87045 LIMOGES Cedex
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DPX³ 250 Electronic

Reference(s):**420 302/ 305/ 307/ 309/ 312/ 315/ 317/ 319/ 332/ 335/ 337/ 339/ 342/ 345/ 347/ 349/ 362/ 365/ 367/ 369/ 372/ 375/ 377/ 379/ 635/ 637/ 638/ 639/ 645/ 647/ 648/ 649/ 502/ 505/ 507/ 509/ 512/ 515/ 517/ 519/ 522/ 525/ 527/ 529/ 532/ 535/ 537/ 539/ 542/ 545/ 547/ 549/ 552/ 555/ 557/ 559/ 692/ 695/ 697/ 699/ 702/ 705/ 707/ 709 /402/ 405/ 407/ 409/ 412/ 415/ 417/ 419/ 432/ 435/ 437/ 439/ 442/ 445/ 447/ 449/ 462/ 465/ 467/ 469/ 472/ 475/ 477/ 479/ 665/ 667/ 668/ 669/ 675/ 677/ 678/ 679**

CONTENTS

1. USE

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

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

2. RANGE

Circuit breakers

DPX³ ELECTRONIC

	25 kA		36 kA		50 kA		70kA	
I_n (A)	3P	4P	3P	4P	3P	4P	3P	4P
40	4 203 02	4 203 12	4 203 32	4 203 42	4 203 62	4 203 72	4 206 35	4 206 45
100	4 203 05	4 203 15	4 203 35	4 203 45	4 203 65	4 203 75	4 206 37	4 206 47
160	4 203 07	4 203 17	4 203 37	4 203 47	4 203 67	4 203 77	4 206 38	4 206 48
250	4 203 09	4 203 19	4 203 39	4 203 49	4 203 69	4 203 79	4 206 39	4 206 49

DPX³ ELECTRONIC (Sg)

	25 kA		36 kA		50 kA		70kA	
I_n (A)	3P	4P	3P	4P	3P	4P	3P	4P
40	4 205 02	4 205 12	4 205 22	4 205 32	4 205 42	4 205 52	4 206 92	4 207 02
100	4 205 05	4 205 15	4 205 25	4 205 35	4 205 45	4 205 55	4 206 95	4 207 05
160	4 205 07	4 205 17	4 205 27	4 205 37	4 205 47	4 205 57	4 206 97	4 207 07
250	4 205 09	4 205 19	4 205 29	4 205 39	4 205 49	4 205 59	4 206 99	4 207 09

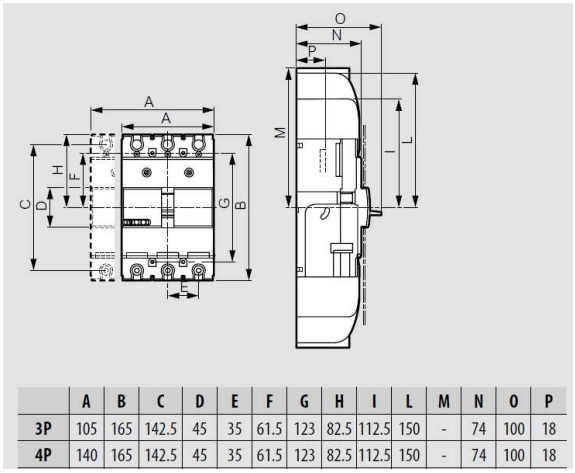
DPX³ ELECTRONIC + MEASURE

	25 kA		36 kA		50 kA		70kA	
I_n (A)	3P	4P	3P	4P	3P	4P	3P	4P
40	4 204 02	4 204 12	4 204 32	4 204 42	4 204 62	4 204 72	4 206 65	4 206 75
100	4 204 05	4 204 15	4 204 35	4 204 45	4 204 65	4 204 75	4 206 67	4 206 77
160	4 204 07	4 204 17	4 204 37	4 204 47	4 204 67	4 204 77	4 206 68	4 206 78
250	4 204 09	4 204 19	4 204 39	4 204 49	4 204 69	4 204 79	4 206 69	4 206 79

3. DIMENSIONS AND WEIGHTS

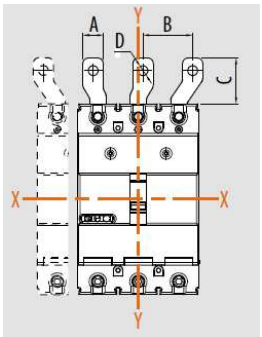
3.1 Dimensions

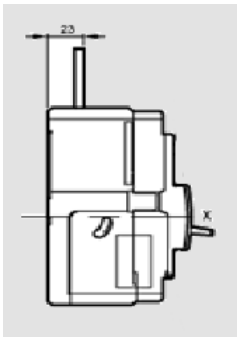
Fixed version



	A	B	C	D	E	F	G	H	I	L	M	N	O	P
3P	105	165	142.5	45	35	61.5	123	82.5	112.5	150	-	74	100	18
4P	140	165	142.5	45	35	61.5	123	82.5	112.5	150	-	74	100	18

Fixed version, front terminals



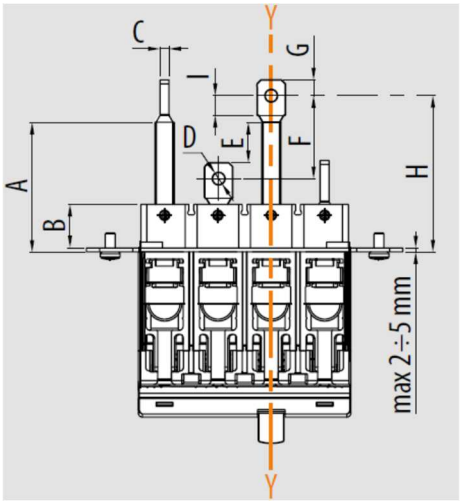


A	B	C	D
33	48,5	54,75	13

DPX³ 250 Electronic

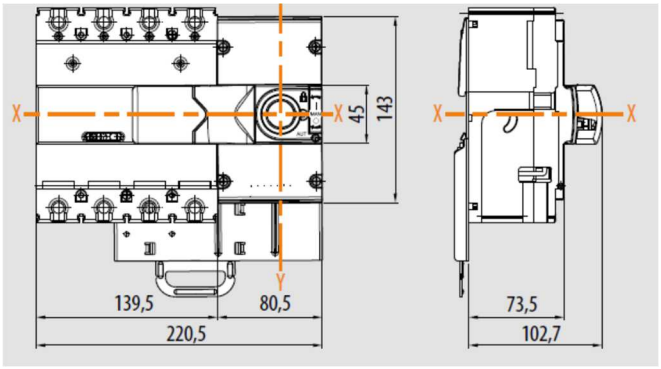
Reference(s):420 302/ 305/ 307/ 309/ 312/ 315/ 317/ 319/ 332/ 335/ 337/ 339/ 342/ 345/ 347/ 349/ 362/ 365/ 367/ 369/ 372/ 375/ 377/ 379/ 635/ 637/ 638/ 639/ 645/ 647/ 648/ 649/ 502/ 505/ 507/ 509/ 512/ 515/ 517/ 519/ 522/ 525/ 527/ 529/ 532/ 535/ 537/ 539/ 542/ 545/ 547/ 549/ 552/ 555/ 557/ 559/ 692/ 695/ 697/ 699/ 702/ 705/ 707/ 709 /402/ 405/ 407/ 409/ 412/ 415/ 417/ 419/ 432/ 435/ 437/ 439/ 442/ 445/ 447/ 449/ 462/ 465/ 467/ 469/ 472/ 475/ 477/ 479/ 665/ 667/ 668/ 669/ 675/ 677/ 678/ 679

