

AIR CIRCUIT BREAKERS FROM 630 A to 4000 A

DMX-SP

AFFORDABLE
PROTECTION
FOR YOUR
INSTALLATIONS



THE **GLOBAL SPECIALIST**
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES



DMX-SP, THE IDEAL SOLUTION FOR ROUTINE PROJECTS

With DMX-SP, Legrand offers you a new range of air circuit breakers and trip free switches that meet the performance requirements of any standard installation for current ratings up to 4000 A and breaking capacities up to 65 kA. Quality, reliability and strength are the main attributes of this new range, which provides effective protection for all your installations.



DMX-SP 2500/4000
FIXED OR DRAW-OUT ACBs



DMX-SP-I 2500/4000
FIXED OR DRAW-OUT TRIP FREE SWITCHES

CONTENTS

THE DMX-SP RANGE

A complete range for routine projects 2

PROTECTION UNITS

Maximum accuracy & flexibility 4

CONTROL AND SIGNALLING AUXILIARIES

Simplicity and time saving 6

CONNECTION ACCESSORIES

Quick installation & adaptability 8



**THE DMX-SP RANGE CAN ADAPT
TO ANY INSTALLATION WITHOUT
SPECIAL REQUIREMENTS**

IN TERMS OF BREAKING CAPACITY,
OR CONTINUITY OF SERVICE. IT IS
IDEAL FOR EFFECTIVELY PROTECTING
INSTALLATIONS IN BLOCKS OF FLATS,
HOTELS, OFFICE BUILDINGS, SMALL
COMMERCIAL BUILDINGS (SHOPS, ETC)
AND SMALL-SCALE INDUSTRY.

DMX-SP, A COMPLETE RANGE

FOR 630 A
to 4000 A
INSTALLATIONS

These products are easy to use and install, and provide effective protection for your installation. There is a choice of two sizes, available with 3 and 4 poles, in fixed or draw-out versions and equipped with appropriate electronic protection units depending on the desired service level. This offer also includes a range of control and signalling auxiliaries and connection accessories for perfect integration in any electrical installation, however it is configured.



DMX - SP 2500
and **DMX-SP-I 2500**
Fixed or draw-out
version



DMX - SP 4000
and **DMX-SP-I 4000**
Fixed or draw-out
version



STANDARDS
COMPLIANCE

DMX-SP 2500/4000 ACBs COMPLYING WITH **STANDARD IEC 60947-2**

DMX-SP-I 2500/4000 TRIP FREE SWITCHES COMPLYING WITH **STANDARD IEC 60947-3**

DMX-SP 2500
and **DMX-SP-I 2500**
Fixed or draw-out
version



DMX-SP 4000
and **DMX-SP-I 4000**
Fixed or draw-out
version



NOMINAL CURRENT I_n (A)

	3P		4P		3P		4P	
630	x		x					
800	x		x					
1000	x		x					
1250	x		x					
1600	x		x					
2000	x		x					
2500	x		x					
3200					x			x
4000					x			x

RATED OPERATING VOLTAGE U_e (V)

	690	690
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DIMENSIONS (mm)

	Fixed version		Draw-out version		Fixed version		Draw-out version	
	3P	4P	3P	4P	3P	4P	3P	4P
Height	321	321	358	358	419	419	473	473
Width	321	406	351	436	406	538	425	555
Depth	254	254	377	377	433	433	433	433

BREAKING CAPACITY I_{cu} (kA)

		DMX - SP 2500	DMX - SP 4000
42 kA (415 V~)		x	
50 kA (415 V~)		x	x
65 kA (415 V~)			x



COMPACT, OPTIMISED DIMENSIONS

The compact dimensions of DMX-SP air circuit breakers optimise the use of space inside the enclosure so the most appropriate size of enclosure can be chosen.

DMX-SP, MAXIMUM ACCURACY & FLEXIBILITY

TWO TYPES OF PROTECTION UNIT

DMX-SP air circuit breakers are factory-fitted with two types of protection unit, MP2 or MP4, which guarantee an excellent level of protection, not to mention maximum accuracy and flexibility due to their multiple setting options. Advanced functions such as communication or logical selectivity, available on MP4 protection units, meet every need at any level.

MP2 PROTECTION UNITS → PROTECTION

FOR DMX-SP 2500



FOR DMX-SP 4000



MP4 PROTECTION UNITS → PROTECTION + ADDITIONAL FUNCTIONS

FOR DMX-SP 2500



FOR DMX-SP 4000



DMX-SP 2500/4000							
		MP2			MP4		
		LI ⁽¹⁾	LSI	LSIg	LI	LSI	LSIg
PROTECTIONS							
Long delay protection against overloads	I _r , t _r	●	●	●	●	●	●
Long delay protection against short-circuits	I _{sd} , t _{sd}	-	●	●	-	●	●
Instantaneous protection against high-intensity short-circuits	I _i	●	●	●	●	●	●
Earth fault current	I _g , t _g	-	-	●	-	-	●
Neutral protection	I _N	●	●	●	●	●	●
FUNCTIONS							
Test function			●	●	●	●	●
Programming interface		●	●	●	●	●	●
External neutral option		●	●	●	●	●	●
LCD screen		-	-	-	●	●	●
Adjustment via potentiometer		●	●	●	●	●	●
Measurement (current)		-	-	-	●	●	●
Communication		-	-	-	●	●	●
Logical selectivity		-	-	-	●	●	●
Programmable contacts		-	-	-	●	●	●
Log		-	-	-	●	●	●
Internal battery		-	-	-	● ⁽¹⁾	● ⁽¹⁾	● ⁽¹⁾

(1): Only on DMX-SP 4000

AUXILIARIES, SIMPLICITY AND TIME SAVING

REMOTE CONTROL AND SIGNALLING

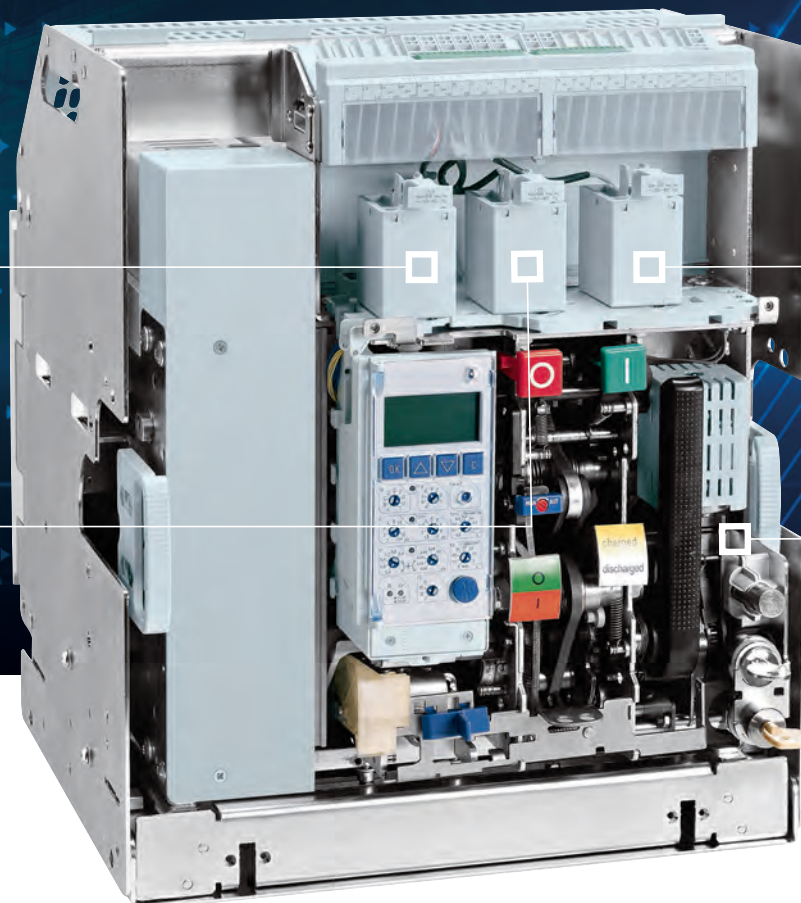
The complete range of control and signalling auxiliaries (shunt releases or undervoltage releases, motor operators, auxiliary contacts, etc) can be used to control DMX-SPs remotely and relay information concerning the status of the device contacts. All the control auxiliaries simply clip into the circuit breaker after removing the front panel. They are fitted with quick-connect connectors for maximum time saving when wiring the terminal block provided for this purpose.

