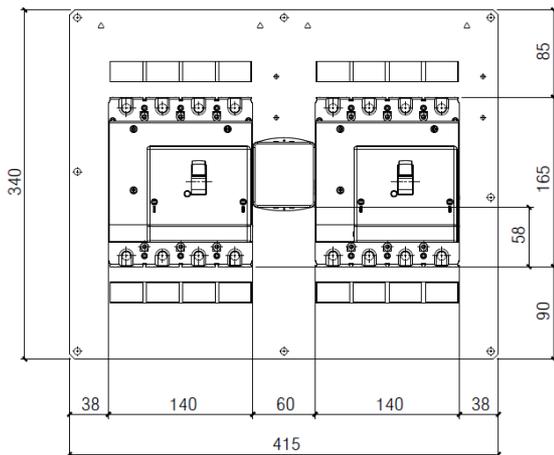
Interlock (3P)

(for rear plate interlock dimension, see relative instruction sheet)

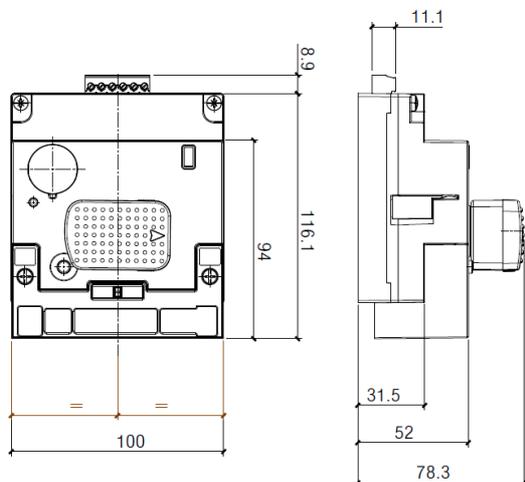


Interlock (4P)

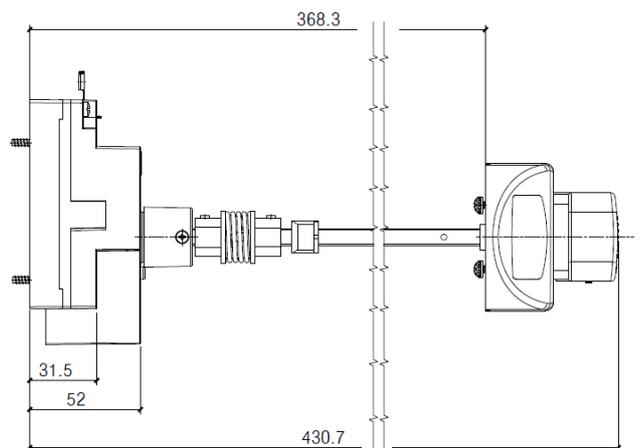
(for rear plate interlock dimension, see relative instruction sheet)



Direct rotary handle



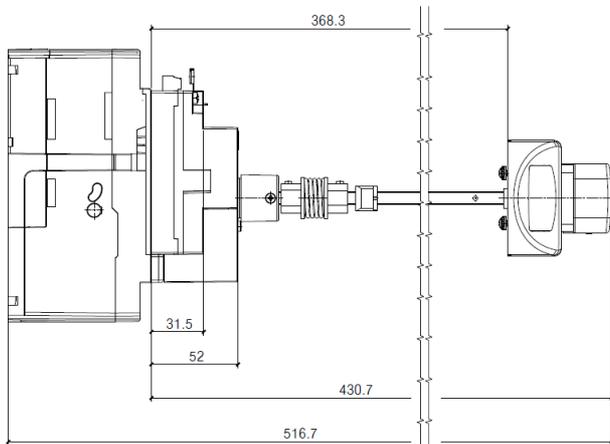
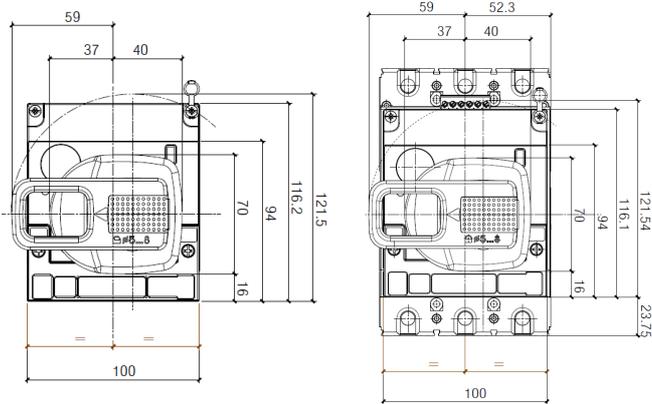
Vari-depth rotary handle



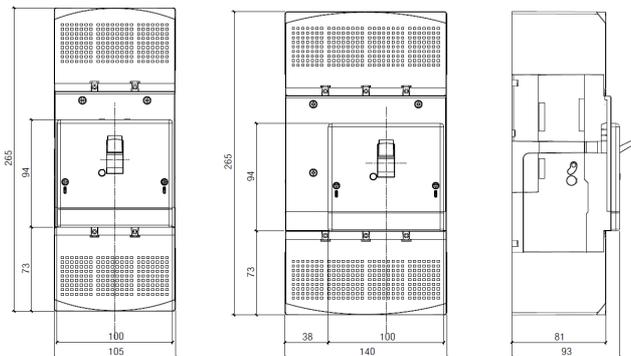
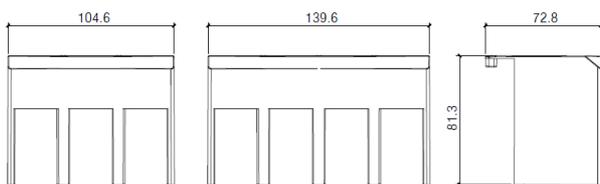
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

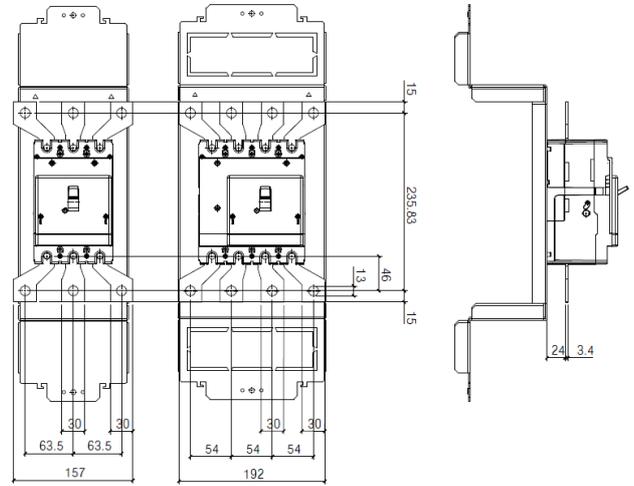
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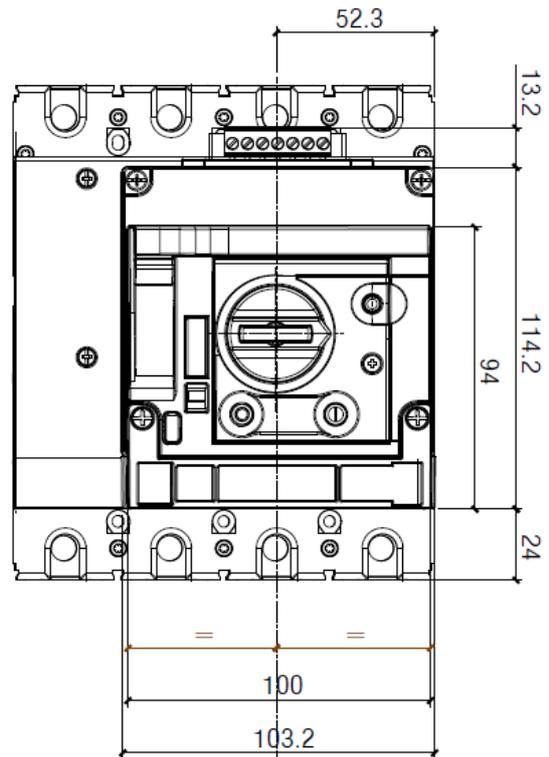
Sealable terminal shields



