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www.legrand.com

# DPX³ 250 thermal magnetic circuit breakers

# DPX³-I 250 trip-free switches

**Cat.Nos:**
**4 202 05 - 4 202 07 - 4 202 08 - 4 202 09 - 4 202 15 - 4 202 17**
**4 202 18 - 4 202 19 - 4 202 35 - 4 202 37 - 4 202 38 - 4 202 39**
**4 202 45 - 4 202 47 - 4 202 48 - 4 202 49 - 4 202 65 - 4 202 67**
**4 202 68 - 4 202 69 - 4 202 75 - 4 202 77 - 4 202 78 - 4 202 79**
**4 202 99 - 4 203 00**

**CONTENT** **Page**



## 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 provides a complete project approach in premium market segment, offering a range completely suitable for medium power application a competitive costs.

## 2. RANGE

### 2.1 DPX³ 250 thermal magnetic circuit breaker

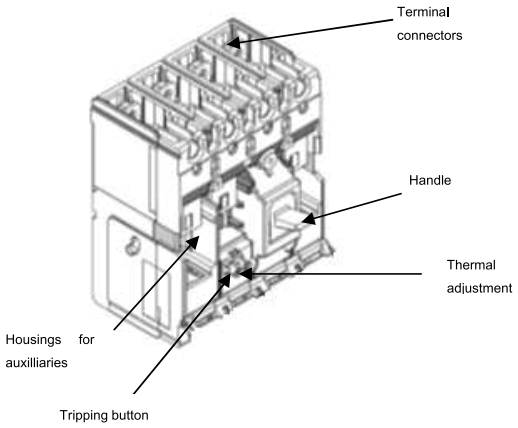
| Icu | 25 kA | | 36 kA | | 50 kA | |
|---|---|---|---|---|---|---|
| In (A) | 3P | 4P | 3P | 4P | 3P | 4P |
| 100 | 4 202 05 | 4 202 15 | 4 202 35 | 4 202 45 | 4 202 65 | 4 202 75 |
| 160 | 4 202 07 | 4 202 17 | 4 202 37 | 4 202 47 | 4 202 67 | 4 202 77 |
| 200 | 4 202 08 | 4 202 18 | 4 202 38 | 4 202 48 | 4 202 68 | 4 202 78 |
| 250 | 4 202 09 | 4 202 19 | 4 202 39 | 4 202 49 | 4 202 69 | 4 202 79 |

### 2.2 DPX³-I 250 trip-free switch

| In (A) | 3P | 4P |
|---|---|---|
| 250 | 4 202 99 | 4 203 00 |

### 2.3 Composition

DPX³ 250 thermal magnetic is supplied with:
- fixing screws
- connection plates for bars or cable lugs
- insulting shields (phase barrier)




## 3. TECHNICAL CHARACTERISTICS

### 3.1 Electrical characteristics

| DPX³ 250 thermal magnetic circuit breakers | |
|---|---|
| Rated current | 100 A, 160 A, 200 A, 250 A |
| Poles | 3P - 4P |
| Pole pitch | 35 mm |
| Rated insulation voltage (50/60Hz) Ui | 800 V |
| Rated operating voltage (50/60Hz) Ue | 690 V |
| Rated impulse withstand current Uimp | 8 kV |
| Rated frequency | 50 Hz - 60 Hz |
| Reference ambient temperature | 40 °C - 50 °C |
| Operating temperature | -25 °C to 70 °C |
| Electrical endurance at In (cycles) | 8000 |
| Electrical endurance at 0.5 x In (cycles) | 10000 |
| Utilization category | A |
| Suitable for isolation | Yes |
| Type of protection | Thermal-magnetic |
| Thermal adjustment Ir | (0.8 ÷ 1) x In |
| Magnetic adjustment Ii (A) | 5 - 10 x In |
| Neutral protection for 4P (%Ith of phase pole) | 100 |
| Reverse feed | Yes |

## 3. TECHNICAL CHARACTERISTICS *(continued)*

### ■ 3.1 Electrical characteristics *(continued)*

| DPX³-I 250 trip-free switches | |
|---|---|
| Uninterrupted nominal current Ie | 250 A |
| Short-time resistive current Icw for 1s | 3 kA |
| Rated short-circuit making capacity Icm | 4.5 kA |
| Rated insulation voltage Ui | 800 V~ |
| Maximum rated operating voltage Ue | 690 V~/⎓ |
| Rated impulse withstand voltage Uimp | 8 kV |
| Utilisation category | AC22-23A |
| Suitable for isolation | Yes |
| Rated frequency (Hz) | 50 Hz - 60 Hz |
| Operating temperature | -25 °C to 70 °C |
| Electrical endurance at In (cycles) | 8000 |
| Electrical endurance at 0.5 x In (cycles) | 10000 |
| Reverse feed | Yes |

The maximum temperature allowed on power terminals is 125 °C (absolute). For details, see IEC 60947-1 and 60947-2.