Fixed version, rear terminals

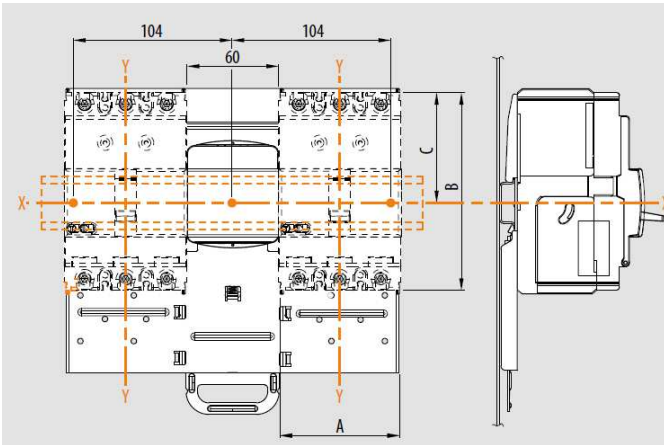


A	B	C	D	E	F	G	H	I
66,5	22	6	8,4	15,5	44	15	79	10

Fixed version, side motor operator

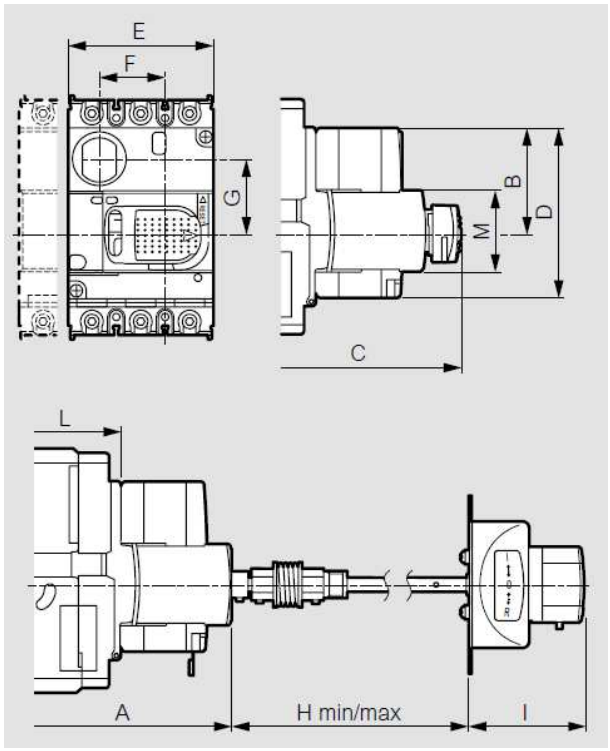


Mechanical interlock



	A	B	C
3P	105	165	82,5
4P	140	165	82,5
4P DIFF	140	195	82,5

Rotary handles



	A	B	C	D	E	F	G	H min	H max	I	L	M
3P-4P	122	57	155	94	80.5	40.5	41.7	132	361	62	74	45

3.2 Weights

	Weights (Kg)	
Configuration	**3P**	**4P**
Circuit breaker/switch disconnector	1.9	2.4
Direct rotary handle*	0.30	
Vari depth rotary handle*	0.27	
Motor operator*	1.22	
Interlock*	1.08	
Spreader*	0.26	0.35

4. OVERVIEW

4.1 Supplied

Supplied with

- fixing screws
- connection plates for bars and cable lugs
- insulating shields (phase barrier)

4.2 Mounting possibilities

On DIN rail:

- Vertical
- Supply invertor type

5. ELECTRICAL CONNECTIONS

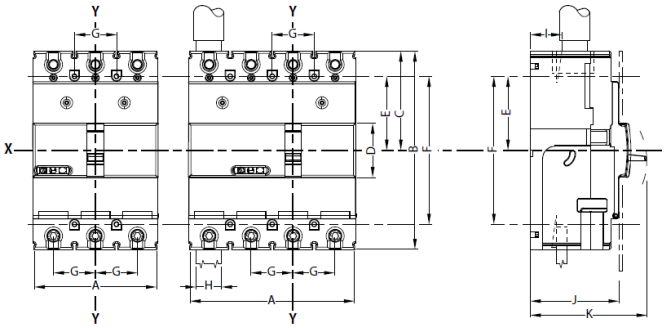
5.1 Mounting possibilities

On DIN rail:

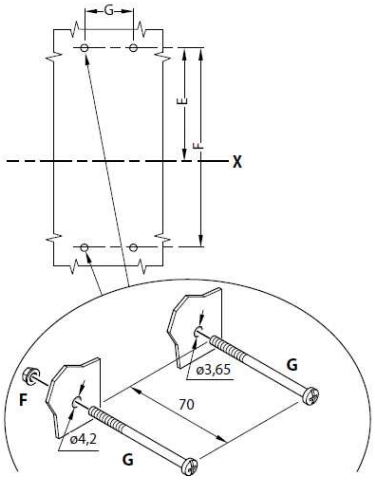
- Vertical
- Supply invertor type

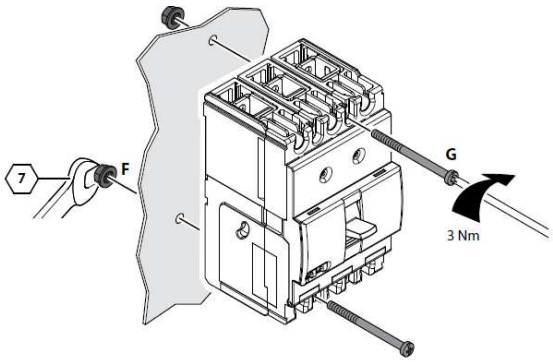
5.2 Mounting

(see instruction sheet for detailed mounting procedures)

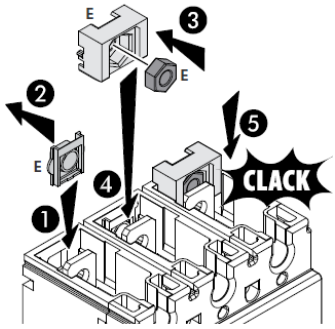


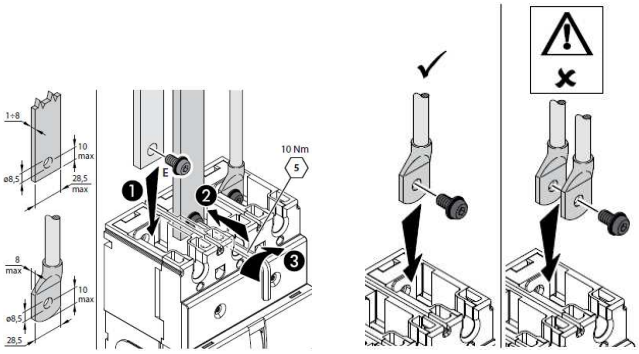
	A	B	C	D	E	F	G	H	I	J	K
250 3P	105	165	82,5	45	61,5	123	35	28,5	18	74	97
250 4P	140	165	82,5	45	61,5	123	35	28,5	18	74	97
250 RCD	140	195	82,5	45	61,5	153	35	28,5	18	74	97