1

2

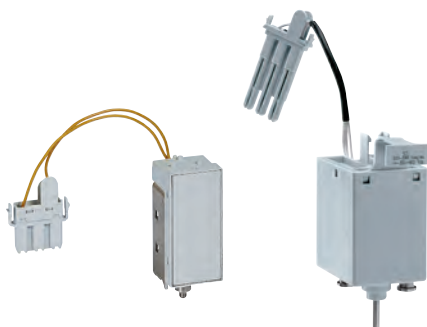
3

4



All control accessories can be easily installed without any special tool and very short time. The installation is to be done on the front panel of the air circuit breaker. In that way, the separation between power and control circuits is guaranteed.

1 SHUNT RELEASES



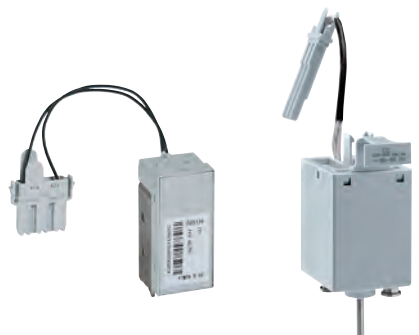
Shunt trips are devices used for the remote instantaneous opening of the air circuit breaker. They are generally controlled through an N/O type contact. The actual offer of shunt trips proposes different supply voltages from 24 V to 480 V (440 V for DMX-SP 2500 frame), compatibles with AC and DC currents. The shunt trips are already equipped with a special fast connector, to be directly inserted into auxiliary contacts block. An auxiliary contact is connected in series with the coil, cutting off its power supply when the main poles are open.

2 UNDERVOLTAGE RELEASES



Undervoltage releases are devices which are generally controlled by an N/C type contact. They trigger instantaneous opening of the circuit breaker if their supply voltage drops below a certain threshold and in particular if the control contact opens. These releases are equipped with a device for limiting their consumption after the circuit has been closed.

3 CLOSING COIL



These coils are used for remotely controlling the closing of the power contacts of the circuit breaker. The springs of the circuit breaker are to be loaded prior to the action of the closing coils. They are controlled by an N/O type contact.

4 MOTOR OPERATORS



Motor operators, are used for remotely reloading the springs of the circuit breaker mechanism immediately after the device closes. The device can thus be re-closed almost immediately after an opening operation. To motorise a DMX-SP it is necessary to add a release coil (undervoltage release or shunt trip) and a closing coil. If the supply voltage of the controls fails, it is still possible to reload the springs manually. Motor-driven controls have "limit switch" contacts which cut off the power supply of their motor after the springs have been reloaded. Motor operators are easy to mount, with only three screws.

DMX-SP, QUICK INSTALLATION & ADAPTABILITY

CONNECTION ACCESSORIES

Connection accessories are quick to install and are totally adaptable to different busbar configurations in the distribution board: flat, vertical or horizontal connection. In addition the catalogue numbers are the same as those for the DMX³ range, which helps optimise stocks.



1 DMX-SP FIXED VERSION

→ Flat connection with bars

The type of rear terminals can be easily changed according to your needs.

DMX-SP 2500: Cat. Nos. 0 288 84/85
DMX-SP 4000: Cat. Nos. 6 696 14/15



→ Horizontal connection : directly on the device

→ Vertical connection with bars

This type of connection uses 2 accessories: the previous rear terminals for flat connection, which must be equipped with the vertical ones.

DMX-SP 2500
Cat. Nos. 0 288 84/85 + 0 288 82/83
DMX-SP 4000
Cat. Nos. 6 696 14/15 + 0 288 94/95



→ Spreaders strips - DMX-SP 2500 only

For any situation requiring a bigger width for a safe connection (i.e. aluminium bus bars).



Flat connection
3P : Cat. N°0 288 86
4P : Cat. N°0 288 87



Vertical connection
3P : Cat. N°0 288 88
4P : Cat. N°0 288 89



Horizontal
3P : Cat. N°0 288 90
4P : Cat. N°0 288 91

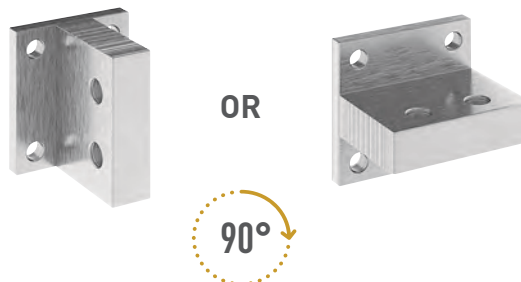
2 DMX-SP DRAW-OUT VERSION

→ Flat connection : directly on the device

→ Horizontal/vertical connection with bars

Draw-out version of the DMX-SP breakers is supplied with rear terminals for flat connection with bars. You can easily transform those terminals into vertical or horizontal type by using the unique reversible connector.

DMX-SP 2500: Cat. Nos. 0 288 96/97
DMX-SP 4000: Cat. Nos. 6 696 94/95



OR

90°

Air circuit breakers DMX-SP 2500

from 630 to 2500 A



6 695 76

6 695 36

DMX-SP 2500 electronic protection units



0 281 64

0 281 66

0 281 72

Dimensions **p. 18**
 Technical characteristics **p. 11**

Automatic air circuit breakers must be equipped with DMX-SP 2500 electronic protection units Cat.No 0 281 64/65/66/67/68, imperatively ordered together for factory assembly
 Please ask for DMX-SP order form
 Conform to IEC 60947-2

Settings and curves **see e-catalogue**

DMX-SP circuit breakers must be equipped with electronic protection units (to be ordered together for factory assembly) enabling very precise adjustments of the protection conditions, while maintaining total discrimination with downstream devices
 Conform to IEC 60947-2

Pack	Cat.Nos		Fixed version
			Supplied with - 4 auxiliary contacts: NO/NC - door sealing
	Frame 2500		Breaking capacity Icu 42 kA (415 V~)
	3P	4P	In (A)
1	6 695 00	6 695 06	630
1	6 695 01	6 695 07	800
1	6 695 02	6 695 08	1000
1	6 695 03	6 695 09	1250
1	6 695 04	6 695 10	1600
1	6 695 05	6 695 11	2000
1	6 695 06	6 695 12	2500
			Breaking capacity Icu 50 kA (415 V~)
1	6 695 24	6 695 30	630
1	6 695 25	6 695 31	800
1	6 695 26	6 695 32	1000
1	6 695 27	6 695 33	1250
1	6 695 28	6 695 34	1600
1	6 695 29	6 695 35	2000
1	6 695 30	6 695 36	2500