**Switch disconnectors category (for use in DC)**

| | 1P* | 2P in series* | | 3P in series* | 4P in series* |
|---|---|---|---|---|---|
| In (A) | 60 V | 110 V | 250 V | 500 V | 750 V |
| 250 | DC23 | | | | |

*See page 5 for Connection modality of the DC trip-free switches

**Breaking capacity (3P and 4P)**

| | Breaking capacity (kA) and Ics | | | |
|---|---|---|---|---|
| IEC 60947-2 | Ue | Icu | | |
| | | 25 kA | 36 kA | 50 kA |
| | 220/240 V~ | 40 | 60 | 80 |
| | 380/415 V~ | 25 | 36 | 50 |
| | 440/460 V~ | 20 | 30 | 40 |
| | 480/500 V~ | 10 | 25 | 30 |
| | 480/550 V~ | 9 | 20 | 22 |
| | 600 V~ | 9 | 20 | 22 |
| | 690 V~ | 8 | 16 | 18 |
| | Ics (% Icu) | 100 | | |
| | **Rated making capacity under short circuit Icm** | | | |
| | Icm (kA) at 415 V | 52.5 | 75.6 | 105 |

**Breaking capacity in DC (kA) (estimated values)**

| | | 1P* | 2P in series * | | | 3P in series * | | |
|---|---|---|---|---|---|---|---|---|
| **Icu** | **In (A)** | **60 V** | **60 V** | **110 V** | **250 V** | **110 V** | **250 V** | **500 V** |
| **25 kA** | 100 to 250 | 25 | 25 | 25 | 10 | 25 | 12 | 10 |
| **36 kA** | | 35 | 36 | 35 | | 36 | 16 | |
| **50 kA** | | 35 | 50 | 35 | | 50 | 20 | |

*See page 5 for Connection modality of the DC breaker.
DC breaking capacity in the table respect the standards.
The positive tolerance is between 0 % to 5 % of voltage status

**Rated current (In) at 40 °C/50 °C**

| Phases limit trip current | | | | |
|---|---|---|---|---|
| | Thermal (Ir) | | Magnetic (Ii) | |
| **In (A)** | L1 - L2 - L3 | N | L1 - L2 - L3 | N |
| **100** | 100 | | 1000 | |
| **160** | 160 | | 1600 | |
| **200** | 200 | | 2000 | |
| **250** | 250 | | 2500 | |

### ■ 3.2 Mechanical characteristics

Mechanical endurance (cycles): 20000
Mechanical endurance with motor control (cycles): 20000

**Load operations**

| | Force on handle (N) |
|---|---|
| Opening operation | 45 |
| Closing operation | 78 |
| Restore operation | 75 |

### ■ 3.3 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.

| Icc (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, the installer must take into account the weight of the conductors so that it does not affect the electrical junction between the conductor itself and the connection point.

### ■ 3.4 Power losses per pole under In (W)

| Circuit breakers | | | | |
|---|---|---|---|---|
| **In (A)** | **100** | **160** | **200** | **250** |
| **Lugs** | 7.0 | 12.5 | 15.1 | 19.1 |
| **Cage terminals** | 7.3 | 13.2 | 16.2 | 20.7 |
| **High capacity cage terminals** | 7.3 | 13.3 | 16.3 | 21.0 |
| **Spreaders** | 7.3 | 13.3 | 16.3 | 21.0 |
| **Rear terminals*** | 7.3 | 13.3 | 16.3 | 21.0 |
| **Plug-in version*** | 10.3 | 20.9 | 28.3 | 39.7 |

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.

* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX³ HP range.

## 3. TECHNICAL CHARACTERISTICS *(continued)*

### ■ 3.4 Power losses per pole under In (W) *(continued)*

| Trip-free switches | |
|---|---|
| **In (A)** | **250** |
| **Lugs** | 13.3 |
| **Cage terminals** | 14.5 |
| **High capacity cage terminals** | 14.7 |
| **Spreaders** | 14.7 |
| **Rear terminals*** | 14.7 |
| **Plug-in version*** | 34.0 |

Note: power loss in the table above are referred and measured as described in the standard IEC 60947-3 for trip-free switches. Values in the table are referred to a single phase.

* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX³ HP range.

## 4. INSTALLATION RULES

According to IEC/EN 60947-1.

**Temperature deratings**
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.

| | Temperature Ta (°C) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **In (A)** | **-25** | **-20** | **-10** | **-5** | **0** | **10** | **20** | **30** | **40** | **50** | **60** | **70** |
| **100** | 135 | 132 | 128 | 126 | 123 | 120 | 112 | 102 | 100 | 100 | 90 | 84 |
| **160** | 216 | 211 | 205 | 201 | 197 | 192 | 179 | 163 | 160 | 160 | 143 | 134 |
| **200** | 270 | 264 | 256 | 251 | 246 | 240 | 224 | 203 | 200 | 200 | 179 | 168 |
| **250** | 338 | 330 | 320 | 314 | 308 | 300 | 280 | 254 | 250 | 250 | 224 | 210 |

For derating temperature with other configurations, see table below.

| **Ambient temperature** | **30 °C** | | **40 °C** | | **50 °C** | | **60 °C** | | **70 °C** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Imax (A)** | **Ir / In** | **Imax (A)** | **Ir / In** | **Imax (A)** | **Ir / In** | **Imax (A)** | **Ir / In** | **Imax (A)** | **Ir / In** |
| **Fixed version - vertical installation** | | | | | | | | | | |
| Cage terminals, flexible cable | 263 | 1.05 | 250 | 1 | 250 | 1 | 225 | 0.90 | 213 | 0.85 |
| Lugs, flexible cable | 250 | 1 | 250 | 1 | 250 | 1 | 238 | 0.95 | 225 | 0.90 |
| Lugs, flexible cable + sealable terminal shields | | | | | | | | | | |
| Spreaders, flexible cable | | | | | | | | | | |
| Rear flat staggered terminal*, flexible/rigid cable + sealable terminal shields | | | | | | | | | | |
| **Fixed version - horizontal installation** | | | | | | | | | | |
| Cage terminals, flexible cable | 263 | 1.05 | 250 | 1 | 250 | 1 | 225 | 0.90 | 213 | 0.85 |
| Lugs, flexible cable | 250 | 1 | 250 | 1 | 250 | 1 | 238 | 0.95 | 225 | 0.90 |
| Lugs, flexible cable + sealable terminal shields | | | | | | | | | | |
| Spreaders, flexible cable | | | | | | | | | | |
| Rear flat staggered terminal*, flexible/rigid cable + sealable terminal shields | | | | | | | | | | |

For further technical information, please contact Legrand technical support.

* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX³ HP range.

## 4. INSTALLATION RULES *(continued)*

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

**Electromagnetic disturbances (EMC):** for DPX³ 250 circuit breakers, according to IEC/EN 60947-2 Annex F.

**Pollution degree:** for DPX³ 250 circuit breakers, degree 3, according to IEC/EN 60947-2.

**Altitude**
Altitude derating for DPX³ and DPX³-I

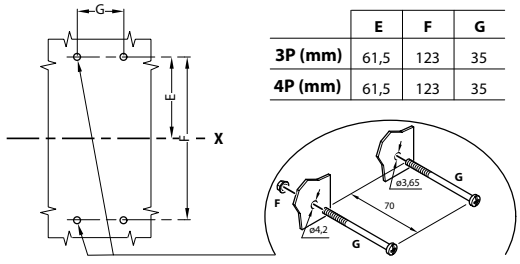
| Altitude (m) | 2000 | 3000 | 4000 | 5000 |
|---|---|---|---|---|
| Ue (V) | 690 | 590 | 520 | 460 |
| In (A) (Ta = 40 °C / 50 °C) | 1 x In | 0.98 x In | 0.93 x In | 0.9 x In |

## 5. DIMENSIONS AND WEIGHT

### 5.1 Dimensions (mm)

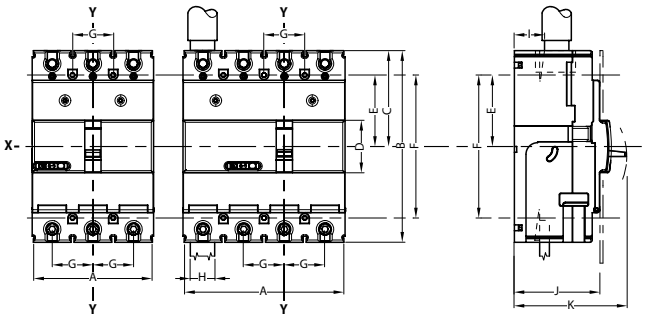
3P (W x H x D): 105 x 165 x 100
4P (W x H x D): 140 x 165 x 100

**Implantation**




| | E | F | G |
|---|---|---|---|
| 3P (mm) | 61,5 | 123 | 35 |
| 4P (mm) | 61,5 | 123 | 35 |

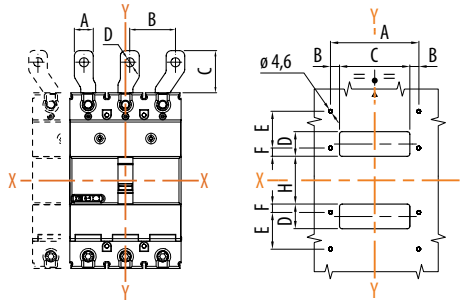
**Fixed version**
**Device without accessories**




| | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) |
|---|---|---|---|---|---|---|
| 3P | 105 | 165 | 82.5 | 45 | 61.5 | 123 |
| 4P | 140 | 165 | 82.5 | 45 | 61.5 | 123 |

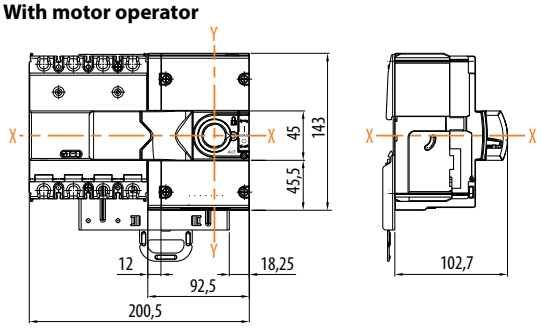
| | G (mm) | H (mm) | I (mm) | J (mm) | K (mm) |
|---|---|---|---|---|---|
| 3P | 35 | 28.5 | 18 | 74 | 97 |
| 4P | 35 | 28.5 | 18 | 74 | 97 |

**With front terminal**

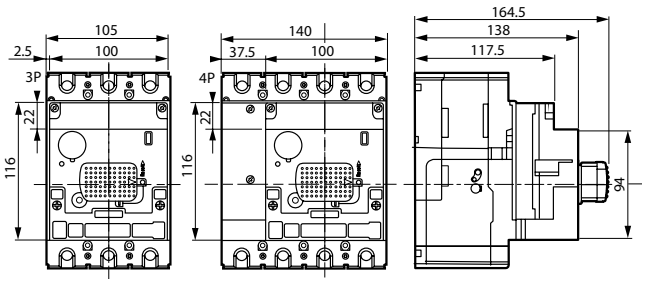



| A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|
| 33 | 48.5 | 54.75 | 13 |

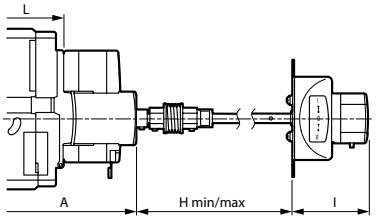
**With motor operator**




**With direct rotary handle**




**With vary depth rotary handle**



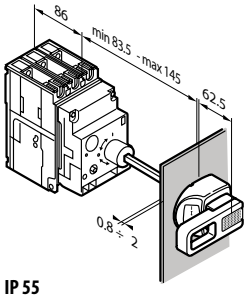

| A (mm) | H min. (mm) | H max. (mm) | I (mm) | L (mm) |
|---|---|---|---|---|
| 122 | 132 | 361 | 62 | 74 |

