

New DX³ High rating & breaking capacity

A NEW RANGE OF MODULAR CIRCUIT BREAKERS UP TO 125 A

 **legrand**[®]

AN ENHANCED RANGE FOR HIGH-PERFORMANCE INSTALLATIONS

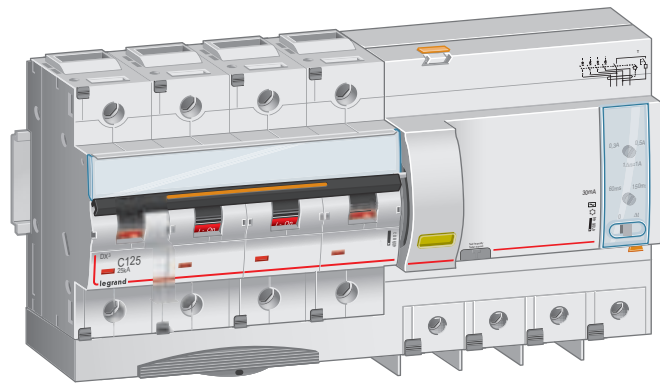
DX³: the new Legrand MCBs

With DX³, Legrand is offering a new range of MCBs and add-on modules for all applications that require high performance levels.

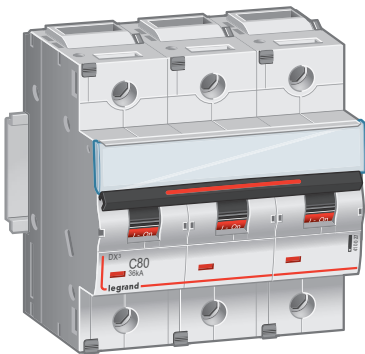
- High breaking capacities: 16, 25, 36, 50 kA
- High nominal currents: up to 125 A
- High level of selectivity
- Choice of tripping curves: B, C, D, Z, MA



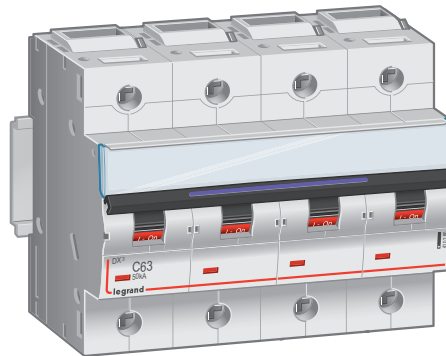
DX³ 10000 -16 kA single pole



DX³ 25 kA 4-pole with add-on module



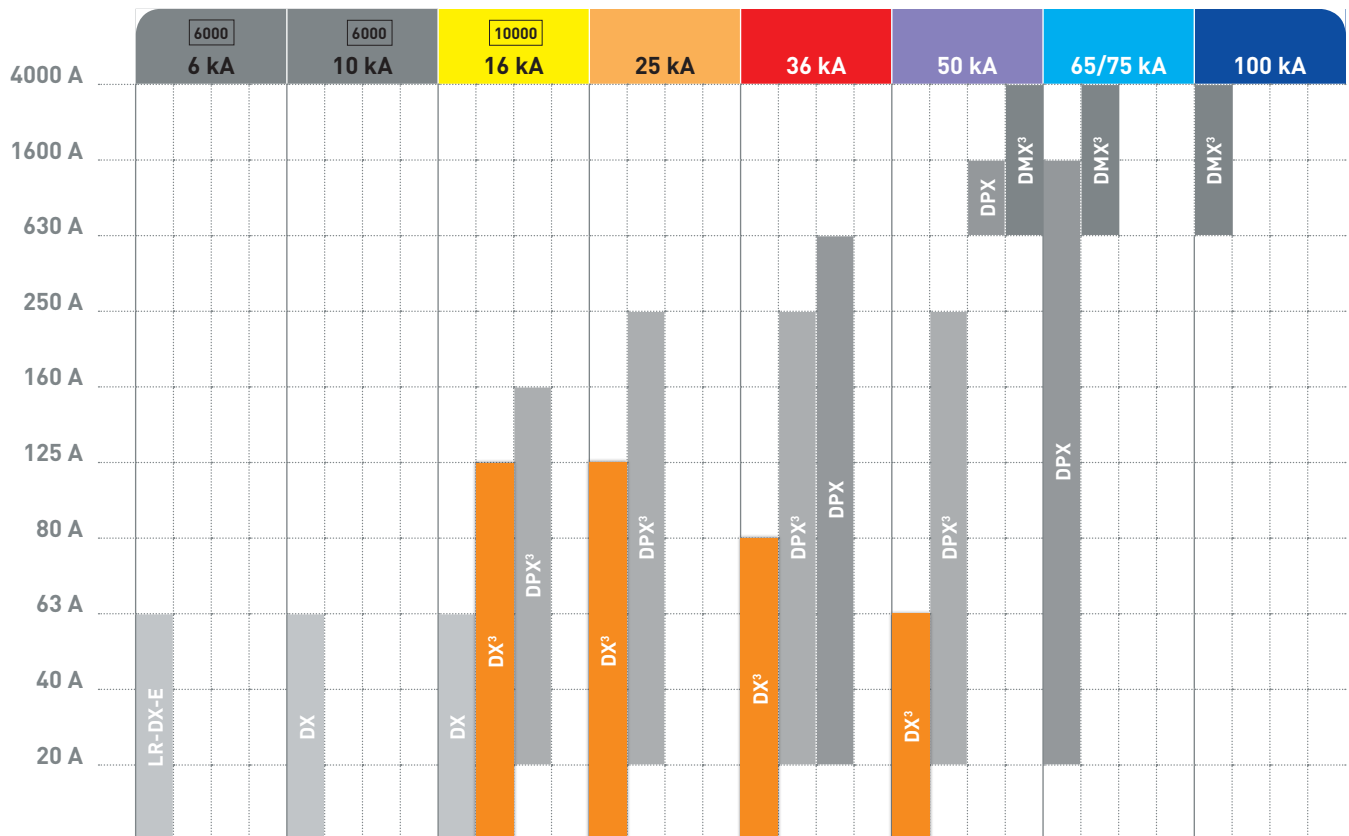
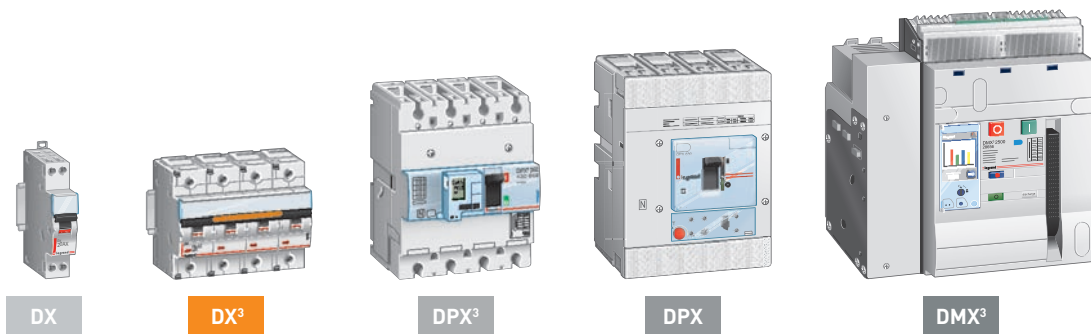
DX³ 36 kA 3-pole



DX³ 50 kA 4-pole



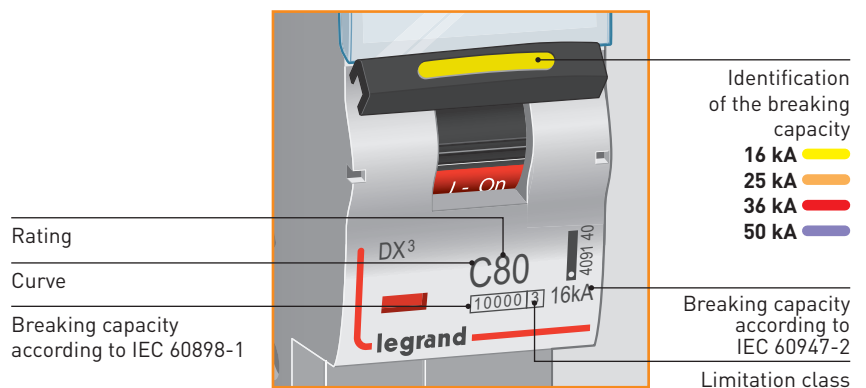
Each breaking capacity has **its own power solution**