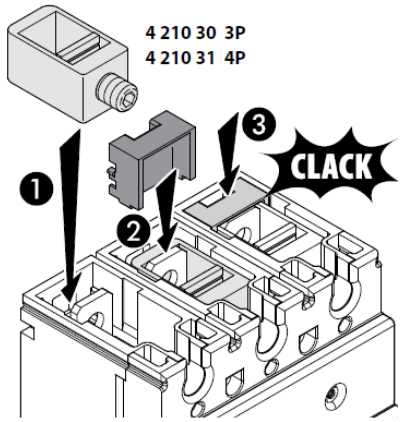


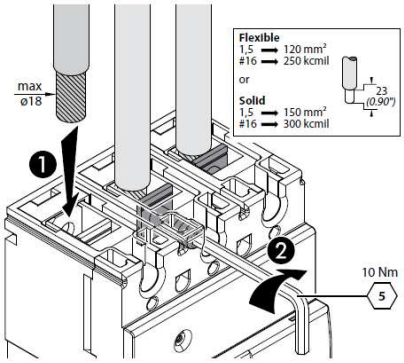


Busbars/cable lugs and cables:









6. ELECTRICAL AND MECHANICAL CHARACTERISTICS

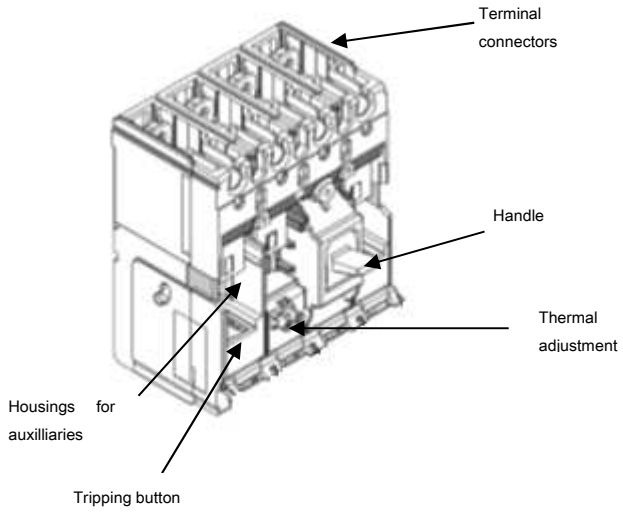
Circuit breaker

Circuit Breaker	DPX³ 250 (B/F/N/H) (25kA, 36kA, 50kA, 70kA)
Rated current (A)	40, 100, 160, 250
Poles	3 - 4
Rated insulation voltage U_i (V)	800
Rated operating voltage (50/60Hz) U_e (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)	20000
Mechanical endurance with motor control (cycles)	20000
Electrical endurance at I_n (cycles)	8000
Electrical endurance at 0.5 I_n (cycles)	10000
Utilization category	A
Suitable for isolation	Yes
Type of protection	Electronic
Magnetic adjustment	(1,5 -10) x Ir
Thermal adjustment	(0,4 ÷ 1) x I_n
Neutral protection for 4P version (%I_{th})	0-50-100-150-200
Dimensions (W x H x D) (mm) 3P	105 x 165 x 100
Dimensions (W x H x D) (mm) 4P	140 x 165 x 100
Weight (kg)	1.9(3P) - 2.3(4P)

The maximum admissible (absolute) temperature is 125°C (for detail, see IEC 60947-1 and 60947-2).

DPX³ product line has the possibility to supply both in "direct" and "reverse" feed.
If "direct", the word "LINE" needs to be marked on supply terminals (normally the top ones), as well as "LOAD" has to be written on the output terminals to be connected to the load (normally the bottom ones).
If "reverse", any indications about LINE / LOAD are NOT expected on the product.

6.1 Main parts constituting the circuit breaker



6.2 Breaking capacity (kA)

		Breaking capacity (kA) & I_{cs}		
		3P-4P	3P-4P	3P-4P
IEC 60947-2	U_e/I_{cu}	B	F	N
	220/240 V AC	40	60	80
	380/415 V AC	25	36	50
	440/460 V AC	20	30	40
	480/500 V AC	10	25	30
	600V AC	9	20	22
	690V AC	8	16	18
	I_{cs}(% I_{cu})	100	100	100
	Rated making capacity under short circuit I_{cm}			
	I_{cm} (kA) at 415V	52.5	75.6	105

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

	Assigned current trip			
	thermal		magnetic	
I_n (A)	L1-L2-L3	N	L1-L2-L3	N
40	40	40	400	400
100	10	100	1000	1000
160	160	160	1600	1600
250	250	250	2500	2500

6.4 Load operations

Loads operation	
Rated current (A)	I_n =250A
Opening (N)	45
Closing (N)	78
Reset (N)	75

6.5 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 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)
25	400
36	350
50	300

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.

6.6 Power losses per pole under I_n

Circuit breaker

	Power losses per pole (W)			
	I_n (A)			
	40	**100**	**160**	**250**
Lugs	0.3	1.9	6.6	16.2

Note: power losses 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.

6.7 DERATINGS

according to IEC/EN 60947-1

6.7.1 Temperature

	Temperature Ta (°C)			
I_n (A)	**40**	**50**	**60**	**70**
40	**40**	**40**	34	30
100	**100**	**100**	84	76
160	**160**	**160**	134	122
250	**250**	**250**	210	190

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.

6.7.2 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 circuit breakers, degree 3, according to IEC/EN 60947-2

6.7.3 Altitude

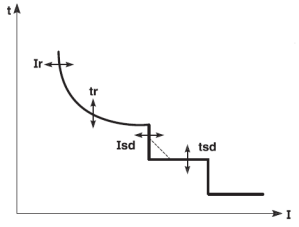
Altitude derating for DPX³ and DPX³–I

Altitude (m)	**2000**	**3000**	**4000**	**5000**
U_e (V)	690	590	520	460
I_n (A) (T_a = 40°C/50°C)	I_n	0.98 x I_n	0.93 x I_n	0.9 x I_n

7 ELECTRONIC RELEASES

7.1 Version S2 - Adjustment of I_r, T_r, I_{sd}, T_{sd}

LCD display with navigation and setting buttons, indication led, battery case and USB port.



Long delay protection against overloads with an adjustable threshold bases on the RMS value of the current:

- I_r = 0.4 ÷ 1 I_n (steps 1A)
- T_r =3 - 15s (3 – 5 – 10 – 15 3^{MEM} – 5^{MEM} – 10^{MEM} – 15^{MEM}) (8 steps) (*)

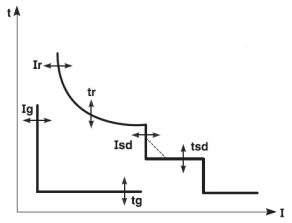
Short delay protection against short-circuits with an adjustable I_{sd} threshold:

- I_{sd} = 1.5 - 2 – 2.5 - 3 - 4 - 5 - 6 – 7 - 8 – 9 – 10 x I_r (11 steps)
- T_{sd} = 0 – 100ms – 200ms – 300ms – 400 ms - 500 ms (I = K)
- T_{sd} = 0 – 100ms – 200ms – 300ms – 400 ms - 500 ms (I^2t = K) (**)

Instantaneous protection with fixed threshold I_{sf} = 3kA

7.2 Version Sg - Adjustment of I_r, T_r, I_{sd}, T_{sd}, I_g, T_g

LCD display with navigation and setting buttons, indication led, battery case and USB port.