Spreaders



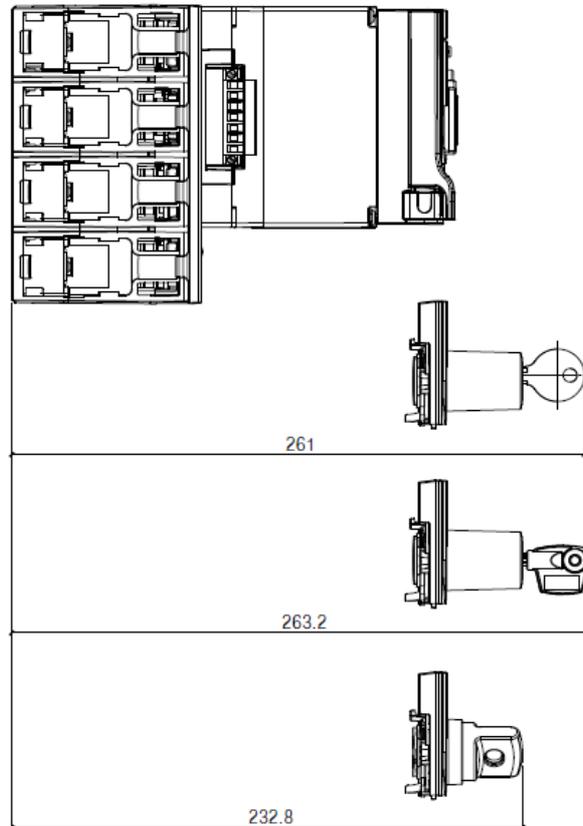
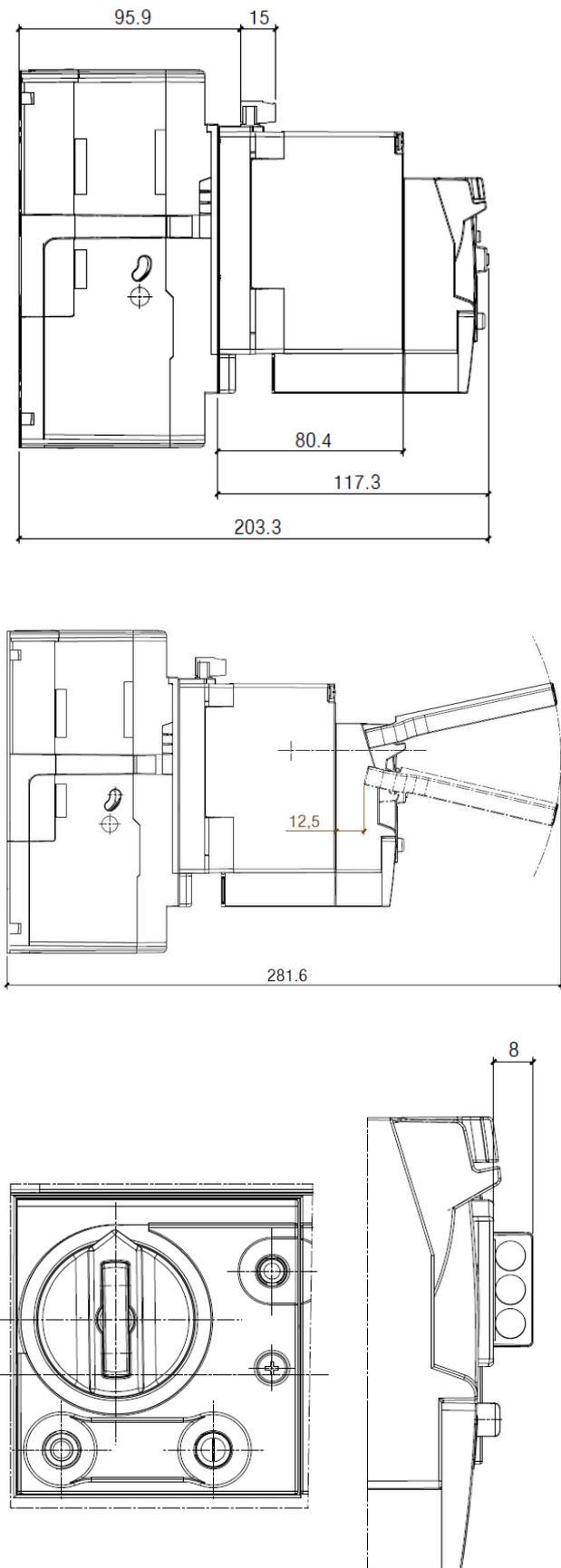
Motor operator



DPX³ 250 HP only magnetic circuit breakers

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 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;



3.2 Weights

Configuration	Weights (Kg)	
	3P	4P
Circuit breaker/switch disconnecter	1.5	1.9
Plug-in*	3.5	4.5
Draw-out**	2.5	
Interlock*	0.35	
Rear interlock (for plug-in/draw-out version)*	5	
Motor operator*	1	
* to add to device weight		
** to add to device and plug-in weights		

4. OVERVIEW

4.1 Supplied with:

- fixing screws (2 for 3P and 4 for 4P)
- screws for connections (6 for 3P and 8 for 4P)
- phase insulators (2 for 3P and 3 for 4P)

5. ELECTRICAL CONNECTIONS

5.1 Mounting possibilities

On plate:

- Vertical
- Horizontal
- Supply inverter type

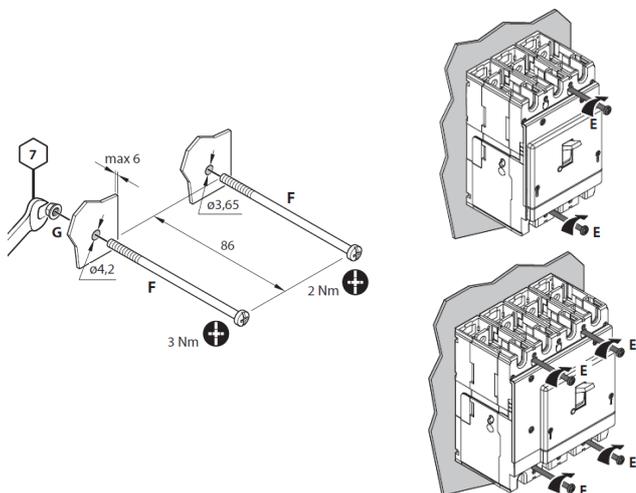
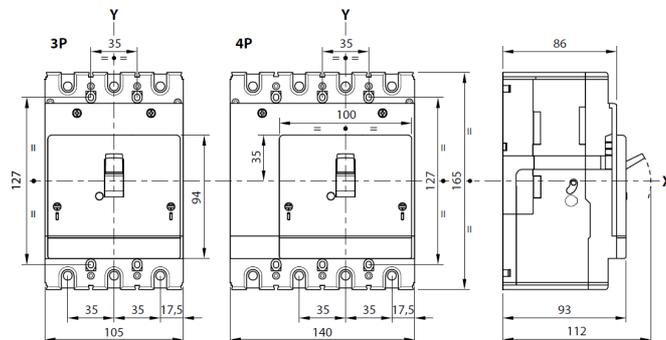
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