Pack	Cat.Nos		Draw-out version
			Supplied with: - 4 auxiliary contacts: NO/NC - door sealing To be installed on a draw-out base Cat.No 6 696 10 or 6 696 11
	Frame 2500		Breaking capacity Icu 42 kA (415 V~)
	3P	4P	In (A)
1	6 695 12	6 695 18	630
1	6 695 13	6 695 19	800
1	6 695 14	6 695 20	1000
1	6 695 15	6 695 21	1250
1	6 695 16	6 695 22	1600
1	6 695 17	6 695 23	2000
1	6 695 18	6 695 24	2500
			Breaking capacity Icu 50 kA (415 V~)
1	6 695 36	6 695 42	630
1	6 695 37	6 695 43	800
1	6 695 38	6 695 44	1000
1	6 695 39	6 695 45	1250
1	6 695 40	6 695 46	1600
1	6 695 41	6 695 47	2000
1	6 695 42	6 695 48	2500

Pack	Cat.Nos		Draw-out base
1	3P	4P	6 696 10 6 696 11
			For DMX-SP/DMX-SP-I 2500

Pack	Cat.Nos	MP2 protection units
		Adjustment via selector switches For DMX-SP 2500 and DMX ³ 1600 ACBs
1	0 281 67	LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	0 281 68	LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g

Pack	Cat.Nos	MP4 protection units with LCD screen
		Integrated LCD screen for displaying electrical values, settings and log. Adjustment via selector switches For DMX-SP 2500 and DMX ³ 1600 ACBs
1	0 281 64	LI protection unit Adjustment of: I _r , t _r
1	0 281 65	LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	0 281 66	LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g

Pack	Cat.Nos	Accessories for electronic protection units
		For DMX-SP 2500 and DMX³ 1600 ACBs
1	0 281 70	Communication option for MP4 protection units
1	0 281 72	External auxiliary power supply (input 230 V ~)
1	0 281 99	Programmable output option for MP4 protection units
		For DMX-SP 2500
1	6 696 05	External neutral for DMX-SP 2500

Trip free switches DMX-SP-I 2500

from 630 to 2500 A



6 695 80

Dimensions p. 18

Conform to IEC 60947-3

Pack	Cat.Nos		Fixed version
			Supplied with: - 4 auxiliary contacts: NO/NC - door sealing
	Frame 2500		In (A)
	3P	4P	
1	6 695 48	6 695 54	630
1	6 695 49	6 695 55	800
1	6 695 50	6 695 56	1000
1	6 695 51	6 695 57	1250
1	6 695 52	6 695 58	1600
1	6 695 53	6 695 59	2000
1	6 695 80	6 695 81	2500
			Draw-out version
			Supplied with: - 4 auxiliary contacts: NO/NC - door sealing To be installed on a draw-out base Cat.No 6 696 10 or 6 696 11 (p. 10)
	Frame 2500		In (A)
	3P	4P	
1	6 695 60	6 695 66	630
1	6 695 61	6 695 67	800
1	6 695 62	6 695 68	1000
1	6 695 63	6 695 69	1250
1	6 695 64	6 695 70	1600
1	6 695 65	6 695 71	2000
1	6 695 82	6 695 83	2500

Auxiliaries and accessories for DMX-SP 2500 p. 12-13



DMX SP 2500 and DMX-SP-I 2500

from 630 to 2500 A

Technical characteristics

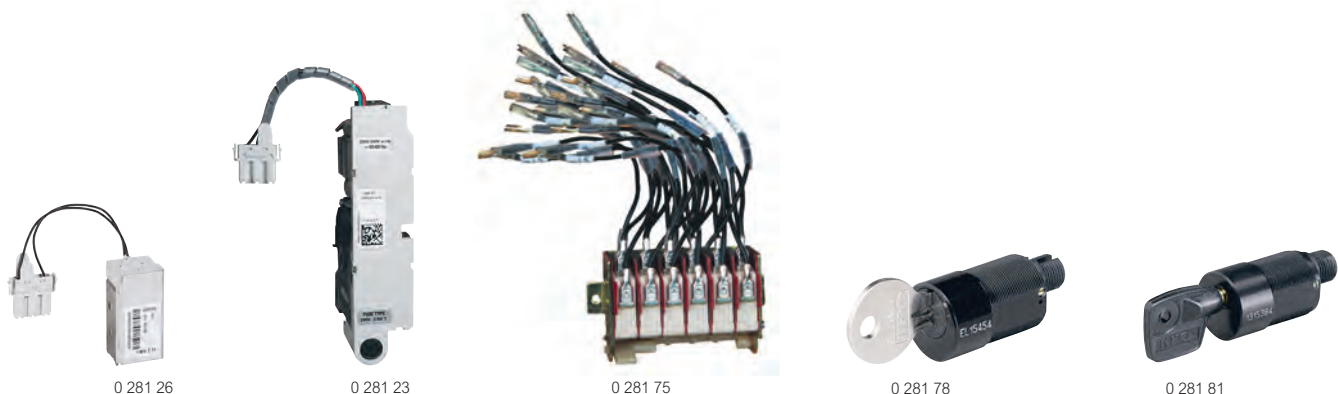
Device	DMX-SP 2500	DMX-SP-I 2500			
Frame	2500	2500			
Rated current In (A)	630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500	630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500			
Rated insulation voltage (50/60Hz) Ui (V)	1000	1000			
Rated operational voltage (50/60Hz) Ue (V)	690	690			
Rated impulse withstand voltage Uimp (kV)	12	12			
Category of use	B	AC23A			
Suitable for isolation	Yes	Yes			
Breaking capacity at 415 V~ (kA)	42	50			
	220 / 240 V~	42	50	-	
Rated ultimate short-circuit breaking capacity Icu (kA)		42	50	-	
	380 / 415 V~	42	50	-	
	440 / 460 V~	42	50	-	
	480 / 500 V~	42	50	-	
IEC 60947-2		600 V~	42	42	-
		690 V~	42	42	-
Rated service short-circuit breaking capacity Ics (%Icu)		100		-	
		220 / 240 V~	88	105	105
		380 / 415 V~	88	105	105
Rated short-circuit making capacity Icm (kA)		440 / 460 V~	88	105	105
		480 / 500 V~	88	105	105
IEC 60947-2		600 V~	88	88	88
		690 V~	88	88	88
Rated short time withstand current Icw (kA) for t = 1 s		220 / 240 V~	42	50	50
		380 / 415 V~	42	50	50
		440 / 460 V~	42	50	50
		480 / 500 V~	42	50	50
IEC 60947-2		600 V~	42	42	42
		690 V~	42	42	42
Rated Short time withstand current Icw (kA) for t = 3 s		220 / 240 V~	25	25	25
		380 / 415 V~	25	25	25
		440 / 460 V~	25	25	25
		480 / 500 V~	25	25	25
IEC 60947-2		600 V~	25	25	25
		690 V~	25	25	25
Endurance (cycles)		mechanical without maintenance	5000	5000	
		mechanical with maintenance	10000	10000	
		electrical without maintenance	3000	3000	
Temperature		operation	-25°C to +70°C	-25°C to +70°C	
		storage	-25°C to +85°C	-25°C to +85°C	

