

DMX

SP-2500

Three unique advantages make it the only one you will need.

Optimized

Smart

Efficient



LIVE THE ADVANTAGE

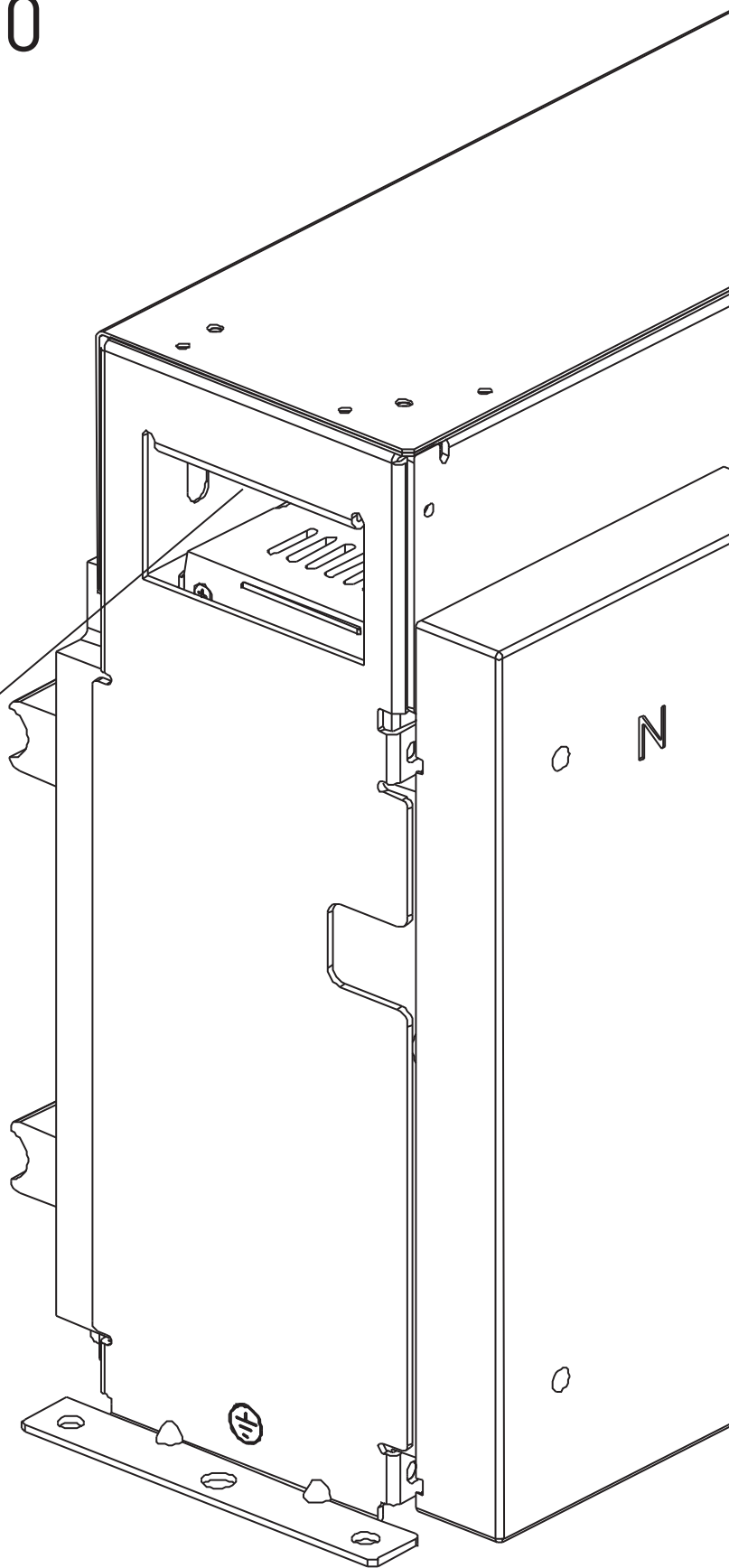
The pace of today's life demands continuous upgrades in efficiency and ways to live smarter. At Legrand, we anticipate your needs with technologically advanced products, investing as much as 5% on R&D to deliver superior electrical and digital building infrastructure.

As global specialists, we make things that are not just essential but actually desirable. Our engineering is exacting, and is fuelled by design thinking. We call this Designeering. It's not just a deep understanding of our markets, but delivering innovation and technology for uninterrupted living.

Such expertise helps us fulfil your needs. It also ensures that we keep introducing products that change the way you look at form and function. The extraordinary DMX SP 2500 is a case in point. It combines three advantages in one ACB to give you the advantage.

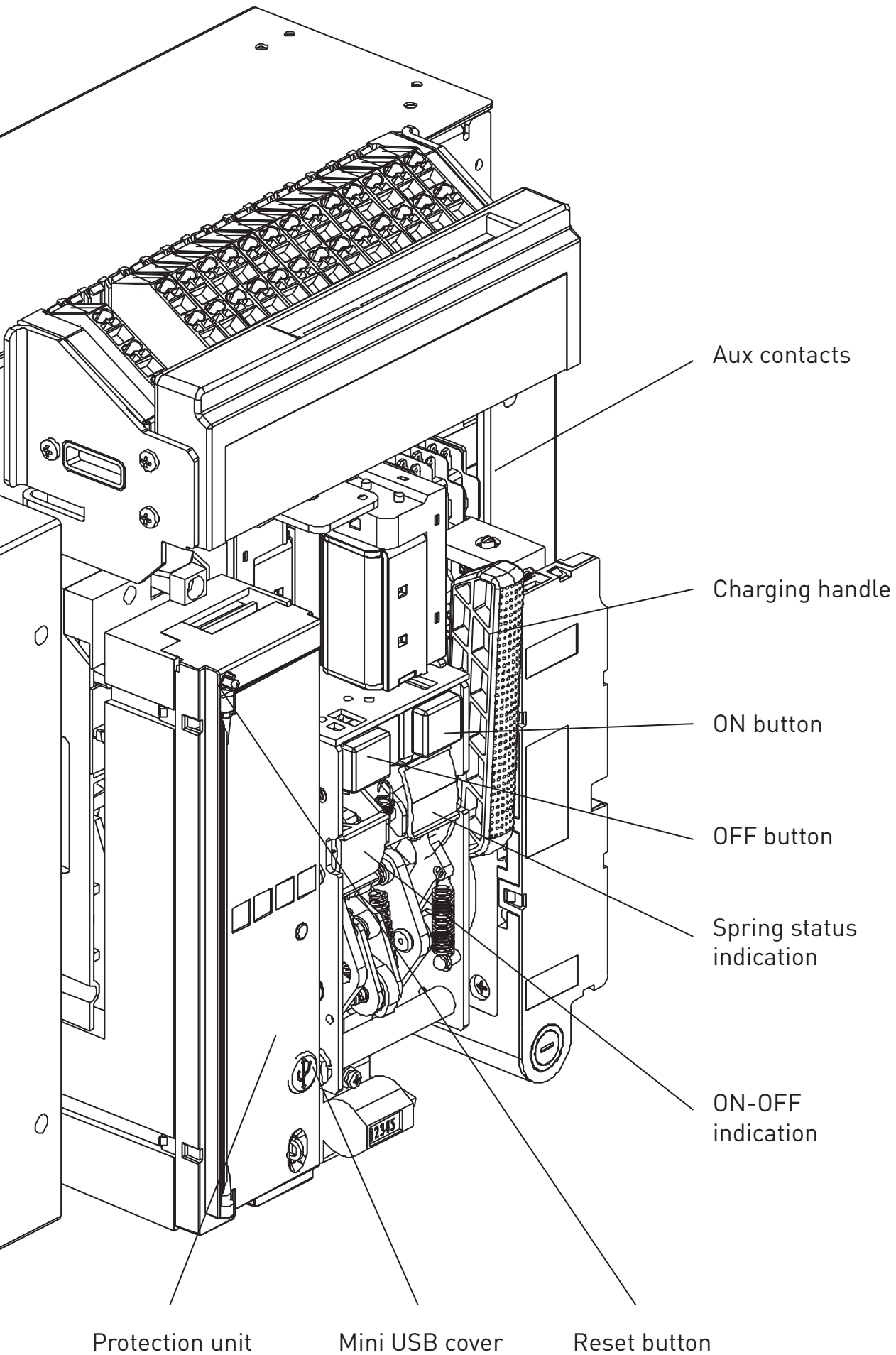
DMX SP-2500

Lifting handle



DMX

SP-2500



Introducing

DMX SP 2500

from Legrand. A superior ACB in the 630A to 2500A, 50kA range. It is packed with benefits which includes protection features, high mechanical and electrical endurance. No need to change busbar design. No compromise on termination space. DMX SP 2500 is thoughtfully designed to minimize power loss which translates into direct cost savings to customers. All of which makes DMX SP 2500 the perfect ACB across applications in commercial, residential, medium-scale industries, hospitals, malls and hotels.



OPTIMIZED

- Ample termination space
- Generous clearances
- Smart dimensions to reduce panel size

SMART

- Electronic releases offering precise protection
- In-built temperature protection
- Protection Unit with Display

EFFICIENT

- Easy installation
- Easy maintenance
- Fast operation reduces stress on the system