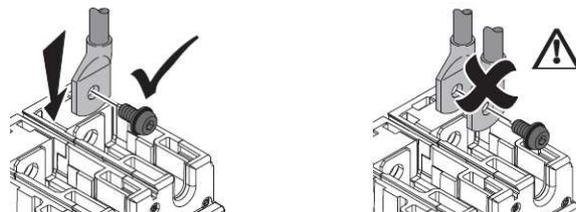
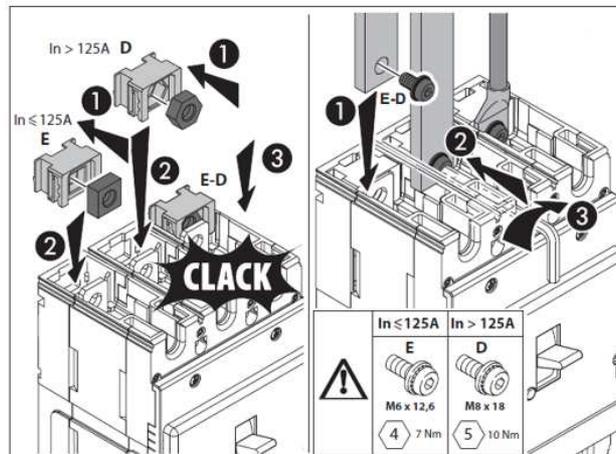
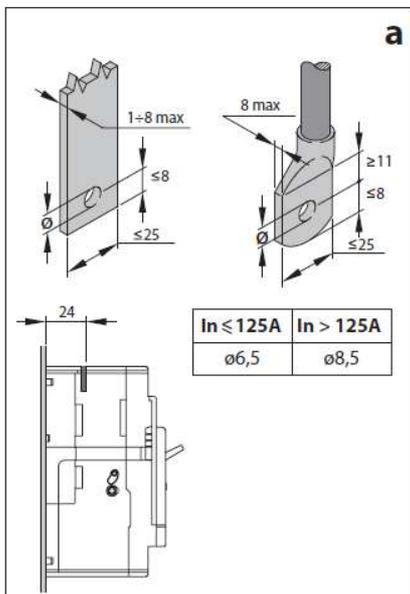
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 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

5.2 Mounting

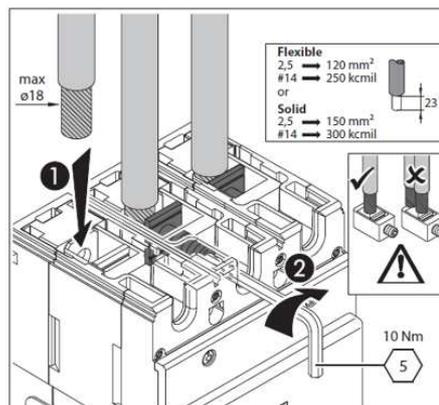
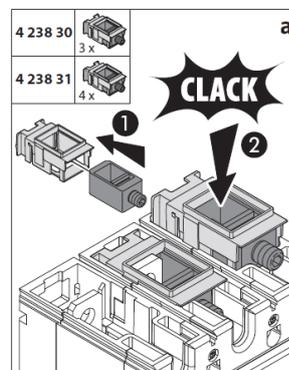
(see instruction sheet for detailed mounting procedures)



Busbars/cable lugs:



Cables:



DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

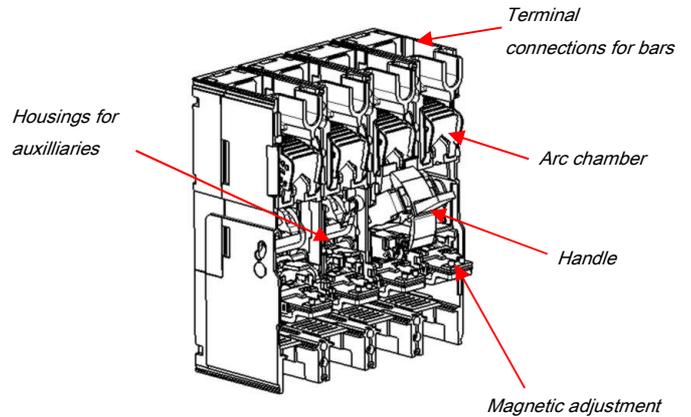
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 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

6. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Circuit breaker

Circuit Breaker	DPX ³ 250 HP F/N/H/L (36kA, 50kA, 70kA, 100kA)
Rated current (A)	6.3-12.5-25-32-50-80-100-160-220
Poles	3 - 4
Pole pitch (mm)	35
Rated insulation voltage (50/60Hz) U _i (V)	800
Rated operating voltage (50/60Hz) U _o (V)	690
Rated impulse withstand current U _{imp} (kV)	8
Rated frequency (Hz)	50 - 60
Reference ambient temperature(°C)	40 - 50
Operating temperature (°C)	-25 + 70
Mechanical endurance (cycles)	12000
Mechanical endurance with motor control (cycles)	12000
Electrical endurance at I _n (cycles)	6000
Electrical endurance at 0.5 I _n (cycles)	6000
Utilization category	A
Suitable for isolation	Yes
Type of protection	Magnetic
Thermal adjustment I _t	-
Magnetic adjustment I _t (A)	6-14 x I _n
Neutral protection for 4P (%I _n of phase pole)	100
Dimensions (W x H x D) (mm)	105 x 165 x 86 (3P)
	140 x 165 x 86 (4P)

6.1 Main parts constituting the circuit breaker



6.2 Breaking capacity (kA)

		Breaking capacity (kA) & I _{cs}			
		3P-4P			
IEC 60947-2	U _e /I _{cu} (I _{cu} letter)	36kA (F)	50kA (N)	70kA (H)	100kA (L)
		240 V AC	70	90	100
	415 V AC	36	50	70	100
	500 V AC	16	18	30	35
	690 V AC	7	8	20	22
	250 V DC	10	10	10	10
	I _{cs} (% I _{cu})	100	100	100	100
Rated making capacity under short circuit I _{cm}					
	I _{cm} (kA) at 415V	76.5	105	154	220
NEMA AB-1	240 V AC	70	90	100	150
	500 V AC	16	18	30	35
	690 V AC	7	8	20	22

6.3 Rated current (I_n) at 40°C / 50°C

I _n (A)	Phases limit trip current magnetic (I _t)	
	min	max
6.3	37.8	88.2
12.5	75	175
25	150	350
32	192	448
50	300	700
80	480	1120
100	600	1400
160	960	2240
220	1320	3080

6.3 Load operations

Force on handle	N
Opening operation	63,5
Closing operation	66
Restore operation	86,5

6.4 Electrodynamic forces

The table below shows an indication of suggested distances to keep between the breaker and the first fixing point of the conductor and bars in order to reduce the effects of the electrodynamic stresses that may

DPX³ 250 HP only magnetic circuit breakers

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 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

be created during a short circuit. In the realization of anchorage system it is recommend the use of isolators suitable for the type of conductor used and the operating voltage.

I _{cc} (kA)	Maximum Distance (mm)
36	350
50	300
70	250
100	200

According to conductor type and bar system (except Legrand bar kits), the choice of the distance to keep is to be calibrated by the installer. Also installer must take into account the weight of the conductors so that this does not affect the electrical junction between the conductor itself and the connection point.

6.5 Power losses per pole under I_n

Circuit breaker

I _n (A)	Power losses per pole (W)								
	6.3	12.5	25	32	50	80	100	160	220
Cage terminals	1.06	0.60	2.39	3.92	0.77	1.96	3.07	7.85	14.84
Lugs	0.97	0.55	2.19	3.58	0.70	1.79	2.80	7.17	13.55
Spreaders	0.82	0.46	1.84	3.02	0.59	1.51	2.36	6.04	11.41
Rear terminals	1.00	0.56	2.26	3.70	0.72	1.85	2.89	7.39	13.98

Note: power lossed in the table above are referred and measured as described in the standard IEC 60947-2 (Annex G) for circuit-breakers. Values in the table are referred to a single phase.