Temperature derating

Fixed / draw-out version

DMX-SP DMX-SP-I 2500	Temperature									
	up to 40°C		50°C		60°C		65°C		70°C	
	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n
Fixed version	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1552	0.97
	2000	1	2000	1	1940	0.97	1840	0.92	1760	0.88
	2500	1	2500	1	2350	0.94	2250	0.9	2150	0.86
Draw-out version	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1552	0.97	1488	0.93
	2000	1	1920	0.96	1840	0.92	1760	0.88	1660	0.83
	2500	1	2400	0.96	2250	0.9	2100	0.84	1950	0.78

Auxiliaries, accessories for DMX-SP 2500



Pack	Cat.Nos	Control and signalling auxiliaries
		Shunt trip When energised the circuit breaker will be tripped For DMX-SP 2500 and DMX ³ 1600
1	0 281 31	24 V~/=
1	0 281 32	48 V~/=
1	0 281 33	110 - 130 V~/=
1	0 281 34	220 - 250 V~/=
1	0 281 35	415 - 440 V~
		Undervoltage releases When the coil is de-energised, the circuit breaker will be tripped For DMX-SP 2500 and DMX ³ 1600
1	0 281 36	24 V~/=
1	0 281 37	48 V~/=
1	0 281 38	110 - 130 V~/=
1	0 281 39	220 - 250 V~/=
1	0 281 40	415 - 440 V~
		Module for delayed tripping To be used with above undervoltage releases For DMX-SP 2500 and 4000 and DMX ³ frame 1600 to 6300
1	0 288 62	110 V~/=
1	0 288 63	230 V~/=
		Motor operators To motorize a DMX-SP, it is possible to connect, to the motor operators, a release coil (undervoltage or trip on energising) and a closing coil For DMX-SP 2500 and DMX ³ 1600
1	0 281 20	24 V~/=
1	0 281 21	48 V~/=
1	0 281 22	110 - 130 V~/=
1	0 281 23	220 - 250 V~/=
1	0 281 24	415 - 440 V~
		Closing coils Enables remote closing of the circuit breaker if the closing spring is charged For DMX-SP 2500 and DMX ³ 1600
1	0 281 26	24 V~/=
1	0 281 27	48 V~/=
1	0 281 28	110 - 130 V~/=
1	0 281 29	220 - 250 V~/=
1	0 281 30	415 - 440 V~
		Signalling contact for draw-out version Inserted / test / draw-out signalling contact
1	0 281 73	1 changeover contact per position (up to 2 contacts with double accessory if the safety button for test position Cat.No 6 696 08 is not mounted) For DMX-SP 2500 and DMX ³ 1600

Pack	Cat.Nos	Locking
		For DMX-SP 2500 and DMX ³ 1600
		Key locking in «open» position
1	0 281 78	1 lock + 1 Ronis type flat key (n° ABA90GEL6149) random
1	0 281 79	1 lock + 1 Ronis type flat key (n° ABA90GEL6149) fixed (cod. EL43525)
1	0 281 80	1 lock + 1 Ronis type flat key (n° ABA90GEL6149) fixed (cod. EL43363)
1	0 281 81	1 lock + 1 Profalux type star key (n° HBA90GPS6149) random
		Key locking in the draw-out position Mounting of the lock on the base
1	0 281 82	1 lock with star type key (n° HBA90GPS6149) random
1	0 281 83	1 lock with flat type key (n° ABA90GEL6149) random
		Door locking Prevents opening of the door with the circuit breaker closed
1	0 281 84	Left-hand and right-hand side mounting
		Padlocks in "open" position
1	0 281 77	Padlock for buttons
		Accessories
		For DMX-SP 2500 and DMX³ 1600
1	0 281 88	Mechanical counter Counts total number of operation cycles of the device
1	0 281 74	Contact «ready to close» with charged springs
1	0 281 75	Module with 6 auxiliary contacts
1	0 281 89	Rating mis-insertion device Prevents the insertion of a draw-out circuit breaker in an incompatible base
		For DMX-SP 2500 draw-out version
1	6 696 08	Inserted / test / draw-out lock button

Auxiliaries, accessories for DMX-SP 2500

(continued)



Dimensions **p. 18**

Pack	Cat.Nos		
			Rear terminals
			For DMX-SP 2500 and DMX ³ frame 2500
	3P	4P	For fixed version
1	0 288 84	0 288 85	For flat connection with bars To be fixed onto horizontal rear terminals of the circuit breaker
1	0 288 82	0 288 83	For vertical connection with bars Those terminals are used in order to transform a flat connection into a vertical one To be fixed onto Cat.Nos 0 288 84/85 according to the number of poles
1	0 288 96	0 288 97	For draw-out version For vertical or horizontal connection with bars To be fixed onto plate rear terminals of the circuit breaker
			Spreaders for fixed version
			To be fixed onto horizontal rear terminals of the circuit breaker For DMX-SP 2500 and DMX ³ frame 2500
	3P	4P	
1	0 288 86	0 288 87	For flat connection with bars
1	0 288 88	0 288 89	For vertical connection with bars
1	0 288 90	0 288 91	For horizontal connection with bars
			Insulation shields
	3P	4P	For fixed version
1	6 696 00	6 696 01	For DMX-SP 2500
			For draw-out version
1	6 696 02	6 696 03	For DMX-SP 2500

Equipment for DMX-SP 2500 transfer switches



Technical characteristics **see e-catalogue**

Pack	Cat.Nos	
		Equipment for transfer switches
		The mechanical interlock is set up using cables and can interlock devices, which may be different type in a vertical or horizontal configuration The interlock unit is mounted on the right-hand side of the device Cable interlock to be ordered separately (cable length to be specified according to every configuration - see below) Interlock for DMX-SP 2500 or DMX ³ 1600
1	0 281 90	
		Cable interlock
		For DMX-SP 2500 / 4000 and DMX ³ frame 1600 to 6300
		Length
1	0 289 17	1000 mm
1	0 289 18	1500 mm
1	0 289 20	2600 mm
1	0 289 21	3000 mm
1	0 289 22	3600 mm
1	0 289 23	4000 mm
1	0 289 24	4600 mm
1	0 289 25	5600 mm

Air circuit breakers DMX-SP 4000

from 3200 to 4000 A



6 696 41

Dimensions **p. 20**
 Technical characteristics **p. 15**

Automatic air circuit breakers must be equipped with DMX-SP 4000 electronic protection units Cat.No 6 682 90/91/92 and 0 288 00/01/02, imperatively ordered together for factory assembly
 Please ask for DMX-SP order form
 Conform to IEC 60947-2

Pack	Cat.Nos		Fixed version
	Frame 4000		Supplied with - 1 auxiliary contact: NO/NC - door sealing
	3P	4P	Breaking capacity I_{cu} 50 kA (415 V~)
1	6 696 30	6 696 32	In (A)
1	6 696 31	6 696 33	3200
			4000
	Frame 4000		Breaking capacity I_{cu} 65 kA (415 V~)
1	6 696 34	6 696 36	3200
1	6 696 35	6 696 37	4000
	Frame 4000		Breaking capacity I_{cu} 50 kA (415 V~)
	3P	4P	In (A)
1	6 696 40	6 696 42	3200
1	6 696 41	6 696 43	4000
	Frame 4000		Breaking capacity I_{cu} 65 kA (415 V~)
1	6 696 44	6 696 46	3200
1	6 696 45	6 696 47	4000
	Frame 4000		Breaking capacity I_{cu} 50 kA (415 V~)
	3P	4P	In (A)
1	6 696 12	6 696 13	3200
			4000
	Frame 4000		Breaking capacity I_{cu} 65 kA (415 V~)
1	6 696 44	6 696 46	3200
1	6 696 45	6 696 47	4000