Long delay protection against overloads with an adjustable threshold bases on the RMS value of the current:

- I_r = 0.4 ÷ 1 I_n (steps 1A)
- T_r =3 - 15s (3 – 5 – 10 – 15 3^{MEM} – 5^{MEM} – 10^{MEM} – 15^{MEM}) (8 steps) (*)

Short delay protection against short-circuits with an adjustable I_{sd} threshold:

- I_{sd} = 1.5 - 2 – 2.5 - 3 - 4 - 5 - 6 – 7 - 8 – 9 – 10 x I_r (11 steps)
- T_{sd} = 0 – 100ms – 200ms – 300ms – 400 ms - 500 ms (I = K)
- T_{sd} = 0 – 100ms – 200ms – 300ms – 400 ms - 500 ms (I^2t = K) (**)

Instantaneous protection with fixed threshold I_i = 5kA

Measure of ground fault:

- I_g : 0.2 – 0.3 – 0.4 – 0.5 – 0.6 – 0.7 – 0.8 – 1 x I_n (9 steps) and OFF
- T_g : 0.1 – 0.2 – 0.3 – 0.4 – 0.5 – 1 s

(*) @ 6 Ir
(**) @ 12 Ir

General remarks on protection unit

The protection units S2/Sg are normally supplied by the internal current transformers (CTs).
When the current flowing through the circuit breaker is greater than 12% of the maximum power (20% of In for single phase load), the internal current supply ensures all operation of the protection unit, included LED status, display indications and diagnostic functions (e.g. trip test). Integrated measure (if available) is instead guaranteed starting from 20% of the maximum power (35% of In for single phase load), in absence of any other supply. In any case the external power supply is strongly recommended for the correct working of measurement, as well as RS485 communication.
In order to supply the protection unit, one of the following optional power supply can be used:

- external Auxiliary power supplier or, alternatively, Modbus communication interface;
- power supply temporarily connected to frontal USB socket, connected to a 5V DC power bank or PC.

Together with above protections, activated in case of electric faults, the trip unit also integrates self-protection for:

- Over temperature : in case the internal temperature of protection unit exceed 95°C;
- Auto diagnostics: in case embedded watchdog circuit detects internal malfunctions, which could compromise the correct working of microcontroller.

7.3 Version S2 with measure

In the electronic unit protection, an energy metering central unit is integrated.
The possible parameters that can be measured are listed in the following table:

Measured	UNIT	DESCRIPTION
I_1	A	L1 realtime measured value
I_2	A	L2 realtime measured value
I_3	A	L3 realtime measured value
I_N (4P)	A	N realtime measured value
I_G	A	G realtime measured value
U_{12} U_{23} U_{31} (3P)	V	Phase to Phase Voltage
V_{12} V_{23} V_{31} (4P)	V	Voltage
Freq.	Hz	Frequency
P_{Tot}	kW	Active Power
Q_{Tot}	kvar	Reactive Power
PF		Power Factor
E_p ↓	kWh	Consumed active energy
E_p ↑	kWh	Returned active energy
E_q ↓	kvar h	Consumed reactive energy
E_q ↑	Kvar h	Returned reactive energy
$THDU_{12}$/$THDU_{23}$/$THDU_{31}$ (3P)	%	Chained Voltage THD
$THDV_{1N}$/$THDV_{2N}$/$THDV_{3N}$ (4P)	%	Voltage THD
$THDI_1$/$THDI_2$/$THDI_3$/$THDI_N$	%	Current THD
MEM	A - °C	Cause of the last intervention and its value

Function performance class according to IEC 61557-12

Function symbol	Performance class	Measurement range				Other complementary characteristics			
		DPX³ 250A				I_{max} PMD			
I_n		40A	100A	160A	250A	40A	100A	160A	250A
P	2	0.05kW	0.05kW	0.05kW	0.05kW	48A	120A	192A	300A
		58kW	144kW	230kW	360kW	I_b=40A, U_n=400V, f_n=50Hz			
Qa, Q_v	2	0.1kvar	0.1kvar	0.1kvar	0.1kvar	48A	120A	192A	300A
		58kW	144kW	230kW	360kW	I_b=40A, U_n=400V, f_n=50Hz			
E_a	2	0...9999 GWh				48A	120A	192A	300A
						I_b=250A, U_n=400V, f_n=50Hz			
ErA, E_{rV}	2	0...9999 GW/h				48A	120A	192A	300A
						I_b=40A, U_n=400V, f_n=50Hz			
f	0.1	50...60 Hz				-			
I	1	2A	2A	2A	2A	48A	120A	192A	300A
		48A	120A	192A	300A	I_b=250A, U_n=400V, f_n=50Hz			
I_N	1	2A	2A	2A	2A	48A	120A	192A	300A
		48A	120A	192A	300A	I_b=250A, U_n=400V, f_n=50Hz			
U	0.5	88...690V				-			
P_{FV}	0.5	-				48A	120A	192A	300A
						I_b=250A, U_n=400V, f_n=50Hz			
THDu	5	110...690V				-			
THD_i	5	40A	40A	40A	40A	-			
		40A	100A	160A	250A				

8. CONFORMITY

DPX³ 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 respect the European Directives REACh, RoHS, RAEE.

.

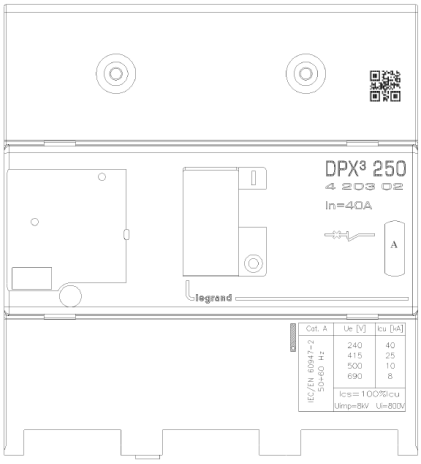
For specific information, please contact Legrand support.

8.1 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:

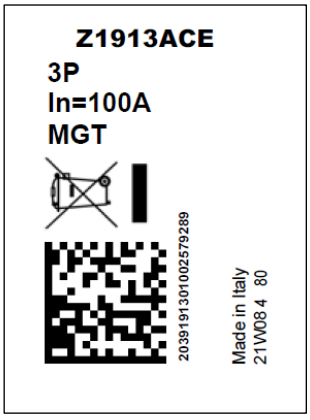
Product laser label on front

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



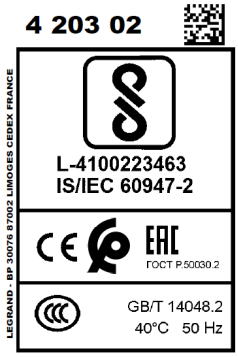
Product sticker label on side

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



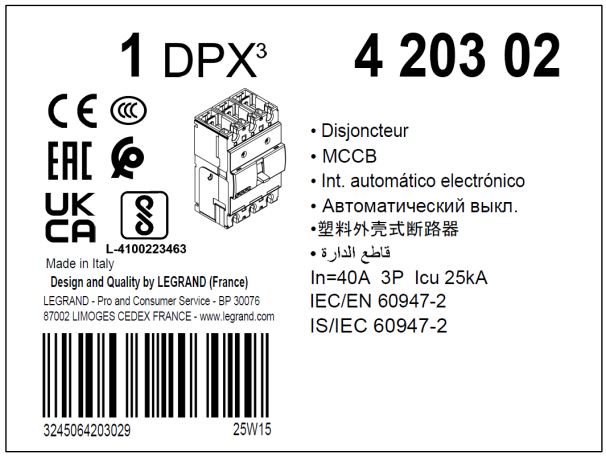
Mark sticker label on side

- -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



9. EQUIPMENTS AND ACCESSORIES

9.1 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

- 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)

9.2 Auxiliary contact

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

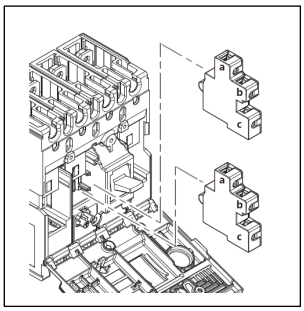
set of connectors for aux contacts	ref. 4 210 44
aux contacts (1NC and 1 NO) for all rotary handles	ref. 4 210 10
signalling contact plugged-in version	ref. 4 210 48