## 5. DIMENSIONS AND WEIGHT *(continued)*

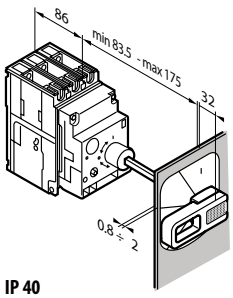
### 5.1 Dimensions (mm) *(continued)*

**With vary depth rotary handle according to the IP**

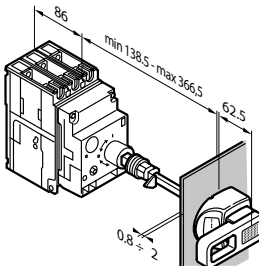
**IP 55**



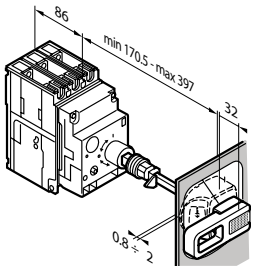

**IP 40**



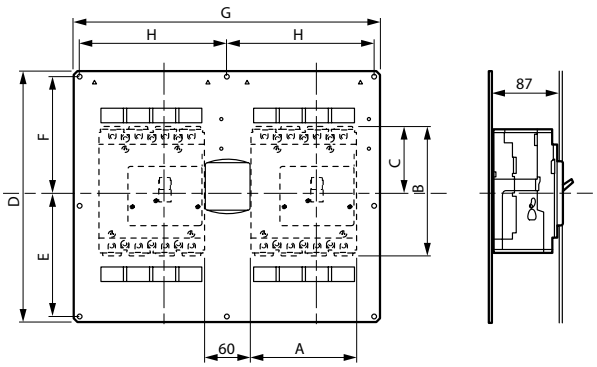

**IP 55**




**IP 40**




**With intrelock mechanism**




| | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|
| **3P** | 105 | 165 | 82.5 | 340 |
| **4P** | 140 | 165 | 82.5 | 340 |

| | E (mm) | F (mm) | G (mm) | H (mm) |
|---|---|---|---|---|
| **3P** | 165 | 160 | 415 | 200 |
| **4P** | 165 | 160 | 415 | 200 |

### 5.2 Weight

| Weight (kg) | | |
|---|---|---|
| **Configuration** | **3P** | **4P** |
| Circuit breaker/trip-free switch | 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 |

* to add to device weight

## 6. CONNECTIONS

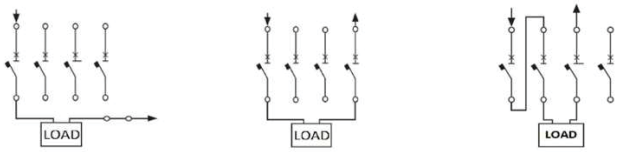
Possible way of assembly on DIN rail:
- vertical
- horizontal

To unsure the circuit breaker's connection, it is possible to use:
- busbars;
- cables lugs;
- cables;
- cage terminals;

| | Cage terminals capacity |
|---|---|
| **Bars** | 28.5 mm wide max. |
| **Flexible cables** | 1.5 mm² min. / 120 mm² max. |
| **Rigid cables** | 1.5 mm² min. / 150 mm² max. |

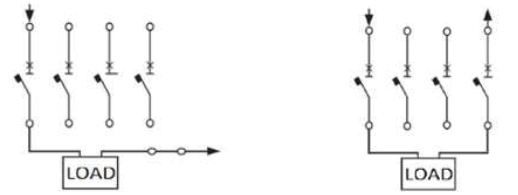
For detailed mounting procedures, see instruction sheet.

**DC connections modality for breakers**




*1 pole* *2 poles in series* *3 poles in series*

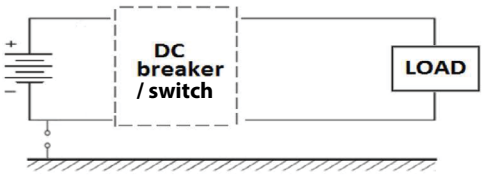
**DC connections modality for trip-free switches (polarity can be inverted)**




*1 pole* *2 poles in series*


*3 poles in series* *4 poles in series*

**Applied to DC breaker/switch networks insulated from the ground**



## 7. EQUIPMENTS AND ACCESSORIES

### ■ 7.1 Releases

There are 3 types of releases (suitable for DPX³ 125/160/250 HP and DPX³ 160/250):

**Shunt releases (ST)**

| | |
|---|---|
| 12 V~/⎓ | Cat.No 4 210 12 |
| 24 V~/⎓ | Cat.No 4 210 13 |
| 48 V~/⎓ | Cat.No 4 210 14 |
| 110 to 130 V~ | Cat.No 4 210 15 |
| 220 to 277 V~ | Cat.No 4 210 16 |
| 380 to 480 V~ | Cat.No 4 210 17 |

Maximum power = 400 VA / W

**Undervoltage releases (UVR)**

| | |
|---|---|
| 12 V~/⎓ | Cat.No 4 210 18 |
| 24 V~/⎓ | Cat.No 4 210 19 |
| 48 V~/⎓ | Cat.No 4 210 20 |
| 110 to 130 V~/⎓ | Cat.No 4 210 21 |
| 220 to 240 V~ | Cat.No 4 210 22 |
| 277 V~ | Cat.No 4 210 23 |
| 380 to 415 V~ | Cat.No 4 210 24 |
| 440 to 480 V~ | Cat.No 4 210 25 |