Draw-out version

Supplied with:
- 1 auxiliary contact: NO/NC
- door sealing
To be installed on a draw-out base
Cat.No 6 696 12 or 6 696 13

Breaking capacity I_{cu} 50 kA (415 V~)
In (A)
3200
4000

Breaking capacity I_{cu} 65 kA (415 V~)
3200
4000

Draw-out base

For DMX-SP/DMX-SP-I 4000

DMX-SP 4000 electronic protection units



0 288 00



0 288 02

Settings and curves **see e-catalogue**

DMX-SP circuit breakers must be equipped with electronic protection units (to be ordered together for factory assembly) enabling very precise adjustments of the protection conditions, while maintaining total discrimination with downstream devices
 Conform to IEC 60947-2

Pack	Cat.Nos	MP2 protection units
		Adjustment via selector switches
1	6 682 90	LI protection unit Adjustment of: I _i , I _r and t _r
1	6 682 91	LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	6 682 92	LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g
		MP4 protection units with LCD screen
		Integrated LCD screen for displaying electrical values, settings and log. Adjustment via selector switches. Equipped with batteries for powering in case of mains power failure or when the breaker is open or not connected. For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 00	LI protection unit Adjustment of: I _i , I _r , t _r
1	0 288 01	LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	0 288 02	LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g
		Accessories for electronic protection units
1	0 288 05	For DMX-SP 4000 and DMX ³ frame 2500 to 6300 Communication option for MP4 protection units
1	0 288 06	External auxiliary power supply (input 24 V ~ / =)
1	0 288 11	External neutral
1	0 288 12	Programmable output option for MP4 protection units

Trip free switches DMX-SP-I 4000

from 3200 to 4000 A



6 695 95

Dimensions p. 20

Conform to IEC 60947-3

Pack	Cat.Nos		
			Fixed version
			Supplied with: - 1 auxiliary contact: NO/NC - door sealing
	Frame 4000		In (A)
	3P	4P	
1	6 695 90	6 695 92	3200
1	6 695 91	6 695 93	4000
			Draw-out version
			Supplied with: - 1 auxiliary contact: NO/NC - door sealing To be installed on a draw-out base Cat.No 6 696 12 or 6 696 13 (p. 6)
	Frame 4000		In (A)
	3P	4P	
1	6 695 94	6 695 96	3200
1	6 695 95	6 695 97	4000

Auxiliaries and accessories for DMX-SP 4000 p. 16-17



DMX SP 4000 and DMX-SP-I 4000

from 3200 to 4000 A

Technical characteristics

Device	DMX-SP 4000		DMX-SP-I 4000
Frame	4000		4000
Rated current In (A)	3200 4000		3200 4000
Rated insulation voltage (50/60Hz) Ui (V)	1000		1000
Rated operational voltage (50/60Hz) Ue (V)	690		690
Rated impulse withstand voltage Uimp (kV)	12		12
Category of use	B		AC23A
Suitable for isolation	Yes		Yes
Breaking capacity at 415 V~ (kA)	50	65	-
	220 / 240 V~	50	65
Rated ultimate short-circuit breaking capacity	380 / 415 V~	50	65
	440 / 460 V~	50	65
	480 / 500 V~	50	65
IEC 60947-2	600 V~	42	50
	690 V~	42	50
Rated service short-circuit breaking capacity Ics (%Icu)	100		-
	220 / 240 V~	105	143
	380 / 415 V~	105	143
Rated short-circuit making capacity Icm (kA)	440 / 460 V~	105	143
	480 / 500 V~	105	143
IEC 60947-2	600 V~	88	105
	690 V~	88	105
	220 / 240 V~	50	65
Rated short time withstand current Icw (kA) for t = 1 s	380 / 415 V~	50	65
	440 / 460 V~	50	65
	480 / 500 V~	50	65
IEC 60947-2	600 V~	42	50
	690 V~	42	50
	220 / 240 V~	36	40
Rated Short time withstand current Icw (kA) for t = 3 s	380 / 415 V~	36	40
	440 / 460 V~	36	40
	480 / 500 V~	36	40
IEC 60947-2	600 V~	36	40
	690 V~	36	40
Endurance (cycles)	mechanical without maintenance	5000	
	mechanical with maintenance	10000	
	electrical without maintenance	3000	
Temperature	operation	-25°C to +70°C	
	storage	-25°C to +85°C	

Temperature derating

Fixed / draw-out version

DMX SP DMX-SP-I 4000	Temperature									
	up to 40°C		50°C		60°C		65°C		70°C	
	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n
Fixed version	3200	1	3200	1	3104	0.97	2944	0.92	2880	0.90
	4000	1	3600	0.90	3400	0.85	3200	0.80	3000	0.75
Draw-out version	3200	1	3200	1	3104	0.97	2880	0.90	2720	0.85
	4000	1	3600	0.90	3320	0.83	3080	0.77	2800	0.70

Auxiliaries and accessories for DMX-SP 4000



Pack Cat.Nos Control and signalling auxiliaries

Pack	Cat.Nos	Control and signalling auxiliaries
		Shunt trip When energised the circuit breaker will be tripped For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 48	24 V~/=
1	0 288 49	48 V~/=
1	0 288 50	110 - 130 V~/=
1	0 288 51	220 - 250 V~/=
1	0 288 52	415 - 480 V~
		Undervoltage releases When the coil is de-energised, the circuit breaker will be tripped For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 55	24 V~/=
1	0 288 56	48 V~/=
1	0 288 57	110 - 130 V~/=
1	0 288 58	220 - 250 V~/=
1	0 288 59	415 - 480 V~
		Module for delayed tripping To be used with above undervoltage releases For DMX-SP 2500 and 4000 and DMX ³ frame 1600 to 6300
1	0 288 62	110 V~/=
1	0 288 63	230 V~/=
		Motor operators To motorize a DMX-SP, it is possible to connect, to the motor operators, a release coil (undervoltage or trip on energising) and a closing coil For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 34	24 V~/=
1	0 288 35	48 V~/=
1	0 288 36	110 - 130 V~/=
1	0 288 37	220 - 250 V~/=
1	0 288 38	415 - 440 V~
1	0 288 40	480 V~/=
		Closing coils Enables remote closing of the circuit breaker if the closing spring is charged For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 41	24 V~/=
1	0 288 42	48 V~/=
1	0 288 43	110 - 130 V~/=
1	0 288 44	220 - 250 V~/=
1	0 288 45	415 - 480 V~
		Signalling contact for auxiliaries Signalling contact for shunt trips, undervoltage releases and closing coils For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 16	
		Signalling contact for draw-out version Inserted / test / draw-out signalling contact For DMX-SP 4000 and DMX ³ frame 2500 to 6300
1	0 288 13	3 changeover contacts per position