DMX SP 2500

COMES WITH THE
FOLLOWING FEATURES

ELECTRONIC
PROTECTION
UNIT WITH DISPLAY

FIXED, DRAW-
OUT AND SWITCH
DISCONNECTORS
IN 3P & 4P

ELECTRONIC
TRIP UNIT WITH
ROTARY KNOBS
OFFERS LSI/LSIG
PROTECTION

MECHANICAL
ENDURANCE

WITH MAINTENANCE
- 10000 CYCLES
WITHOUT MAINTENANCE
- 5000 CYCLES

$I_{cu}=I_{cs}$
 $=I_{cw}=50kA$



630A-2500A

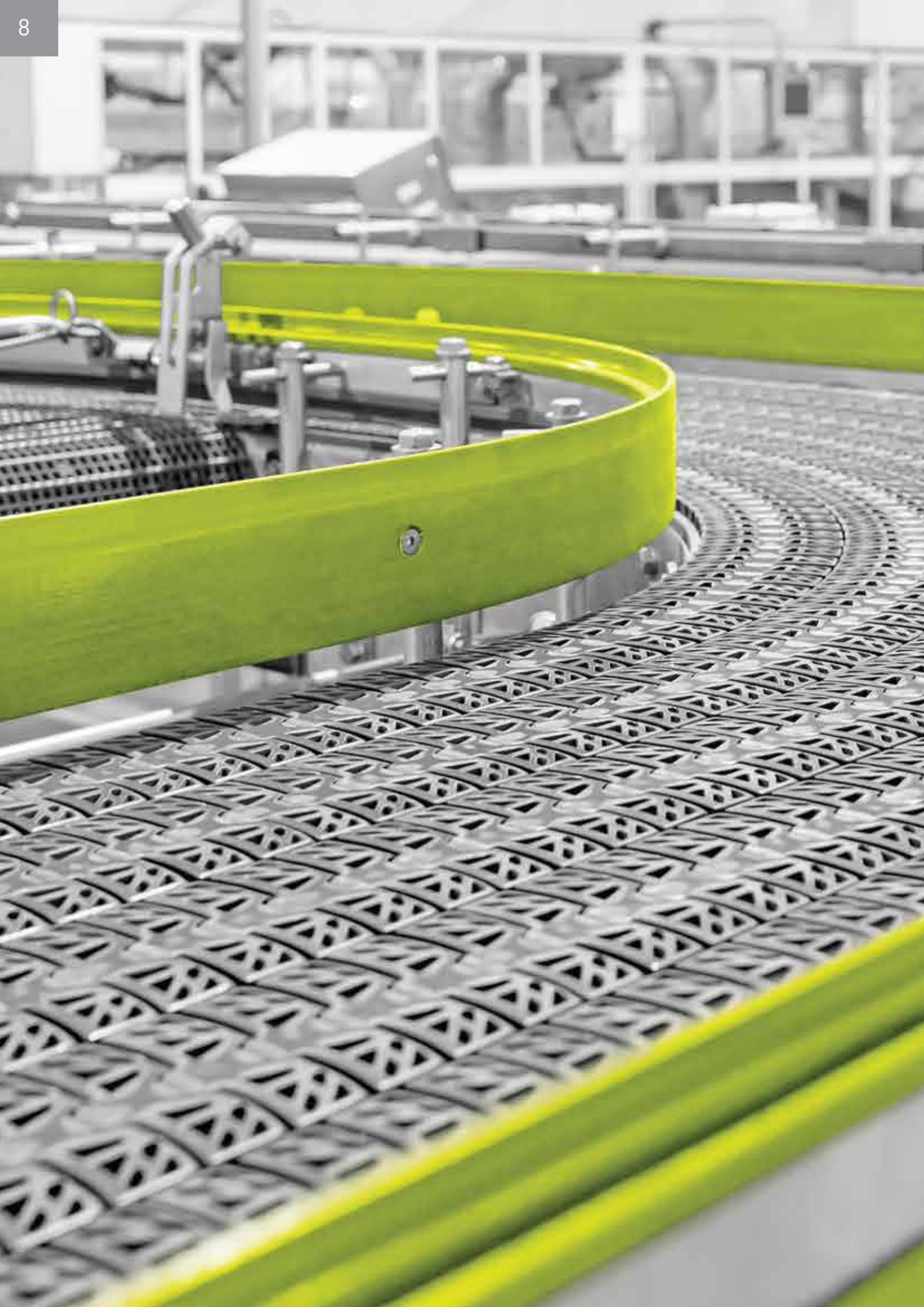
WIDE RANGE
OF ACCESSORIES
TO SUIT VARIOUS
APPLICATIONS

LARGE
TERMINATION
AREA FOR
ALUMINUM
AND COPPER
LINKS



FAST
OPERATION,
OFFERING
BEST-IN-CLASS
PERFORMANCE

IN-BUILT
TEMPERATURE
PROTECTION





Protection



DMX SP 2500 is armed with Rotary knob protection unit and the following features.

Features	MP2		MP4 with Display	
	LSI	LSIg	LSI	LSIg
Overload protection	✓	✓	✓	✓
Short-circuit protection	✓	✓	✓	✓
Instantaneous protection	✓	✓	✓	✓
Ground protection	X	✓	X	✓
Neutral Overload Protection	✓	✓	✓	✓
Trip test	✓	✓	✓	✓
Programming interface	✓	✓	✓	✓
External Neutral option	✓	✓	✓	✓
Rotary knobs	✓	✓	✓	✓
Over Temperature protection	✓	✓	✓	✓
Logical Selectivity	X	X	✓	✓
Trip History - 10 Nos.	X	X	✓	✓
Alarm History - 10 Nos.	X	X	✓	✓
Event History - 10 Nos.	X	X	✓	✓





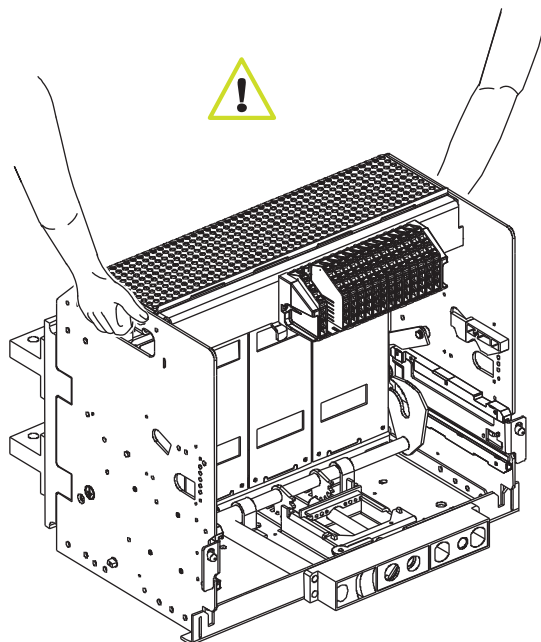
FAARBYVAI

HILFIGER

0
TICKETS
Food Plaza
Bankomat
Lift
Toilets
Parkhaus
Eingang 4
Badewasser

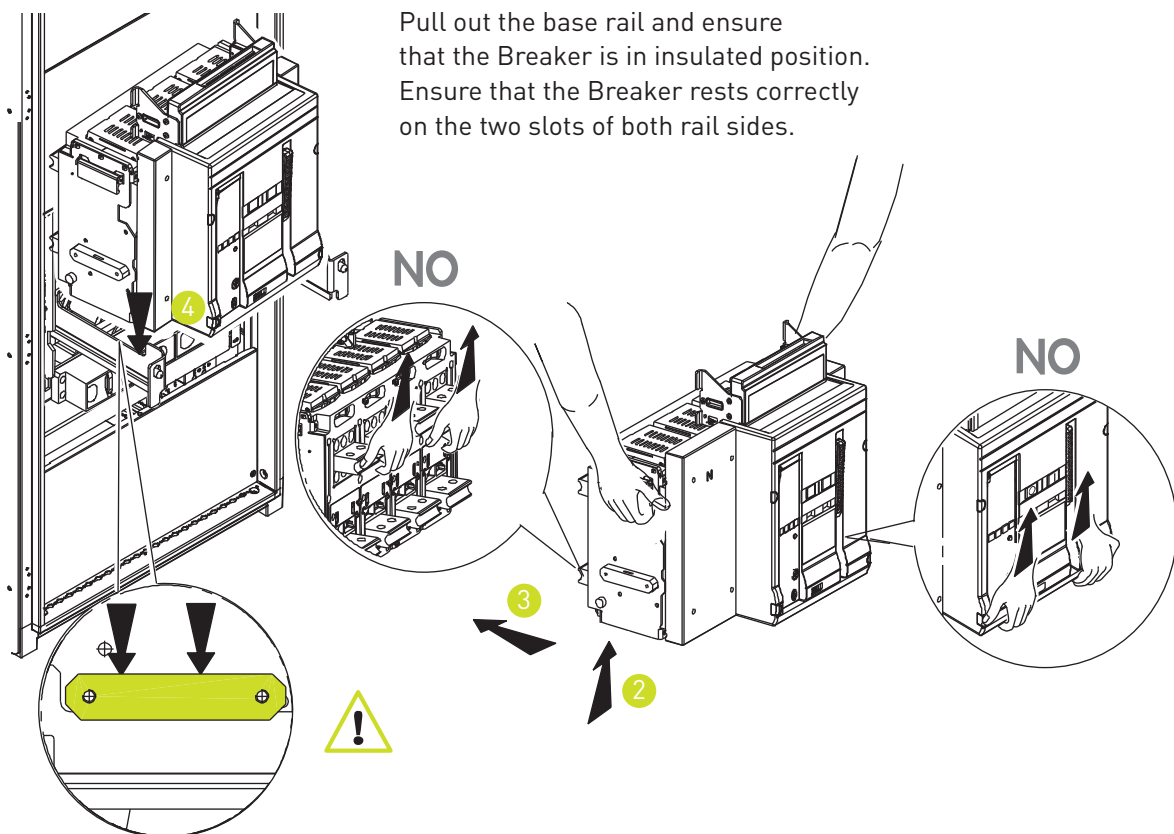
Easy to install and use

1

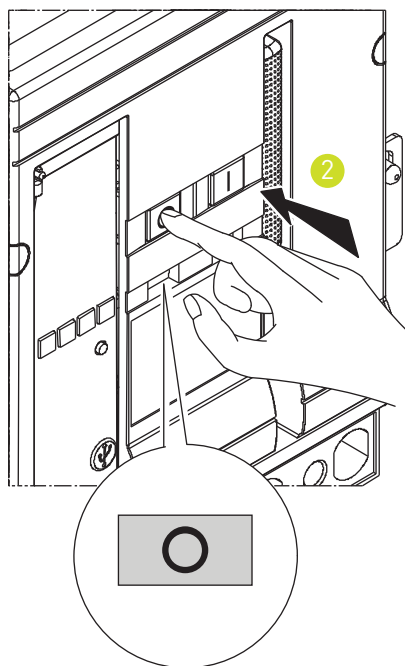


Remove the Breaker from the wooden casing.

2

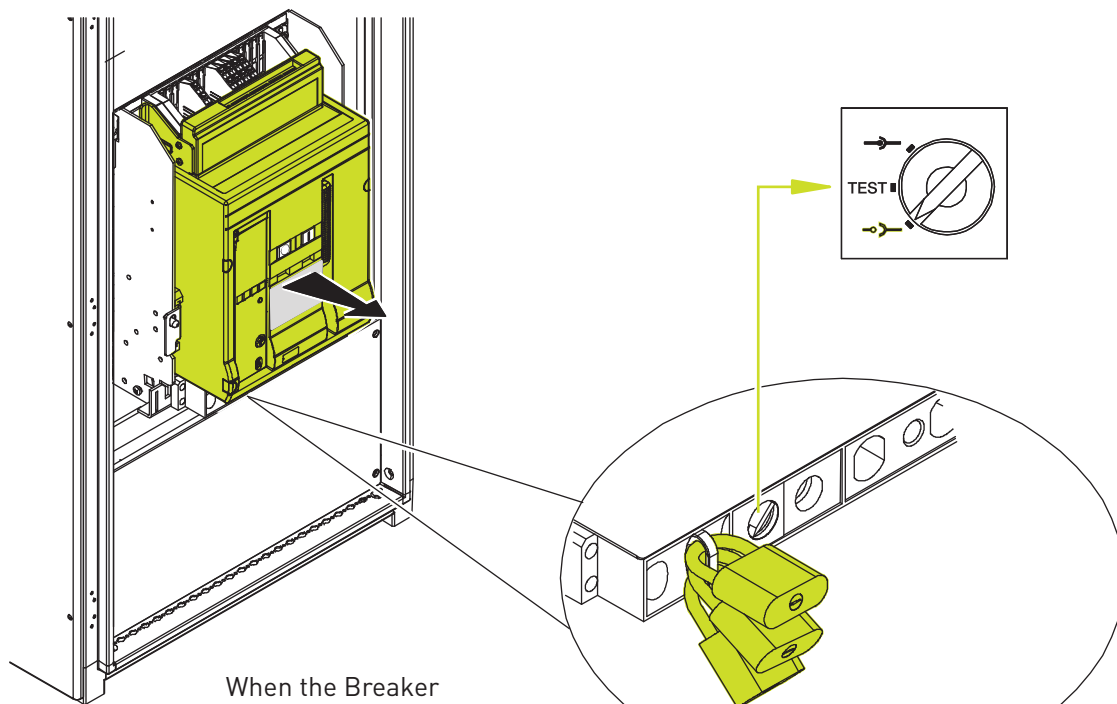


3



Press the Off button when the Breaker is under current. The rack-out operation must be done by specialized personnel.

4



When the Breaker is in draw-out position, lock the racking.