6.6 DERATINGS

according to IEC/EN 60947-1

6.6.1 Temperature

Rated current and his adjustment has to be considered relating to a rise or fall of ambient temperature and to a different version or installation conditions. The table below indicates the maximum long-time (LT) protection setting depending on the ambient temperature.

I _n (A)	Temperature T _a (°C)											
	-25	-20	-10	-5	0	10	20	30	40	50	60	70
6.3	9	9	9	8	8	8	7	7	6.3	6.3	6	5
12.5	18	18	17	17	16	15	14	13	12.5	12.5	11	11
25	37	36	34	33	32	30	29	27	25	25	23	21
32	47	46	44	42	41	39	37	34	32	32	29	27
50	74	72	68	66	64	61	57	54	50	50	45	43
80	118	114	109	106	103	98	92	86	80	80	72	68
100	147	143	136	132	129	122	115	107	100	100	90	85
160	235	229	218	212	206	195	184	172	160	160	144	136
220	323	315	299	291	284	268	252	236	220	220	198	187

For derating temperature with other configurations, see table A.

6.6.2 Specific condition use

Climatic conditions

according to IEC/EN 60947-1 Annex Q, Cat. F subject to temperature, humidity, vibration, shock and salt mist.

Pollution degree

for DPX³ 250 HP circuit breakers, degree 3, according to IEC/EN 60947-2

6.6.3 Altitude

Altitude derating for DPX³ HP

Altitude (m)	2000	3000	4000	5000
U _e (V)	690	590	520	460
I _n (A) (T _a = 40°C/50°C)	1 x I _n	0.98 x I _n	0.93 x I _n	0.9 x I _n

6.6.4 Use in DC

See table B.

DPX³ 250 HP only magnetic circuit breakers

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7. CONFORMITY

DPX³ HP range of product concerning circuit-breakers and switch-disconnectors exceed compliance with the IEC/EN standard 60947-2 and 60947-3 respectively. Certification available by IECEE CB-scheme or LOVAG Compliance scheme.

DPX³ HP respect the European Directives REACH, RoHS, RAEE.

For specific information, please contact Legrand support.

7.1 Marking

Product (both circuit breakers and switch disconnectors) are provided with labelling in full conformity to the referred standard and directives requirements by laser or sticker labels (for illustrative purposes only) as:

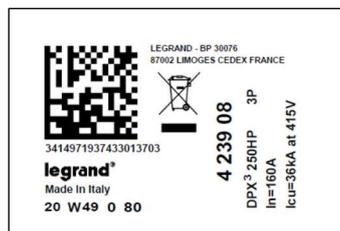
Product laser label on front

- Manufacturer responsible
- Denomination, type product, code
- Standard conformity
- Standard characteristics declared
- Coloured identification of I_{cu} at 415V



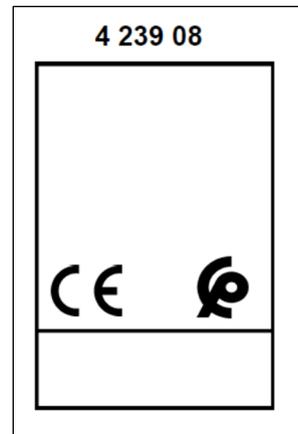
Product sticker label on side

- Manufacturer responsible
- Denomination and type product
- Standard conformity
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product
- Manufacturing Country



Mark sticker label on side

- Product code
- Mark/Licence (if any)
- Country deviation, if any



Packaging sticker label

- Manufacturer responsible
- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product



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8. EQUIPMENTS AND ACCESSORIES

8.1 Releases (for DPX³ 125/250 HP and DPX³ 160/250)

- shunt releases with voltage:
 - 12 Vac and dc ref. 4 210 12
 - 24 Vac and dc ref. 4 210 13
 - 48 Vac and dc ref. 4 210 14
 - 110÷130 Vac ref. 4 210 15
 - 220÷277 Vac ref. 4 210 16
 - 380÷480 Vac ref. 4 210 17

Maximum power = 400 VA / W

- undervoltage releases with voltage:
 - 12 Vac and dc ref. 4 210 18
 - 24 Vac and dc ref. 4 210 19
 - 48 Vac and dc ref. 4 210 20
 - 110÷130 Vac and dc ref. 4 210 21
 - 220÷240 Vac ref. 4 210 22
 - 277 Vac ref. 4 210 23
 - 380÷415 Vac ref. 4 210 24
 - 440÷480 Vac ref. 4 210 25

Maximum power = 4 VA
Circuit breaker opening time < 50 ms

UVR releases can be used on DPX³ 125/250 HP starting from batch 19W15

- time-lag undervoltage releases (800 ms)
Time-lag modules with voltage:
 - 230 V ac ref. 0 261 90
 - 400 V ac ref. 0 261 91

Release ref. 4 210 98
(to be equipped with a time-lag module 0 261 90/91)

8.2 Auxiliary contacts

- Auxiliary contacts (1NC and 1 NO) ref. 4 238 06
(for rotary handle)
- Changeover switch 3A – 250 VAC ref. 4 210 11
- Signalling contact plugged-in / draw-out version ref. 4 210 48

(Ref. 4 210 11 and . 4 210 48 are also for DPX³ 160/250)

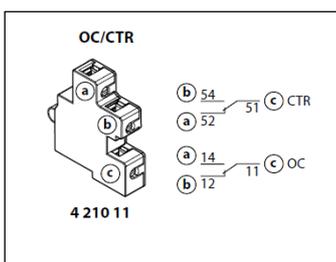
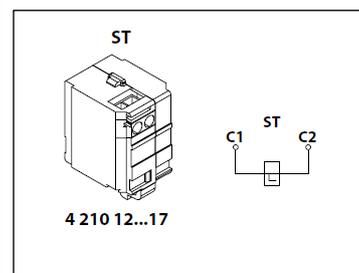
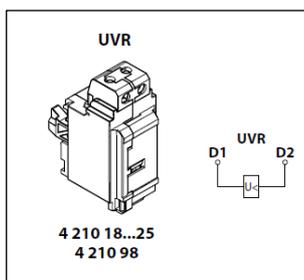
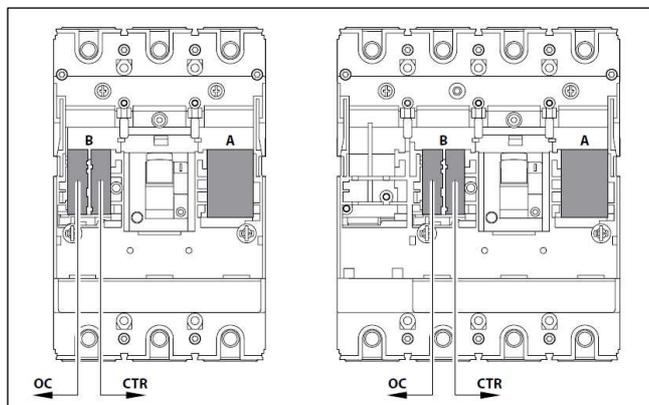
To show the state of the contacts or opening of the DPX³/DPX³-I and DPX³ HP/DPX³-I HP on a fault:

- Auxiliary contact (standard) **OC**
- Fault signal **CTR**

Auxiliary contact electrical characteristics		
Rated voltage (V _n)	V (ac or dc)	24 to 250
Intensity (A)	24 V dc	5
	48 V dc	1.7
	110 V dc	0.5
	230 V dc	0.25
	110 V ac	4
	230/250 V ac	3

Configurations:

DPX³ 250 HP → 1 auxiliary contacts + 1 fault signal



	B	A
UVR	✗	✓
ST	✗	✓
OC/CTR	✓	✗

To get more information on auxiliary mounting procedures, please refer to product instruction sheet.

8.3 Universal keylocks

These keylocks must be used for all the accessories that can be locked:

- rotary handle
- motor operator
- plug-in mechanism
- draw-out mechanism

For each of these, a specific accessory (indicated in the specific section of this datasheet) must be added in order to get the complete locking kits for the specific application.