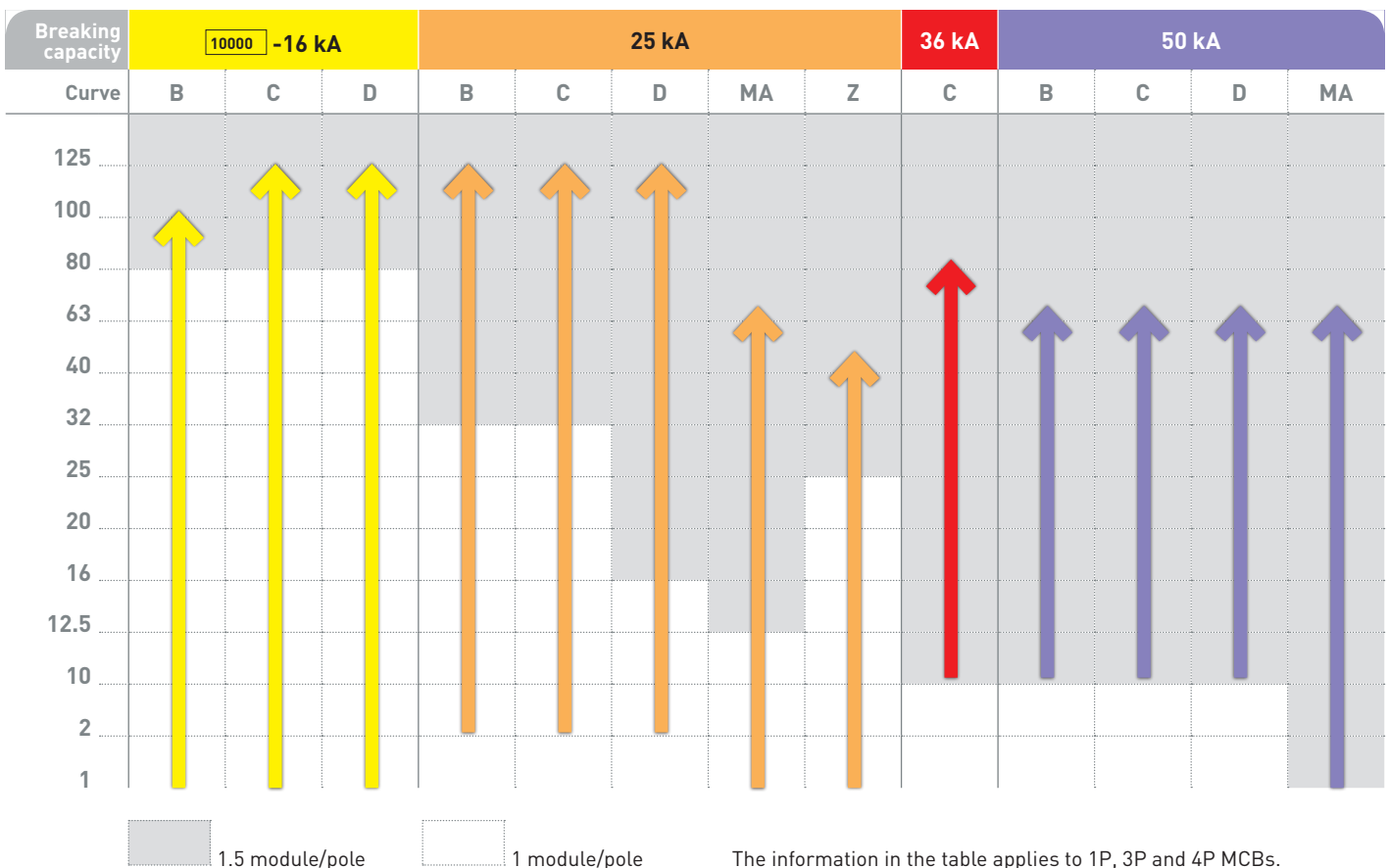
TOP QUALITY ELECTRICAL PERFORMANCE

High breaking capacity

The speed and reliability of their new double contact breaking mechanism guarantee the breaking capacity and long service life of DX³ MCBs up to the maximum rating.



Dual identification of the breaking capacity and clear marking for easier maintenance

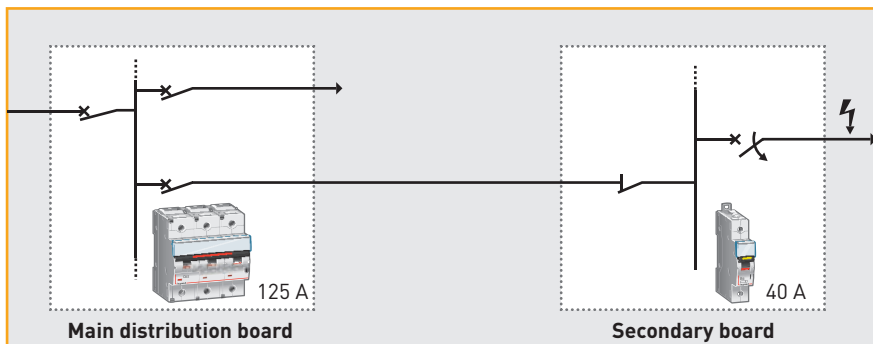


The information in the table applies to 1P, 3P and 4P MCBs. For further information on the number of modules per pole, please refer to the catalogue pages



High level of selectivity

The high selectivity level of the new DX³ improves the continuity of service of installations.



Downstream MCB: DX ≤ 10000 A	Upstream MCB: DX ³ 25 KA, 36 KA, 50 KA - (CURVE C)						
	32 A	40 A	50 A	63 A	80 A	100 A	125 A
≤ 4 A	1200 A	1500 A	2000 A	T	T	T	T
≤ 6 A	700 A	1200 A	1500 A	3000 A	4000 A	T	T
10 A	500 A	700 A	1000 A	1800 A	3000 A	5000 A	T
16 A	300 A	500 A	700 A	1300 A	2000 A	3600 A	5500 A
20 A	300 A	400 A	500 A	1000 A	1600 A	3000 A	4000 A
25 A	240 A	400 A	500 A	800 A	1300 A	2400 A	3300 A
32 A		300 A	500 A	600 A	1000 A	1800 A	2700 A
40 A			400 A	600 A	800 A	1600 A	2400 A
50 A				500 A	800 A	900 A	1700 A
63 A					650 A	900 A	1200 A

Example:

Selectivity between a DX³ 125 A MCB in the main distribution board and a DX 40 A MCB in the secondary board is guaranteed up to a short-circuit current of 2400 A.

For other combinations, see the full selectivity table on pages 22-23.

INNOVATIONS THAT MAKE A DIFFERENCE

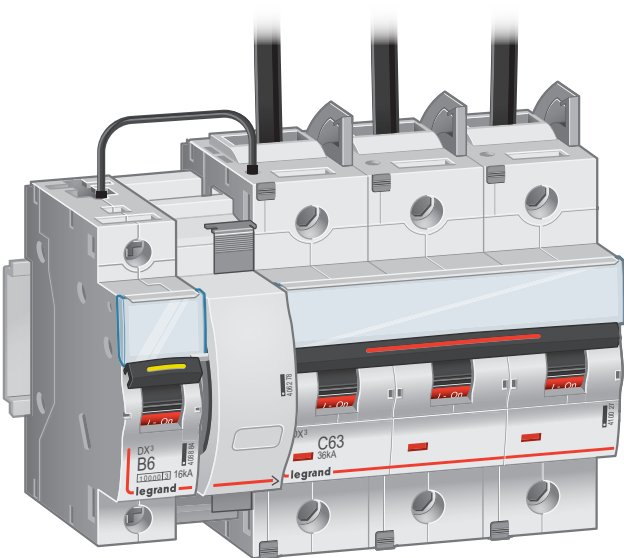
Easy to install

The new DX³ range has clever innovations that simplify installers' work:

- Integrated retractable insulating shields
- Automatic tap-off terminals
- New label-holder.



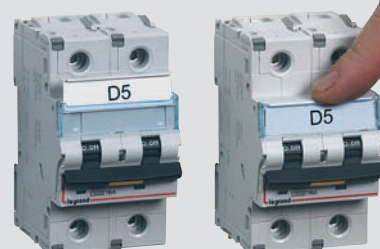
With the integrated retractable insulating shields, there is no need for any additional accessories to isolate the connections on all breaking capacities and high ratings of the 1.5 module/pole MCBs up to 125A.



On DX³ 10000 - 16 kA, 25 kA and 36 kA from 80 to 125 A, automatic tap-off terminals simplify the connection of an auxiliary circuit or a measuring device.

INNOVATIVE LABEL-HOLDER:

- Improved opening
- Enhanced dust protection
- Label remains firmly in place during transport





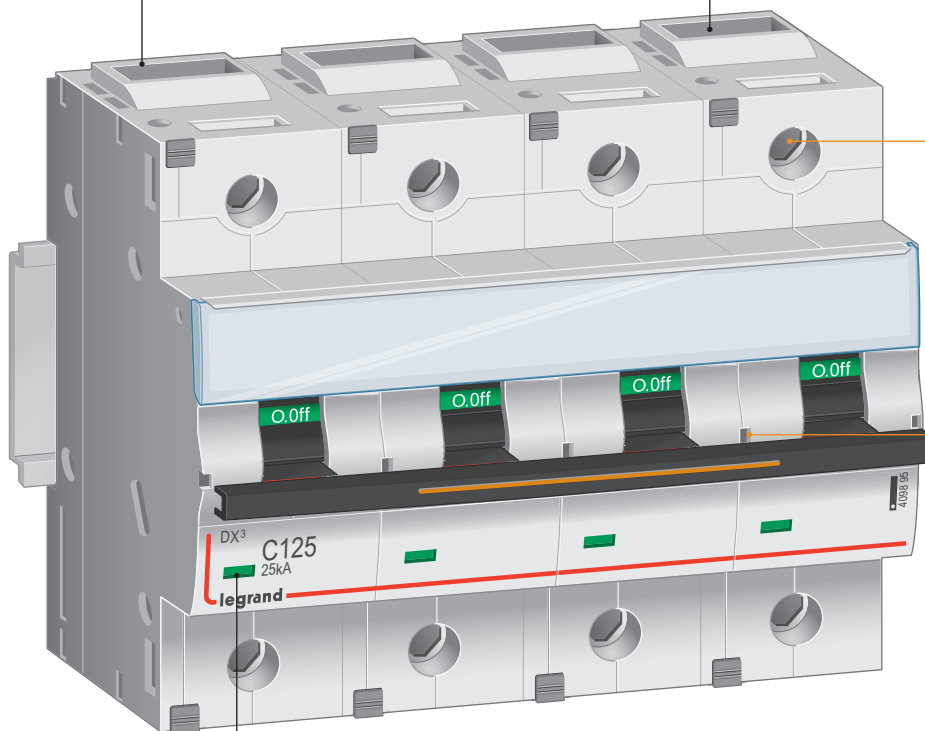
Improved safety and ease of operation

To ensure the connections are reliable, Legrand has given its new MCBs wide connection terminals which are tightened using an Allen key and have a loosening compensation system.