DMX

SP-2500

**A Superior ACB
in the 630A – 2500A range**



DMX-SP 2500 and DMX-SP-I 2500

air circuit breakers from 630 A to 2500 A

CIRCUIT BREAKERS		
According to IEC60947-2	DMX-SP 2500 Version 50 kA	
Number of poles	3 P - 4 P	
Rating in (A)	630/800/1000/1250/1600/2000/2500	
Rated insulation voltage U_i (V)	1000	
Rated impulsive voltage U_{imp} (kV)	12	
Rated operational voltage (50/60Hz) U_e (V)	690	
Rated ultimate breaking capacity I_{cu} (kA)	220/240 VAC	50
	380/415 VAC	50
	440/460 VAC	50
	600 VAC	42
	690 VAC	42
Rated service breaking capacity I_{cs} (% I_{cu})	100%	
Rated short-circuit making capacity I_{cm} (kA)	220/240 VAC	105
	380/415 VAC	105
	440/460 VAC	105
	600 VAC	88
	690 VAC	88
Rated short-circuit withstand current I_{cw} (kA)	220/240 VAC (t=1s)	50
	380/415 VAC (t=1s)	50
	440/460 VAC (t=1s)	50
	600 VAC (t=1s)	42
	690 VAC (t=1s)	42
	690 VAC (t=3s)	25
Neutral protection (%)	OFF / 50 / 100	
Category of use	B	
Suitability for insulation	YES	
Mechanical endurance cycles	with maintenance	10000
	without maintenance	5000
Electrical endurance (cycles)	3000	
Minimum opening time	15 ms	
Maximum closing time	30 ms	
Visualization of contacts position	S	
Visualization of charged / discharged springs	S	
Auxiliary contacts	S*	
Fault contacts	S	
Shunt trip	O	
Closing coil	O	
Undervoltage release	O	
Undervoltage release with time delay	O	
Motor operator	O	
Mechanical counter	O	

*Standard version with no.4 NO/NC (max no.6 option contacts 0281 75).
S = Standard O = Optional

SWITCH DISCONNECTORS (AC23)		
According to IEC60947-3	DMX-SP-I-2500	
Number of poles	3 P - 4 P	
Rating in (A)	630/800/1000/1250/1600/2000/2500	
Rated insulation voltage U_i (V)	1000	
Rated impulsive voltage U_{imp} (kV)	12	
Rated operational voltage (50/60Hz) U_e (V)	690	
Rated short circuit making capacity I_{cu} (kA)	220/240 VAC	105
	380/415 VAC	105
	440/460 VAC	105
	600 VAC	88
	690 VAC	88
Rated short-time withstand current I_{cw} (kA)	230 VAC (t=1s)	50
	415 VAC (t=1s)	50
	500 VAC (t=1s)	50
	600 VAC (t=1s)	42
	690 VAC (t=1s)	42
	230-690 VAC (t=3s)	25
Suitability for insulation	YES	
Mechanical endurance (cycles)	with maintenance	10000
	without maintenance	5000
Electrical endurance (cycles)	3000	
Minimum opening time	15 ms	
Maximum closing time	30 ms	
Visualization of contacts position	S	
Visualization of charged / discharged springs	S	
Auxiliary contacts	S*	
Shunt trip	O	
Closing coil	O	
Undervoltage release	O	
Undervoltage release with time delay	O	
Motor operator	O	
Mechanical counter	O	

*Standard version with no.4 NO/NC (max no.6 option contacts 0281 75).
S = Standard O = Optional

DMX-SP 2500

air circuit breakers from 630 A to 2500 A



6695 26



6695 31

Air circuit breakers to be equipped with Microprocessor release
Release to be ordered with breaker for factory assembly
4 inbuilt auxiliary contact
Breaking capacity 50 KA

Pack	Cat.Nos		In(A)
	3P	4P	
1	6695 24	6695 30	630
1	6695 25	6695 31	800
1	6695 26	6695 32	1000
1	6695 27	6695 33	1250
1	6695 28	6695 34	1600
1	6695 29	6695 35	2000
1	6695 76	6695 77	2500

Fixed version

Pack	Cat.Nos		In(A)
	3P	4P	
1	6695 36	6695 42	630
1	6695 37	6695 43	800
1	6695 38	6695 44	1000
1	6695 39	6695 45	1250
1	6695 40	6695 46	1600
1	6695 41	6695 47	2000
1	6695 78	6695 79	2500

Draw-out version

DMX-SP-I 2500

switch disconnectors from 630 A to 2500 A



6695 68

Switch disconnectors
4 inbuilt auxiliary contact

Pack	Cat.Nos		In(A)
	3P	4P	
1	6695 48	6695 54	630
1	6695 49	6695 55	800
1	6695 50	6695 56	1000
1	6695 51	6695 57	1250
1	6695 52	6695 58	1600
1	6695 53	6695 59	2000
1	6695 80	6695 81	2500

Fixed version

Pack	Cat.Nos		In(A)
	3P	4P	
1	6695 60	6695 66	630
1	6695 61	6695 67	800
1	6695 62	6695 68	1000
1	6695 63	6695 69	1250
1	6695 64	6695 70	1600
1	6695 65	6695 71	2000
1	6695 82	6695 83	2500

Draw-out version

DMX-SP 2500

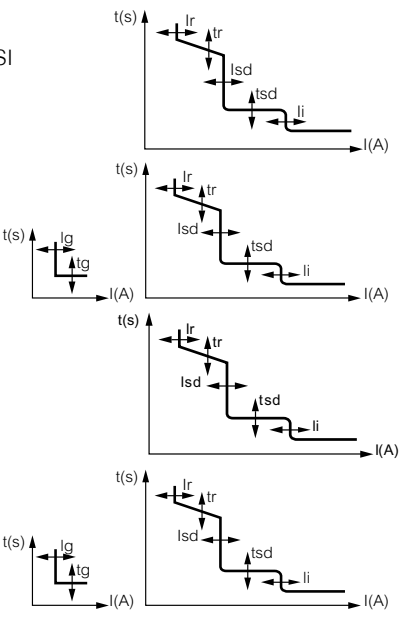
electronic protection units

DMX-SP 2500

auxiliaries and accessories



Pack	Cat.Nos	Electronic protection unit
1	0281 67	Electronic protection unit MP2 LSI
1	0281 68	Electronic protection unit MP2 LSIg
1	0281 65	Electronic protection unit MP4 LSI
1	0281 66	Electronic protection unit MP4 LSIg



Pack	Cat.Nos	Control & signalling accessories
Motor Operator		
1	0281 20	24 V AC/DC
1	0281 21	48 V AC/DC
1	0281 22	110-130 V AC/DC
1	0281 23	220-250 V AC/DC
1	0281 24	415-440 V AC
Closing coil		
1	0281 26	24 V AC/DC
1	0281 27	48 V AC/DC
1	0281 28	110-130 V AC/DC
1	0281 29	220-250 V AC/DC
1	0281 30	415-440 V AC
Shunt Trip		
1	0281 31	24 V AC/DC
1	0281 32	48 V AC/DC
1	0281 33	110-130 V AC/DC
1	0281 34	220-250 V AC/DC
1	0281 35	415-440 V AC
Undervoltage release		
1	0281 36	24 V AC/DC
1	0281 37	48 V AC/DC
1	0281 38	110-130 V AC/DC
1	0281 39	220-250 V AC/DC
1	0281 40	415-440 V AC
Time delay undervoltage release		
1	0288 62	110 V AC/DC
1	0288 63	230 V AC/DC

DMX-SP 2500

auxiliaries and accessories

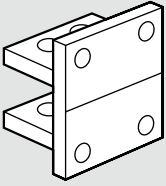


Pack	Cat.Nos	Accessories
		Insulated shield (phase barriers)
1	6696 00	Fixed version 3P
1	6696 01	Fixed version 4P
1	6696 02	Draw-out version 3P
1	6696 03	Draw-out version 4P
		Key lock
1	0281 78	Keylock in open position (1 lock 1 Ronis random)
1	0281 79	Keylock in open position (1 lock 1 Ronis type "A")
1	0281 80	Keylock in open position (1 lock 1 Ronis type "B")
1	0281 81	Keylock in open position - Profalux
1	0281 82	Keylock ins./test/drawnout - Profalux
1	0281 83	Keylock ins./test/drawnout - Ronis
1	0281 84	Door lock for both right & left handle
1	6696 08	Safety button for test position
1	0281 87	Inserted/test/drawnout lock button
		Cable interlock
1	0289 20	Cable interlock 2600 mm
1	0289 21	Cable interlock 3000 mm
1	0289 22	Cable interlock 3600 mm
1	0289 22	Cable interlock 4000 mm

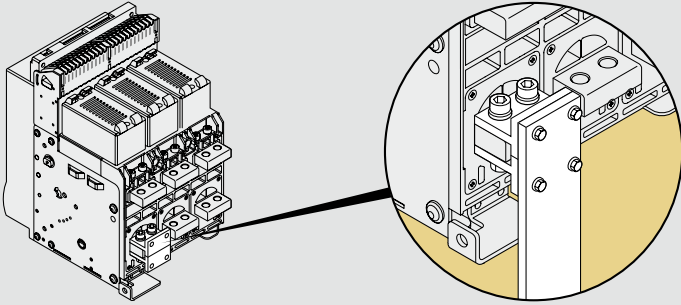
Pack	Cat.Nos	Accessories (contd.)
		Accessories
1	0281 88	Mechanical counter
1	0281 77	Padlock for button
1	6696 05	External neutral
1	0281 72	Power Supply 24 V DC
1	0281 73	Signalling contact inserted-test-D/O DMX-SP 2500
1	0281 74	AUX ready to close-charged springs DMX-SP 2500
1	0281 75	Module with 6 aux contacts DMX-SP 2500
1	0281 90	Mechanical interlock two device
1	0281 99	Programmable Module - 2 Relay with 360sec C/O Time
		Terminals
		3P - Set of 3 terminals (for one side)
1	0288 84	Real terminals - flat connections with bars - 3P
1	0288 82	Real terminals - vertical connections with bars - 3P
1	0288 96	Real terminals - vertical or horizontal connection with bars to be fixed onto plate - 3P
1	0288 86	Spreaders - flat connection with bars - 3P
1	0288 88	Spreaders - vertical connection with bars
1	0288 90	Spreaders - horizontal connection with bars - 3P
		4P - Set of 4 terminals (for one side)
1	0288 85	Real terminals - flat connections with bars - 4P
1	0288 83	Real terminals - vertical connections with bars - 4P
1	0288 97	Real terminals - vertical or horizontal connection with bars to be fixed onto plate - 4P
1	0288 87	Spreaders - flat connection with bars - 4P
1	0288 89	Spreaders - vertical connection with bars
1	0288 91	Spreaders - horizontal connection with bars - 4P
		Draw-out cell (cradle)
1	6696 10	Cradle assembly - 3 Pole
1	6696 11	Cradle assembly - 4 Pole

DMX-SP 2500 circuit breakers

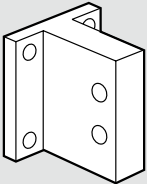
Rear terminals for fixed version - Flat connection



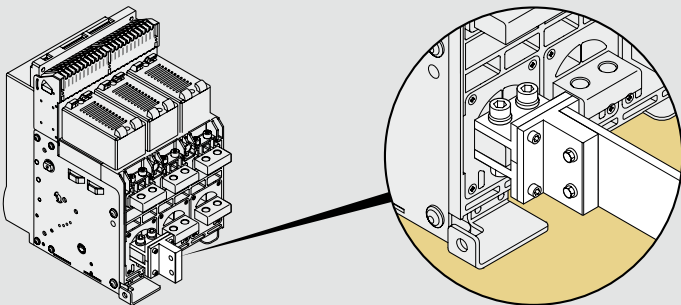
References	
3P	4P
0288 84	0288 85



Rear terminals for fixed version - Vertical connection



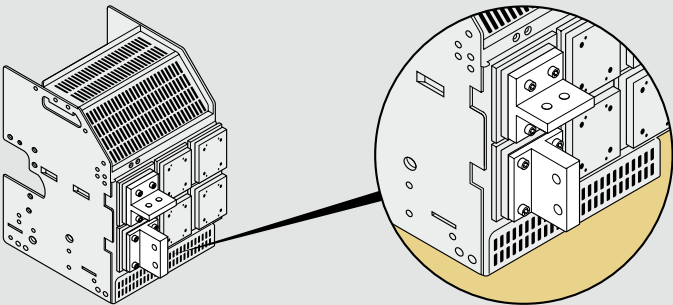
References	
3P	4P
0288 82	0288 83



Rear terminals for Draw-out version - Horizontal/vertical connection

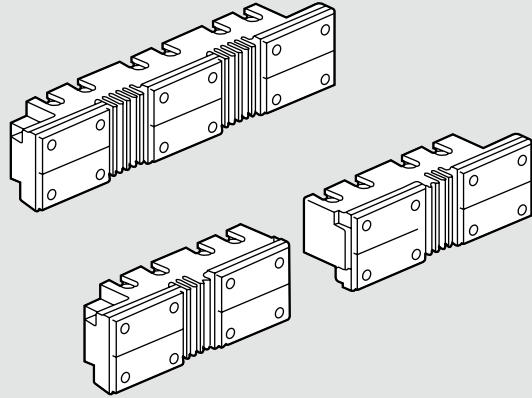
References	
3P	4P
0288 96	0288 97

Mounting example:



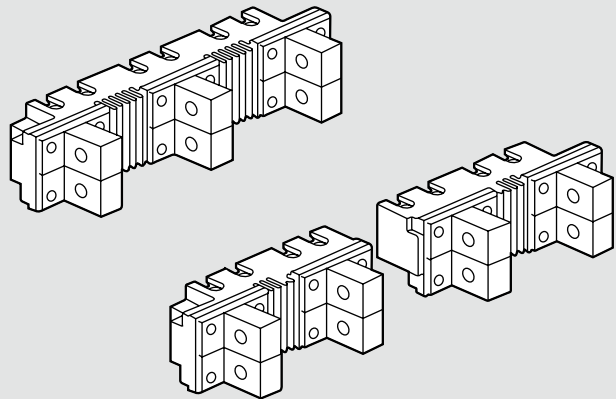
Spreaders for fixed version - Flat connection

References	
3P	4P
0288 86	0288 87



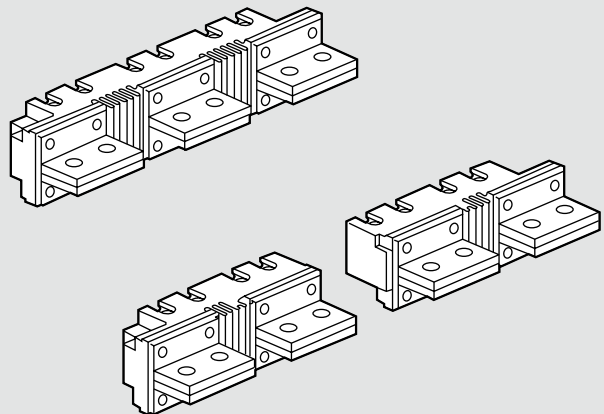
Spreaders for fixed version - Vertical connection

References	
3P	4P
0288 88	0288 89



Spreaders for fixed version - Horizontal connection

References	
3P	4P
0288 90	0288 91



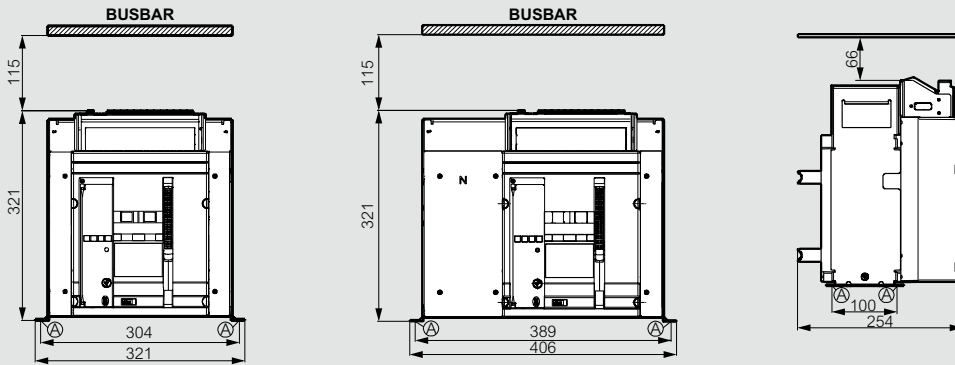
DMX-SP 2500

dimensions

Installation of breaker DMX-SP 2500 - Fixed version

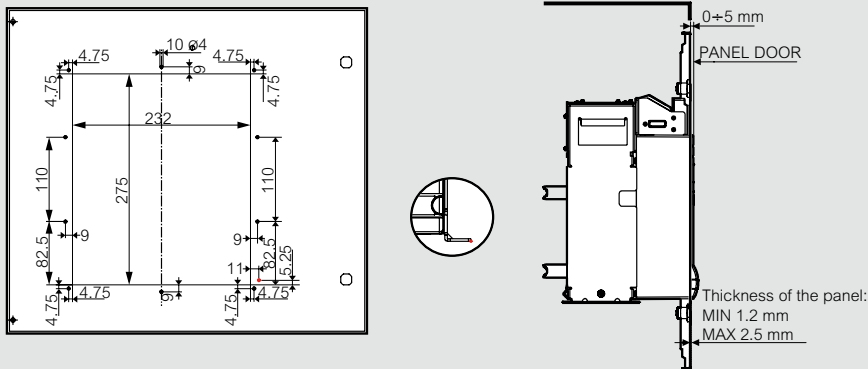
3P version

4P version



A = fixing point on plate of enclosure

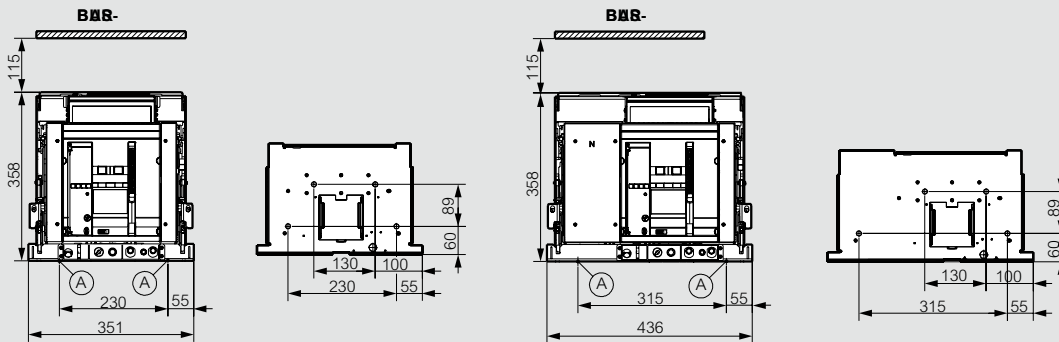
Door cut-out - Fixed version



Installation of breaker DMX-SP 2500 - Draw-out version

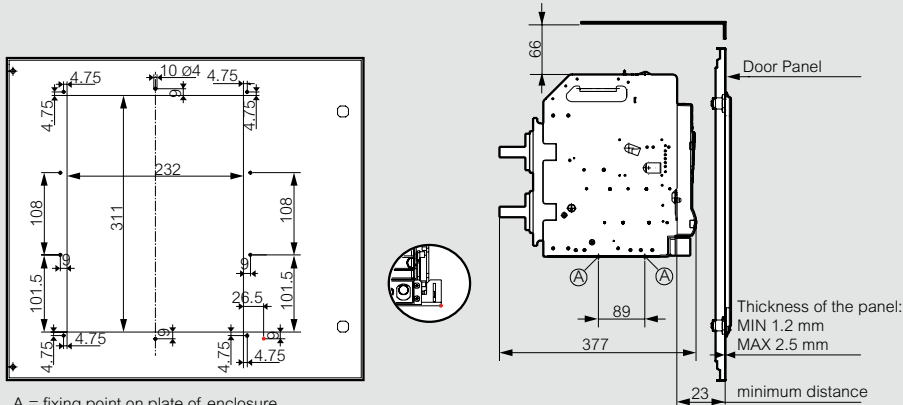
3P version

4P version



A = fixing point on plate of enclosure

Door cut-out and door drilling - Draw-out version



A = fixing point on plate of enclosure

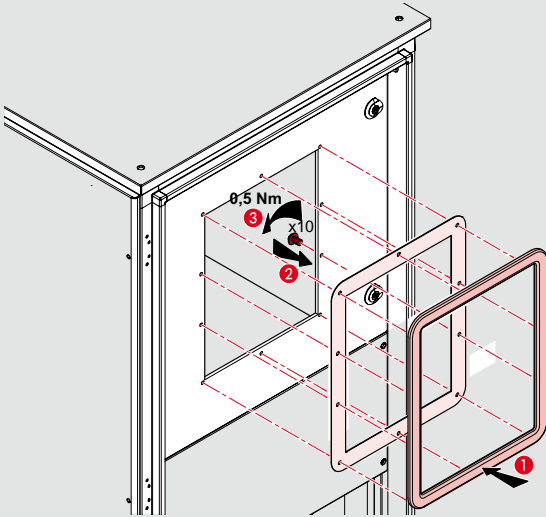
DMX-SP 2500

air circuit breakers

Fixing door sealing frame

Function: To provide ingress protection.

Installation: Fix the sealing frame and the rubber on the panel door to fit the drilling on the door. Screw the sealing frame.