- 1 lock + 1 flat key with random mapping ref. 4 238 80
- 1 lock + 1 flat key with fixed mapping (EL43525) ref. 4 238 81
- 1 lock + 1 flat key with fixed mapping (EL43363) ref. 4 238 82
- 1 lock + 1 star key with random mapping ref. 4 238 83

DPX³ 250 HP only magnetic circuit breakers

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8.3 Rotary handles

Direct on DPX³ (with auxiliary option)

- Standard (black) ref. 4 238 00
- For emergency use (red / yellow) ref. 4 238 01

Vari-depth handle IP55 (with auxiliary option)

- Standard (black) ref. 4 238 02
- For emergency use (red / yellow) ref. 4 238 03

Locking accessories (for rotary handle with auxiliary option)

- Key lock accessory for direct rotary handle ref. 4 238 04
- Key lock accessory for vari-depth rotary handle ref. 4 238 05
 (ref. 4 238 05 is compatible with DPX³ 125 HP also)

Ref. 4 238 04 and 4 238 05 must be used with universal keylocks to get the complete locking kit for rotary handle

8.4 Motor operators

For synchronized operations (energy storage type):

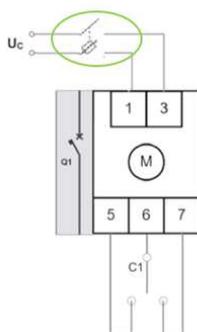
- 24 Vac and dc ref. 4 238 40
- 48 Vac and dc ref. 4 238 41
- 110 Vac ref. 4 238 42
- 230 Vac ref. 4 238 43

Technical parameters:

Voltage	Property	AC		DC	
		Opening	Closing	Opening	Closing
24V ac/dc	Maximum inrush power (VA)	75	430	55	320
	Rated power (VA)	45	-	20	-
	Absorption time (s)	2.8	0.01	3.3	0.01
	Operating current time (s)	1.1	0.03	1.2	0.03
48V ac/dc	Maximum inrush power (VA)	85	1000	70	690
	Rated power (VA)	65	-	15	-
	Absorption time (s)	3.3	0.006	3.8	0.006
	Operating current time (s)	1.1	0.02	1.3	0.02
110V ac	Maximum inrush power (VA)	95	600	-	-
	Rated power (VA)	60	-	-	-
	Absorption time (s)	3	0.02	-	-
	Operating current time (s)	1.0	0.03	-	-
230V ac	Maximum inrush power (VA)	125	460	-	-
	Rated power (VA)	70	-	-	-
	Absorption time (s)	2.5	0.08	-	-
	Operating current time (s)	0.9	0.03	-	-

It is necessary to foresee a protection device (e.g. fuse) along the motor operator power line. The correct size of the fuse depends on the motor version and on the number of users.

Here a schematic example:



8.6 Mechanical accessories

- Padlock (for locking in "OPEN" position) ref. 4 210 49
 (ref. 4 210 49 is compatible with DPX³ 125 HP and DPX³ 160/250)
- Sealable terminal shields:
 - Set of 2 (for 3P) ref. 4 238 23
 - Set of 3 (for 4P) ref. 4 238 24
- Insulated shields:
 - Set of 2 (for 3P) ref. 4 238 34
 - Set of 3 (for 4P) ref. 4 238 35
 (ref. 4 238 34/35 are compatible with DPX³ 125 HP also)

8.7 Connection accessories

Cage terminals

- Set of 3 terminals for cables 150 mm² max (solid) ref. 4 238 30
 or 120 mm² max (flexible) Cu/Al
- Set of 4 terminals for cables 150 mm² max (rigid) ref. 4 238 31
 or 120 mm² max (flexible) Cu/Al

Spreaders (incoming or outgoing):

- Set of 3 (for 3P) ref. 6 250 14
- Set of 4 (for 4P) ref. 6 250 18

Rear terminals (incoming or outgoing):

- Set of 3 (for 3P) ref. 4 238 21
- Set of 4 (for 4P) ref. 4 238 22

DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

8.8 Plug-in version

(A plug-in is a DPX³ 250 HP fitted with special terminals and mounted on a plug-in base)

Bases

(for plug-in and draw-out versions for DPX³ 250 HP and DPX³-I 250 HP)

- Plug-in/draw-out base for 3P *ref. 4 238 50*
- Plug-in/draw-out base for 4P *ref. 4 238 51*
- Plug-in/draw-out mobile part kit for 3P *ref. 4 238 52*
- Plug-in/draw-out mobile part kit for 4P *ref. 4 238 53*

Plug-in accessories

Locking accessory (for plug-in)

- Key lock accessory for plug-in *ref. 4 238 63*

Ref. 4 238 63 must be used with universal keylocks to get the complete locking kit for plug-in version

8.9 Draw-out version

(A DPX³ 250 HP draw-out version is a plug-in DPX³ 250 HP fitted with a "Debro-lift" mechanism which can be used to withdraw the breaker while keeping it on its base)

"Debro-lift" mechanism

(supplied with a rigid slide and handle for drawing-out)

- transformation kit for 3P *ref. 4 238 60*
- transformation kit for 4P *ref. 4 238 61*

Frontal masks for draw-out version

(to provide in addition to debro-lift mechanism according to accessory mounted)

- Frontal module, with frontal mask (3P and 4P) *ref. 4 238 55*
(if neither motor operator nor rotary handle are mounted)
- Frontal mask for motor operator (3P and 4P) *ref. 4 238 56*

Locking accessory (for draw-out)

- Padlock for draw-out position *ref. 4 238 64*
- Key lock accessory for draw-out *ref. 4 238 62*

Ref. 4 238 62 must be used with universal keylocks to get the complete locking kit for draw-out version

Auxiliary contacts

- Automatic auxiliary contacts for draw-out version *ref. 4 222 30*
- 6 contact connector (under sliding contacts) *ref. 0 098 19*

(Ref. 0 098 19 can be used with both plug-in and draw-out version)

8.10 Interlock mechanism

(for interlocking 2 DPX³ 125 HP or 2 DPX³ 250 HP breakers)

No frame mixing in interlock mechanism

- Interlock mechanism – standard version *ref. 4 238 27*
(for fixed version DPX³ 125 HP and DPX³ 250 HP)
- Interlock mechanism – for electronic module *ref. 4 238 28*
(for fixed version DPX³ 125 HP and DPX³ 250 HP)
- Interlock plate for DPX³ 250 HP *ref. 4 238 26*
- Rear interlock mechanism *ref. 4 238 29*
(for DPX³ 250 HP plug-in and/or draw-out version)

