87045 LIMOGES Cedex
Phone :+33 0555068787 - Fax :+33 0555068888

DPX ${ }^{3} 250$ HP S1 electronic (no display) circuit breakers

Reference(s) :
from 423200 to 4232 03; from 423205 to 4232 08;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;

|  | CONTENTS |
| :--- | :--- |
|  | 1. USE |
| 2. RANGE | 1 |
|  | 3. DIMENSIONS AND WEIGHTS |

1. USE

DPX ${ }^{3}$ 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. $\mathrm{DPX}^{3} \mathrm{HP}$ 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

| $\ln (\mathrm{A})$ | DPX ${ }^{3} \mathbf{2 5 0}$ HP electronic ( no display) version |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 36 kA |  | 50 kA |  |
|  | 3 P | 4P | 3 P | 4P |
| 40 | 423200 | 423205 | 423220 | 423225 |
| 100 | 423201 | 423206 | 423221 | 423226 |
| 160 | 423202 | 423207 | 423222 | 423227 |
| 250 | 423203 | 423208 | 423223 | 423228 |
|  | 70 kA |  | 100 kA |  |
|  | 3P | 4P | 3P | 4 P |
| 40 | 423240 | 423245 | 423250 | 423255 |
| 100 | 423241 | 423246 | 423251 | 423256 |
| 160 | 423242 | 423247 | 423252 | 423257 |
| 250 | 423243 | 423248 | 423253 | 423258 |

## 3. DIMENSIONS AND WEIGHTS

### 3.1 Dimensions

Lateral view


Frontal view (3 and 4 poles)


DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;

Plug-in version (3P)


Plug-in version (4P)


Draw-out version (4P)


Rear terminals



DPX³ 250 HP S1 electronic (no display) circuit breakers
from 423200 to 4232 03; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;

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 S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 4232 03; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;


Sealable terminal shields


Spreaders


Motor operator


DPX³ 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ; from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;


### 3.2 Weights

| Configuration | Weights (Kg) |  |
| :--- | :---: | :---: |
| $\mathbf{3 P}$ |  |  |
| 4P |  |  |
| Circuit breaker | 1.6 | 2.5 |
| 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 invertor type

DPX3 250 HP S1 electronic (no display) circuit breakers
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;

### 5.2 Mounting

(see instruction sheet for detailed mounting procedures)


## Busbars/cable lugs:




Cables:


DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 423258 ;

## 6. ELECTRICAL AND MECHANICAL CHARACTERISTICS

| Circuit Breaker | DPX ${ }^{3} 250 \mathrm{HP}$ F/N/H/L ( $36 \mathrm{kA}, 50 \mathrm{kA}, 70 \mathrm{kA}, 100 \mathrm{kA}$ ) |
| :---: | :---: |
| Rated current (A) | 40-100-160-250 |
| Poles | 3-4 |
| Pole pitch (mm) | 35 |
| Rated insulation voltage ( $50 / 60 \mathrm{~Hz}$ ) $\mathrm{U}_{\mathrm{i}}(\mathrm{V})$ | 800 |
| Rated operating voltage ( $50 / 60 \mathrm{~Hz}$ ) $\mathrm{U}_{\mathrm{e}}(\mathrm{V})$ | 690 |
| Rated impulse withstand current $\mathrm{U}_{\text {imp }}(\mathrm{kV})$ | 8 |
| Rated frequency ( Hz ) | 50-60 |
| Operating temperature ( ${ }^{\circ} \mathrm{C}$ ) | $-25 \div 70$ |
| Mechanical endurance (cycles) | 12000 |
| Mechanical endurance with motor control (cycles) | 12000 |
| Electrical endurance at $\mathrm{I}_{\mathrm{n}}$ (cycles) | 6000 |
| Electrical endurance at $0.5 \mathrm{I}_{\mathrm{n}}$ (cycles) | 6000 |
| Utilization category | A |
| Suitable for isolation | Yes |
| Type of protection | Electronic (with knobs) |
| Thermal adjustment $\mathrm{I}_{\mathrm{r}}$ | $(0.4 \div 1) \times \mathrm{I}_{n}$ |
| Magnetic adjustment $\mathrm{Isd}_{\text {d }}{ }^{(*)}$ | $(1,5 \div 10) \times \mathrm{I}_{\text {r }}$ |
| Neutral protection for 4P (\% $\mathrm{I}_{\text {th }}$ of phase pole) | OFF-50 ${ }^{\left({ }^{(\%)}-100\right.}$ |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) (mm) | $105 \times 165 \times 86$ (3P) |
| Dimenions ( $\mathrm{N} \times \mathrm{H} \times \mathrm{D}$ ) (mm) | $140 \times 165 \times 86$ (4P) |