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

**Time-lag undervoltage releases (800 ms)**

| | |
|---|---|
| - Release | Cat.No 4 210 98 |

to be equipped with a time-lag module:

| | |
|---|---|
| - 230 V~ | Cat.No 0 261 90 |
| - 400 V~ | Cat.No 0 261 91 |

### ■ 7.2 Auxiliary contacts

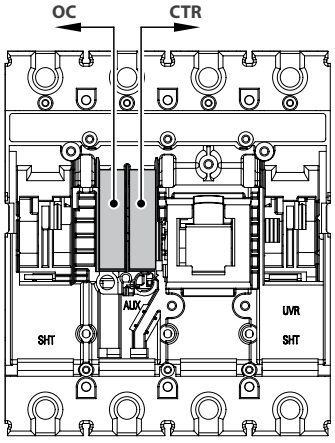
It is used to show the state of the contacts or opening of the DPX³on a fault.

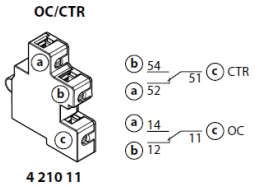
Standard auxiliary contact (OC) / Fault signal (CTR) Cat.No 4 210 11

| Rated voltage (Vn) | Intensity (A) |
|---|---|
| 24 V⎓ | 5 |
| 48 V⎓ | 1.7 |
| 110 V⎓ | 0.5 |
| 230 V⎓ | 0.25 |
| 110 V~ | 4 |
| 230/250 V~ | 3 |

| | |
|---|---|
| - Set of connectors for auxiliary contacts | Cat.No 4 210 44 |
| - Auxiliary contacts (1NC and 1 NO) | Cat.No 4 210 10 |

Configurations




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

### ■ 7.3 Rotary handles

There are 4 types of suited rotary handles (also compatible with DPX³ 160):

**Direct on DPX³ (with auxiliary option and compatible with XL³)**

| | |
|---|---|
| - Standard (black) | Cat.No 4 210 00 |
| - For emergency use (red / yellow) | Cat.No 4 210 02 |

**Vary depth handle IP55 (with auxiliary option and compatible with XL³)**

| | |
|---|---|
| - Standard (black) | Cat.No 4 210 04 |
| - For emergency use (red/yellow) | Cat.No 4 210 05 |

**Locking accessories (for rotary handle with auxiliary option)**

For direct rotary handle:

| | |
|---|---|
| - Key barrel and flat key N° ABA90GEL6149 | Cat.No 4 210 06 |
| - Key barrel and star key N° HBA90GPS6149 | Cat.No 4 210 07 |

For vary depth rotary handle:

| | |
|---|---|
| - Key barrel and flat key N° ABA90GEL6149 | Cat.No 4 210 08 |
| - Key barrel and star key N°HBA90GPS6149 | Cat.No 4 210 09 |

**Direct on DPX³ (general purpose)**

| | |
|---|---|
| - Standard (black) | Cat.No 4 201 60 |
| - For emergency use (red/yellow) | Cat.No 4 201 73 |

**Vary depth handle IP55 (general purpose)**

| | |
|---|---|
| - Standard (black) | Cat.No 4 201 61 |
| - For emergency use (red/yellow) | Cat.No 4 201 74 |

**Locking accessories (for general purpose rotary handle)**

Key barrel and flat key:

| | |
|---|---|
| - For direct rotary handles (random marking) | Cat.No 4 201 64 |
| - For direct handles (EL43525 marking) | Cat.No 4 201 65 |
| - For direct handles (EL43363 marking) | Cat.No 4 201 66 |
| - For vary depth handles (random marking) | Cat.No 4 201 67 |
| - For vary depth handles (EL43525 marking) | Cat.No 4 201 68 |
| - For vary depth handles (EL43363 marking) | Cat.No 4 201 69 |

### ■ 7.4 Motor operators

| | |
|---|---|
| Side motor operator 24 - 230 V~/⎓ | Cat.No 4 210 60 |
| Front motor operator* 24 - 230 V~/⎓ | Cat.No 4 210 61 |

* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX3 HP range.

**Locking accessories for side motor operator**

| | |
|---|---|
| - Key barrel and flat key N° ABA90GEL6149 | Cat.No 4 210 65 |
| - Key barrel and star key N° HBA90GPS6149 | Cat.No 4 210 66 |
| - Padlock | Cat.No 4 210 67 |

## 7. EQUIPMENTS AND ACCESSORIES *(continued)*

### 7.5 Mechanical accessories

**Padlocks (for locking in "open" position)**
DPX³ padlock accessory for handle Cat.No 4 210 49
Cat.No 4 210 49 is compatible with DPX³ 125/160/250 HP and DPX³ 160/250.