Ease of maintenance and operation has not been forgotten, with a status indicator and a clever system for locking the handle.

To limit any risk of abnormal temperature rise, the new DX³ terminals automatically compensate for the loosening which occurs naturally over time (temperature rise reduced by 20% in comparison with a conventional terminal)

Terminal capacity:
 $I_n \leq 63 \text{ A} \rightarrow 50 \text{ mm}^2$
 $I_n \geq 80 \text{ A} \rightarrow 70 \text{ mm}^2$



Indicator showing the position of the contacts



The use of an Allen key makes it easier to tighten to the required torque

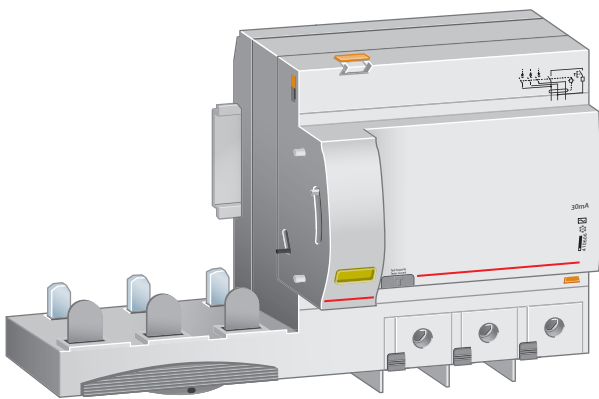


Units can be locked on site using a single Colring cable tie (for 1,5 module/pole MCBs)

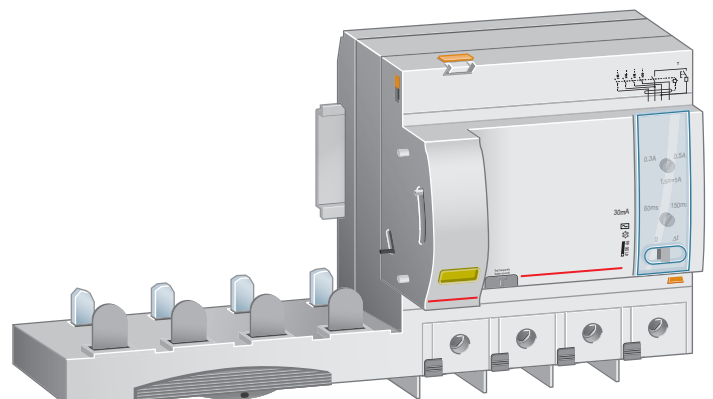
RESIDUAL CURRENT PROTECTION ADJUSTED TO REQUIREMENTS

New DX³ add-on modules for MCBs, 1.5 module per pole

The new DX³ add-on modules have a wide range of characteristics to meet the most stringent requirements for the protection of people. Like the new DX³ MCBs, they offer high performance and incorporate innovative solutions for installation and operation.



3 P - 125 A add-on module - Fixed version



4 P - 125 A add-on module - Adjustable version

Version		Fixed				Adjustable	
Sensitivity		30 mA		300 mA		300-500-1000 mA	
Time delay		Instantaneous		Instantaneous		0-60-150 ms	
Max. current		63 A	125 A	63 A	125 A	63 A	125 A
AC type	4P		✓		✓		
	2P	✓	✓			✓	✓
A type Hpi	3P	✓	✓	✓		✓	✓
	4P	✓	✓	✓		✓	✓

A TYPE-Hpi: HIGH PERFORMANCE RESIDUAL CURRENT PROTECTION



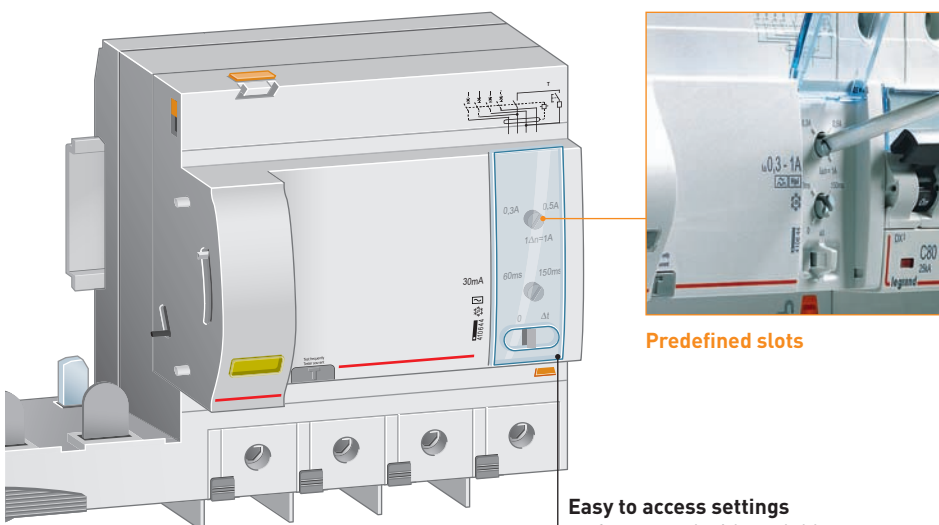
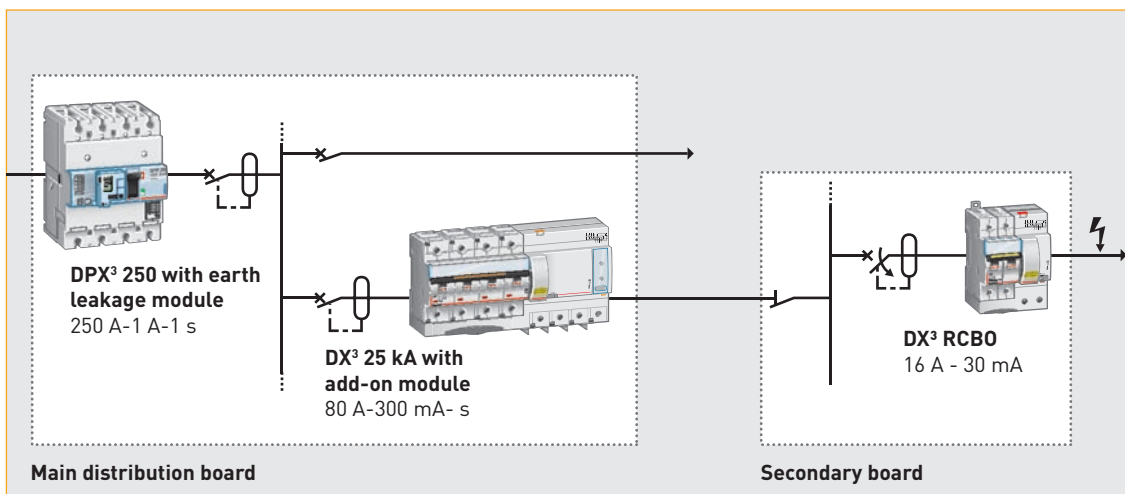
The electronic circuits and high quality of the integrated components of the Hpi add-on modules prevent false tripping while providing better protection for people:

- Detection of faults with a DC component (Hpi add-on modules are A type)
- Fast tripping
- Good response at high frequency
- Immunity to transient interference and high frequency signals
- Operation to -25°C



Residual current protection selectivity for maximum continuity of service

By adjusting the sensitivity and the breaking time, DX³ add-on modules can provide selectivity up to 3 levels. While ensuring total safety of people, they enable those parts of the installation that are not affected by a fault to remain operational.

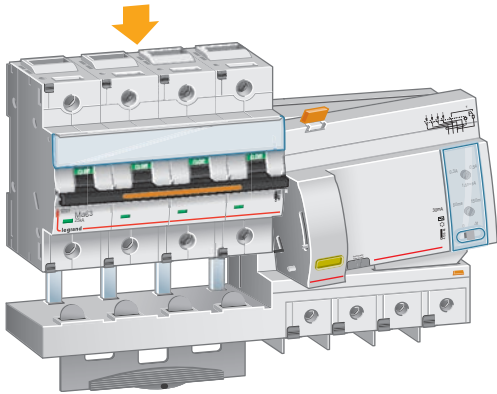


Easy to access settings
on front panel with sealable transparent cover
 $I_{\Delta n} = 300/500/1000 \text{ mA}$
 $t = 0 \text{ s} / \text{S} (60 \text{ ms}) / \text{R} (150 \text{ ms})$

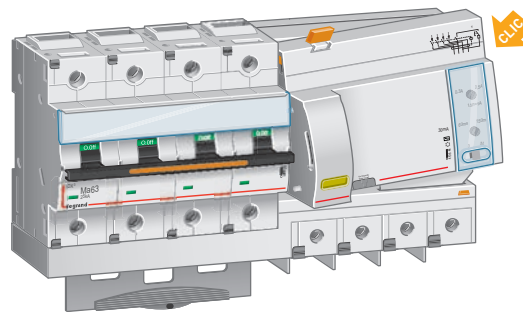
EASY TO INSTALL

A single mounting principle for all DX³ add-on modules

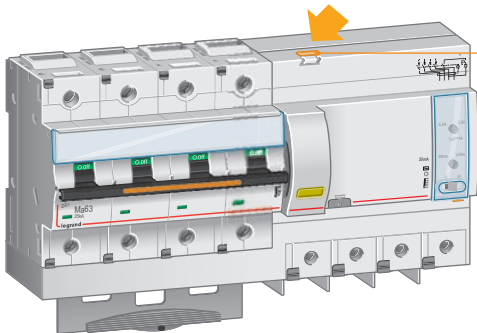
It has never been so quick and safe to fit an add-on module. The exclusive Legrand system, common to the whole DX³ range, makes the assembly extremely strong and provides guaranteed safety.