(*) if $\mathrm{I}_{\mathrm{n}}=40 \mathrm{~A}$, then $50 \%$ regulation is allowed only if $\mathrm{I}_{\mathrm{r}} \geq 0,8$
(**) Regulations not adjustable:

- $t_{r}=5 s$
- $t_{s d}=0.1 \mathrm{~s}$
- li=3250A

When $I_{r}<0.8$, knob setting marked with $50 \%$ equals to a $100 \%$ value.
6.1 Main parts constituting the circuit breaker

6.2 Breaking capacity (kA)

|  |  | Breaking capacity (kA) \& $\mathrm{I}_{\text {cs }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3P-4P |  |  |  |
| IEC 60947-2 | $\mathrm{U}_{\mathrm{e}} / \mathrm{I}_{\mathrm{cu}}$ ( $\mathrm{I}_{\mathrm{cu}}$ letter) | 36kA (F) | 50kA (N) | 70kA (H) | 100kA (L) |
|  | 220/240 V AC | 70 | 90 | 100 | 150 |
|  | 380/415 V AC | 36 | 50 | 70 | 100 |
|  | 440/460 V AC | 25 | 30 | 40 | 50 |
|  | 480/500 V AC | 16 | 18 | 30 | 35 |
|  | 550 V AC | 10 | 12 | 22 | 25 |
|  | 690V AC | 7 | 8 | 20 | 22 |
|  | $\mathrm{I}_{\mathrm{cs}}\left(\% \mathrm{I}_{\mathrm{cu}}\right)$ | 100 | 100 | 100 | 100 |
|  | Rated making capacity under short circuit $\mathrm{I}_{\mathrm{cm}}$ |  |  |  |  |
|  | $\mathrm{I}_{\mathrm{cm}}(\mathrm{kA})$ at 415V | 76.5 | 105 | 154 | 220 |
| NEMA AB-1 | 220/240 V AC | 70 | 90 | 100 | 150 |
|  | 480/500 V AC | 16 | 18 | 30 | 35 |
|  | 690 V AC | 7 | 8 | 20 | 22 |

### 6.3 Rated current $\left(\mathrm{In}_{\mathrm{n}}\right)$

|  | Phases Iimit trip current |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | thermal ( $I_{r}$ ) |  | magnetic (I $\mathbf{s d}$ ) |  |
| $I_{n}(A)$ | $0.4 \times I_{n}$ | $1 \times I_{n}$ | min | max |
| 40 | 16 | 40 | 60 | 400 |
| 100 | 40 | 100 | 150 | 1000 |
| 160 | 64 | 160 | 240 | 1600 |
| 250 | 100 | 250 | 375 | 2500 |

6.3 Load operations

| Force on handle | $\mathbf{N}$ |
| :--- | :---: |
| Opening operation | 63,5 |
| Closing operation | 66 |
| Restore operation | 86,5 |

## DPX³ 250 HP S1 electronic (no display) circuit breakers

Reference(s) :
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;

### 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 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.

| $\mathbf{I}_{\mathrm{cc}}$ (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 $\mathrm{In}_{n}$

Circuit breaker

|  | Power losses per pole (W) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| $\ln$ (A) | $\mathbf{4 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 6 0}$ | $\mathbf{2 5 0}$ |
| Cage terminals | 0.49 | 3.07 | 7.85 | 19.20 |
| Lugs | 0.45 | 2.80 | 7.17 | 17.50 |
| Spreaders | 0.38 | 2.36 | 6.04 | 14.70 |
| Rear terminals | 0.46 | 2.89 | 7.39 | 18.10 |

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.