If used ref. 0 098 19, maximum 1 set

DPX³ 250 HP only magnetic circuit breakers

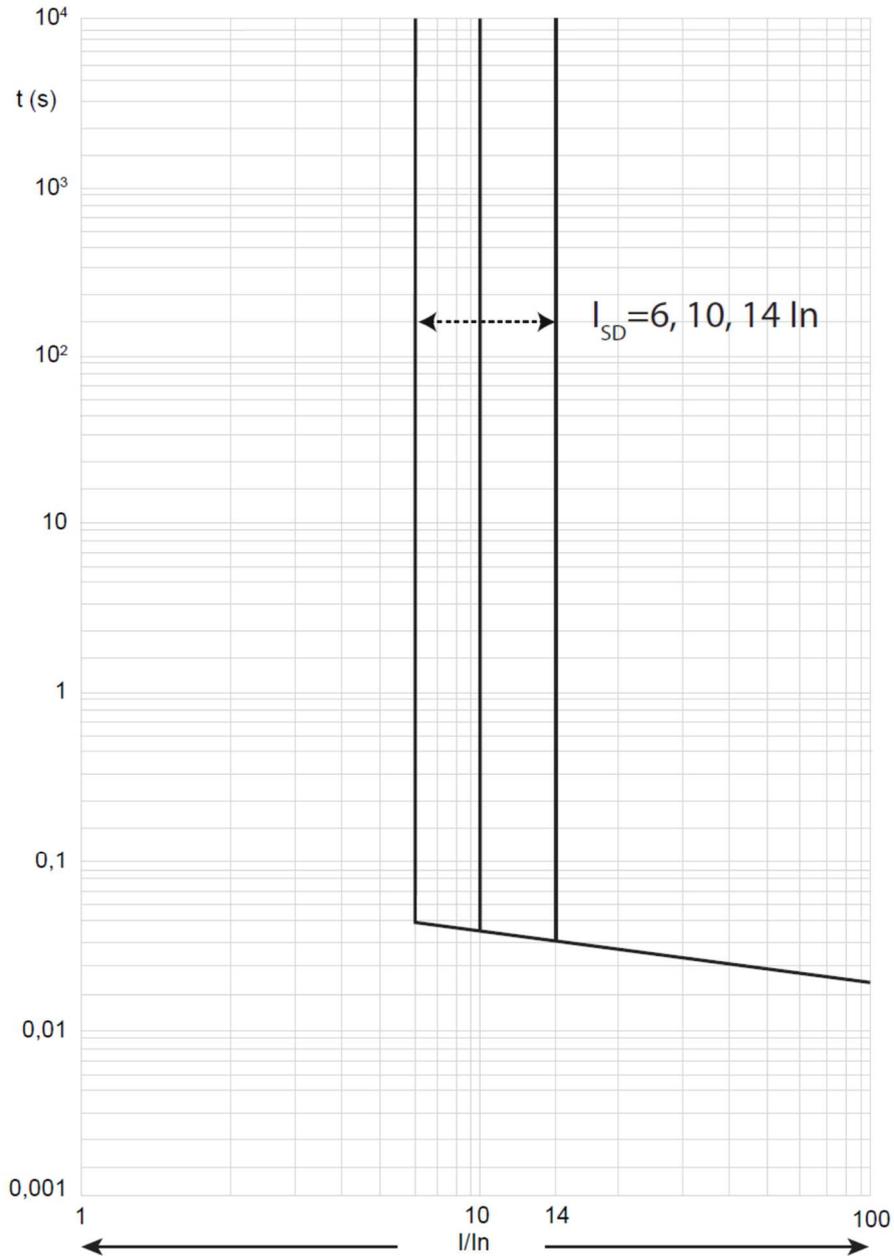
Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

9. CURVES

9.1 Magnetic tripping curve

Update: 29/08/2019



$I_{cu} = 36-50-70-100 \text{ kA}$ $I_{max} = 220A$ 3-4 P $U_0 = 415Vac$ (IEC/EN 60947-2)

Value	Description
t	time
I	current
I_n	rated current
I_r	long time setting current
curve 1	characteristic with cold start
curve 2	characteristic with hot start

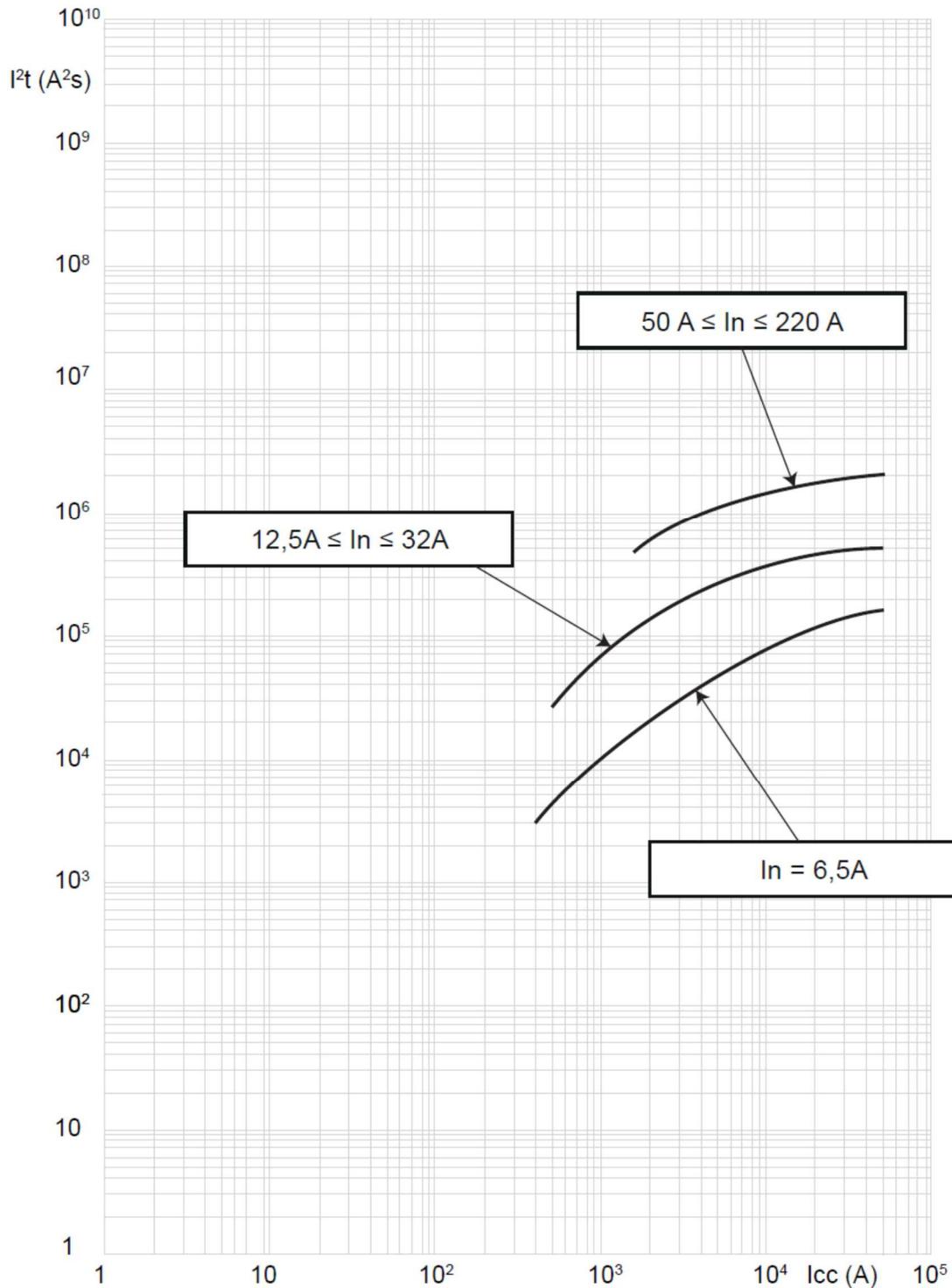
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

9.2.1 Pass-through specific energy characteristic curve (breaking capacity $I_{cu} \leq 50\text{kA}$)

Update: 25/11/2020



$I_{cu} = 36\text{-}50 \text{ kA}$ $I_{max} = 220 \text{ A}$ 3-4 P $U_e = 415 \text{ Vac}$ (IEC/EN 60947-2)

Value	Description
I_{cc}	short circuit current
I^2t (A^2s)	pass-through specific energy