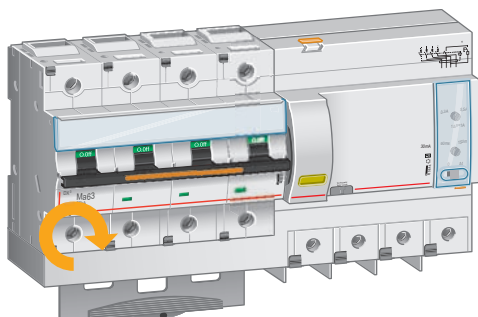
1) Fit the MCB



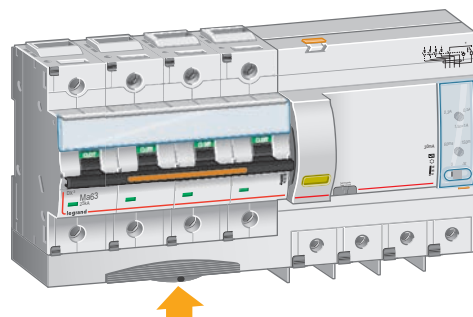
2) Fit the earth leakage module



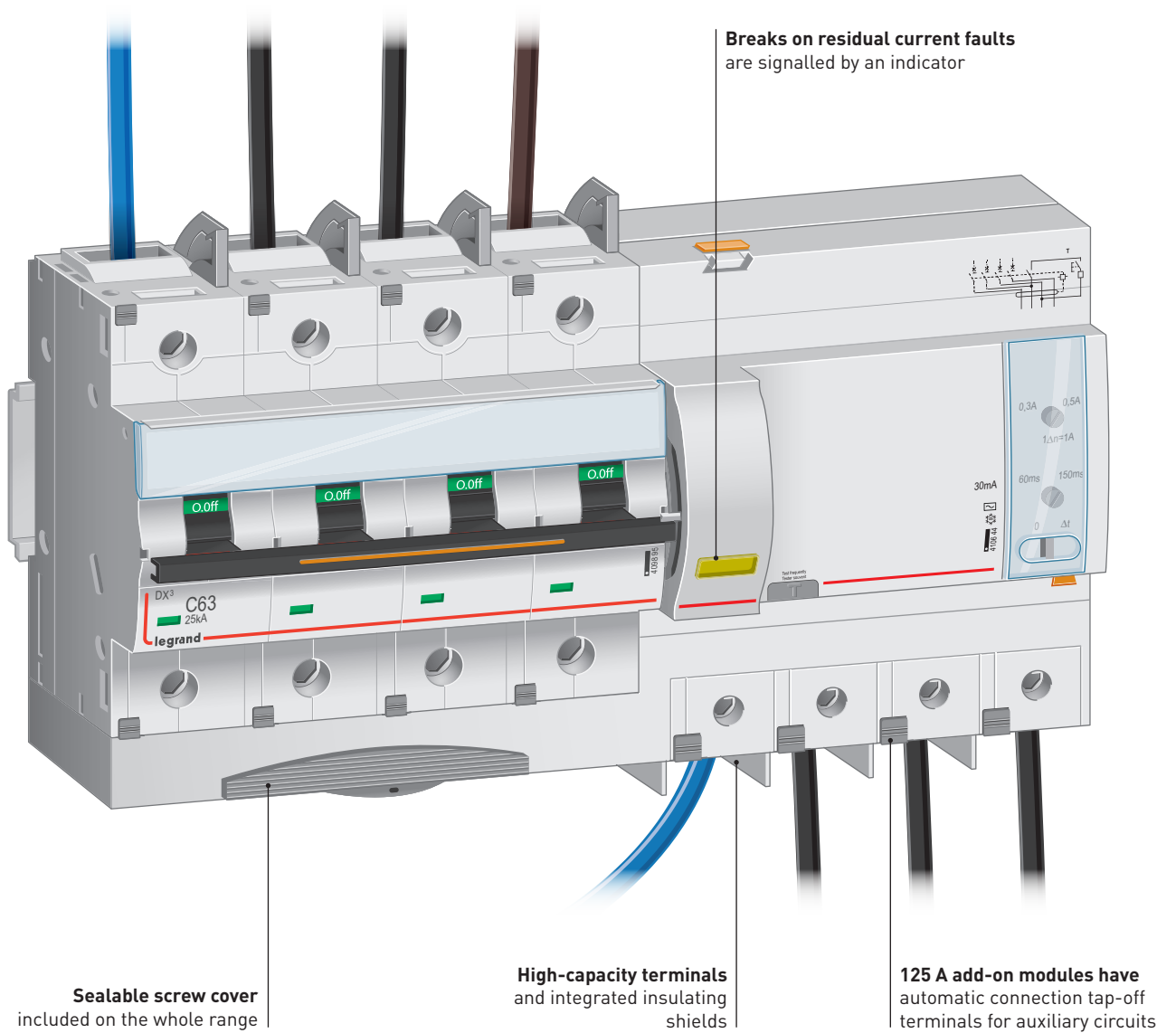
3) Lock the combination together



4) Tighten the terminals



5) Fit the screw cover



Breaks on residual current faults are signalled by an indicator

Sealable screw cover included on the whole range

High-capacity terminals and integrated insulating shields

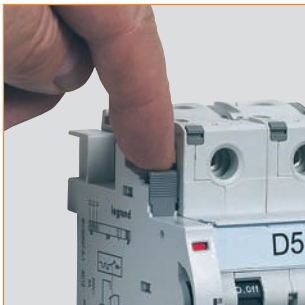
125 A add-on modules have automatic connection tap-off terminals for auxiliary circuits

AUXILIARIES AND DISTRIBUTION

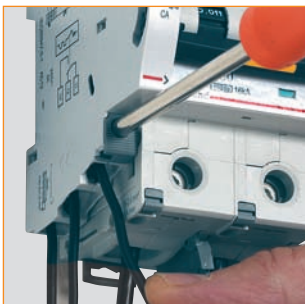
Control and signalling auxiliaries

The new DX³ MCBs have a new range of electrical auxiliaries and dedicated accessories:

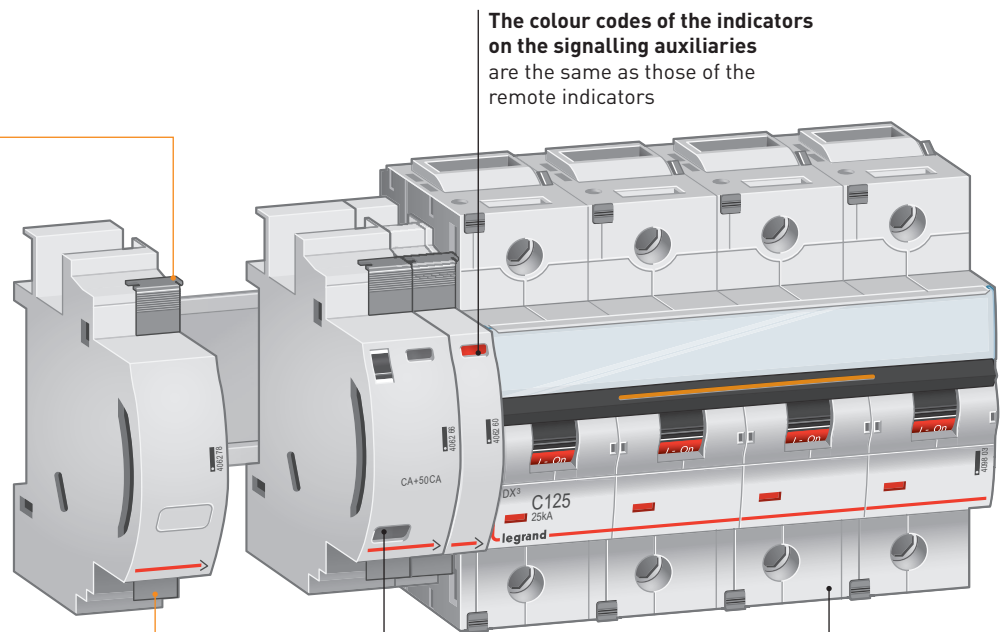
- Auxiliary and fault signal contacts
- Current shunt trips and undervoltage releases
- Motorised controls (for 1 module/pole MCBs)
- Terminals for aluminium connections
- Screw covers, terminal shields, padlocking, etc.



The auxiliaries fit firmly without the need for any tools and ensure the whole assembly is robust



The accessibility of the terminals and the visibility of the screw heads make the installer's work easier



The colour codes of the indicators on the signalling auxiliaries are the same as those of the remote indicators

The fault signal contacts have a test button

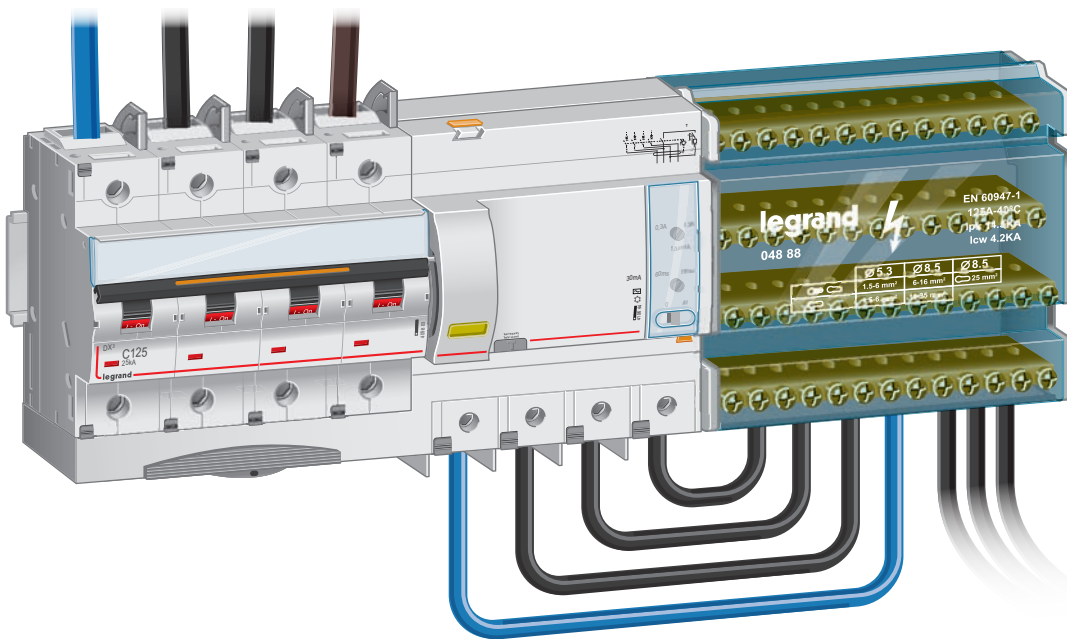
DX³ MCBs take up to 3 auxiliaries including one control auxiliary



Modular distribution blocks

Totally compatible with the new DX³ MCBs, Legrand modular distribution blocks have been designed with maximum safety in mind:

- Individual insulation of the bars
- High resistance to short circuits
- Nominal currents up to 250 A.