### 6.6 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.

|  | Temperature $\mathbf{~ T a}\left({ }^{\circ} \mathbf{C}\right)$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{I}_{\mathbf{n}}(\mathrm{A})$ | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 0}$ | $\mathbf{7 0}$ |
| $\mathbf{4 0}$ | 40 | 40 | 40 | 40 |
| $\mathbf{1 0 0}$ | 100 | 100 | 100 | 95 |
| $\mathbf{1 6 0}$ | 160 | 160 | 160 | 155 |
| $\mathbf{2 5 0}$ | 250 | 250 | 210 | 190 |

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 $\mathrm{DPX}^{3}$

| Altitude (m) | $\mathbf{2 0 0 0}$ | $\mathbf{3 0 0 0}$ | $\mathbf{4 0 0 0}$ | $\mathbf{5 0 0 0}$ |
| :--- | :---: | :---: | :---: | :---: |
| $\mathrm{U}_{\mathrm{e}}(\mathrm{V})$ | 690 | 590 | 520 | 460 |
| $\mathrm{I}_{\mathrm{n}}(\mathrm{A})$ | $1 \times \mathrm{I}_{\mathrm{n}}$ | $0.98 \times \mathrm{I}_{\mathrm{n}}$ | $0.93 \times \mathrm{I}_{\mathrm{n}}$ | $0.9 \times \mathrm{I}_{\mathrm{n}}$ |

## DPX³ 250 HP S1 electronic (no display) circuit breakers

## 7. CONFORMITY

$\mathrm{DPX}^{3} \mathrm{HP}$ range of product concerning circuit-breakers and switchdisconnectors exceed compliance with the IEC/EN standard 609472 and 60947-3 respectively. Certification available by IECEE CBscheme or LOVAG Compliance scheme.
DPX ${ }^{3}$ HP respect the European Directives REACh, RoHS, RAEE.

For specific information, please contact Legrand support.

### 7.1 Marking

Product (circuit breakers) 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 $\mathrm{I}_{\mathrm{cu}}$ at 415 V


Electronic release label (3P version)


Electronic release label (4P version)

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

-


DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 4232 03; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;

## 8. EQUIPMENTS AND ACCESSORIES

### 8.1 Releases (for DPX ${ }^{3}$ 125/250 HP and DPX ${ }^{3}$ 160/250)

- shunt releases with voltage:

12 Vac and dc
ref. 421012
24 Vac and dc
ref. 421013
ref. 421014
ref. 421015
ref. 421016
$110 \div 130 \mathrm{Vac}$
ref. 421017

Maximum power $=400 \mathrm{VA} / \mathrm{W}$

- undervoltage releases with voltage:

12 Vac and dc
ref. 421018
24 Vac and dc
48 Vac and dc
$110 \div 130 \mathrm{Vac}$ and dc
ref. 4210
$220 \div 240$ Vac
277 Vac
$380 \div 415$ Vac
$440 \div 480$ Vac
ref. 421020
ref. 421021
ref. 421022
ref. 421023
ref. 421024
ref. 421025

Maximum power $=4 \mathrm{VA}$
Circuit breaker opening time $<50 \mathrm{~ms}$
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
400 V ac
ref. 026190 ref. 026191

Release
ref. 421098
(to be equipped with a time-lag module 0261 90/91)

### 8.2 Auxiliary contacts

For version of DPX ${ }^{3} 250$ HP electronic version, auxiliary contacts are integrated inside module M.C.I (see instruction sheet for details).
Here a connection scheme to get auxiliary functionality:

 421098


4210 12... 17


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. 423880
- 1 lock + 1 flat key with fixed mapping (EL43525)
- 1 lock +1 flat key with fixed mapping (EL43363)
ref. 423881
ref. 423882
- 1 lock +1 star key with random mapping

$$
\text { ref. } 423883
$$

DPX ${ }^{3} 250$ HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;

### 8.4 Rotary handles

Direct on DPX3 (with auxiliary option)

- Standard (black)
ref. 423800
- For emergency use (red / yellow) ref. 423801

Vari-depth handle IP55 (with auxiliary option)

- Standard (black)
ref. 423802
- For emergency use (red / yellow)

Locking accessories (for rotary handle with auxiliary option)

- Key lock accessory for direct rotary handle
ref. 423804
- Key lock accessory for vari-depth rotary handle
ref. 423805 (ref. 423805 is compatible with DPX 125 HP also)

Ref. 423804 and 423805 must be used with universal keylocks to get the complete locking kit for rotary handle

### 8.5 Motor operators

For synchronized operations (energy storage type):

- 24 Vac and dc
ref. 423840
- 48 Vac and dc
ref. 423841
- 110 Vac
ref. 423842
- 230 Vac
ref. 423843


## Technical parameters:

| Voltage | Property | AC |  | DC |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Opening | Closing | Opening | Closing |
| 24 V 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 |
| 48 V 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 | - | - |
| 230 V 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:


Locking accessory (for motor operator)

- Padlock (for motor operator locking)
ref. 423846
- Key lock accessory for motor operator
ref. 423845
Ref. 423845 must be used with universal keylocks to get the complete locking kit for motor operator


### 8.6 Mechanical accessories

- Padlock (for locking in "OPEN" position)
ref. 421049
(ref. 421049 is compatible with DPX 125 HP and DPX 160/250)
- Sealable terminal shields:

$$
\begin{array}{lll}
\circ & \text { Set of } 2 \text { (for 3P) } & \text { ref. } 423823 \\
\circ & \text { Set of } 3 \text { (for 4P) } & \text { ref. } 423824
\end{array}
$$

- Insulated shields:
ref. 423834
- Set of 3 (for 4P) ref. 423835
(ref. 4238 34/35 are compatible with DPX 125 HP also)


### 8.7 Connection accessories

## Cage terminals

- Set of 3 terminals for cables $150 \mathrm{~mm}^{2} \max$ (solid) ref. 423830
or $120 \mathrm{~mm}^{2}$ max (flexible) Cu/AI
- Set of 4 terminals for cables $150 \mathrm{~mm}^{2}$ max (rigid) ref. 423831 or $120 \mathrm{~mm}^{2}$ max (flexible) $\mathrm{Cu} / \mathrm{Al}$

Spreaders (incoming or outcoming):

- Set of 3 (for 3P)
ref. 625014
- $\quad$ Set of 4 (for 4P) ref. 625018

Rear terminals (incoming or outcoming):

- Set of 3 (for 3P)
ref. 423821
- $\quad$ Set of 4 (for 4P) ref. 423822


## DPX³ 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 4232 08;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 4232 58;

### 8.8 Plug-in version

(A plug-in is a DPX ${ }^{3} 250$ 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-/ 250 HP)

- Plug-in/draw-out base for 3P
- Plug-in/draw-out base for 4 P
- Plug-in/draw-out mobile part kit for 3P
- Plug-in/draw-out mobile part kit for 4 P


## Plug-in accessories

Locking accessory (for plug-in)

- Key lock accessory for plug-in ref. 423863

Ref. 423863 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 DPX ${ }^{3} 250$ 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. 423860
- transformation kit for 4P ref. 423861


## Fontal 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. 423855 (if neither motor operator nor rotary handle are mounted)
- Frontal mask for motor operator (3P and 4P) ref. 423856
- Frontal mask for rotary handle (3P and 4P) ref. 423857


