A. LEGRAND ELECTRIC

I. LEGRAND - Part 1 –

1. DMX Air Circuit Breakers

2. Power Protection and Switching

3. Bus bar Distribution Systems

4. Voltage Surge Protectors

5. Dimming

1. DMX AIR CIRCUIT BREAKERS

DMX / DMX-H / DMX-L 2 500 /4 000
electrical characteristics

Type of circuit breaker		DMX 2 500											
		800			1000			1250			1600		
Size		1	1	2	1	1	2	1	1	2	1	1	2
No of poles		3-4			3-4			3-4			3-4		
Electrical characteristics (IEC 947-2)													
Rated service voltage Ue	V a.c.	690			690			690			690		
	V d.c.												
Rated insulated voltage Ui (kV)		1			1			1			1		
Rated impulse withstand voltage Uimp (kV)		8			8			8			8		
Category of use		B			B			B			B		
Rated frequency (Hz)		50-60			50-60			50-60			50-60		
Rated current of the releases In (A)		800			1000			1250			1600		
Neutral protection (% I of phase)		50			50			50			50		
Level of performance	230 V A.C.		H	L		H	L		H	L		H	L
Breaking capacity Icm (kA)	230 V A.C.	50	65	100	50	65	100	50	65	100	50	65	100
	415 V A.C.	50	65	100	50	65	100	50	65	100	50	65	100
	500 V A.C.	50	65	80	50	65	80	50	65	80	50	65	80
	600 V A.C.	50	50	65	50	50	65	50	50	65	50	50	65
	690 V A.C.	40	40	60	40	40	60	40	40	60	40	40	60
Service breaking capacity Ics (% Icu)		100	100	80	100	100	80	100	100	80	100	100	80
Short time resistive current Icw (kA)	t = 1s	50	65	80	50	65	80	50	65	80	50	65	80
Suitability for isolation		1	1	1	1	1	1	1	1	1	1	1	1
Display circuit breaker state		1	1	1	1	1	1	1	1	1	1	1	1
Display contacts state		1	1	1	1	1	1	1	1	1	1	1	1
Display springs charged/discharged		1	1	1	1	1	1	1	1	1	1	1	1
Possible accessories													
Electronic release with microprocessor	MP.../17...	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
	MP.../20...	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Protection against overload		Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Protection against short-circuit		Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Protection against earth fault		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Auxiliary contacts (5 NO + 3 NC)		Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Alarm contacts 1 NO		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Opening releases		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Closing coil		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Motorised spring charging unit		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Fixed version		Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Draw-out version		Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Mechanical interlocks		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional

DMX AIR CIRCUIT BREAKERS

DMX 2500						DMX 4 000					
2000			2500			3200			4000		
1	1	2	1	1	2	2	2	2	2	2	2
3-4			3-4			3-4			3-4		
690			690			690			690		
1			1			1			1		
8			8			8			8		
B			B			B			B		
50-60			50-60			50-60			50-60		
2000			2500			3200			4000		
50			50			50			50		
	H	L		H	L		H	L		H	L
50	65	100	50	65	100	50	65	100	50	65	100
50	65	100	50	65	100	50	65	100	50	65	100
50	65	80	50	65	80	50	65	80	50	65	80
50	50	65	50	50	65	50	50	65	50	50	65
40	40	60	40	40	60	40	40	60	40	40	60
100	100	80	100	100	80	100	100	80	100	100	80
50	65	80	50	65	80	50	65	80	50	65	80
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series	Series
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional

DMX-I 2 500 / 4 000
electrical characteristics

Type of trip free switches		DMX-I 2 500			DMX-I 4 000		
		1 250	1 600	2 000	2 500	3 200	4 000
Size		1	1	1	1	2	2
No of poles		3-4	3-4	3-4	3-4	3-4	3-4
Electrical characteristics (IEC 947-3)							
Rated service voltage Ue	V a.c. (50-60 Hz)	690	690	690	690	690	690
	V d.c.	250	250	250	250	250	250
Rated insulated voltage Ui (kV)		1	1	1	1	1	1
Rated impulse withstand voltage Uimp (kV)		8	8	8	8	8	8
Rated frequency (Hz)		50-60	50-60	50-60	50-60	50-60	50-60
Rated current of the release In (A)		1 250	1600	2000	2500	3200	4000
Breaking capacity Icm (kA)	415 V A.C.	143	143	143	143	143	143
	500 V A.C.	143	143	143	143	143	143
	600 V A.C.	105	105	105	105	105	105
	690 V A.C.	84	84	84	84	84	84
Short time resistive current Icw (kA)	t = 1s	50	50	50	50	50	50
Suitability for isolation		1	1	1	1	1	1
Display circuit breaker state		1	1	1	1	1	1
Display contacts state		1	1	1	1	1	1
Display springs charged/discharged		1	1	1	1	1	1
Auxiliary contacts (5 NO + 3 NC)		Series	Series	Series	Series	Series	Series
Alarm contacts 1 NO		Optional	Optional	Optional	Optional	Optional	Optional
Opening releases		Optional	Optional	Optional	Optional	Optional	Optional
Closing coil		Optional	Optional	Optional	Optional	Optional	Optional
Motorised spring charging unit		Optional	Optional	Optional	Optional	Optional	Optional
Fixed version		Series	Series	Series	Series	Series	
Draw-out version		Series	Series	Series	Series	Series	Series
Mechanical interlocks		Optional	Optional	Optional	Optional	Optional	Optional