125 A four pole modular distribution block: ideal for distribution at the supply end of secondary boards



Joinable modular distribution block: build your distribution block



Distribution by prong-type busbar up to 63 A for 1 module per pole devices

MCBs DX³

thermal magnetic MCBs up to 125 A
16, 25, 36 and 50 kA - B, C, D, MA and Z curves



		10000 - 16 kA				25 kA				36 kA			
Curve	In (A)	1P	2P	3P	4P	1P	2P	3P	4P	2P	3P	4P	
B	10						409 715	409 728	409 741				
	16						409 716	409 729	409 742				
	20						409 717	409 730	409 743				
	25						409 718	409 731	409 744				
	32						409 719	409 732	409 745				
	40						409 720	409 733	409 746				
	50						409 721	409 734	409 747				
	63						409 722	409 735	409 748				
	80		408 966	409 015	409 089					409 749			
	100		408 967	409 016	409 090					409 750			
125									409 751				
C	2					409 752	409 765	409 778	409 791				
	6					409 753	409 766	409 779	409 792				
	10					409 754	409 767	409 780	409 793	410 007	410 020	410 033	
	16					409 755	409 768	409 781	409 794	410 008	410 021	410 034	
	20					409 756	409 769	409 782	409 795	410 009	410 022	410 035	
	25					409 757	409 770	409 783	409 796	410 010	410 023	410 036	
	32					409 758	409 771	409 784	409 797	410 011	410 024	410 037	
	40					409 759	409 772	409 785	409 798	410 012	410 025	410 038	
	50					409 760	409 773	409 786	409 799	410 013	410 026	410 039	
	63					409 761	409 774	409 787	409 800	410 014	410 027	410 040	
	80	409 140	409 228	409 280	409 362	409 762	409 775	409 788	409 801	410 015	410 028	410 041	
	100	409 141	409 229	409 281	409 363	409 763	409 776	409 789	409 802				
125	409 142	409 230	409 282	409 364	409 764	409 777	409 790	409 803					
D	2					409 804	409 817	409 830	409 843				
	6					409 805	409 818	409 831	409 844				
	10					409 806	409 819	409 832	409 845				
	16					409 807	409 820	409 833	409 846				
	20					409 808	409 821	409 834	409 847				
	25					409 809	409 822	409 835	409 848				
	32					409 810	409 823	409 836	409 849				
	40					409 811	409 824	409 837	409 850				
	50					409 812		409 838	409 851				
	63					409 813		409 839	409 852				
	80		409 458	409 506	409 540	409 814		409 840	409 853				
	100		409 459	409 507	409 541	409 815		409 841	409 854				
125		409 460	409 508	409 542	409 816		409 842	409 855					
MA	1,6						409 866	409 876	409 886				
	2,5						409 867	409 877	409 887				
	4						409 868	409 878	409 888				
	6,3						409 869	409 879	409 889				
	10						409 870	409 880	409 890				
	12,5						409 871	409 881	409 891				
	16						409 872	409 882	409 892				
	25						409 873	409 883	409 893				
	40							409 884	409 894				
	63							409 885	409 895				
Z	1						409 907	409 918	409 929				
	2						409 908	409 919	409 930				
	3						409 909	409 920	409 931				
	4						409 910	409 921	409 932				
	6						409 911	409 922	409 933				
	10						409 912	409 923	409 934				
	16						409 913	409 924	409 935				
	20						409 914	409 925	409 936				
25						409 915	409 926	409 937					

MCBs DX³ - 25 kA

thermal magnetic MCBs from 2 A to 125 A
B and C curves



409 772



409 803

MCBs DX³ - 25 kA

thermal magnetic MCBs from 2 A to 125 A
D curve



409 824



409 833



Technical characteristics (p. 24)

Breaking capacity:
25 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	Single pole 230/400 VA	
	C curve	Nominal rating (A)	Number of modules
1	409 752	2	1
1	409 753	6	1
1	409 754	10	1
1	409 755	16	1
1	409 756	20	1
1	409 757	25	1
1	409 758	32	1.5
1	409 759	40	1.5
1	409 760	50	1.5
1	409 761	63	1.5
1	409 762	80	1.5
1	409 763	100	1.5
1	409 764	125	1.5

Pack	B curve		C curve		2-pole - 230/400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1			2	2	2	2
1			6	2	6	2
1	409 715	409 767	10	2	10	2
1	409 716	409 768	16	2	16	2
1	409 717	409 769	20	2	20	2
1	409 718	409 770	25	2	25	2
1	409 719	409 771	32	2	32	2
1	409 720	409 772	40	3	40	3
1	409 721	409 773	50	3	50	3
1	409 722	409 774	63	3	63	3
1		409 775	80	3	80	3
1		409 776	100	3	100	3
1		409 777	125	3	125	3

Pack	B curve		C curve		3-pole - 400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1			2	3	2	3
1			6	3	6	3
1	409 728	409 780	10	3	10	3
1	409 729	409 781	16	3	16	3
1	409 730	409 782	20	3	20	3
1	409 731	409 783	25	3	25	3
1	409 732	409 784	32	4.5	32	4.5
1	409 733	409 785	40	4.5	40	4.5
1	409 734	409 786	50	4.5	50	4.5
1	409 735	409 787	63	4.5	63	4.5
1		409 788	80	4.5	80	4.5
1		409 789	100	4.5	100	4.5
1		409 790	125	4.5	125	4.5

Pack	B curve		C curve		4-pole - 400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1			2	4	2	4
1			6	4	6	4
1	409 741	409 793	10	4	10	4
1	409 742	409 794	16	4	16	4
1	409 743	409 795	20	4	20	4
1	409 744	409 796	25	4	25	4
1	409 745	409 797	32	6	32	6
1	409 746	409 798	40	6	40	6
1	409 747	409 799	50	6	50	6
1	409 748	409 800	63	6	63	6
1	409 749	409 801	80	6	80	6
1	409 750	409 802	100	6	100	6
1	409 751	409 803	125	6	125	6



Technical characteristics (p. 24)

Breaking capacity:
25 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	Single pole 230/400 VA	
	D curve	Nominal rating (A)	Number of modules
1	409 804	2	1
1	409 805	6	1
1	409 806	10	1
1	409 807	16	1.5
1	409 808	20	1.5
1	409 809	25	1.5
1	409 810	32	1.5
1	409 811	40	1.5
1	409 812	50	1.5
1	409 813	63	1.5
1	409 814	80	1.5
1	409 815	100	1.5
1	409 816	125	1.5

Pack	D curve		2-pole - 230/400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1	409 817	2	2	2
1	409 818	6	2	2
1	409 819	10	2	2
1	409 820	16	2	2
1	409 821	20	2	2
1	409 822	25	2	2
1	409 823	32	3	3
1	409 824	40	3	3

Pack	D curve		3-pole - 400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1	409 830	2	2	3
1	409 831	6	6	3
1	409 832	10	10	3
1	409 833	16	16	4.5
1	409 834	20	20	4.5
1	409 835	25	25	4.5
1	409 836	32	32	4.5
1	409 837	40	40	4.5
1	409 838	50	50	4.5
1	409 839	63	63	4.5
1	409 840	80	80	4.5
1	409 841	100	100	4.5
1	409 842	125	125	4.5

Pack	D curve		4-pole - 400 V±	
	Nominal rating (A)	Number of modules	Nominal rating (A)	Number of modules
1	409 843	2	2	4
1	409 844	6	6	4
1	409 845	10	10	4
1	409 846	16	16	6
1	409 847	20	20	6
1	409 848	25	25	6
1	409 849	32	32	6
1	409 850	40	40	6
1	409 851	50	50	6
1	409 852	63	63	6
1	409 853	80	80	6
1	409 854	100	100	6
1	409 855	125	125	6

MCBs DX³ - 36 kA

thermal magnetic MCBs from 10 A to 80 A
C curve



410 012



410 027

MCBs DX³ - 50 kA

thermal magnetic MCBs from 10 A to 63 A
B and C curves



410 101



410 180



Technical characteristics (p. 24)

Breaking capacity:
36 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	2-pole 230/400 VA	
	C curve	Nominal rating (A)	Number of modules
1	410 007	10	3
1	410 008	16	3
1	410 009	20	3
1	410 010	25	3
1	410 011	32	3
1	410 012	40	3
1	410 013	50	3
1	410 014	63	3
1	410 015	80	3