Pack Cat.Nos Locking

Pack	Cat.Nos	Locking
		For DMX-SP 4000 and DMX ³ frame 2500 to 6300
		Key locking in "open" position
1	0 288 30	Lock and star key N° HBA90GPS6149 - to be fitted on the frame Cat.No 0 288 28
1	0 288 31	Lock and flat key N° ABA90GEL6149 - to be fitted on the frame Cat.No 0 288 28
1	0 288 71	Lock and Ronis type flat key (n° ABA90GEL6149) fixed (cod. EL43525)
1	0 289 06	Lock and Ronis type flat key (n° ABA90GEL6149) fixed (cod. EL43363)
1	0 288 28	2 hole support frame for locks Cat.Nos 0 288 29/30/31/71 and 0 289 06
1	0 288 29	Set of 5 key barrels with flat key
		Key locking in the draw-out position Mounting of the lock on the base
1	0 288 32	Lock and star key N° HBA90GPS6149
1	0 288 33	Lock and flat key N° ABA90GEL6149
		Door locking Prevents opening of the door with the circuit breaker closed Left-hand and right-hand side mounting
1	0 288 20	
		Padlocks in "open" position
1	0 288 21	Padlocking system for ACB (padlock not supplied)
1	0 288 24	Padlock for buttons
1	0 288 26	Padlocking system for shutters (padlock not supplied)
		Accessories
		For DMX-SP 4000 and DMX³ frame 2500 to 6300
1	0 288 25	Rating mis-insertion device Prevents the insertion of a draw-out circuit breaker in an incompatible base
1	0 288 23	Operations counter Counts total number of operation cycles of the device
1	0 288 14	Contact "ready to close" with charged springs
1	0 288 15	Additional signalling contact
1	0 288 79	Lifting plate
		For DMX-SP 4000
1	6 696 16	Trip contact To be ordered together with the DMX-SP 4000 for factory assembly

Rear terminals for DMX-SP 4000



0 288 94

Dimensions **p. 21**

Pack	Cat.Nos		Rear terminals
1	3P 6 696 14	4P 6 696 15	For DMX-SP frame 4000 fixed version To be fixed onto horizontal rear terminals of the circuit breaker For DMX-SP frame 4000 and DMX³ frame 4000 and 6300 fixed or draw-out version On DMX-SP fixed version: - For vertical connection with bars - To be fixed onto Cat.Nos 6 696 14/15 according to the number of poles On DMX-SP draw-out version: - For vertical or horizontal connection with bars - To be fixed directly onto plate rear terminals of the circuit breaker
1	0 288 94	0 288 95	
			Insulation shields
1	3P 0 288 98	4P 0 288 99	For fixed version For DMX-SP frame 4000 and DMX ³ frame 2500 to 6300 For draw-out version For DMX-SP frame 4000 and DMX ³ frame 2500 to 6300
1	0 288 18	0 288 19	

Equipment for DMX-SP 4000 transfer switches



0 288 65



0 289 20

Technical characteristics **see e-catalogue**

Pack	Cat.Nos	Equipment for transfer switches
1	0 288 65	The mechanical interlock is set up using cables and can interlock 2 or 3 devices, which may be different type in a vertical or horizontal configuration The interlock unit is mounted on the right-hand side of the device Cable interlock to be ordered separately (cable length to be specified according to every configuration - see below) Interlock for DMX-SP frame 4000
		Cable interlock
		For DMX-SP 2500 / 4000 and DMX ³ frame 1600 to 6300
		Length
1	0 289 17	1000 mm
1	0 289 18	1500 mm
1	0 289 20	2600 mm
1	0 289 21	3000 mm
1	0 289 22	3600 mm
1	0 289 23	4000 mm
1	0 289 24	4600 mm
1	0 289 25	5600 mm

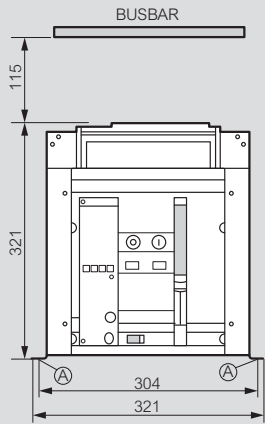
DMX-SP 2500

dimensions

Fixed version

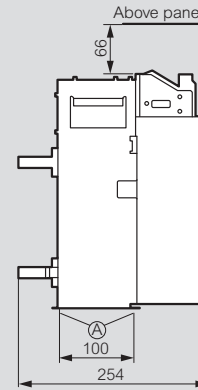
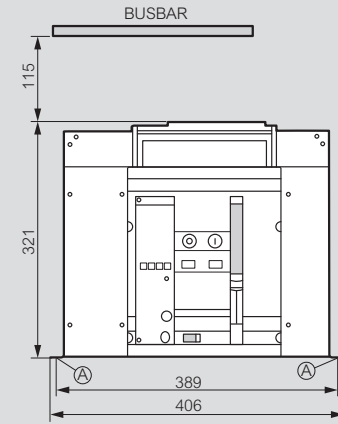
Overall dimensions

3P version



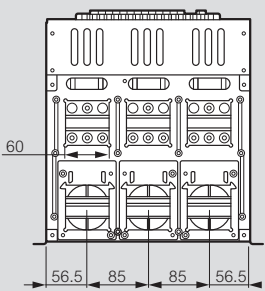
A = fixing point on plate of enclosure

4P version

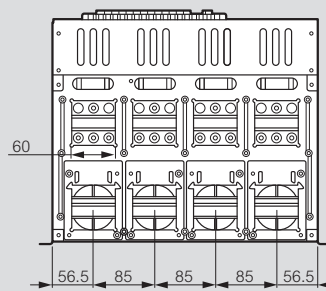


Rear terminals for horizontal connection with bars

3P version

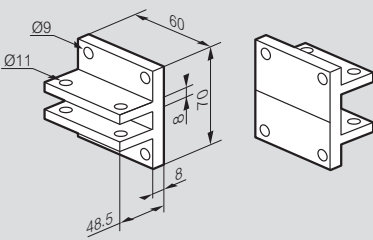


4P version



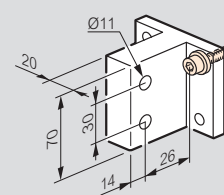
Rear terminals for flat connection with bars

Cat.Nos 0 288 84/85



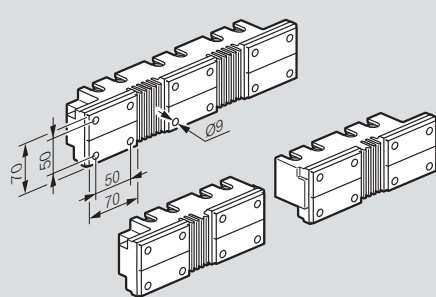
Rear terminals for vertical connection with bars

Cat.Nos 0 288 82/83



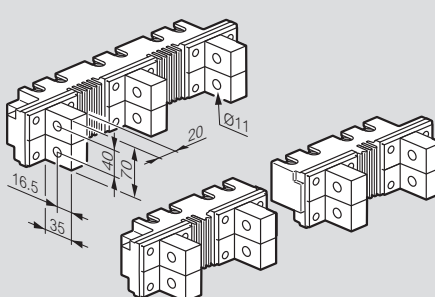
Spreaders for flat connection with bars

Cat.Nos 0 288 86/87



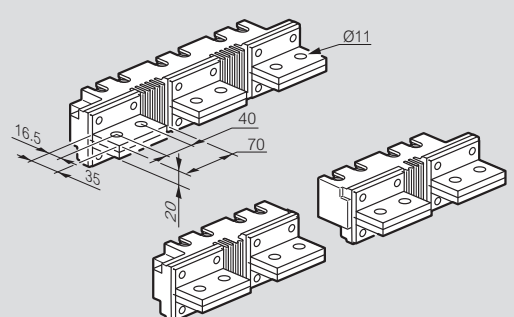
Spreaders for vertical connection with bars