DMX AIR CIRCUIT BREAKERS

DMX, DMX-H AND DMX-L AIR CIRCUIT BREAKERS

Nominal rating (A)	Breaking capacity (kA)	Fixed version 3P	Fixed version 4P	Draw-out version 3P	Draw-out version 4P
800	50	267 00	267 10	268 00	268 10
	65	267 20	267 30	268 20	268 30
	100	267 50	267 60	268 50	268 60
1000	50	267 01	267 11	268 01	268 11
	65	267 21	267 31	268 21	268 31
	100	267 51	267 61	268 51	268 61
1250	50	267 02	267 12	268 02	268 12
	65	267 22	267 32	268 22	268 32
	100	267 52	267 62	268 52	268 62
1600	50	267 03	267 13	268 03	268 13
	65	267 23	267 33	268 23	268 33
	100	267 53	267 63	268 53	268 63
2000	50	267 04	267 14	268 04	268 14
	65	267 24	267 34	268 24	268 34
	100	267 54	267 64	268 54	268 64
2500	50	267 05	267 15	268 05	268 15
	65	267 25	267 35	268 25	268 35
	100	267 55	267 65	268 55	268 65
3200	50	267 06	267 16	268 06	268 16
	65	267 26	267 36	268 26	268 36
	100	267 56	267 66	268 56	268 66
4000	50	267 07	267 17	268 07	268 17
	65	267 27	267 37	268 27	268 37
	100	267 57	267 67	268 57	268 67

DMX-I TRIP FREE SWITCHES

Nominal rating (A)	Fixed version 3P	Fixed version 4P	Draw-out version 3P	Draw-out version 4P
1250	267 72	267 82	268 72	268 82
1600	267 73	267 83	268 73	268 83
2000	267 74	267 84	268 74	268 84
2500	267 75	267 85	268 75	268 85
3200	267 76	267 86	268 76	268 86
4000	267 77	267 87	268 77	268 87

CONVERSION OF A FIXED DEVICE INTO A DRAW-OUT DEVICE

Nominal rating (A)	Base: DMX, DMX-H and DMX-I 3P	Base: DMX, DMX-H and DMX-I 4P	Base: DMX-L 3P	Base: DMX-L 4P	+ Cluster contacts: DMX, DMX-H and DMX-I 3P	+ Cluster contacts: DMX, DMX-H and DMX-I 4P	+ Cluster contacts: DMX-L 3P	+ Cluster contacts: DMX-L 4P
800 - 1600	269 00	269 03	269 01	269 04	269 78	269 82	269 80	269 84
2000 - 2500	269 00	269 03	269 01	269 04	269 79	269 83	269 80	269 84
3200	269 01	269 04	269 01	269 04	269 80	269 84	269 80	269 84
4000	269 02	269 05	269 02	269 05	269 81	269 85	269 81	269 85

DMX™ 2 500
800 to 2 500 A air circuit breakers
fixed version

267 13

Air circuit breakers equipped with a trip unit (MP 17[1] electronic protection unit), rear terminals and auxiliary contacts (5 NO + 3 NC)

Pack	Cat.Nos 3P	Cat.Nos 4P	In
	DMX 2 500		Breaking capacity Icu 50 kA (415 V~)
1	267 00	267 10	800 A
1	267 01	267 11	1 000 A
1	267 02	267 12	1 250 A
1	267 03	267 13	1 600 A
1	267 04	267 14	2 000 A
1	267 05	267 15	2 500 A
	DMX-H 2 500		Breaking capacity Icu 65 kA (415 V~)
1	267 20	267 30	800 A
1	267 21	267 31	1 000 A
1	267 22	267 32	1 250 A
1	267 23	267 33	1 600 A
1	267 24	267 34	2 000 A
1	267 25	267 35	2 500 A
	DMX-L 2 500		Breaking capacity Icu 100 kA (415 V~)
1	267 50	267 60	800 A
1	267 51	267 61	1 000 A
1	267 52	267 62	1 250 A
1	267 53	267 63	1 600 A
1	267 54	267 64	2 000 A
1	267 55	267 65	2 500 A