	C curve	3-pole 400 VA	
		Nominal rating (A)	Number of modules
1	410 020	10	4.5
1	410 021	16	4.5
1	410 022	20	4.5
1	410 023	25	4.5
1	410 024	32	4.5
1	410 025	40	4.5
1	410 026	50	4.5
1	410 027	63	4.5
1	410 028	80	4.5

	C curve	4-pole 400 VA	
		Nominal rating (A)	Number of modules
1	410 033	10	6
1	410 034	16	6
1	410 035	20	6
1	410 036	25	6
1	410 037	32	6
1	410 038	40	6
1	410 039	50	6
1	410 040	63	6
1	410 041	80	6



Technical characteristics (p. 24)

Breaking capacity:
50 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	Single pole 230/400 VA	
	C curve	Nominal rating (A)	Number of modules
1	410 134	10	1.5
1	410 135	16	1.5
1	410 136	20	1.5
1	410 137	25	1.5
1	410 138	32	1.5
1	410 139	40	1.5
1	410 140	50	1.5
1	410 141	63	1.5

	B curve	C curve	2-pole - 230/400 V±	
			Nominal rating (A)	Number of modules
1	410 097	410 147	10	3
1	410 098	410 148	16	3
1	410 099	410 149	20	3
1	410 100	410 150	25	3
1	410 101	410 151	32	3
1	410 102	410 152	40	3
1		410 153	50	3
1		410 154	63	3

	C curve	3-pole - 400 V±	
		Nominal rating (A)	Number of modules
1	410 160	10	4.5
1	410 161	16	4.5
1	410 162	20	4.5
1	410 163	25	4.5
1	410 164	32	4.5
1	410 165	40	4.5
1	410 166	50	4.5
1	410 167	63	4.5

	B curve	C curve	4-pole - 400 V±	
			Nominal rating (A)	Number of modules
1	410 121	410 173	10	6
1	410 122	410 174	16	6
1	410 123	410 175	20	6
1	410 124	410 176	25	6
1	410 125	410 177	32	6
1	410 126	410 178	40	6
1	410 127	410 179	50	6
1	410 128	410 180	63	6

MCBs DX³ - 50 kA

thermal magnetic MCBs from 10 A to 63 A
D curve



410 200



410 217

MCBs DX³ - 50 kA

thermal magnetic MCBs from 1.6 A to 63 A
MA curve



410 251



410 265



Technical characteristics (p. 24)

Breaking capacity:
50 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	Single pole 230/400 VA	
	D curve	Nominal rating (A)	Number of modules
1	410 186	10	1.5
1	410 187	16	1.5
1	410 188	20	1.5
1	410 189	25	1.5
1	410 190	32	1.5
1	410 191	40	1.5
1	410 192	50	1.5
1	410 193	63	1.5

Pack	Cat.Nos	2-pole - 230/400 V±	
	D curve	Nominal rating (A)	Number of modules
1	410 199	10	3
1	410 200	16	3
1	410 201	20	3
1	410 202	25	3
1	410 203	32	3
1	410 204	40	3

Pack	Cat.Nos	3-pole - 400 V±	
	D curve	Nominal rating (A)	Number of modules
1	410 212	10	4.5
1	410 213	16	4.5
1	410 214	20	4.5
1	410 215	25	4.5
1	410 216	32	4.5
1	410 217	40	4.5
1	410 218	50	4.5
1	410 219	63	4.5

Pack	Cat.Nos	4-pole - 400 V±	
	D curve	Nominal rating (A)	Number of modules
1	410 225	10	6
1	410 226	16	6
1	410 227	20	6
1	410 228	25	6
1	410 229	32	6
1	410 230	40	6
1	410 231	50	6
1	410 232	63	6



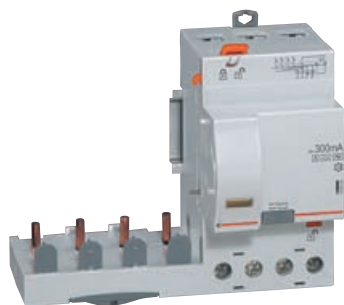
Technical characteristics (p. 24)

Breaking capacity:
50 kA - IEC 60947-2 - 400 VA

Pack	Cat.Nos	3-pole - 400 V±	
	MA curve	Nominal rating (A)	Number of modules
1	410 246	1.6	4.5
1	410 247	2.5	4.5
1	410 248	4	4.5
1	410 249	6.3	4.5
1	410 250	10	4.5
1	410 251	12.5	4.5
1	410 252	16	4.5
1	410 253	25	4.5
1	410 254	40	4.5
1	410 255	63	4.5

Pack	Cat.Nos	4-pole - 400 V±	
	MA curve	Nominal rating (A)	Number of modules
1	410 256	1.6	6
1	410 257	2.5	6
1	410 258	4	6
1	410 259	6.3	6
1	410 260	10	6
1	410 261	12.5	6
1	410 262	16	6
1	410 263	25	6
1	410 264	40	6
1	410 265	63	6

add-on modules DX³ for 1 module/pole DX³ MCBs



410 555

Technical characteristics (p. 25)

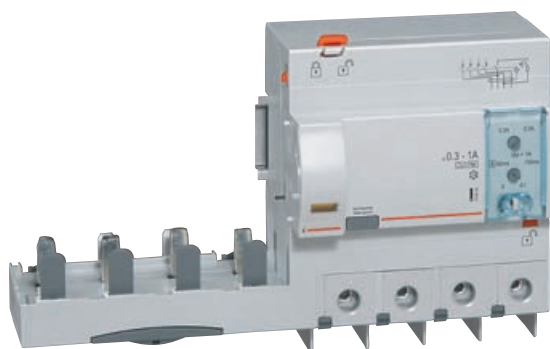
Conform to standard NF EN 61009-1
 - AC type: detect faults with AC components
 - Hpi type: detect faults with AC and DC components, increased immunity to false tripping
 For mounting on the right-hand side of 1 module per pole DX³ MCBs

Pack	Cat.Nos	2-pole 230/400 VA		
		AC type ? - for traditional wiring		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 401	30	40	2
1	410 402	30	63	2
1	410 413	300	40	2
1	410 414	300	63	2
1	410 424	300 selective	63	2
1	410 426	1000 selective	63	2
		Hpi type M^H - for traditional wiring		
1	410 434	30	40	2
1	410 435	30	63	2
1	410 446	300	40	2
1	410 457	300 selective	63	2
1	410 462	1000 selective	63	2

Pack	Cat.Nos	3-pole 400 VA		
		AC type ? - for traditional wiring		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 471	30	40	3
1	410 472	30	63	3
1	410 474	300	40	3
1	410 475	300	63	3
1	410 477	300 selective	63	3
		Hpi type M^H - for traditional wiring		
1	410 486	30	63	3
1	410 489	300	63	3
1	410 493	300 selective	63	3

Pack	Cat.Nos	4-pole 400 VA		
		AC type ? - for traditional wiring		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 499	30	40	3
1	410 500	30	63	3
1	410 511	300	40	3
1	410 512	300	63	3
1	410 520	300 selective	40	3
1	410 521	300 selective	63	3
1	410 523	1000 selective	63	3
		Hpi type M^H - for traditional wiring		
1	410 533	30	40	3
1	410 534	30	63	3
1	410 545	300	40	3
1	410 546	300	63	3
1	410 555	300 selective	63	3
1	410 560	1000 selective	63	3

add-on modules DX³ for 1.5 module/pole DX³ MCBs



410 644

Technical characteristics (p. 25)

Conform to standard NF EN 61009-1
 - AC type: detect faults with AC components
 - Hpi type: detect faults with AC and DC components, increased immunity to false tripping
 For mounting on the right-hand side of 1.5 module per pole DX³ MCBs

Pack	Cat.Nos	2-pole 230/400 VA		
		Hpi type M^H		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 576	30	63	2
1	410 577	30	125	4
1	410 583	300 to 1000	63	4
1	410 584	300 to 1000	125	4

Pack	Cat.Nos	3-pole 400 VA		
		Hpi type M^H		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 605	30	63	3
1	410 606	30	125	6
1	410 608	300	63	3
1	410 611 ⁽¹⁾	300 to 1000	63	6
1	410 612 ⁽¹⁾	300 to 1000	125	6

Pack	Cat.Nos	4-pole 400 VA		
		AC type ?		
	Screw	Sensitivity (mA)	Current (A)	Nb. of modules
1	410 624	30	125	6
1	410 628	300	125	6
		Hpi type M^H		
1	410 636	30	63	3
1	410 637	30	125	6
1	410 640	300	63	3
1	410 643 ⁽¹⁾	300 to 1000	63	6
1	410 644 ⁽¹⁾	300 to 1000	125	6

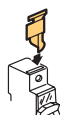
(1) Adjustable sensitivity (3 steps): 300 mA, 500 mA, 1000 mA
 Adjustable time delay (3 steps): 0 s, 60 ms (S), 150 ms (delayed)

auxiliaries, accessories and remote control DX³

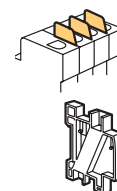


Technical characteristics (p. 24)