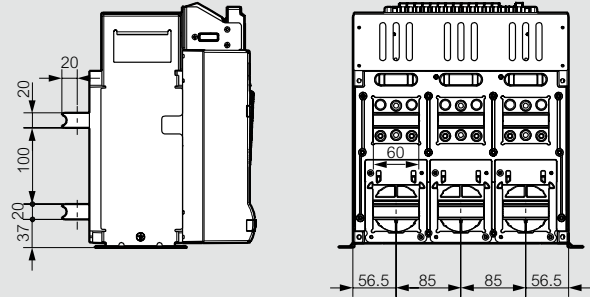
DMX-SP 2500

dimensions

Terminals - Fixed breakers

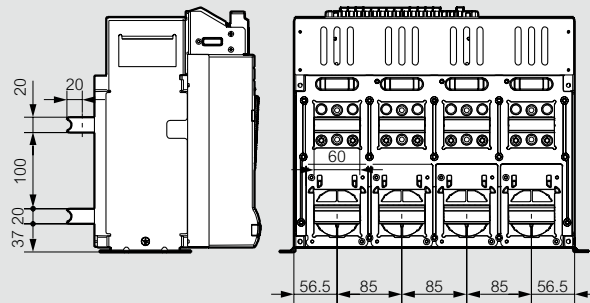
3 Poles

Horizontal terminals



4 Poles

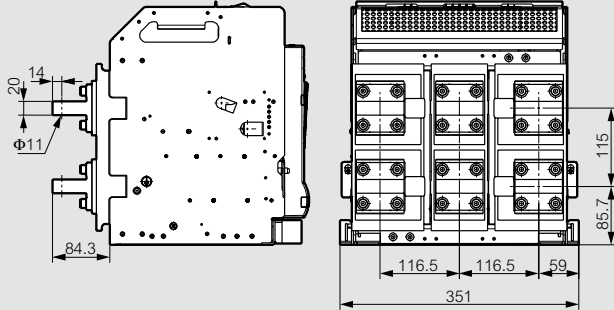
Horizontal terminals



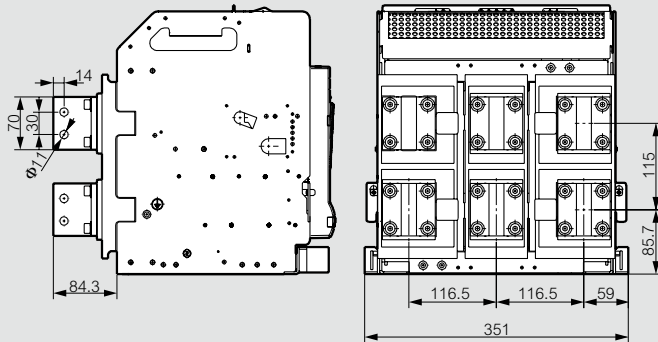
Terminals - Draw-out breakers

3 Poles

Horizontal terminals

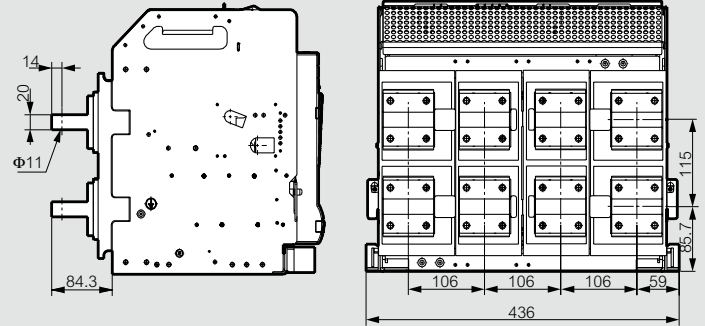


Vertical terminals

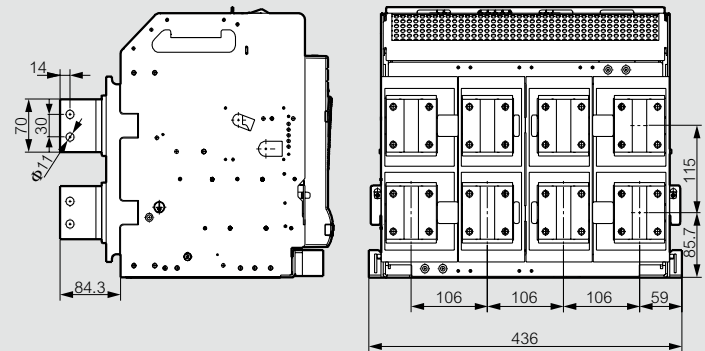


4 Poles

Horizontal terminals



Vertical terminals

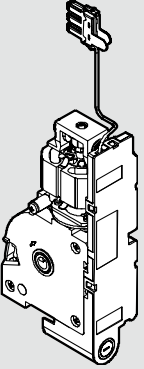
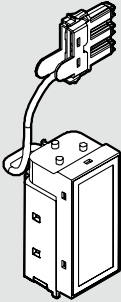
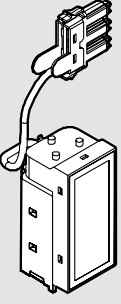
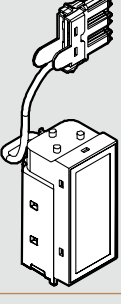


DMX-SP 2500

air circuit breakers accessories

Technical features

Features of the main electrical accessories

Motor operator	
	<p>Cat.Nos 0281 20, 0281 21, 0281 22, 0281 23, 0281 24</p> <p>Rated operating voltage Vn (Va.c.): 24V-48V-110V/130V-220V/250V-415V/440V (Vd.c.): 24V-48V-110V/130V-220V/250V</p> <p>Voltage range (% Vn): 85-110</p> <p>Maximum power consumption (W/VA): 240/240</p> <p>Maximum peak current for about 80ms: 2/3xIn</p> <p>Charging time (s): 5</p> <p>Operating frequency (no/min): 2</p>
Closing Coil	
	<p>Cat.Nos 0281 26, 0281 27, 0281 28, 0281 29, 0281 30</p> <p>Rated operating voltage Vn (Va.c.): 24V-48V-110V/130V-220V/250V-415V/440V (Vd.c.): 24V-48V-110V/130V-220V/250V</p> <p>Voltage range (% Vn): 85-110</p> <p>Pick-up consumption (W/VA): 400/400</p> <p>Pick-up time (ms): 300</p> <p>Hold consumption (W/VA): 50/50</p> <p>Closing time (ms): 50</p> <p>Isolation voltage (kV): 2,5</p>
Shunt trip	
	<p>Cat.Nos 0281 31, 0281 32, 0281 33, 0281 34, 0281 35</p> <p>Rated operating voltage Vn (Va.c.): 24V-48V-110V/130V-220V/250V - 415V/440V (Vd.c.): 24V-48V-110V/130V-220V/250V</p> <p>Voltage range (% Vn): 70-110</p> <p>Pick-up consumption (W/VA): 400/400</p> <p>Pick-up time (ms): 300</p> <p>Hold consumption (W/VA): 50/50</p> <p>Opening time (ms): 50</p> <p>Isolation voltage (kV): 2,5</p>
Undervoltage release	
	<p>Cat.Nos 0281 36, 0281 37, 0281 38, 0281 39, 0281 40</p> <p>Rated operating voltage Vn (Va.c.): 24V-48V-110V/130V-220V/250V - 415V/440V (Vd.c.): 24V-48V-110V/130V-220V/250V</p> <p>Voltage range (% Vn): 85-110</p> <p>Pick-up consumption (W/VA): 400/400</p> <p>Pick-up time (ms): 300</p> <p>Hold consumption (W/VA): 50/50</p> <p>Opening time (ms): 60</p> <p>Isolation voltage (kV): 2,5</p>

DMX-SP 2500

air circuit breakers accessories

Technical features

Features of the main electrical accessories

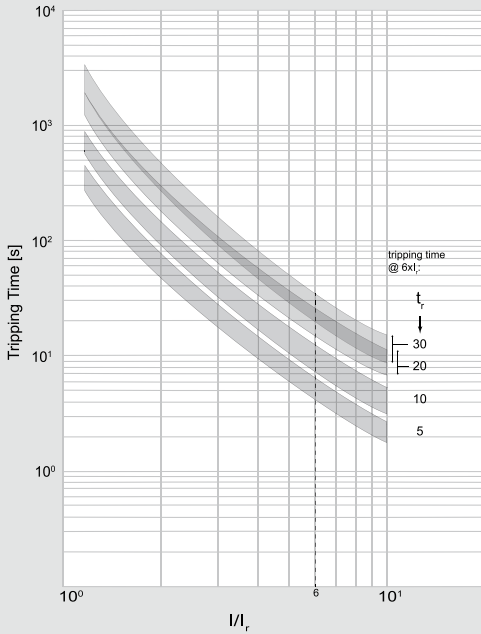
Additional signaling contact (6 NO/NC)	
	<p>Cat.No 0281 75 Rated operating voltage Vn (Va.c.): 125V-250V 16A (Vd.c.): 125V 0,6A - 250V 0,3A</p>
Contact ready to close with charged springs	
	<p>Cat.No 0281 74 Rated operating voltage Vn (Va.c.): 125V 3A - 250V 0,5A (Vd.c.): 30V 3A</p>
Inserted/test/draw-out contacts	
	<p>Cat.No 0281 73 Rated operating voltage Vn (Va.c.): 125V-250V 16A (Vd.c.): 125V 0,6A - 250V 0,3A</p>
External auxiliary supply	
	<p>Cat.No 0281 72 Input supply : 50-60 Hz; AC230V Input power supply (VA) 15 25 Operating temperature: (-10) - (+55) °C</p>

DMX-SP 2500

tripping characteristics

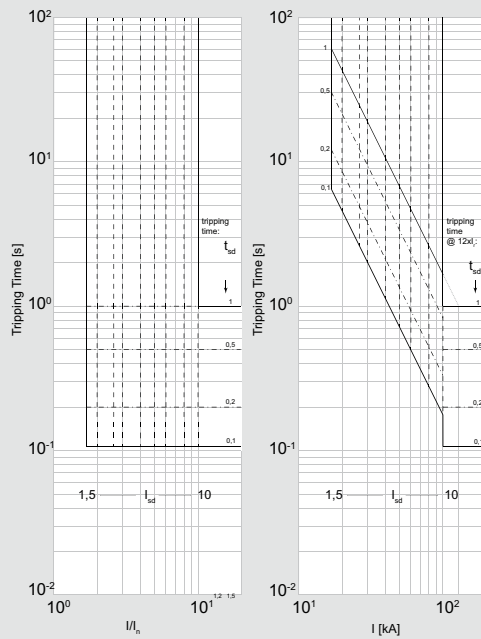
Technical annexes

Tripping curve for DMX-SP 2500 protection units:
L-T protection detail



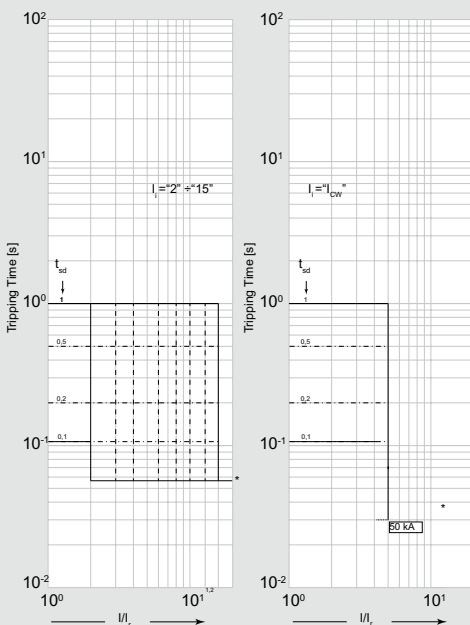
Value	Description
I	current
I_r	long time setting current
t_r	long time delay

Short time trip protection detail (for LSI and LSIg)



Value	Description
I	current
I_{sd}	short time setting current
t_{sd}	short time delay

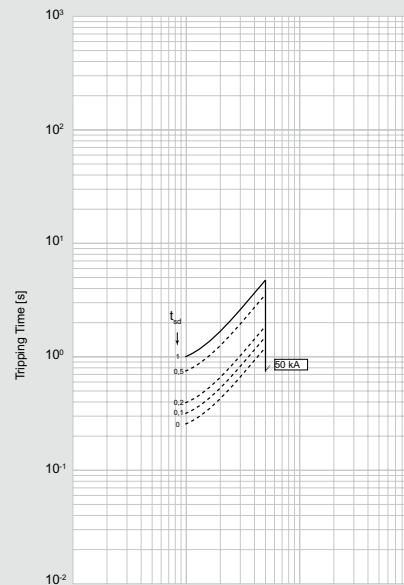
Tripping curve for DMX-SP 2500 protection units:
instantaneous trip protection detail



Value	Description
I	current
I_n	rated current
I_{sd}	short time delay
I_i	instantaneous release
I_{ow}	rated short time withstand current

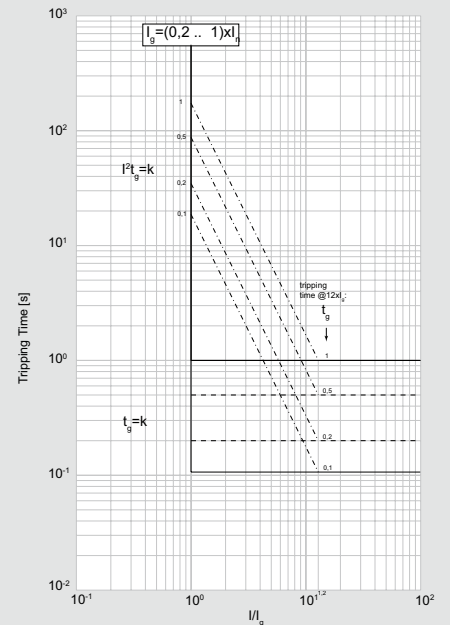
Ground fault curve

Only LSIg release



Value	Description
I	current
I_n	rated current
I_g	ground fault current
I_{sd}	short time delay
$t_{sd} = k$	constant tripping time setting
$I^2 t_{sd} = k$	constant pass-through energy setting

Let-through specific energy curve (at 415 V)



Value	Description
t_{sd}	short time delay

■ Limits of selectivity (average values kA at 415 V_~)