Accessories

DMX™ 2 500
800 to 2 500 A air circuit breakers
draw-out version

268 13

Air circuit breakers equipped with a trip unit (MP 17[1] electronic protection unit), rear terminals and auxiliary contacts (5 NO + 3 NC)

The DMX air circuit breakers in the draw-out version are delivered with a base equipped with adjustable rear terminals and independently lockable upstream/downstream isolation shutters

Pack	Cat.Nos 3P	Cat.Nos 4P	In
	DMX 2 500		Breaking capacity Icu 50 kA (415 V~)
1	268 00	268 10	800 A
1	268 01	268 11	1 000 A
1	268 02	268 12	1 250 A
1	268 03	268 13	1 600 A
1	268 04	268 14	2 000 A
1	268 05	268 15	2 500 A
	DMX-H 2 500		Breaking capacity Icu 65 kA (415 V~)
1	268 20	268 30	800 A
1	268 21	268 31	1 000 A
1	268 22	268 32	1 250 A
1	268 23	268 33	1 600 A
1	268 24	268 34	2 000 A
1	268 25	268 35	2 500 A
	DMX-L 2 500		Breaking capacity Icu 100 kA (415 V~)
1	268 50	268 60	800 A
1	268 51	268 61	1 000 A
1	268 52	268 62	1 250 A
1	268 53	268 63	1 600 A
1	268 54	268 64	2 000 A
1	268 55	268 65	2 500 A

Accessories (p. 39)

DMX AIR CIRCUIT BREAKERS

DMX™ 4000
3200 and 4000 A air circuit breakers fixed version

267 27

Air circuit breakers equipped with a trip unit (MP 17[1] electronic protection unit), rear terminals and auxiliary contacts (5 NO + 3 NC)

Pack	Cat.Nos 3P	Cat.Nos 4P	In
	DMX 4000		
	Breaking capacity Icu 50 kA (415 V~)		
1	267 06	267 16	3200 A
1	267 07	267 17	4000 A
	DMX-H 4000		
	Breaking capacity Icu 65 kA (415 V~)		
1	267 26	267 36	3200 A
1	267 27	267 37	4000 A
	DMX-L 4000		
	Breaking capacity Icu 100 kA (415 V~)		
1	267 56	267 66	3200 A
1	267 57	267 67	4000 A

DMX™ 4000
3200 and 4000 A air circuit breakers draw-out version

268 17

Air circuit breakers equipped with a trip unit (MP 17[1] electronic protection unit), rear terminals and auxiliary contacts (5 NO + 3 NC)

The DMX air circuit breakers in the draw-out version are delivered with a base equipped with adjustable rear terminals and independently lockable upstream/downstream isolation shutters

Pack	Cat.Nos 3P	Cat.Nos 4P	In
	DMX 4000		
	Breaking capacity Icu 50 kA (415 V~)		
1	268 06	268 16	3200 A
1	268 07	268 17	4000 A
	DMX-H 4000		
	Breaking capacity Icu 65 kA (415 V~)		
1	268 26	268 36	3200 A
1	268 27	268 37	4000 A
	DMX-L 4000		
	Breaking capacity Icu 100 kA (415 V~)		
1	268 56	268 66	3200 A
1	268 57	268 67	4000 A

Auxiliaries

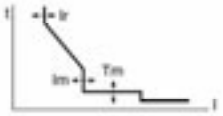
DMX, DMX-H, DMX-L
electronic protection unit

MP17 delivered on standard on DMX

MP20 only delivered on request

MP17 electronic protection unit

The DMX 2500 and DMX 4000 are delivered with an MP17 electronic protection unit with Ir, Im and Tm adjustements on the front face



Pack	Cat.Nos	Test box
1	269 28	Use to verify the correct functioning of the trip unit and the opening conditions of the poles of DMX Test box MP17

MP20 electronic protection unit

On request, the DMX can be equipped with an MP20 electronic protection unit provided with a liquid crystal display and keyboard for adjustement of the operating parameters, and an external memory unit (UME) on the draw-out versions

In addition to the conventional functions, other functions can be added as options:
- display of line currents
- counting of electrical operations performed
- signalling of actions performed by the control unit
- load control and load shedding
- prior warning of tripping in the absence of priority loads
- centralised communication and supervision functions

DMX equipped with an MP20 electronic protection unit

DMX-I
trip free switches

267 83

Non-automatic air-circuit breakers with rear terminals and auxiliary contacts (5 NO + 3 NC)