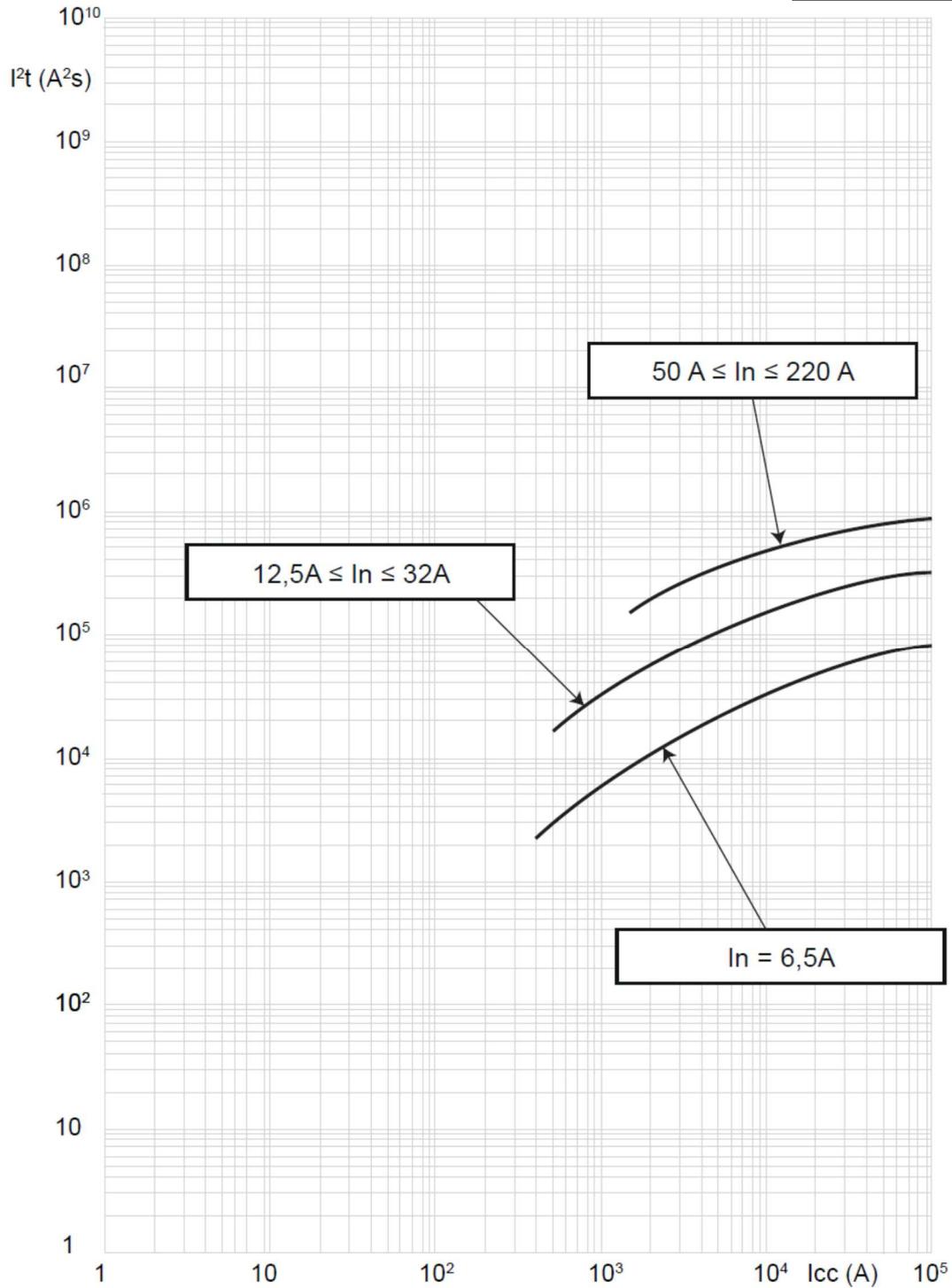
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

9.2.2 Pass-through specific energy characteristic curve (breaking capacity $I_{cu} > 50kA$)

Update: 25/11/2020



$I_{cu} = 70-100 \text{ kA}$ $I_{max} = 220A$ 3-4 P $U_o = 415Vac$ (IEC/EN 60947-2)

Value	Description
I_{cc}	short circuit current
$I^2t \text{ (A}^2\text{s)}$	pass-through specific energy

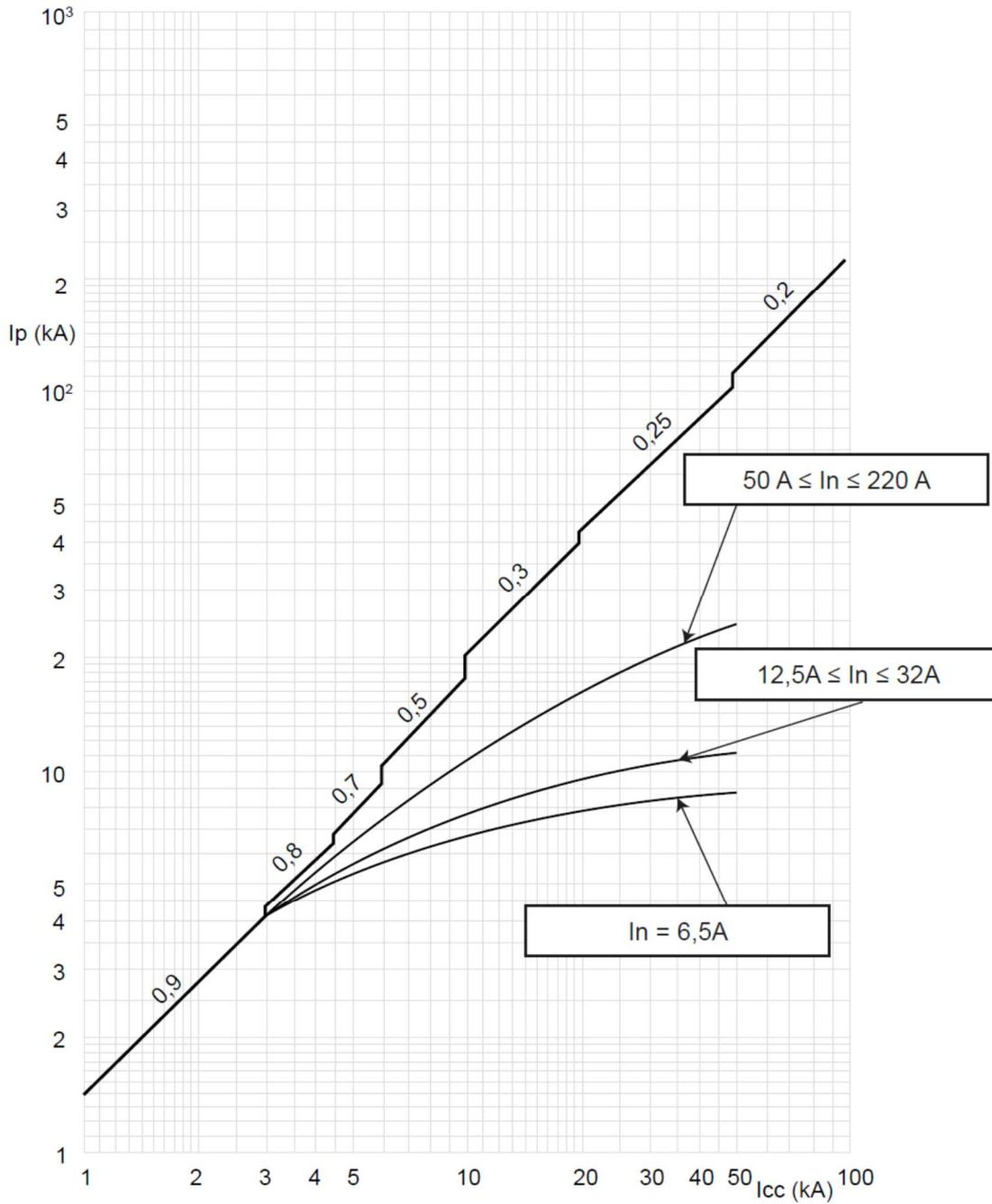
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

9.3.1 Cut-off peak current characteristic curve (kA) (breaking capacity $I_{cu} \leq 50\text{kA}$)

Update: 25/11/2020



$I_{cu} = 36-50 \text{ kA}$ $I_{max} = 220\text{A}$ 3-4 P $U_0 = 415\text{Vac}$ (IEC/EN 60947-2)