Changeover switch 3A – 250 VAC ref. 4 210 11

To show the state of the contacts or opening of the DPX³ on a fault:
Auxiliary contact (standard) **OC**
Fault signal **CTR**

Auxiliary contact		
Nominal 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 → 1 auxiliary contact + 1 fault signal



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

9.3 Rotary handles

Direct (with auxiliary option and compatible XL³)

- DPX³ direct rotary handle ref. 4 210 00
- DPX³ emergency direct rotary handle ref. 4 210 02

Vari-depth handle IP55 (with auxiliary option and compatible XL³)

- DPX³ vari depth rotary handle ref. 4 210 04
- DPX³ emergency vari depth rotary handle ref. 4 210 05

Locking accessories (for rotary handle with auxiliary option)

- Ronis type flat key random for direct rotary handle ref. 4 210 06
- Profalux type star key random for direct rotary handle ref. 4 210 07
- Ronis type flat key random for vari-depth handle ref. 4 210 08
- Profalux type star key random for vari-depth handle ref. 4 210 09
- Ronis type flat key (cod. EL43525) for direct rotary handle ref. 4 228 00
- Ronis type flat key (cod. EL43363) for direct rotary handle ref. 4 228 01
- Ronis type flat key (cod. EL43525) for vari-depth handle ref. 4 228 02
- Ronis type flat key (cod. EL43363) for vari-depth handle ref. 4 228 03

Direct (general pourpose)

- DPX³ direct rotary handle ref. 4 201 60
- DPX³ emergency direct rotary handle ref. 4 201 73

Vari-depth handle IP55 (general pourpose)

- DPX³ vari depth rotary handle ref. 4 201 61
- DPX³ emergency vari depth rotary handle ref. 4 201 74

Locking accessories (for rotary handle general pourpose)

- Key barrel and flat key for direct handles ref. 4 201 64
- Key barrel and flat key EL43525 for direct handles ref. 4 201 65
- Key barrel and flat key EL43363 for direct handles ref. 4 201 66
- Key barrel and flat key for vari-depth handles ref. 4 201 67
- Key barrel and flat key EL43525 for vari-depth handles ref. 4 201 68
- Key barrel and flat key EL43363 for vari-depth handles ref. 4 201 69

9.4 Connection accessories

Cage terminals

- Set of 3 terminals for
1x150 mm² max (rigid) or 1x120 mm² (flexible) Cu/Al bar/cable
(for Al cables In max 125A) ref. 4 210 30

- Set of 4 terminals for
1x150 mm² max (rigid) or 1x120 mm² max (flexible) Cu/Al bar/cable lug
(for Al cables In max 80A) ref. 4 210 31

- screw terminals for bar connections (3P) ref. 4 210 79

- screw terminals for bar connections (4P) ref. 4 210 80

Cage terminal use specifications

Cable standard suggeted cross-section (mm²)*			
	In (A)	Cu	Al
Cage terminals ref. 4 210 30/4 210 31	16	2,5	4
	20	2,5	4
	25	4	6
	32	6	10
	40	10	16
	50	10	16
	63	16	25
	80	25	35
	100	35	50
	125	50	70
	160	70	\
	200	95	\
	250	120	\

* The suggested cross-section are in compliance with standard IEC 60947-1 (ed.6 2020/04) and IEC 60947-2 (ed.5.1 2019/07)

Dimensions limits of cable for cage terminals				
Cage terminals ref. 4 210 30/4 210 31	Min. cross section (mm²)		Max. cross section (mm²)	
	Flexible	Rigid	Flexible	Rigid
	2.5	4	120	150

Front spreaders

- DPX³ front spreaders for 3P DPX³ 250 (set of 3) ref. 4 210 34
- DPX³ front spreaders for 4P DPX³ 250 (set of 4) ref. 4 210 35

Fixing plates

For fixing DPX3 250 on DIN rail or on a plate

- DPX³ 250 3P/4P without earth leakage module ref. 4 210 72
- DPX³ 250 3P/4P with side mounting motor operator ref. 4 210 69

9.5 Mechanical accessories

Insulated shields (phase barriers)

- Set of 36 ref. 4 210 70

Sealable terminal shields

- sealable terminal shield for front spreaders 3P ref. 4 210 56
- sealable terminal shield for front spreaders 4P ref. 4 210 57

Padlocks

- DPX³ padlock accessory for handle (“open” position) ref. 4 210 49

Interlock

- DPX³ interlock for fixed version ref. 4 210 58

9.6 Motor operator

- side motor operator 24-230 Vac/dc ref. 4 210 60

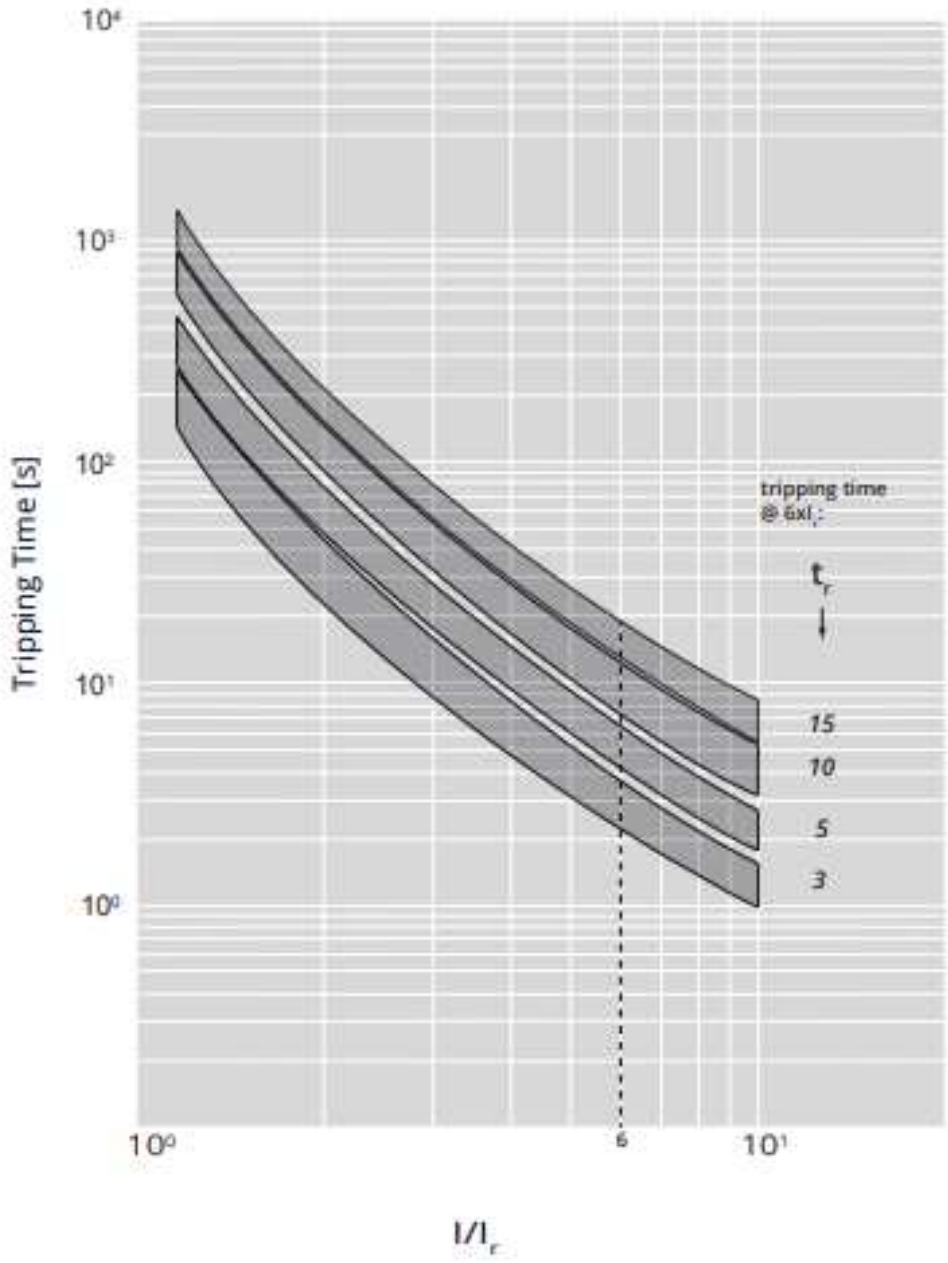
Locking accessories for side motor operator