Cat.Nos 0 288 88/89



Spreaders for horizontal connection with bars

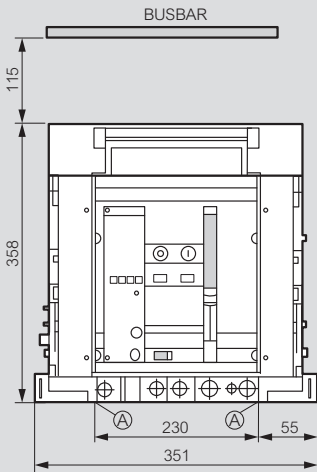
Cat.Nos 0 288 90/91



Draw-out version

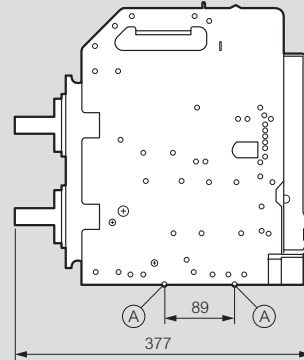
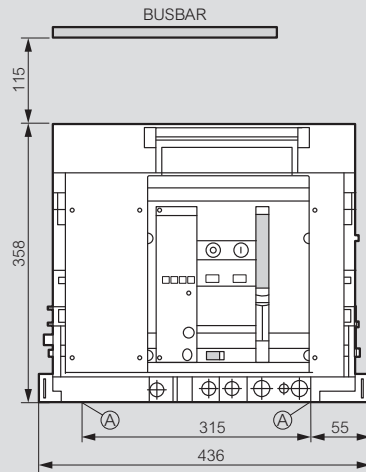
Overall dimensions

3P version



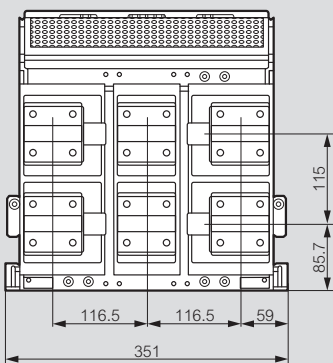
A = fixing point on plate of enclosure

4P version

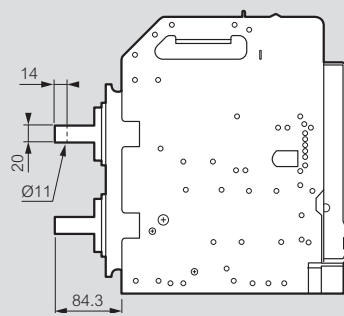
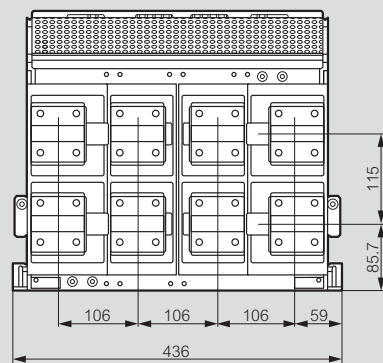


Rear terminals for horizontal connection with bars

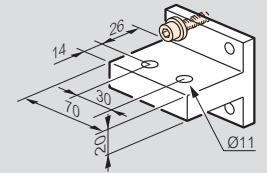
3P version



4P version

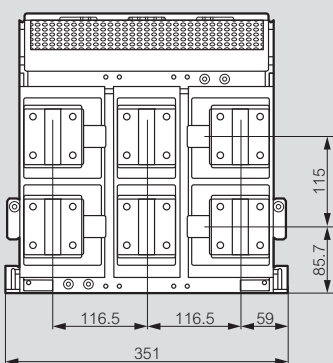


Reversible rear terminals
Cat.Nos 0 288 96/97

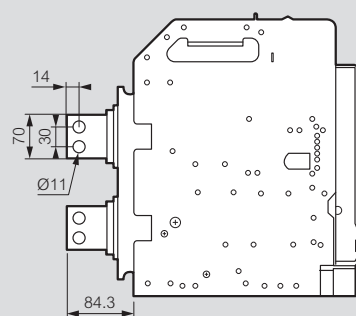
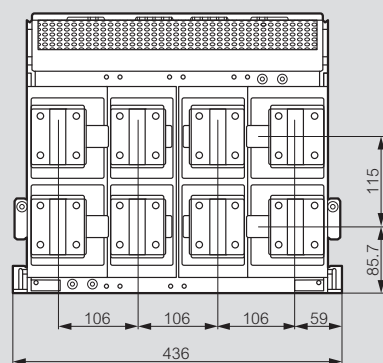


Rear terminals for vertical connection with bars

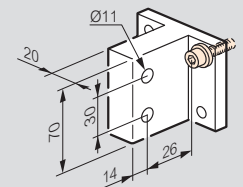
3P version



4P version



Reversible rear terminals
Cat.Nos 0 288 96/97



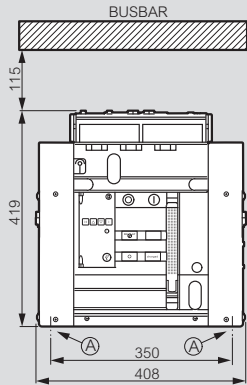
DMX-SP 4000

dimensions

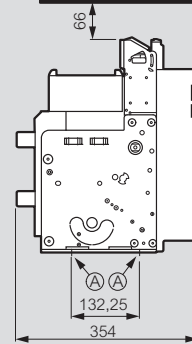
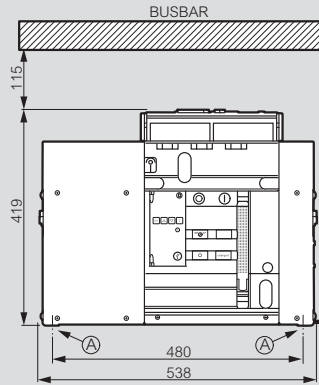
Fixed version - frame 4000

Overall dimensions

3P version

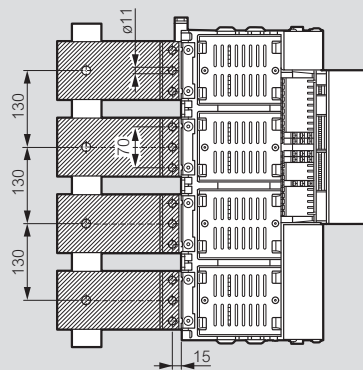
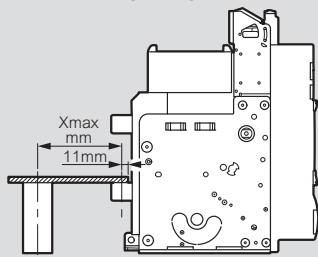