**Insulated shields (phase barriers)**
Set of 36 Cat.No 4 210 70

**Sealable terminal shields**
- for front terminals 3P Cat.No 4 210 56
- for front terminals 4P Cat.No 4 210 57

**Fixing plates in XL³ for transfer switches**
Plate for mounting and interlocking 2 DPX³.
It can be either 2 DPX³ 160 ; 2 DPX³ 250; or 1 DPX³ 160 and 1 DPX³ 250.
For fixed version Cat.No 4 210 58

**Fixing plates in XL³**
For fixing DPX³ 250 on DIN rail or on plate
- For DPX³ 250 3P/4P Cat.No 4 210 72
- DPX³ 250 3P/4P with side mounting motor operator Cat.No 4 210 69

### 7.6 Connection accessories

**Front spreaders**
- Set of 3 (for 3P) Cat.No 4 238 34
- Set of 4 (for 4P) Cat.No 4 238 35
(Cat.Nos 4 238 34/35 are also compatible with DPX³ 250 HP)

**Cage terminals**
- Set of 3 standard terminals for Cat.No 4 210 30
1x150 mm² max (rigid) or 1x120 mm² (flexible) Cu/Al bar/cable lug
(for Al cables In max 125 A)

- Set of 4 standard terminals for Cat.No 4 210 31
1x150 mm² max (rigid) or 1x120 mm² max (flexible) Cu/Al bar/cable lug
(for Al cables In max 125 A)

- Screw terminals for bar connections (3P) Cat.No 4 210 79
- Screw terminals for bar connections (4P) Cat.No 4 210 80

**Cage terminal use specifications**

| Cable standard suggested cross-section (mm²)* | | | |
|---|---|---|---|
| | In (A) | Cu | Al |
| Standard cage terminals Cat.Nos 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)

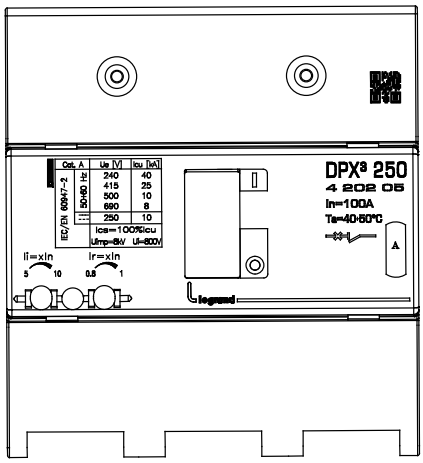
| Dimensions limits of cable for cage terminals | | | | |
|---|---|---|---|---|
| Standard cage terminals Cat.Nos 4 210 30/ 4 210 31 | Min. cross-section (mm²) | | Max. cross-section (mm²) | |
| | Flexible | Rigid | Flexible | Rigid |
| | 2.5 | 4 | 120 | 150 |

Note : when the cross-section exceeds the maximum value specified for the material in the table, the allowable current is limited to the indicated value.

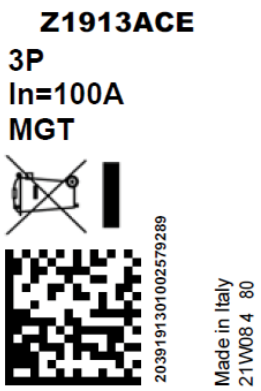
## 8. MARKING

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

**Product laser label on front**
- Manufacturer responsible
- Denomination, type product, code
- Standard conformity
- Standard characteristics declared
- Coloured identification of Icu at 415 V

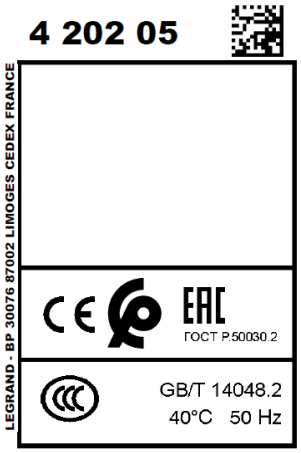



**Product sticker label on side**
- Manufacturer responsible
- Denomination and type product
- Standard conformity
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product
- Manufacturing Country