## Locking accessory (for draw-out)

- Padlock for draw-out position
ref. 423864
- Key lock accessory for draw-out ref. 423862

Ref. 423862 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. 422230
- 6 contact connector (under sliding contacts) ref. 009819
(Ref. 009819 can be used with both plug-in and draw-out version)


### 8.10 Interlock mechanism

(for interlocking $2 \mathrm{DPX}^{3} 125 \mathrm{HP}$ or $2 \mathrm{DPX}^{3} 250$ HP breakers)
No frame mixing in interlock mechanism

- Interlock mechanism - standard version ref. 423827 (for fixed version DPX ${ }^{3} 125$ HP and DPX³ 250 HP)
- Interlock mechanism - for electronic module ref. 423828 (for fixed version DPX ${ }^{3} 125$ HP and DPX³ 250 HP)
- Interlock plate for DPX³ 250 HP ref. 423826
- Rear interlock mechanism
ref. 423829
(for DPX ${ }^{3} 250$ HP plug-in and/or draw-out version)
If used ref. 0098 19, maximum 1 set

DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 4232 58;

## 9. CURVES

9.1.1 Tripping curve [ $1 / 3$ ]

Update: 11/06/2019


$1 / I_{r}$
$\mathrm{I}_{\mathrm{cu}}=36-50-70-100 \mathrm{kA} \quad \mathrm{I}_{\max }=250 \mathrm{~A} \quad 3-4 \mathrm{P} \quad \mathrm{U}_{\mathrm{e}}=415 \mathrm{Vac} \quad$ (IEC/EN 60947-2)

| Value | Description |
| :---: | :--- |
| t | time |
| I | current |
| $\mathrm{I}_{\mathrm{r}}$ | long time setting current |
| $\mathrm{t}_{\mathrm{r}}$ | long time delay |
| Isd | short time setting current |
| tsd | short time delay |
| Ii | instantaneous release |
| Icu | rated ultimate short-circuit breaking capacity |
| $\mathrm{I}^{2} \mathrm{t}=\mathrm{K}$ | constant pass-through energy setting |
| $\mathrm{t}=\mathrm{K}$ | constant tripping time setting |
| ----------- | long time trip curve |
| short time trip curve |  |
| Current tolerance | 10\% up to $\mathrm{I}_{\text {sd }} ; 20 \%$ up to $\mathrm{I}_{\mathrm{i}}$ |

DPX3 250 HP S1 electronic (no display) circuit breakers
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 4232 58;
9.1.2 Tripping curve [ $2 / 3$ ]



| Value | Description |
| :---: | :---: |
| t | time |
| I | current |
| $\mathrm{I}_{\mathrm{r}}$ | long time setting current |
| $\mathrm{t}_{\mathrm{r}}$ | long time delay |
| Isd | short time setting current |
| tsd | short time delay |
| Ii | instantaneous release |
| Icu | rated ultimate short-circuit breaking capacity |
| $\mathrm{I}^{2} \mathrm{t}=\mathrm{K}$ | constant pass-through energy setting |
| $t=K$ | constant tripping time setting |
|  | long time trip curve |
| ------------ | short time trip curve |
| rent tolerance | $10 \%$ up to $\mathrm{I}_{\text {sd }} ; 20 \%$ up to $\mathrm{I}_{\mathrm{i}}$ |

DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s)
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;

### 9.1.3 Tripping curve [ $3 / 3$ ]

Update: 11/06/2019



DPX ${ }^{3} 250$ HP S1 electronic (no display) circuit breakers

Reference(s) :
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;
9.2.1 Pass-through specific energy characteristic curve (breaking capacity $\mathrm{I}_{\mathrm{cu}}<=50 \mathrm{kA}$ )


| Value | Description |
| :---: | :--- |
| $\mathrm{I}_{\mathrm{cc}}$ | short circuit current |
| $\mathrm{I}^{2} \mathrm{t}\left(\mathrm{A}^{2} \mathrm{~s}\right)$ | pass-through specific energy |