4P version



A = fixing point on plate of enclosure

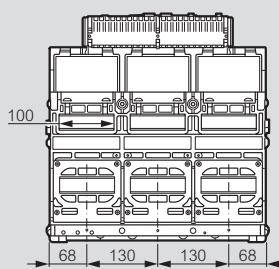
Connection principle



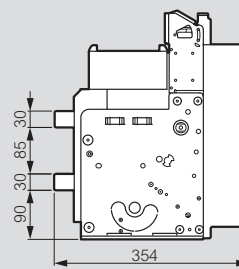
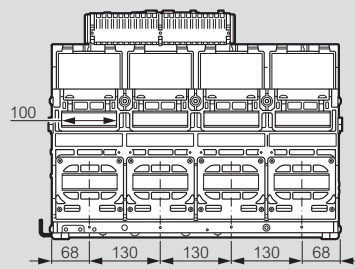
Icc (kA)	≤ 50	≤ 65
Xmax (mm)	300	250

Rear terminals for horizontal connection with bars

3P version



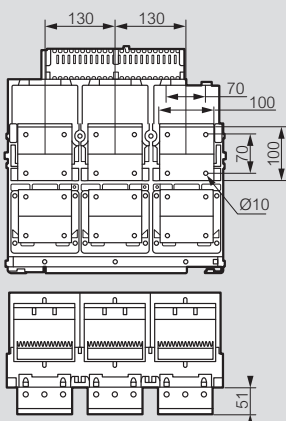
4P version



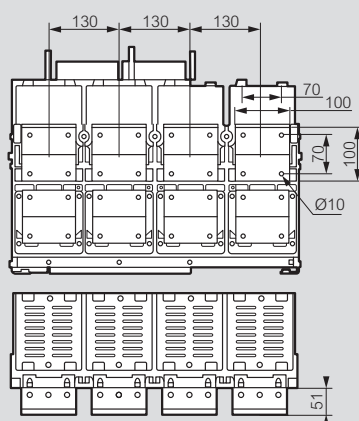
Rear terminals for flat connection with bars

Cat.Nos 6 696 14/15

3P version

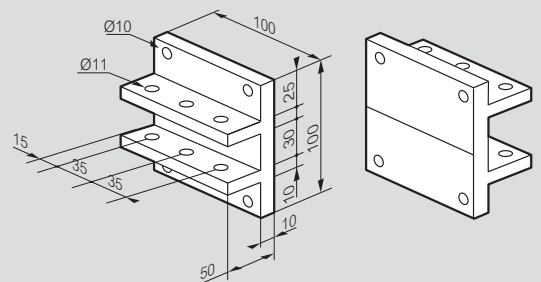


4P version



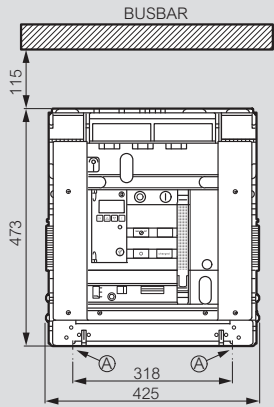
Rear terminals

Cat.Nos 6 696 14/15



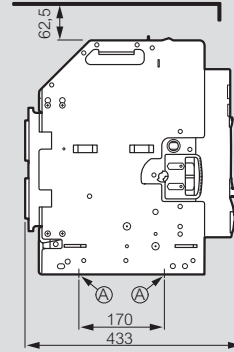
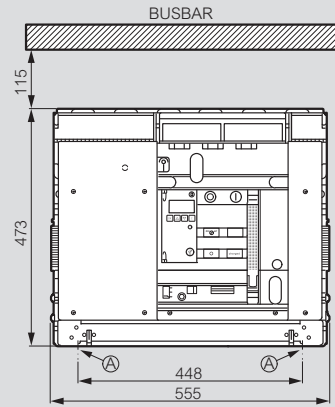
Draw-out version - frame 4000

3P version

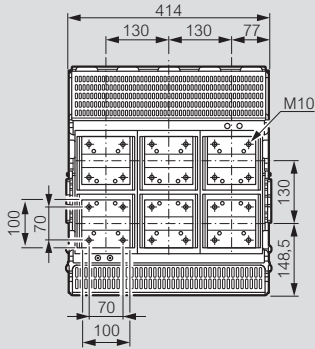


A = fixing point on plate of enclosure

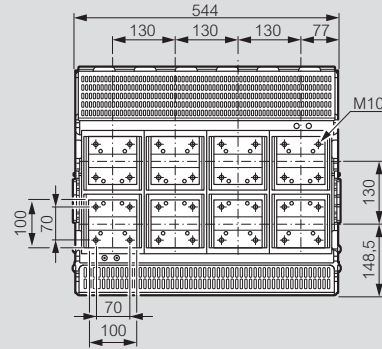
4P version



Rear terminals for flat connection with bars
3P version

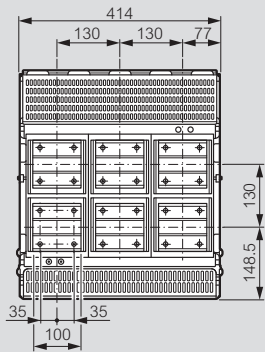


4P version

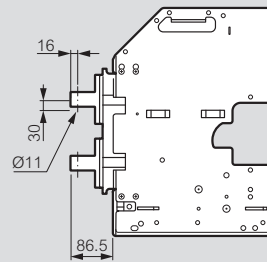
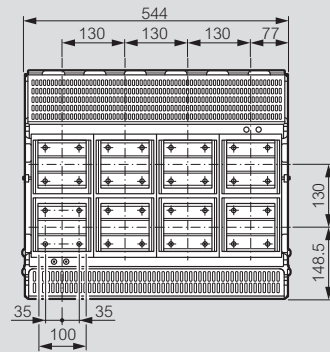


Rear terminals for horizontal connection with bars
Cat.Nos 0 288 94/95

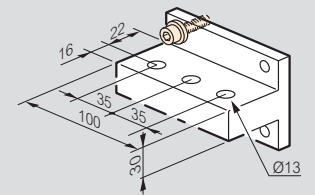
3P version



4P version

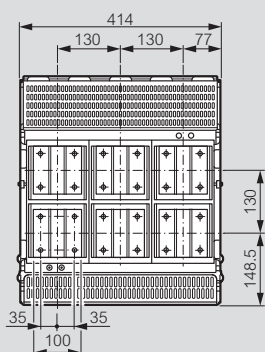


Reversible rear terminals
Cat.Nos 0 288 94/95

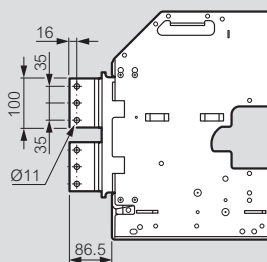
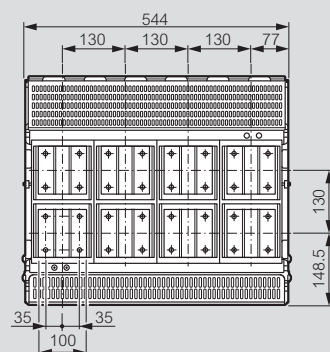


Rear terminals for vertical connection with bars
Cat.Nos 0 288 94/95

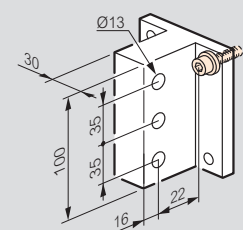
3P version



4P version



Reversible rear terminals
Cat.Nos 0 288 94/95





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Head Office

and International Department
87045 Limoges Cedex - France

Tel: +33(0)5 55 06 87 87

Fax: +33(0)5 55 06 74 55