- Ronis type flat key (cod. ABA90GEL6149) for side motor operator ref. 4 210 65
- Profalux type flat key (cod. HBA90GPS6149) for side motor operator ref. 4 210 66
- padlock for side motor operator ref. 4 210 67

10. CURVES CON CHECK CURVE

10.1.1 Thermal magnetic long time tripping curve (for S2/Sg versions)

Update: 17/05/2018

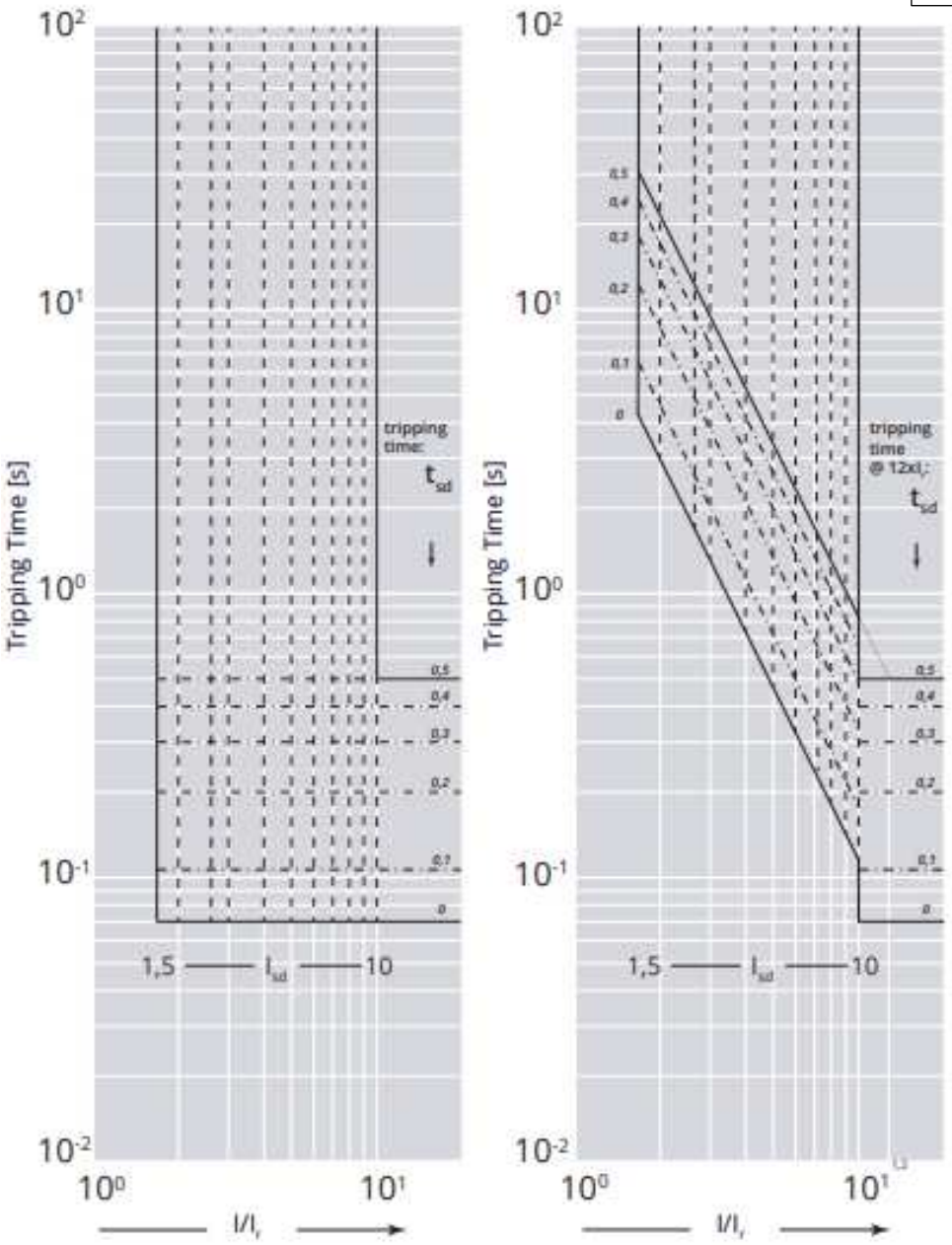


I_{cu} = 25-36-50 kA I_{max} = 250A 3-4 P U_e = 415Vac

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

10.1.2 Thermal magnetic short time tripping curve (for S2/Sg versions)

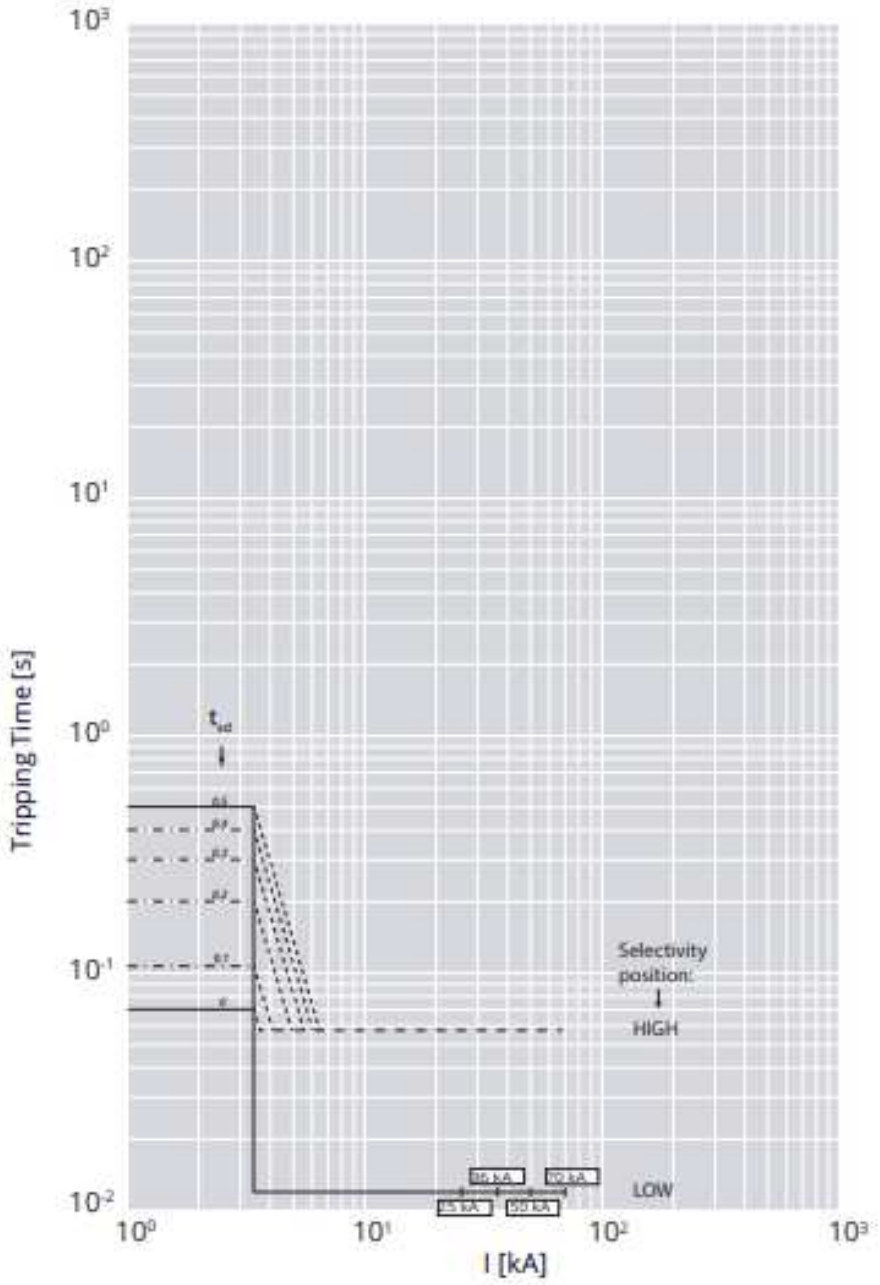
Update: 17/05/2018



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

10.1.3 Thermal magnetic instantaneous time tripping curve (for S2/Sg versions)

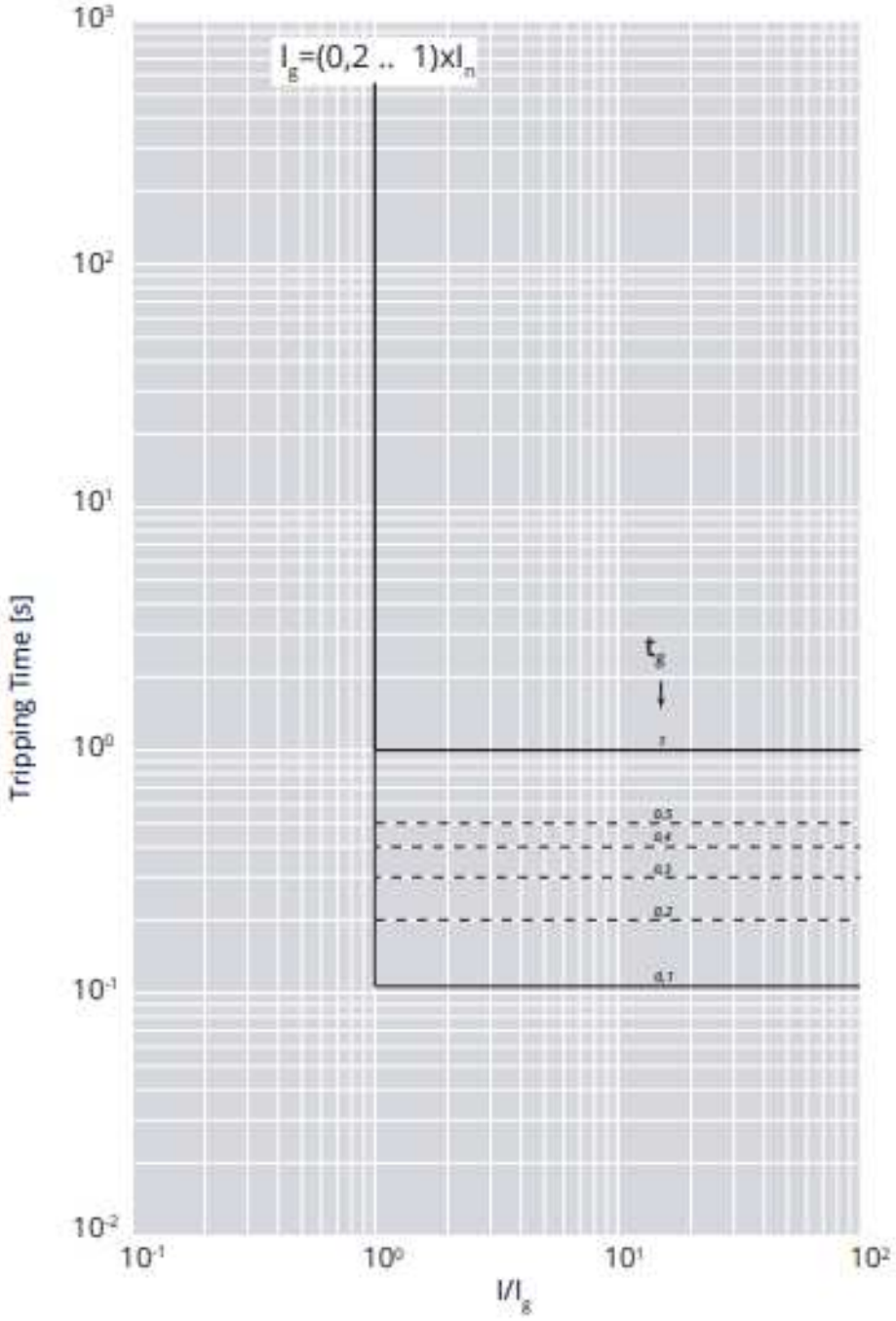
Update: 17/05/2018



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

10.1.4 Thermal magnetic ground tripping curve (for Sg version)

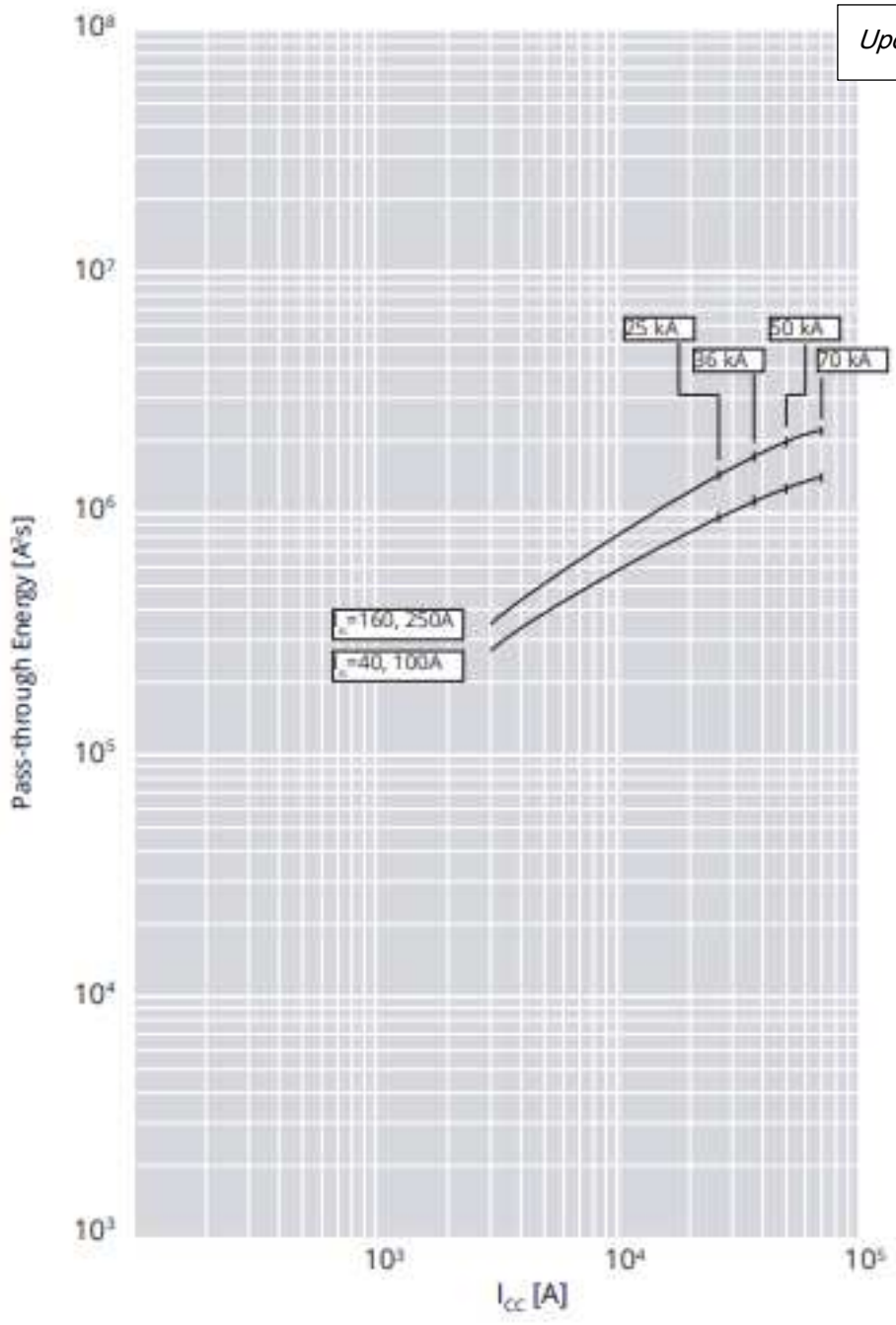