Pack	Cat.Nos	Auxiliaries	Nb. of modules
		Mounted on the left-hand side of the devices Possible mounting per device: 3 auxiliaries including 1 control auxiliary Auxiliaries common to MCBs, RCBOs RCDs and isolator switches Have space for inserting a supply busbar	
1	406 258	Signalling auxiliaries Auxiliary changeover switch, 6 A - 250 VA Indicates the position of the contacts of the MCB, RCD or isolating switch	0.5
1	406 260	Fault signalling changeover switch, 6 A - 250 VA Indicates opening on a fault	0.5
1	406 262	Auxiliary changeover switch, 6 A - 250 VA Can be changed to a fault signalling changeover switch	0.5
1	406 266	Auxiliary changeover switch + fault signalling changeover switch, 6 A - 250 VA Can be changed to 2 auxiliary changeover switches	1
		Current shunt trips Used for remote tripping of an MCB, RCD, RCBO or isolating switch at the supply end	
1	406 276	12 to 48 VA/=	1
1	406 278	110 to 415 VA	1
		Undervoltage releases Time delay adjustable from 0 to 300 ms	
1	406 280	24 to 48 VA/=	1
1	406 282	230 VA	1
		Stand-alone release for N/C push-button (DA) Used for positive safety tripping on the control circuit via an N/C push-button Prevents the device with which it is used tripping if there is no supply voltage, while retaining the possibility of tripping via the control circuit for 60 hours minimum Not suitable for the supply circuits of moving machinery (e.g.: machine tools)	
1	406 287	Stand-alone release, 230 VA	1.5
1	406 285	supplied with battery Replacement battery for release Cat. No. 4062 87	
		Accessories	
		Padlocking	
2	406 303	Support for one Ø5 or Ø6 mm padlock for DX ³ MCBs and RCDs or isolating switches	
1	227 97	Ø6 shackle type padlock	
3	406 313	Ø5 shackle type padlock	
		Sealable screw cover - 4 separable poles	
2	406 304	For DX ³ MCBs, 1 module per pole	
2	406 312	For DX ³ MCBs, 1.5 module per pole	



Pack	Cat.Nos	Accessories (continued)	Nb. of modules
		Insulating shields For DX ³ MCBs, 1 module per pole Pole insulating shield (set of 6)	
1	406 305		
10	406 307		
		Spacing units with feedthrough 0.5 module	
		Aluminium terminals	
1	406 310	50 mm ²	
1	406 311	95 mm ² for 1.5 module/pole MCBs	
		Terminal shields For 1.5 module/pole products (set of 2)	
1	406 306		
		Motorised controls For mounting on the left-hand side of 1 module/pole MCBs, RCBOs, RCDs and isolating switches Enable the products with which they are used to be opened and closed remotely Take one control auxiliary and one signalling auxiliary	
		Standard	
1	406 291	Control voltage 230 VA	Nb. of modules 1
		With integrated automatic resetting Automatically resets the product with which it is used, thus ensuring continuity of service	
1	406 293	24-48 VA	2
1	406 295	230 VA	2
		STOP&GO automatic reclosers For mounting on the left-hand side of 2 modules Ph+N or 2P RCDs, MCBs, RCBOs ≤ 63 A Automatically reset the device with which they are used in the event of false tripping after a transient fault (e.g. : lightning) Check the condition of the installation before resetting Indicate any permanent fault (residual current or short-circuit fault) Take one control auxiliary and one signalling auxiliary	
		Standard	
1	406 288	Control voltage 230 VA	Nb. of modules 2
		Self-test unit With periodic testing of the residual current device with which it is used (sensitivity 30 mA or less)	
1	406 289	230 VA	2



back up tables (in kA)

■ In 3 phases networks + N 400/415 V according to IEC 60947-2

Downstream devices	In (A)	Upstream devices													
		DX ³ curves B, C & D						DPX ³ 160				DPX ³ 250			
		10000 16 kA	25 kA	36 kA		50 kA		16 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	70 kA
80 to 125	2 to 125	10 to 25	32 to 80	10 to 32	40 to 63	16 to 160	16 to 160	16 to 80	16 to 160	40 to 250	40 to 250	40 to 250	40 to 250		
DX ³ 10 kA Curves B & C	≤ 20	16	25	25	25	50	36	16	25	25	25	25	25	25	25
	25	16	25	25	25	50	36	16	25	25	25	25	25	25	25
	32	16	25	25	25	50	36	16	25	25	25	25	25	25	25
	40	16	25	25	25	50	36	16	25	25	25	25	25	25	25
	50	16	25	25	25	50	36	16	25	25	25	25	25	25	25
DX-h 25 kA Curves B & C	≤ 20	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	25	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	32	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	40	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	50	16	25	36	25	50	36	16	25	25	25	25	25	25	25
DX ³ 16 kA Curves B, C & D	80	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	100	16	25	36	25	50	36	16	25	25	25	25	25	25	25
	125	16	25	36	25	50	36	16	25	25	25	25	25	25	25
DX ³ 25 kA Curves B & C	≤ 25	16	25	36	36	50	50	16	25	25	25	25	25	25	25
	32 to 80	16	25	36	36	50	50	16	25	25	25	25	25	25	25
	100 & 125	16	25	36	36	50	50	16	25	25	25	25	25	25	25
DX ³ 25 kA Curve D	≤ 10	16	25	36	36	50	50	16	25	25	25	25	25	25	25
	16 to 80	16	25	36	36	50	50	16	25	25	25	25	25	25	25
	100 & 125	16	25	36	36	50	50	16	25	25	25	25	25	25	25
DX ³ 36 kA Curve C	10 to 63	16	25	36	36	50	50	16	25	25	25	25	25	25	25
	80	16	25	36	36	50	50	16	25	25	25	25	25	25	25
DX ³ 50 kA Curves B, C, D & MA	10 to 63	16	25	36	36	50	50	16	25	25	25	25	25	25	25

■ In 3 phases networks + N 230/240 V according to IEC 60947-2

Downstream devices	In (A)	Upstream devices														
		DX ³						DPX ³ 160				DPX ³ 250				
		10000 16 kA	25 kA		36 kA		50 kA		16 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	70 kA
80 to 125	≤ 32	40 to 125	≤ 32	40 to 80	≤ 32	40 to 63	16 to 160	16 to 160	16 to 80	16 to 160	40 to 250	40 to 250	40 to 250	40 to 250		
DX ³ 10 kA Curves B & C	≤ 20	25	50	25	50	25	50	50	22	40	50	50	40	50	50	50
	25	25	50	25	50	25	50	50	22	40	50	50	40	50	50	50
	32	25	50	25	50	25	50	50	22	40	50	50	40	50	50	50
	40	25	50	25	50	25	50	50	22	40	50	50	40	50	50	50
	50	25	50	25	50	25	50	50	22	40	36	36	36	36	36	36
DX-h 25 kA Curves B & C	≤ 20	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	25	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	32	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	40	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	50	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
DX ³ 16 kA Curves B, C & D	80	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	100	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	125	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
DX ³ 25 kA Curves B, C & MA	≤ 25	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	32 to 80	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	100 & 125	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
DX ³ 25 kA Curve D	≤ 10	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	16 to 80	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	100 & 125	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
DX ³ 36 kA Curve C	10 to 63	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
	80	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30
DX ³ 50 kA Curves B, C, D & MA	10 to 63	25	50	25	50	25	50	50	22	40	30	30	30	30	30	30

TT or TN neutral earthing systems:

For a 230/400 V supply in order to determine the breaking capacity of a 2 P MCB used as L + N (230 V) downstream a 2 P or 4 P circuit breaker use values indicated in the table for 230/240 V

	DPX 250			DPX 250			DPX 630		DPX 1250-1600	
	36 kA			70 kA			36 kA	70 kA	50 kA	70 kA
	≤ 100	160	250	≤ 100	160	250	160 to 630	160 to 630	630 to 1600	630 to 1600
	25	25	25	25	25	25	25	25	25	25
	25	25	25	25	25	25	25	25	20	20
	25	25	25	25	25	25	25	25	15	15
	25	25	20	25	25	20	20	20	15	15
	25	20	15	25	20	15	15	15	12,5	12,5
	20	15	15	20	15	15	15	15	12,5	12,5
	25	25	25	25	25	25	25	25	25	25
	25	25	25	25	25	25	25	25	20	20
	25	25	25	25	25	25	25	25	15	15
	25	25	20	25	25	20	20	20	15	15
	25	20	15	25	20	15	15	15	12,5	12,5
	20	15	15	20	15	15	15	15	12,5	12,5
	20	20	20	20	20	20	20	20	16	16
		20	20		20	20	20	20	16	16
		16	16		16	16	16	16	16	16
	30	30	30	30	30	30	30	30	30	30
	36	36	36	36	36	36	36	36	36	36
	36	36	36	36	36	36	30	30	30	30
	30	30	30	30	30	30	30	30	30	30
	36	36	36	36	36	36	36	36	36	36
		36	36		36	36	30	30	30	30
				50	50	50		50	50	50
				50	50	50		36	36	36
				70	70	70		70	70	70

	DPX 250			DPX 250			DPX 630		DPX 1250-1600	
	36 kA			70 kA			36 kA	70 kA	50 kA	70 kA
	≤ 100	160	250	≤ 100	160	250	160 to 630	160 to 630	630 to 1600	630 to 1600
	50	50	50	50	50	50	50	50	50	50
	50	50	50	50	50	50	50	50	50	50
	50	50	50	50	50	50	50	50	50	50
	50	50	50	50	50	50	50	50	50	50
	45	36	30	45	36	30	30	30	25	25
	45	30	30	45	30	30	30	30	25	25
	50	50	50	50	50	50	50	50	50	50
	50	50	50	50	50	50	50	50	50	50
	50	50	50	50	50	50	50	50	50	50
	45	36	30	45	36	30	30	30	25	25
	45	30	30	45	30	30	30	30	25	25
	50	50	50	50	50	50	32	32	32	32
		50	50		50	50	32	32	32	32
		50	50		50	50	32	32	32	32
	55	55	55	60	60	60	55	60	50	50
	55	55	55	60	60	60	55	60	50	50
		55	55		60	60	55	60	50	50
		55	55		60	60	55	60	50	50
				75	75	75		75	75	75
				75	75	75		75	75	75
				120	120	120		120	120	120