Value	Description
I_{cc}	estimated short circuit symmetrical current (RMS value)
I_p	maximum short circuit peak current
	maximum prospective short circuit peak current corresponding at the power factor
	maximum real peak short circuit current

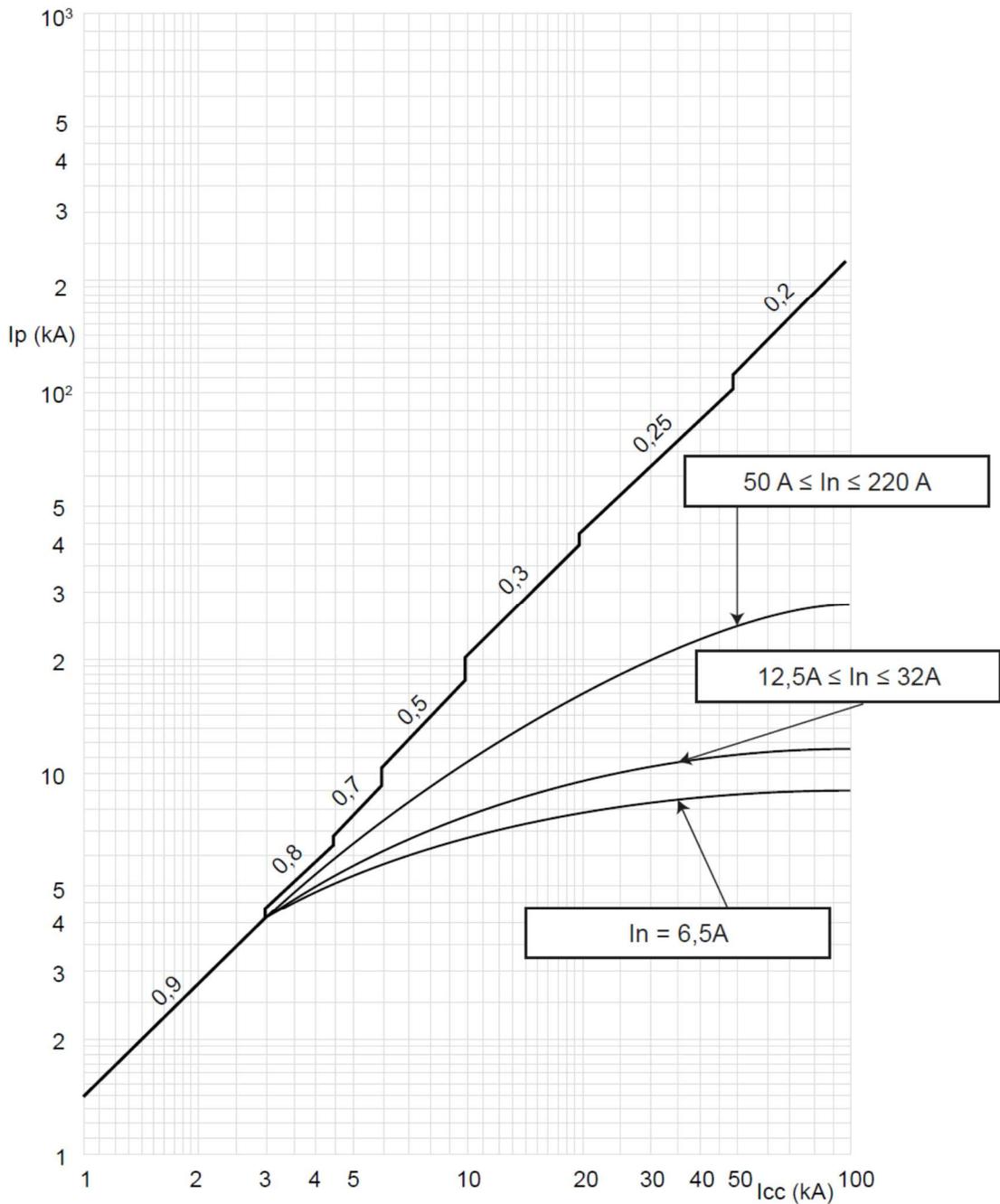
DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

9.3.2 Cut-off peak current characteristic curve (kA) (breaking capacity $I_{cu} > 50\text{kA}$)

Update: 25/11/2020



$I_{cu} = 70-100\text{ kA}$ $I_{max} = 220\text{ A}$ 3-4 P $U_o = 415\text{Vac}$ (IEC/EN 60947-2)

Value	Description
I_{cc}	estimated short circuit symmetrical current (RMS value)
I_p	maximum short circuit peak current
	maximum prospective short circuit peak current corresponding at the power factor
	maximum real peak short circuit current

DPX³ 250 HP only magnetic circuit breakers

Reference(s) :

from 4 239 01 to 4 239 09; from 4 239 13 to 4 239 21;
 from 4 239 25 to 4 239 33; from 4 239 37 to 4 239 45;
 from 4 239 49 to 4 239 57; from 4 239 61 to 4 239 69;
 from 4 239 73 to 4 239 81; from 4 239 85 to 4 239 93;

A) Derating Temperature and configurations

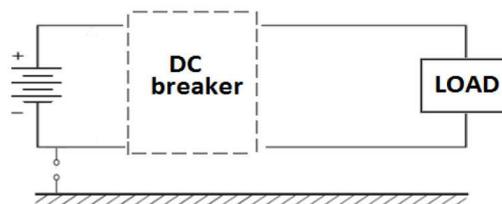
	Ambient temperature									
	30 °C		40 °C		50 °C		60 °C		70 °C	
Fixed version	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n
Cage terminals, flexible cable	220	1	220	1	220	1	198	0.90	187	0.85
Lugs, flexible cable	220	1	220	1	220	1	209	0.95	198	0.90
Spreaders, flexible cable	220	1	220	1	220	1	209	0.95	198	0.90
Plug-in/draw-out version	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n
Cage terminals, flexible cable	220	1	198	0.90	198	0.90	187	0.85	165	0.75
Rear flat terminals, flexible cable	-	-	-	-	-	-	-	-	-	-
Rear flat terminals, Cu bars, vertical	-	-	-	-	-	-	-	-	-	-

For further technical information, please contact Legrand technical support.

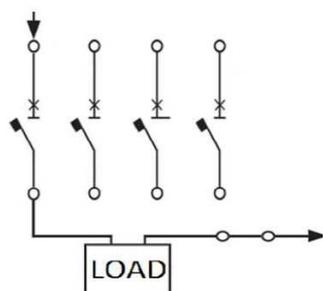
B) Breaking capacity in DC (kA)

I_{cu} (kA)	I_n (A)	1 pole *	2 poles in series *				3 poles in series *		
		60 V	60 V	110 V	250 V	110 V	250 V	500 V	
36	6.3 ÷ 220	35	36	35	10	36	10	10	
50	6.3 ÷ 220	35	50	35	10	50	10	10	
70	6.3 ÷ 220	35	50	35	10	50	10	10	
100	6.3 ÷ 220	35	50	35	10	50	10	10	

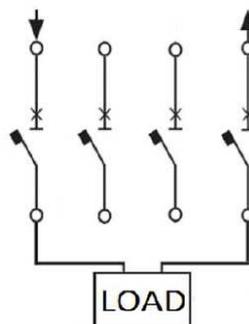
These values are applied to DC networks insulated from the ground (*this diagram applies to both 3P and 4P circuit breakers*):



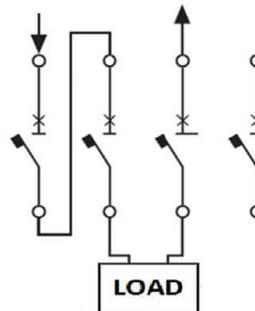
* Connection modality of the DC breaker:



1 pole



2 poles in series



3 poles in series