Down-stream Protection	I _{cu} [kA]	In [A]	Upstream ACB Protection																					
			DMX-SP 2500																					
			50																					
			630	800	1000	1250	1600	2000	2500															
DRX 125	10	15	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	36	100	T	T	T	T	T	T	T				
		20	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T				
		25	T	T	T	T	T	T	T	T			200	T	T	T	T	T	T	T				
		30	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T				
		40	T	T	T	T	T	T	T	T			DPX ³ 250 DPX ³ 250+RCD	50	100	T	T	T	T	T	T	T		
		50	T	T	T	T	T	T	T	T					160	T	T	T	T	T	T	T		
		60	T	T	T	T	T	T	T	T					200	T	T	T	T	T	T	T		
		63	T	T	T	T	T	T	T	T					250	T	T	T	T	T	T	T		
		DPX ³ 160 DPX ³ 160+RCD	16	75	T	T	T	T	T	T			T	T	DPX ³ 250 DPX ³ 250+RCD	70	100	50	50	50	50	50	50	50
				100	T	T	T	T	T	T			T	T			160	50	50	50	50	50	50	50
				125	T	T	T	T	T	T			T	T			200	50	50	50	50	50	50	50
				16	T	T	T	T	T	T			T	T			250	50	50	50	50	50	50	50
DPX ³ 160 DPX ³ 160+RCD	25			25	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	25	40	T	T	T	T	T	T	T		
				40	T	T	T	T	T	T	T	T			100	T	T	T	T	T	T	T		
				63	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T		
				80	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T		
				DPX ³ 160 DPX ³ 160+RCD	36	100	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	36	40	T	T	T	T	T	T	T
						125	T	T	T	T	T	T	T	T			100	T	T	T	T	T	T	T
						160	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T
						16	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T
		DPX ³ 160 DPX ³ 160+RCD	50			25	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	50	40	T	T	T	T	T	T	T
						40	T	T	T	T	T	T	T	T			100	T	T	T	T	T	T	T
						63	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T
						80	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T
DPX ³ 160 MO DPX ³ 160 MO+RCD	16					100	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	70	40	50	50	50	50	50	50	50
						125	T	T	T	T	T	T	T	T			100	50	50	50	50	50	50	50
						160	T	T	T	T	T	T	T	T			160	50	50	50	50	50	50	50
						16	T	T	T	T	T	T	T	T			250	50	50	50	50	50	50	50
				DPX ³ 160 MO DPX ³ 160 MO+RCD	25	25	T	T	T	T	T	T	T	T	DPX ³ 250 DPX ³ 250+RCD	25	40	T	T	T	T	T	T	T
						40	T	T	T	T	T	T	T	T			100	T	T	T	T	T	T	T
						63	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T
						80	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T
		DPX ³ 250 DPX ³ 250+RCD	25			100	T	T	T	T	T	T	T	T	DPX ³ 250 MO DPX ³ 250 MO+RCD	36	100	T	T	T	T	T	T	T
						160	T	T	T	T	T	T	T	T			160	T	T	T	T	T	T	T
						200	T	T	T	T	T	T	T	T			200	T	T	T	T	T	T	T
						250	T	T	T	T	T	T	T	T			250	T	T	T	T	T	T	T
DPX ³ 250 MO DPX ³ 250 MO+RCD	70					100	50	50	50	50	50	50	50	50	DPX ³ 250 MO DPX ³ 250 MO+RCD	70	100	50	50	50	50	50	50	50
						160	50	50	50	50	50	50	50	50			160	50	50	50	50	50	50	50
						200	50	50	50	50	50	50	50	50			200	50	50	50	50	50	50	50
						250	50	50	50	50	50	50	50	50			250	50	50	50	50	50	50	50

T = total selectivity up to breaking capacity of down-stream circuit breaker, according IEC-EN 60947-2, at 415V.
Down-stream circuit breaker has magnetic threshold less than up-stream breaker.

DMX-SP 2500

selectivity tables

■ Limits of selectivity (average values kA at 415 V_~) (Contd.)

Down-stream Protection	I _{cu} [kA]	In [A]	Upstream ACB Protection																		
			DMX-SP 2500																		
			50																		
			630	800	1000	1250	1600	2000	2500												
DPX ³ 630	36	250	T	T	T	T	T	T	T	DPX ³ 630	100	250	50	50	50	50	50	50			
		320	T	T	T	T	T	T	T			320	50	50	50	50	50	50			
		400	T	T	T	T	T	T	T			400	50	50	50	50	50	50			
		500	T	T	T	T	T	T	T			500	50	50	50	50	50	50			
		630	T	T	T	T	T	T	T			630	50	50	50	50	50	50			
DPX ³ 630	50	250	T	T	T	T	T	T	DPX ³ 630 MO	36	400	T	T	T	T	T	T				
		320	T	T	T	T	T	T			500	T	T	T	T	T	T				
		400	T	T	T	T	T	T			630	T	T	T	T	T	T				
		500	T	T	T	T	T	T			DPX ³ 630 MO	70	400	50	50	50	50	50	50		
		630	T	T	T	T	T	T					500	50	50	50	50	50	50		
DPX ³ 630	70	250	50	50	50	50	50	50	DPX ³ 630 MO elec : S2 - Sg HIGH	36			320	T	T	T	T	T	T		
		320	50	50	50	50	50	50					400	T	T	T	T	T	T		
		400	50	50	50	50	50	50					DPX ³ 630 MO elec : S2 - Sg HIGH	70	320	50	50	50	50	50	50
		500	50	50	50	50	50	50			400	50			50	50	50	50	50		
		630	50	50	50	50	50	50			DPX ³ 630 MO elec : S1-S2-Sg LOW	36			320	T	T	T	T	T	T
DPX ³ 630	100	250	50	50	50	50	50	50	DPX ³ 630 MO elec : S1-S2-Sg LOW	70					320	T	T	T	T	T	T
		320	50	50	50	50	50	50							400	T	T	T	T	T	T
		400	50	50	50	50	50	50					DPX ³ 1600	36	320	50	50	50	50	50	50
		500	50	50	50	50	50	50							400	50	50	50	50	50	50
		630	50	50	50	50	50	50			DPX ³ 1600	50			500	T	T	T	T	T	T
DPX ³ 630	36	250	T	T	T	T	T	T	DPX ³ 1600	70					500	T	T	T	T	T	T
		320	T	T	T	T	T	T							630	T	T	T	T	T	T
		400	T	T	T	T	T	T					800	-	T	T	T	T	T		
		500	T	T	T	T	T	T					1000	-	-	T	T	T	T		
		630	T	T	T	T	T	T			1250	-	-	-	T	T	T				
elec : S2 - Sg HIGH	36	250	T	T	T	T	T	T	DPX ³ 1600	50	500	T	T	T	T	T	T				
		320	T	T	T	T	T	T			630	T	T	T	T	T	T				
		400	T	T	T	T	T	T			800	-	T	T	T	T	T				
		500	T	T	T	T	T	T			1000	-	-	T	T	T	T				
		630	T	T	T	T	T	T			1250	-	-	-	T	T	T				
elec : S2 - Sg HIGH	50	250	T	T	T	T	T	T	DPX ³ 1600	70	500	50	50	50	50	50	50				
		320	T	T	T	T	T	T			630	50	50	50	50	50	50				
		400	T	T	T	T	T	T			800	-	50	50	50	50	50				
		500	T	T	T	T	T	T			1000	-	-	50	50	50	50				
		630	T	T	T	T	T	T			1250	-	-	-	50	50	50				
DPX ³ 630	70	250	50	50	50	50	50	50	DPX ³ 1600	100	500	50	50	50	50	50	50				
		320	50	50	50	50	50	50			630	50	50	50	50	50	50				
		400	50	50	50	50	50	50			800	-	50	50	50	50	50				
		500	50	50	50	50	50	50			1000	-	-	50	50	50	50				
		630	50	50	50	50	50	50			1250	-	-	-	50	50	50				
elec : S2 - Sg HIGH	100	250	50	50	50	50	50	50	DPX ³ 1600	36	500	T	T	T	T	T	T				
		320	50	50	50	50	50	50			630	T	T	T	T	T	T				
		400	50	50	50	50	50	50			800	-	T	T	T	T	T				
		500	50	50	50	50	50	50			1000	-	-	T	T	T	T				
		630	50	50	50	50	50	50			1250	-	-	-	T	T	T				
elec : S1-S2-Sg LOW	36	250	T	T	T	T	T	T	DPX ³ 1600	50	500	T	T	T	T	T	T				
		320	T	T	T	T	T	T			630	T	T	T	T	T	T				
		400	T	T	T	T	T	T			800	-	T	T	T	T	T				
		500	T	T	T	T	T	T			1000	-	-	T	T	T	T				
		630	T	T	T	T	T	T			1250	-	-	-	T	T	T				
DPX ³ 630	50	250	T	T	T	T	T	T	elec : S2 - Sg HIGH	36	500	T	T	T	T	T	T				
		320	T	T	T	T	T	T			630	T	T	T	T	T	T				
		400	T	T	T	T	T	T			800	-	T	T	T	T	T				
		500	T	T	T	T	T	T			1000	-	-	T	T	T	T				
		630	T	T	T	T	T	T			1600	-	-	-	-	T	T				
DPX ³ 630	70	250	50	50	50	50	50	50	DPX ³ 1600	50	500	T	T	T	T	T	T				
		320	50	50	50	50	50	50			630	T	T	T	T	T	T				
		400	50	50	50	50	50	50			800	-	T	T	T	T	T				
		500	50	50	50	50	50	50			1000	-	-	T	T	T	T				
		630	50	50	50	50	50	50			1250	-	-	-	T	T	T				
elec : S1-S2-Sg LOW	36	250	T	T	T	T	T	T	elec : S2 - Sg HIGH	70	500	50	50	50	50	50	50				
		320	T	T	T	T	T	T			630	50	50	50	50	50	50				
		400	T	T	T	T	T	T			800	-	50	50	50	50	50				
		500	T	T	T	T	T	T			1000	-	-	50	50	50	50				
		630	T	T	T	T	T	T			1250	-	-	-	50	50	50				

T = total selectivity up to breaking capacity of down-stream circuit breaker, according IEC-EN 60947-2, at 415V.
Down-stream circuit breaker has magnetic threshold less than up-stream breaker.

■ Limits of selectivity (average values kA at 415 V_~) (Contd.)