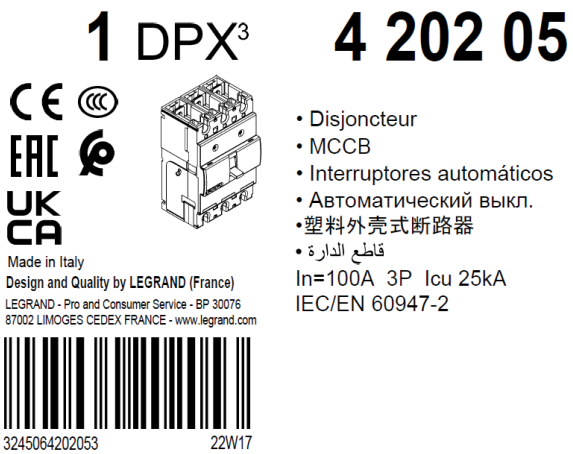


## 8. MARKING *(continued)*

**Mark sticker label on side**
- Product code
- Mark/Licence (if any)
- Country deviation, if any



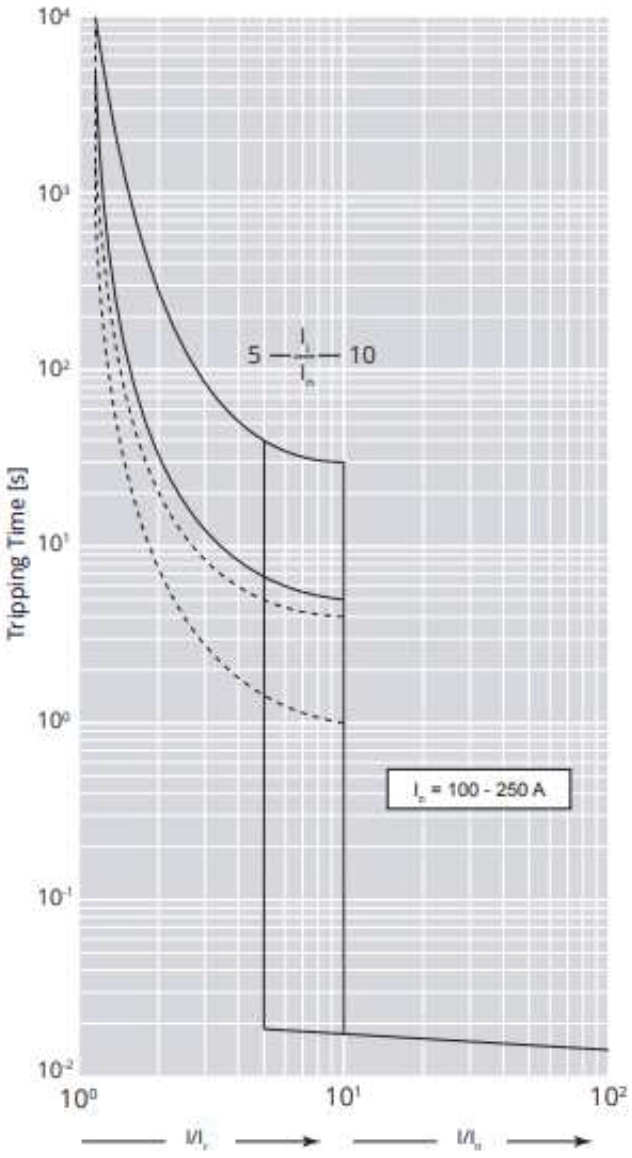

**Packaging sticker label**
- Manufacturer responsible
- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product



## 9. CURVES

### 9.1 Thermal magnetic tripping curve

*Update: 19/04/2018*



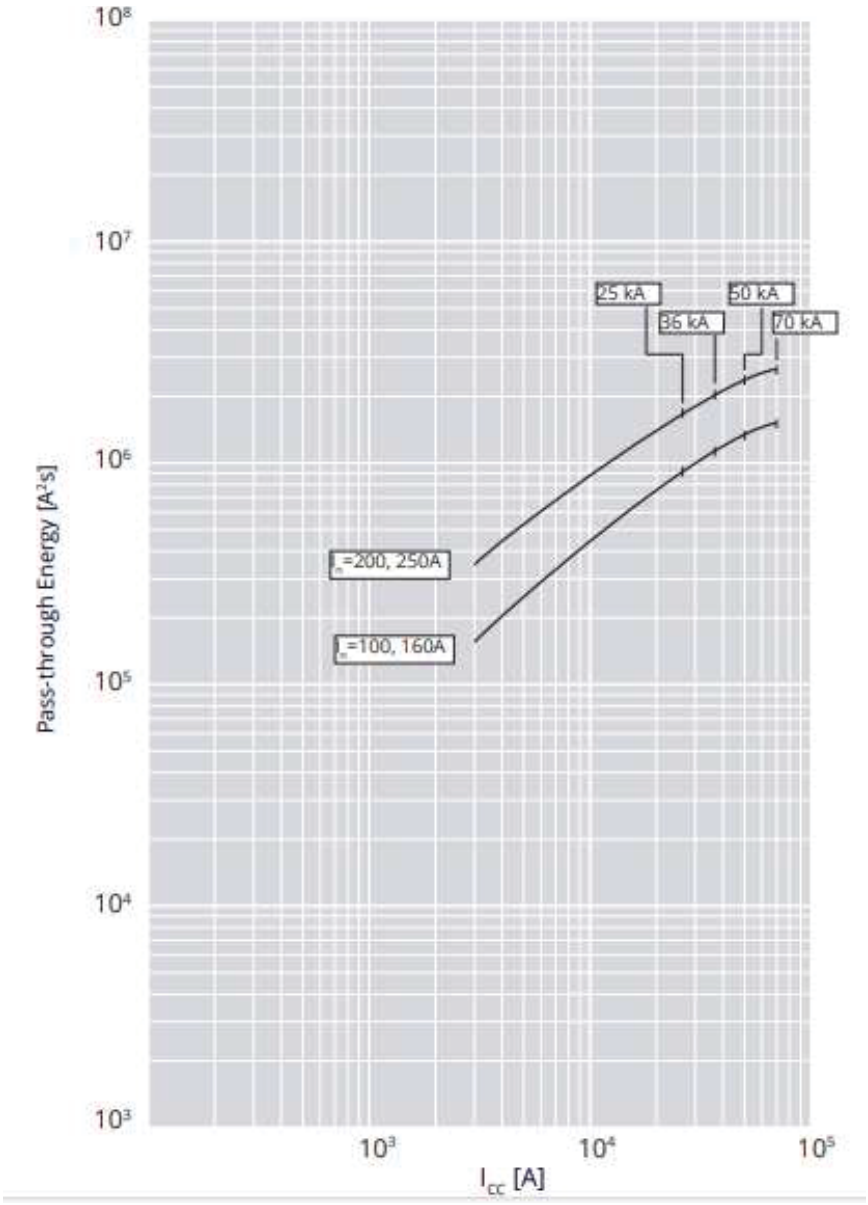

Icu = 25-36-50 kA Imax = 250 A 3-4 P Ue = 415 V~

| Value | Description |
|---|---|
| t | Time |
| I | Current |
| In | Rated current |
| Ir | Long time setting current |
| Curve 1 | Characteristic with cold start |
| Curve 2 | Characteristic with hot start |