■ In 3 phases networks (+ N) 400/415 V according to IEC 60947-2

MCBs downstream	In (A)	Fuses upstream gG type Up to 160 A
DX ³ 10000 - 16 kA Curves B, C & D	80	100
	100	100
	125	100
DX ³ 25 kA Curves B & C	≤ 25	100
	32 to 80	100
	100 & 125	100
DX ³ 25 kA Curve D	≤ 10	100
	16 to 80	100
	100 & 125	100
DX ³ 36 kA Curve C	10 to 63	100
	80	100
DX ³ 50 kA Curves B, C, D & MA	10 to 63	100

■ In 3 phases networks (+ N) 230/240 V according to IEC 60947-2

MCBs downstream	In (A)	Fuses upstream gG type Up to 160 A
DX ³ 10000 - 16 kA Curves B, C & D	80	100
	100	100
	125	100
DX ³ 25 kA Curves B & C	≤ 25	100
	32 to 80	100
	100 & 125	100
DX ³ 25 kA Curve D	≤ 10	100
	16 to 80	100
	100 & 125	100
DX ³ 36 kA Curve C	10 to 63	100
	80	100
DX ³ 50 kA Curves B, C, D & MA	10 to 63	100

performance of MCBs and auxiliaries

■ Breaking capacity in IT neutral earthing system

MCB single pole breaking capacity at 400 V according to IEC 60947-2

DX ³ 10000 16 kA	1P/2P/3P/4P	4 kA
DX ³ 25 kA	1P/2P/3P/4P	6.25 kA
DX ³ 36 kA	2P/3P/4P	9 kA
DX ³ 50 kA	1P/2P/3P/4P	12.5 kA

■ Breaking capacity in the event of short-circuit to earth and insulation voltage

	1P/2P/3P/4P 230/400 VA MCBs			
	DX ³ 10000 16 kA	DX ³ 25 kA	DX ³ 36 kA	DX ³ 50 kA
Icn1	16000 A	25000 A	36000 A	50000 A
Ui	500 V	500 V	500 V	500 V

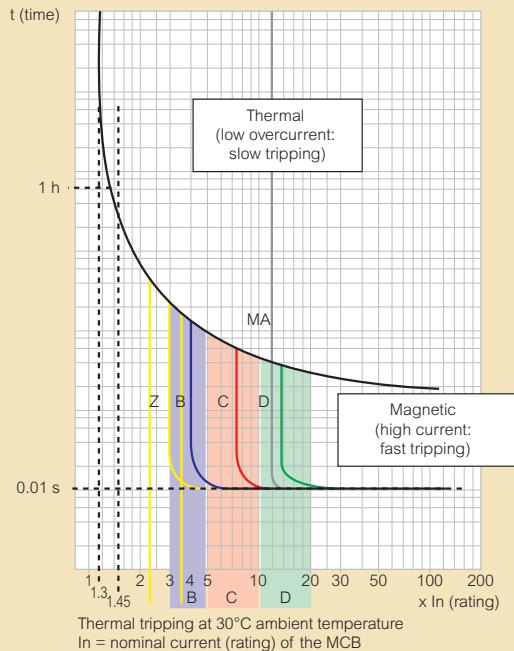
Icn 1: Breaking capacity on 1 pole for multipole MCBs in the event of short-circuit to earth

Ui: Rated insulation voltage

■ Terminal connection cross-sections (mm²)

Copper cable	rigid	flexible
• DX ³ 80 to 125 A	70	50
DX ³ 25 kA ≥ 32 A (C curve) ≥ 16 A (D curve)	50	35
DX ³ 36 kA, DX ³ 50 kA and add-on modules		
• Auxiliaries	2.5	2.5
Auto. terminals connection cross-section	4	4
• DNX ³ and DX ³ Ph + N		

■ MCB tripping curves



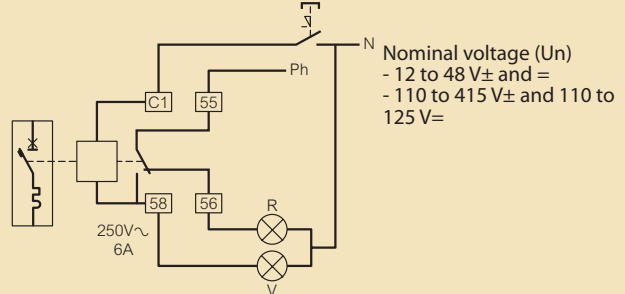
Curves	Magnetic threshold settings
Z ⁽¹⁾	2.4 to 3.6 I _n
B	3 to 5 I _n
C	5 to 10 I _n
D	10 to 14 I _n (10 to 20 acc. to the stds)
MA	12 to 14 I _n

(1) On request, see the catalogue of made-to-measure solutions

■ Technical characteristics of auxiliaries

Max. connection cross-section: 2.5 mm²
Operating temperature: - 25°C to + 70°C

Shunt trips



Nominal voltage (Un)
- 12 to 48 V± and =
- 110 to 415 V± and 110 to 125 V=

Equipped with a signalling contact which indicates tripping of the shunt trip and automatically breaks the coil.

Min. and max. voltage: 0.7 to 1.1 Un

Tripping time: less than 20 ms

Power consumption: at 1.1 x 48 V = 121 VA
at 1.1 x 415 V = 127 VA

Impedance: 12 to 48 V = 23 Ω
110 to 415 V = 1640 Ω

Consumption:

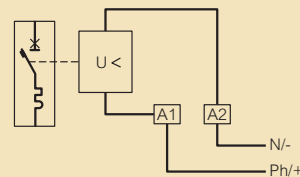
	Umin.	Umax.
12 to 48 V	522 mA	2610 mA
110 to 415 V	69 mA	259 mA

Undervoltage releases

Activation voltage ≥ 0.55 Un

Tripping time: 100 to 400 ms ± 10% (adjustable)

Power consumption: 24 VA and =: 0.1 VA
48 VA and =: 0.2 VA
230 V±: 1 VA

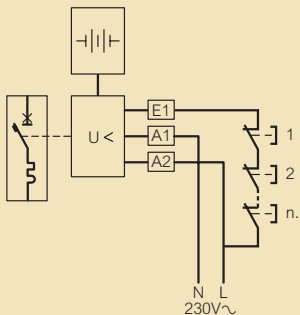


Nominal voltage:
24 and 48 VA and =
230 V±

Stand-alone releases for N/C push-buttons

Min. and max. operating voltage: 196 to 250 V±

Power consumption: 1.4 VA



Signalling auxiliaries

Umin.: 24 V±/= and Imin.: 5 mA

■ Performance of add-on modules

AC type - Standard applications

Detection of 50-60 Hz AC residual currents

A type - Specific applications: dedicated lines

In addition to the characteristics of AC type add-on modules, A type add-on modules also detect residual currents with DC components. They are used whenever the fault currents are not sinusoidal. They are particularly suitable for the following dedicated line applications:

- In residential properties, on specialised cooker or hob circuits and specialised washing machine circuits (NF C 15-100).
- In other installations, on circuits where class 1 equipment may produce fault currents with DC components, such as variable speed drives with frequency inverter, etc.

Hpi type - Special applications

Hpi add-on modules, with additional immunity to false tripping, which is much higher than the level required by the standard, detect residual currents with AC and DC components (A type), operate between - 25°C and + 40°C, and are used in the following special cases:

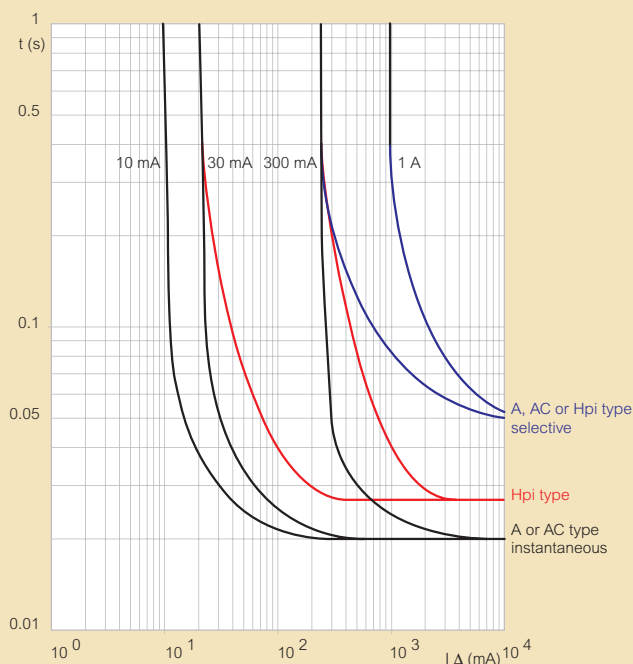
- When loss of data would be detrimental, such as computer equipment power supply lines (banks, military instrumentation, airline reservation centres, etc.)
- When loss of operation would be detrimental (automated machines, medical instrumentation, freezer lines, etc.)
- In places where there is a high risk of lightning strikes
- On sites with lines subject to considerable interference (use of fluorescent lights, etc)
- On sites with very long lines

Special case of continuity of service

In certain locations where no staff are present and in which continuity of service is particularly important, false tripping of MCBs is not permitted (isolated telephone/TV or radio substations, pumping stations, etc.)

Combining an Hpi RCBO with a motorised control and a STOP & GO recloser provides optimum continuity of service

Average residual current performance curves



■ Residual current breaking capacity of DX³ add-on modules

$I_{\Delta m}$ according to EN 61009-1
AC, A and Hpi add-on modules

DX ³ add-on modules used with an MCB	$I_{\Delta m}$
DX ³ (1 mod./pole) 25 kA ≤ 25 A (B, C, Z curves) 25 kA ≤ 10 A (D, MA curves)	6000 A
DX ³ (1.5 mod./pole) 10000 16 kA (80 to 125 A) 25 kA ≥ 32 A (B, C, Z curves) 25 kA ≥ 12.5 A (D, MA curves) 36 kA 50 kA	30000 A



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