DPX³ 250 HP S1 electronic (no display) circuit breakers
from 423200 to 4232 03; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;
9.2.2 Pass-through specific energy characteristic curve (breaking capacity $\mathrm{I}_{\mathrm{cu}}>50 \mathrm{kA}$ )


| Value | Description |
| :---: | :--- |
| $\mathrm{I}_{\mathrm{cc}}$ | short circuit current |
| $\mathrm{I}^{2} \mathrm{t}\left(\mathrm{A}^{2} \mathrm{~s}\right)$ | pass-through specific energy |

DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s) :
from 423200 to 423203 ; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;
9.3.1 Cut-off peak current characteristic curve (breaking capacity $\mathrm{I}_{\mathrm{cu}}<=50 \mathrm{kA}$ )

Update: 30/08/2019


| Value | Description |
| :---: | :--- |
| $\mathrm{I}_{\mathrm{cc}}$ | estimated short circuit symmetrical current (RMS value) |
| $\mathrm{I}_{\mathrm{p}}$ | maximum short circuit peak current |
|  | maximum prospective short circuit peak current <br> corresponding at the power factor |
|  | maximum real peak short circuit current |

DPX3 250 HP S1 electronic (no display) circuit breakers
from 423200 to 4232 03; from 423205 to 423208 ;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 423253 ; from 423255 to 423258 ;
9.3.2 Cut-off peak current characteristic curve (breaking capacity $I_{c u}>50 \mathrm{kA}$ )

Update: 20/11/2020


| Value | Description |
| :---: | :--- |
| $\mathrm{I}_{\mathrm{cc}}$ | estimated short circuit symmetrical current (RMS value) |
| $\mathrm{I}_{\mathrm{p}}$ | maximum short circuit peak current |
|  | maximum prospective short circuit peak current <br> corresponding at the power factor |
|  | maximum real peak short circuit current |

DPX3 250 HP S1 electronic (no display) circuit breakers

Reference(s) :
from 423200 to 4232 03; from 423205 to 4232 08;
from 423220 to 4232 23; from 423225 to 4232 28;
from 423240 to 4232 43; from 423245 to 4232 48;
from 423250 to 4232 53; from 423255 to 4232 58;
A) Derating Temperature and configurations

|  | Ambient temperature |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $30^{\circ} \mathrm{C}$ |  | $40^{\circ} \mathrm{C}$ |  | $50^{\circ} \mathrm{C}$ |  | $60^{\circ} \mathrm{C}$ |  | $70^{\circ} \mathrm{C}$ |  |
| Fixed version | $I_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $I_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $I_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $I_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $I_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ |
| Cage terminals, flexible cable | 250 | 1 | 250 | 1 | 230 | 0.92 | 210 | 0.84 | 190 | 0.76 |
| Cage terminals, flexible cable + sealable terminal shields | 250 | 1 | 238 | 0.95 | 200 | 0.80 | 175 | 0.70 | 175 | 0.70 |
| Lugs, flexible cable | 250 | 1 | 213 | 0.85 | 200 | 0.80 | 200 | 0.80 | 150 | 0.60 |
| Spreaders, flexible cable | 250 | 1 | 250 | 1 | 200 | 0.80 | 175 | 0.70 | 163 | 0.65 |
| Rear terminals, flexible cable | 250 | 1 | 213 | 0.85 | 188 | 0.75 | 163 | 0.65 | 163 | 0.65 |
| Plug-in/draw-out version | $\mathrm{I}_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $\mathrm{I}_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $\mathrm{I}_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $\mathrm{I}_{\text {max }}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ | $I_{\text {max }}(A)$ | $\mathrm{I}_{\mathrm{r}} / \mathrm{I}_{\mathrm{n}}$ |
| Cage terminals, flexible cable | 250 | 1 | 238 | 0.95 | 238 | 0.95 | 233 | 0.93 | 225 | 0.90 |

For further technical information, please contact Legrand technical support.