Down-stream Protection	Icu [kA]	In [A]	Upstream ACB Protection						
			DMX-SP 2500						
			50						
			630	800	1000	1250	1600	2000	2500
DPX ³ 1600 elec : S2 - Sg HIGH	70	500	50	50	50	50	50	50	50
		630	50	50	50	50	50	50	50
		800	-	50	50	50	50	50	50
		1000	-	-	50	50	50	50	50
		1250	-	-	-	50	50	50	50
DPX ³ 1600 elec : S2 - Sg HIGH	100	500	50	50	50	50	50	50	50
		630	50	50	50	50	50	50	50
		800	-	50	50	50	50	50	50
		1000	-	-	50	50	50	50	50
		1250	-	-	-	50	50	50	50
DPX ³ 1600 elec : S1-S2-Sg LOW	36	500	T	T	T	T	T	T	T
		630	T	T	T	T	T	T	T
		800	-	T	T	T	T	T	T
		1000	-	-	T	T	T	T	T
		1250	-	-	-	T	T	T	T
DPX ³ 1600 elec : S1-S2-Sg LOW	50	500	T	T	T	T	T	T	T
		630	T	T	T	T	T	T	T
		800	-	T	T	T	T	T	T
		1000	-	-	T	T	T	T	T
		1250	-	-	-	T	T	T	T
DPX ³ 1600 elec : S1-S2-Sg LOW	70	500	50	50	50	50	50	50	50
		630	50	50	50	50	50	50	50
		800	-	50	50	50	50	50	50
		1000	-	-	50	50	50	50	50
		1250	-	-	-	50	50	50	50
DPX ³ 1600 elec : S1-S2-Sg LOW	100	500	50	50	50	50	50	50	50
		630	50	50	50	50	50	50	50
		800	-	50	50	50	50	50	50
		1000	-	-	50	50	50	50	50
		1250	-	-	-	50	50	50	50
DMX-SP 2500	50	630	T	T	T	T	T	T	T
		800	-	T	T	T	T	T	T
		1000	-	-	T	T	T	T	T
		1250	-	-	-	T	T	T	T
		1600	-	-	-	-	T	T	T
		2000	-	-	-	-	-	T	T
		2500	-	-	-	-	-	-	T
DMX ³ - N 2500	50	630	T	T	T	T	T	T	T
		800	-	T	T	T	T	T	T
		1000	-	-	T	T	T	T	T
		1250	-	-	-	T	T	T	T
		1600	-	-	-	-	T	T	T
		2000	-	-	-	-	-	T	T
DMX ³ - H 2500	65	630	50	50	50	50	50	50	50
		800	-	50	50	50	50	50	50
		1000	-	-	50	50	50	50	50
		1250	-	-	-	50	50	50	50
		1600	-	-	-	-	50	50	50
		2000	-	-	-	-	-	50	50

Down-stream Protection	Icu [kA]	In [A]	Upstream ACB Protection								
			DMX-SP 2500								
			50								
			630	800	1000	1250	1600	2000	2500		
DMX ³ - L 2500	100	630	50	50	50	50	50	50	50		
		800	-	50	50	50	50	50	50		
		1000	-	-	50	50	50	50	50		
		1250	-	-	-	50	50	50	50		
		1600	-	-	-	-	50	50	50		
		2000	-	-	-	-	-	50	50		
		2500	-	-	-	-	-	-	50		
-	100	2000	-	-	-	-	-	50	50		
		2500	-	-	-	-	-	-	50		
		3200	-	-	-	-	-	-	-		
-	100	630	50	50	50	50	50	50	50		
		800	-	50	50	50	50	50	50		
		1000	-	-	50	50	50	50	50		
		1250	-	-	-	50	50	50	50		
		1600	-	-	-	-	50	50	50		
		2000	-	-	-	-	-	50	50		
		2500	-	-	-	-	-	-	50		
		2900	-	-	-	-	-	-	-		
		3200	-	-	-	-	-	-	-		
		3600	-	-	-	-	-	-	-		
4000	-	-	-	-	-	-	-				
DMX ³ - N 4000	50	3200	-	-	-	-	-	-	-		
		4000	-	-	-	-	-	-	-		
DMX ³ - H 4000	65	3200	-	-	-	-	-	-	-		
		4000	-	-	-	-	-	-	-		
DMX ³ - L 4000	100	3200	-	-	-	-	-	-	-		
		4000	-	-	-	-	-	-	-		
DMX ³ - L 4000	100	4000	-	-	-	-	-	-	-		
		5000	-	-	-	-	-	-	-		
		6300	-	-	-	-	-	-	-		
-	65	630	50	50	50	50	50	50	50		
		800	-	50	50	50	50	50	50		
		1000	-	-	50	50	50	50	50		
		1250	-	-	-	50	50	50	50		
		1600	-	-	-	-	50	50	50		
		2000	-	-	-	-	-	50	50		
		2500	-	-	-	-	-	-	50		
-	65	3200	-	-	-	-	-	-	-		
		4000	-	-	-	-	-	-	-		
		-	100	630	50	50	50	50	50	50	50
				800	-	50	50	50	50	50	50
				1000	-	-	50	50	50	50	50
				1250	-	-	-	50	50	50	50
1600	-			-	-	-	50	50	50		
2000	-	-	-	-	-	50	50				
-	100	2500	-	-	-	-	-	-	50		
		3200	-	-	-	-	-	-	-		
		4000	-	-	-	-	-	-	-		
		5000	-	-	-	-	-	-	-		
		6300	-	-	-	-	-	-	-		

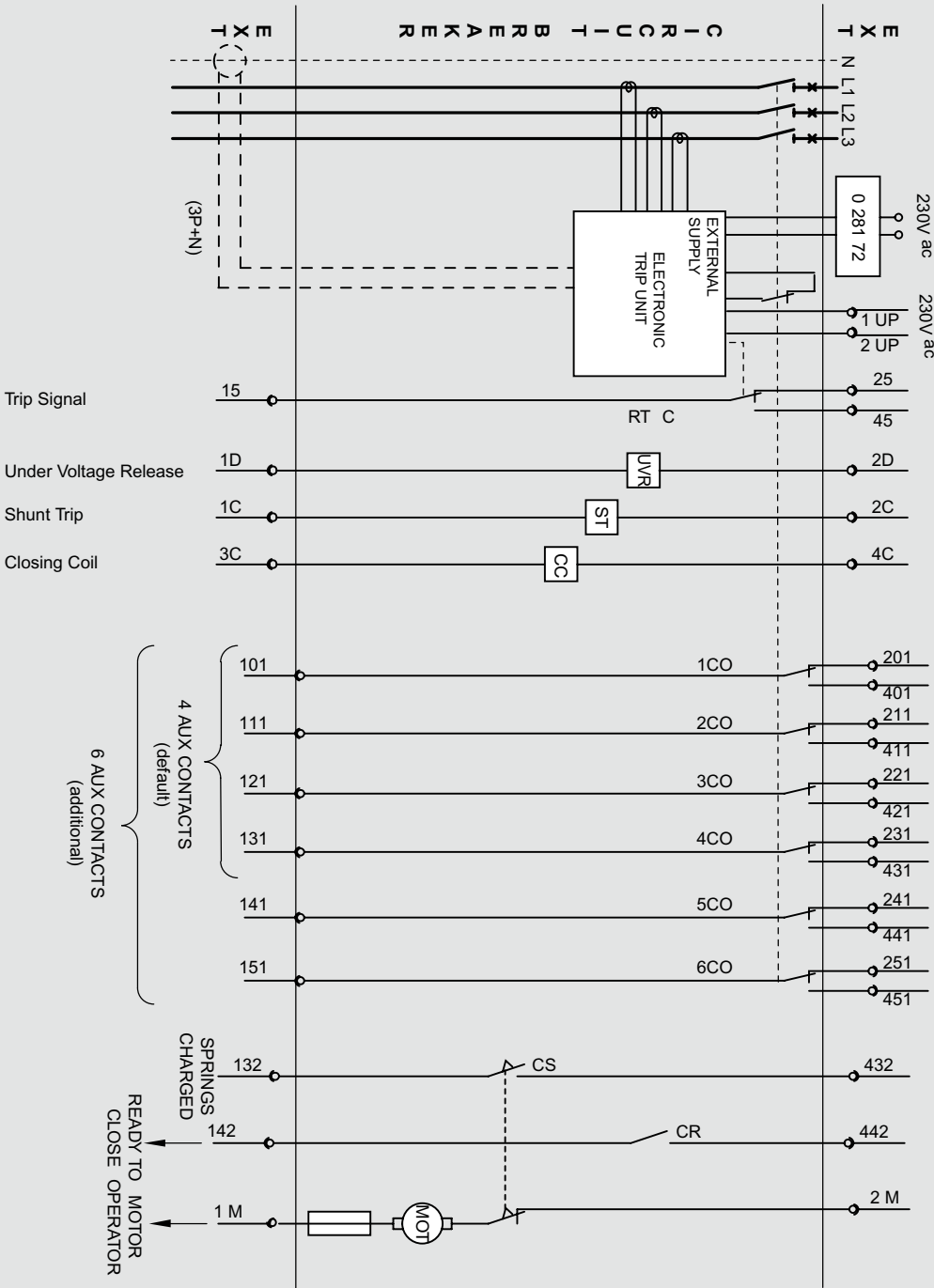
T = total selectivity up to breaking capacity of down-stream circuit breaker, according IEC-EN 60947-2, at 415V.
Down-stream circuit breaker has magnetic threshold less then up-stream breaker.