## 9. CURVES *(continued)*

### 9.2 Pass-through specific energy characteristic curve

*Update: 24/04/2018*



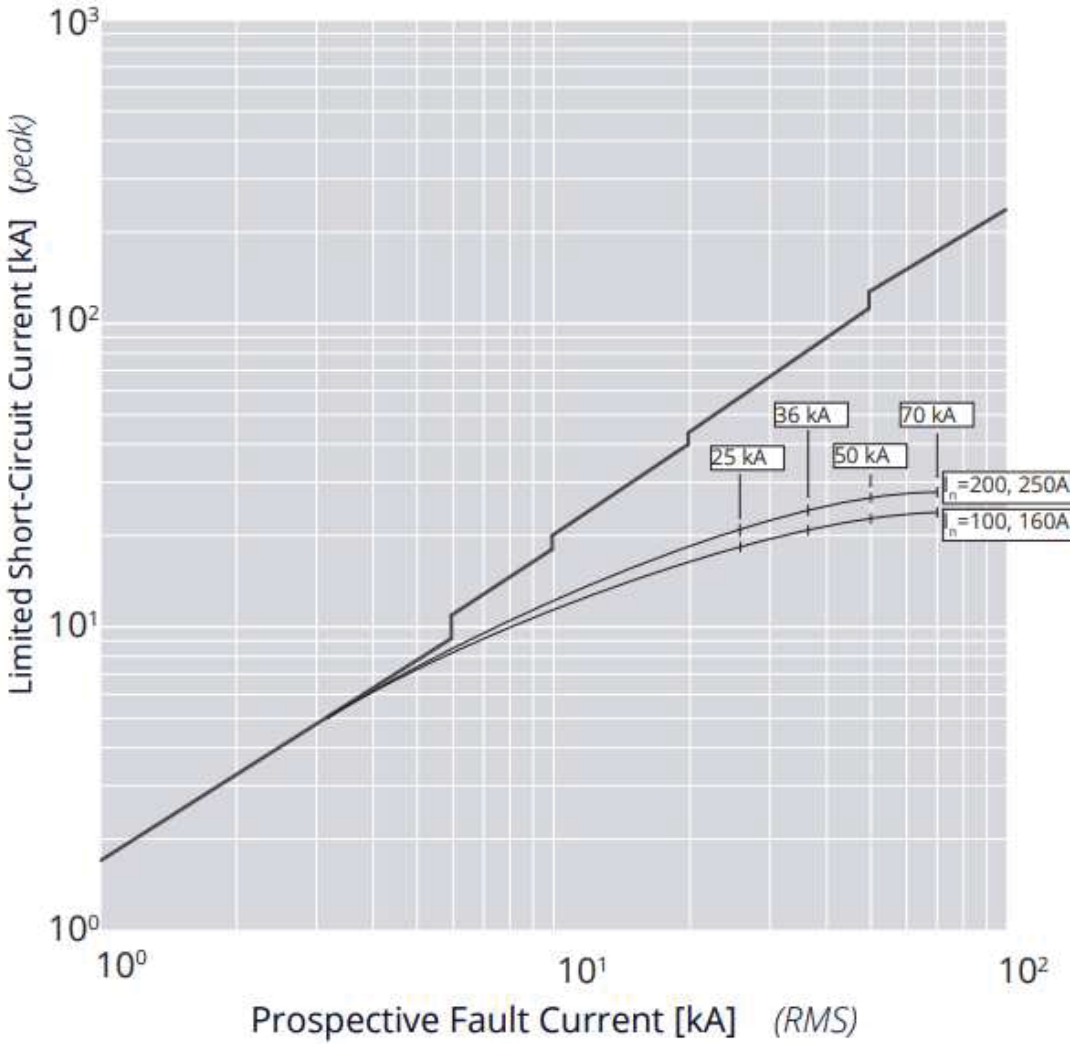

| Icu = 25-36-50 kA | Imax = 250 A | 3-4 P | Ue = 415 V~ |
|---|---|---|---|

| Value | Description |
|---|---|
| Icc | Short circuit current |
| $I^2t$ ($A^2s$) | Pass-through specific energy |

## 9. CURVES *(continued)*

### 9.3 Cut-off peak current characteristic curve (kA)

*Update: 07/05/2018*




Icu = 25-36-50 kA Imax = 250 A 3-4 P Ue = 415 V~

| Value | Description |
|---|---|
| Icc | Estimated short circuit symmetrical current (RMS value) |
| Ip | Maximum short circuit peak current |

## 10. STANDARDS AND REGULATIONS

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

DPX³ range respects the European Directives:

**RoHS**: Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

**REACH**: The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

**WEEE**: WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste..

**Packaging** : Design and manufacture of packaging compliant with European Directive 94/62/CE.

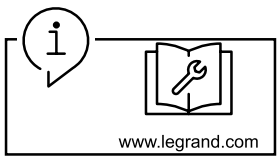
For specific information, please contact Legrand support.

## 11. OTHER INFORMATION

**XLPro Calcul**: Calculation notes creation software, addressed to installers, design office and maintenance operators. Definition of the electrical characteristics of a low voltage installation in compliance with the applicable standards

**XLPro³ Tool Selectivity and backup/ Legrand Selectivity and backup**: Software dedicated to installers, panelbuilders and design offices. Definition of the selectivity and backup values of an association of electrical devices and obtention of the tripping curves of the selected products.

**XLPro Panels**: Distribution panel design software, addressed to panelbuilders and electrical panel designers. Design of the electrical distribution of the panel, production of electrical diagrams, establishment of products and overall costing of the project.




**Workshop book**: mounting informations, equipments, accessories and spare parts available on e-catalog.

**Instruction sheet** : detailed installation information available in e-catalog.

**PEP**: available on e-catalog.

For further technical information, please contact Legrand technical support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.

For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.