Update: 18/05/2018



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

10.2 Pass-through specific energy characteristic curve

Update: 07/05/2018

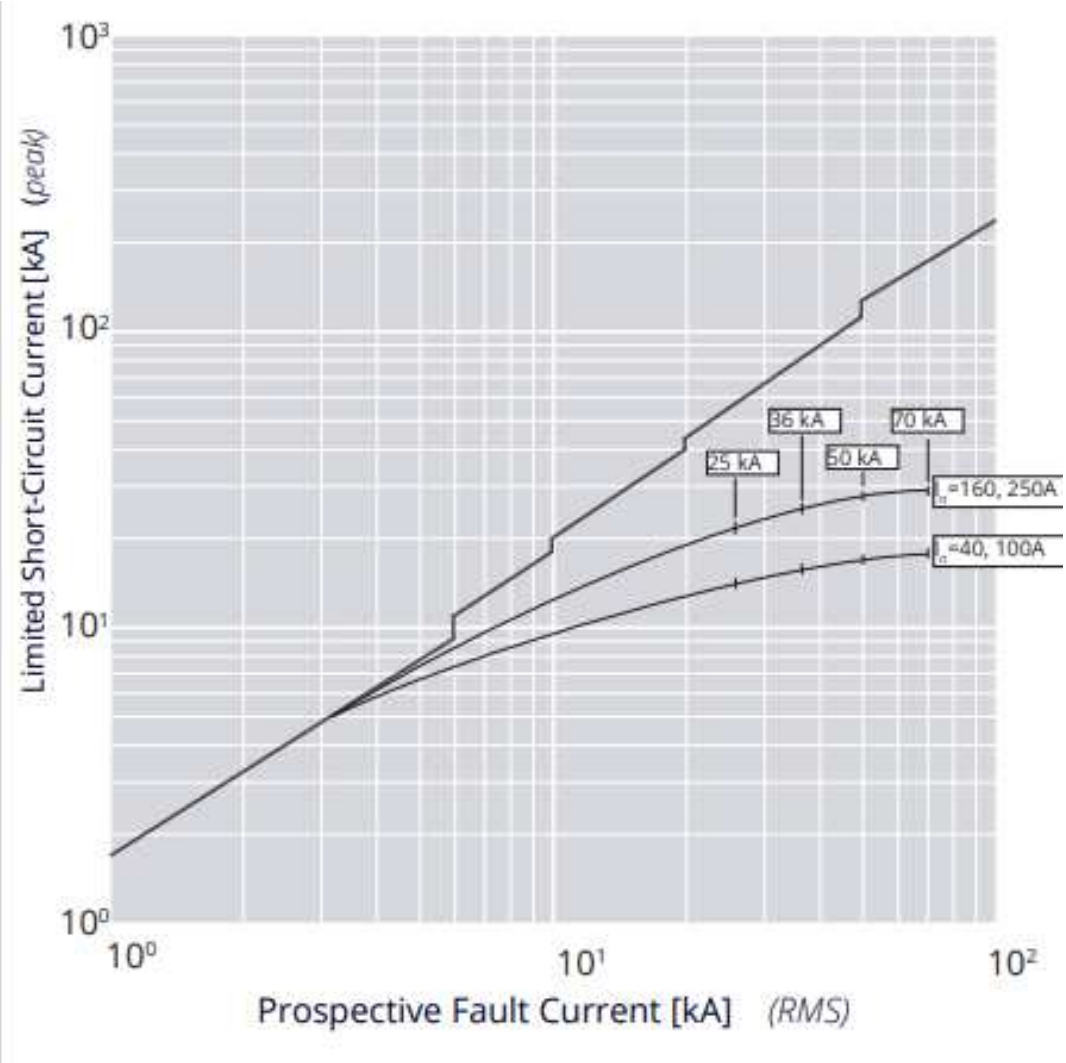


I_{cu} = 25-36-50 kA I_{max} = 250A 3-4 P U_e = 415Vac

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

10.3 Cut-off peak current characteristic curve (kA)

Update: 07/05/2018



I_{cu} = 25-36-50 kA I_{max} = 250A 3-4 P U_e = 415Vac

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

Reference(s):420 302/ 305/ 307/ 309/ 312/ 315/ 317/ 319/ 332/ 335/ 337/ 339/ 342/ 345/ 347/ 349/ 362/ 365/ 367/ 369/ 372/ 375/ 377/ 379/ 635/ 637/ 638/ 639/ 645/ 647/ 648/ 649/ 502/ 505/ 507/ 509/ 512/ 515/ 517/ 519/ 522/ 525/ 527/ 529/ 532/ 535/ 537/ 539/ 542/ 545/ 547/ 549/ 552/ 555/ 557/ 559/ 692/ 695/ 697/ 699/ 702/ 705/ 707/ 709 /402/ 405/ 407/ 409/ 412/ 415/ 417/ 419/ 432/ 435/ 437/ 439/ 442/ 445/ 447/ 449/ 462/ 465/ 467/ 469/ 472/ 475/ 477/ 479/ 665/ 667/ 668/ 669/ 675/ 677/ 678/ 679

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
DPX³ 250 fixed	Cage terminals, flexible cable, vertical	250	1	250	1	250	1	250	1	225	0.9
	Cage terminals, flexible cable + horizontal	0	0	0	0	0	0	0	0	0	0
	Cage terminals, flexible cable + sealable terminal shields	0	0	0	0	0	0	0	0	0	0
	Cage terminals, rigid cable	0	0	0	0	0	0	0	0	0	0
	Lugs, flexible cable	0	0	0	0	0	0	0	0	0	0
	Lugs, rigid cable	0	0	0	0	0	0	0	0	0	0
	Spreaders, flexible cable	0	0	0	0	0	0	0	0	0	0
	Spreaders, rigid cable	0	0	0	0	0	0	0	0	0	0
	Rear flat staggered terminals, flexible cable	0	0	0	0	0	0	0	0	0	0
	Rear flat staggered terminals, rigid cable	0	0	0	0	0	0	0	0	0	0

Data indicated in this document refers exclusively to test conditions according to product standards, unless otherwise indicated in the documentation.
For the different conditions of use of the product, inside electrical equipment or in any case inserted in the installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system