DMX-SP 2500

air circuit breakers wiring diagram

Electrical diagram

3 Poles

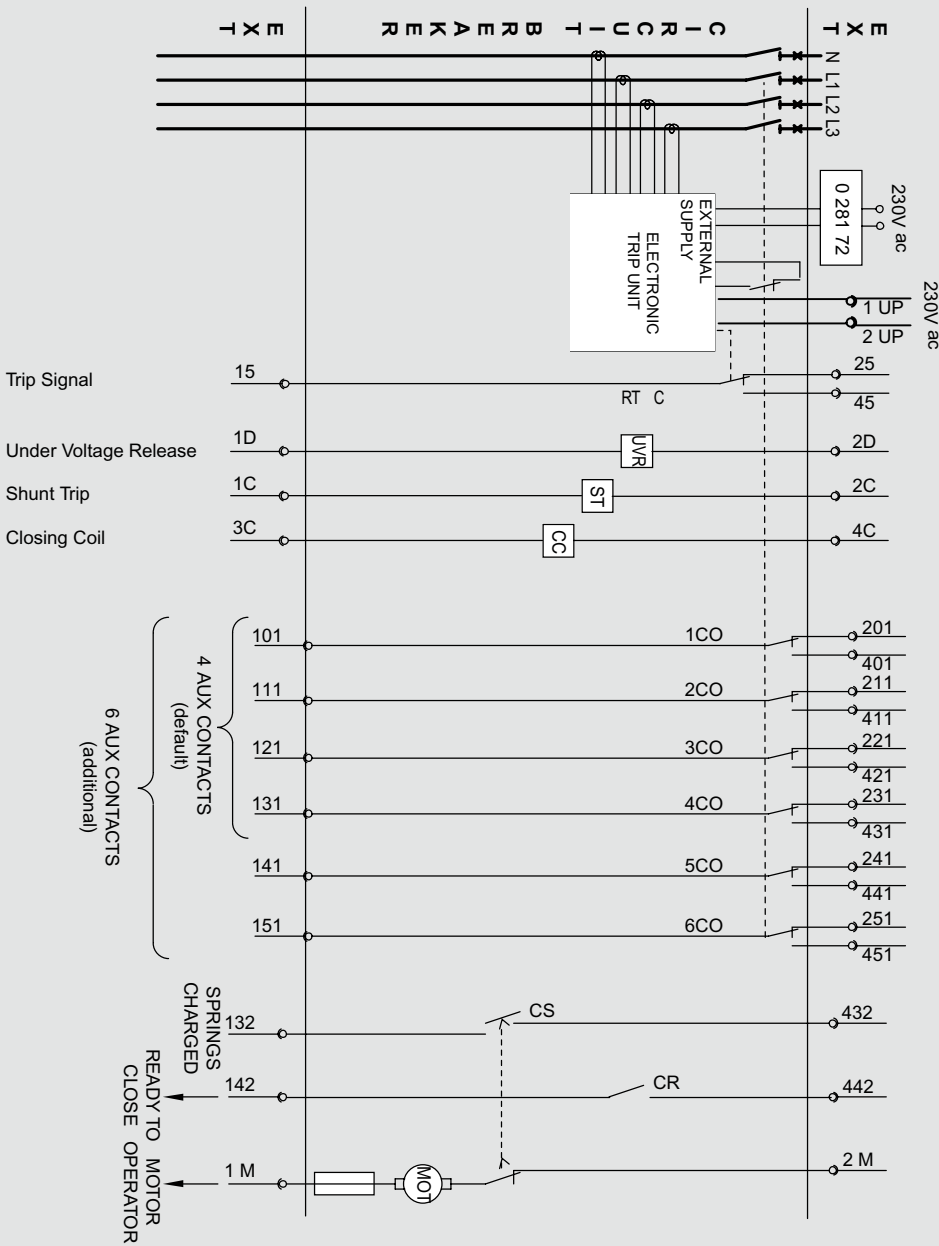


DMX-SP 2500

air circuit breakers wiring diagram

Electrical diagram

4 Poles

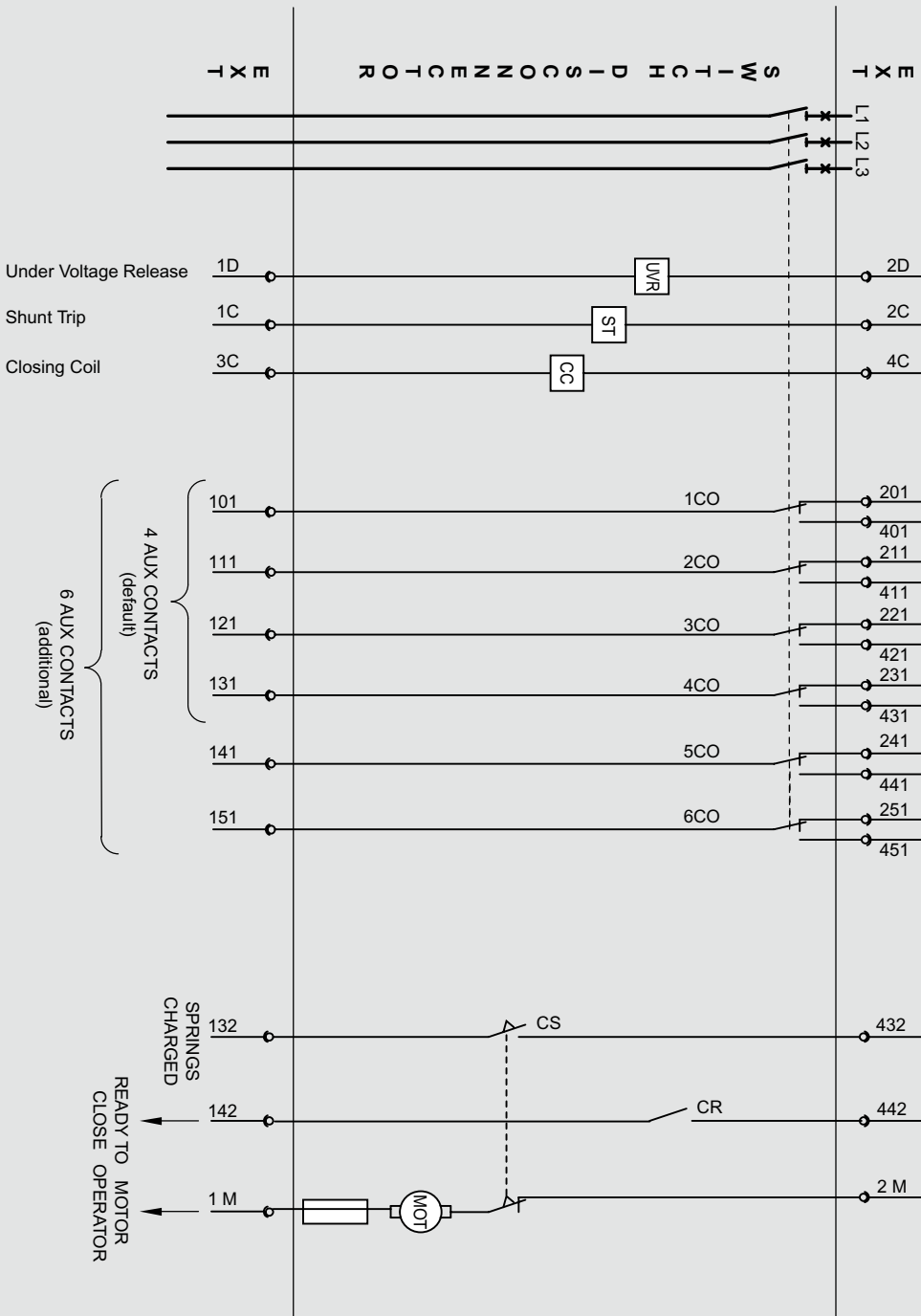


DMX-SP 2500

air circuit breakers wiring diagram

Electrical diagram

3 Poles

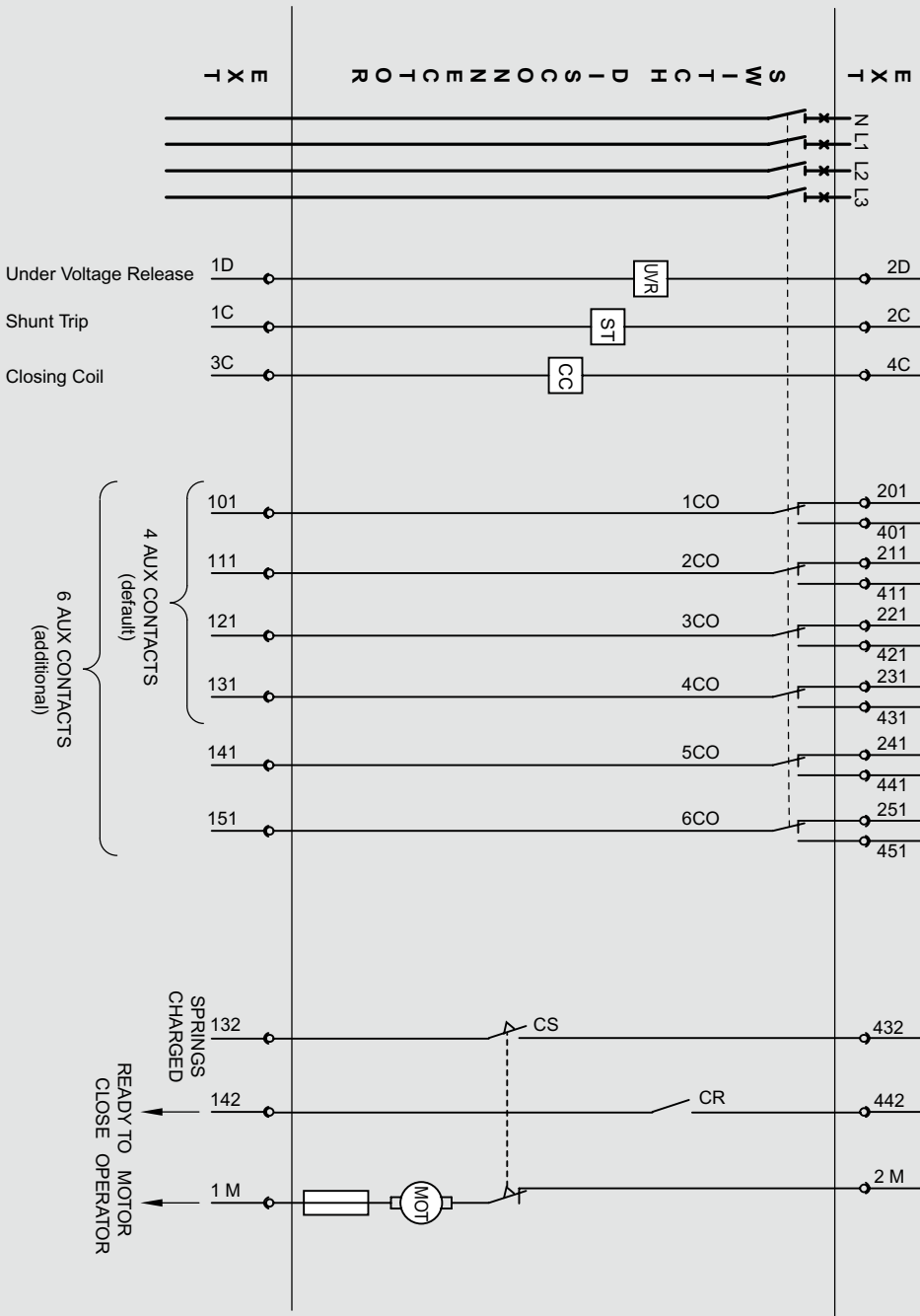


DMX-SP 2500

air circuit breakers wiring diagram

Electrical diagram

4 Poles



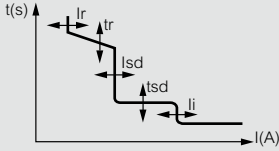
DMX-SP 2500

characteristics & setting

Setting of electronic protection units

MP2/ MP4 LSI

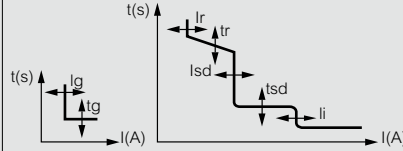
I_r , t_r , I_{sd} , t_{sd} , I_i adjustment on front Panel



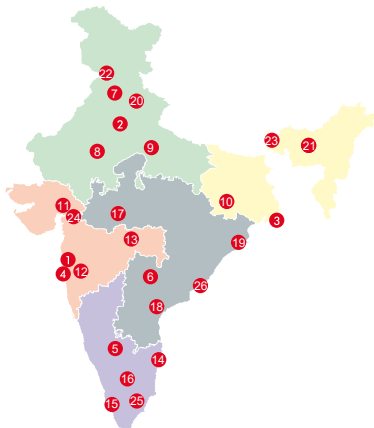
- Long Time Delay protection against Overloads**
 I_r from 0.4 to $1 \times I_n$ (6 + 6 steps) on two selectors
 (0.4 - 0.9, by steps of 0.1 and 0.0-0.1, by steps of 0.02)
- Long Delay protection operation time**
 t_r - at $6 \times I_r$ (4+4 Steps)
 t_r - 5, 10, 20, 30 s (MEM ON)
 30, 20, 10, 5s (MEM OFF)
- Short Time Delay protection against short-circuits**
 I_{sd} from 1.5 to $10 \times I_r$ (9 Steps)
 I_{sd} - 1.5, 2, 2.5, 3, 4, 5, 6, 8, $10 \times I_r$
- Short Time Delay protection Operation time**
 t_{sd} from 0.1 to 1 s (4+4 steps)
 t_{sd} = 0.1, 0.2, 0.5, 1s (t=const)
 t_{sd} = 1, 0.5, 0.2, 0.1 (I^2t -const)
- Instantaneous Protection against very high short circuits**
 I_i from 2 to $15 \times I_n$ or low (9 steps)
 I_i - 2, 3, 4, 6, 8, 10, 10, $15 \times I_n$ or I_{cw}
- Neutral Protection**
 I_N - I, II, III, IV $\times I_r$ (0-50-100-100%)

MP2/ MP4 LSIg

I_r , t_r , I_i , I_g , t_g , I_{sd} , t_{sd} , adjustment on front panel



- Long time delay protection against overloads**
 I_r from 0.4 to $1 \times I_n$ (6 + 6 steps) on two selectors
 (0.4 - 0.9, by steps of 0.1 and 0.0 - 0.1, by steps of 0.02)
- Long delay protection operation time**
 t_r - at $6 \times I_r$ (4 + 4 steps) t_r = 5, 10, 20, 30s (MEM ON)
 30, 20, 10, 5s (MEM OFF)
- Short time delay protection against short circuits**
 I_{sd} from 1.5 to $10 \times I_r$ (9 steps) I_{sd} = 1.5, 2, 2.5, 3, 4, 5, 6, 8, $10 \times I_r$
- Short time delay protection operation time**
 t_{sd} from 0.1 to 1s (4 + 4 steps)
 t_{sd} = 0.1, 0.2, 0.5, 1s (t=constant),
 t_{sd} = 1, 0.5, 0.2, 0.1 (I^2t -const)
- Instantaneous protection against very high short circuits**
 I_i from 2 to $15 \times I_n$ or I_{cw} (9 steps) I_i = 2,3,4,6,8,10,12, $5 \times I_n$ or I_{cw}
- Earth fault current**
 I_g from 0.2 to $1 \times I_n$ (9 steps)
- Time delay on earth fault tripping**
 t_g from 0.1 to $1 \times I_n$ (4 steps)
- Neutral protection**
 I_N = I, II, III, IV $\times I_r$ (0-50-100-100 %)



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