Pack	Cat.Nos 3P	Cat.Nos 4P	In
DMX-I 2 500			
			Fixed version
1	267 72	267 82	1 250 A
1	267 73	267 83	1 600 A
1	267 74	267 84	2 000 A
1	267 75	267 85	2 500 A
			Draw-out version The DMX trip free switches in the draw-out version are delivered with a base equipped with adjustable rear terminals and independently lockable upstream/downstream isolation shutters
1	268 72	268 82	1 250 A
1	268 73	268 83	1 600 A
1	268 74	268 84	2 000 A
1	268 75	268 85	2 500 A
DMX-I 4 000			
			Fixed version
1	267 76	267 86	3 200 A
1	267 77	267 87	4 000 A
			Draw-out version The DMX trip free switches in the draw-out version are delivered with a base equipped with adjustable rear terminals and independently lockable upstream/downstream isolation shutters
1	268 76	268 86	3 200 A
1	268 77	268 87	4 000 A

DMX, DMX-H, DMX-L, DMX-I
control and signalling auxiliaries

269 74

269 54

Pack	Cat.Nos	Control and signalling auxiliaries
		Shunt trip
		When energised the circuit breaker will be tripped
1	269 64	24 V⎓
1	269 65	48 V⎓
1	269 66	110/130 V∿ or ⎓
1	269 67	220/250 V∿ or ⎓
1	269 68	380/440 V∿ or ⎓
		Undervoltage releases
		When the coil is de-energised, the circuit breaker will be tripped
1	269 73	24 V⎓
1	269 69	48 V⎓
1	269 70	110/130 V⎓
1	269 71	220/250 V∿
1	269 72	380/440 V∿
		Delayed undervoltage releases
		Improves immunity to nuisance tripping
1	269 74	48 V⎓
1	269 75	110/130 V⎓
1	269 76	220/250 V∿ or ⎓
1	269 77	380/440 V∿ or ⎓
		Motor operators
		To motorise a DMX, it is necessary to attach, to the motor operators, a release coil (undervoltage or trip on energising) and a closing coil
1	269 54	24/30 V⎓
1	269 55	48 V⎓
1	269 56	110/130 V∿
1	269 57	110/130 V⎓
1	269 58	220/250 V∿

DMX, DMX-H, DMX-L, DMX-I
control and signalling auxiliaries, locking

269 60

Pack	Cat.Nos	Control and signalling auxiliaries
		Closing coils
		Enables remote closing of the circuit breaker if the closing spring is charged
1	269 60	24/30 V⎓
1	269 61	48 V⎓
1	269 62	110/130 V∿ and ⎓
1	269 63	220/250 V∿ and ⎓
		Signalling contacts
1	269 52	1 NO fault signal contact
1	269 50	6 NO + 6 NC position contact (in/test/out) for draw-out version
1	269 51	Springs charges contact
		Locking options
		Key locking in "open" position
		Mounting of the lock on the ACBs
1	269 31	Ronis™ lock (lock and key included)
1	269 32	Profalux lock (lock and key not included)
		Key locking in the withdrawn position
		Mounting of the lock on the base
1	269 41	Ronis™ lock (lock and key included)
1	269 42	Profalux lock (lock and key not included)
		Door locking
		Prevents opening of the door with the circuit breaker closed
1	269 88	Left-hand side mounting (hinges on the right)
1	269 87	Right-hand side mounting (hinges on the left)

DMX, DMX-H, DMX-L, DMX-I
accessories

269 97

Pack	Cat.Nos		Accessories
			Rating mis-insertion device
			Prevents the insertion of a draw-out circuit breaker in an incompatible base
1	269 86		Base/circuit breaker insertion lock
			Operations counter
			Counts total number of operation cycles of the device
1	269 89		Operations counter
			Equipment for supply invertors
			The mechanical interlocking of devices which are placed above one another or installed side by side requires an interlocking unit for each device and a cable set
			Interlocking units
			For installation on the side of circuit breakers DMX, DMX-H, DMX-L and DMX-I
	3P	4P	Fixed version
1	269 95	269 96	For DMX 2500, DMX-H 2500 and DMX-I 2500
1	269 97	269 98	For DMX, DMX-L 2500/4000 and DMX-I 4000
			Draw-out version
1	269 91	269 92	For DMX 2500, DMX-H 2500 and DMX-I 2500
1	269 93	269 94	For DMX 4000, DMX-H 4000, DMX-L 2500/4000 and DMX-I 4000
			Cables for interlocking assemblies
1	269 99		Set of cables for 2 devices (l = 2m)

DMX, DMX-H, DMX-L, DMX-I
accessories *(continued)*

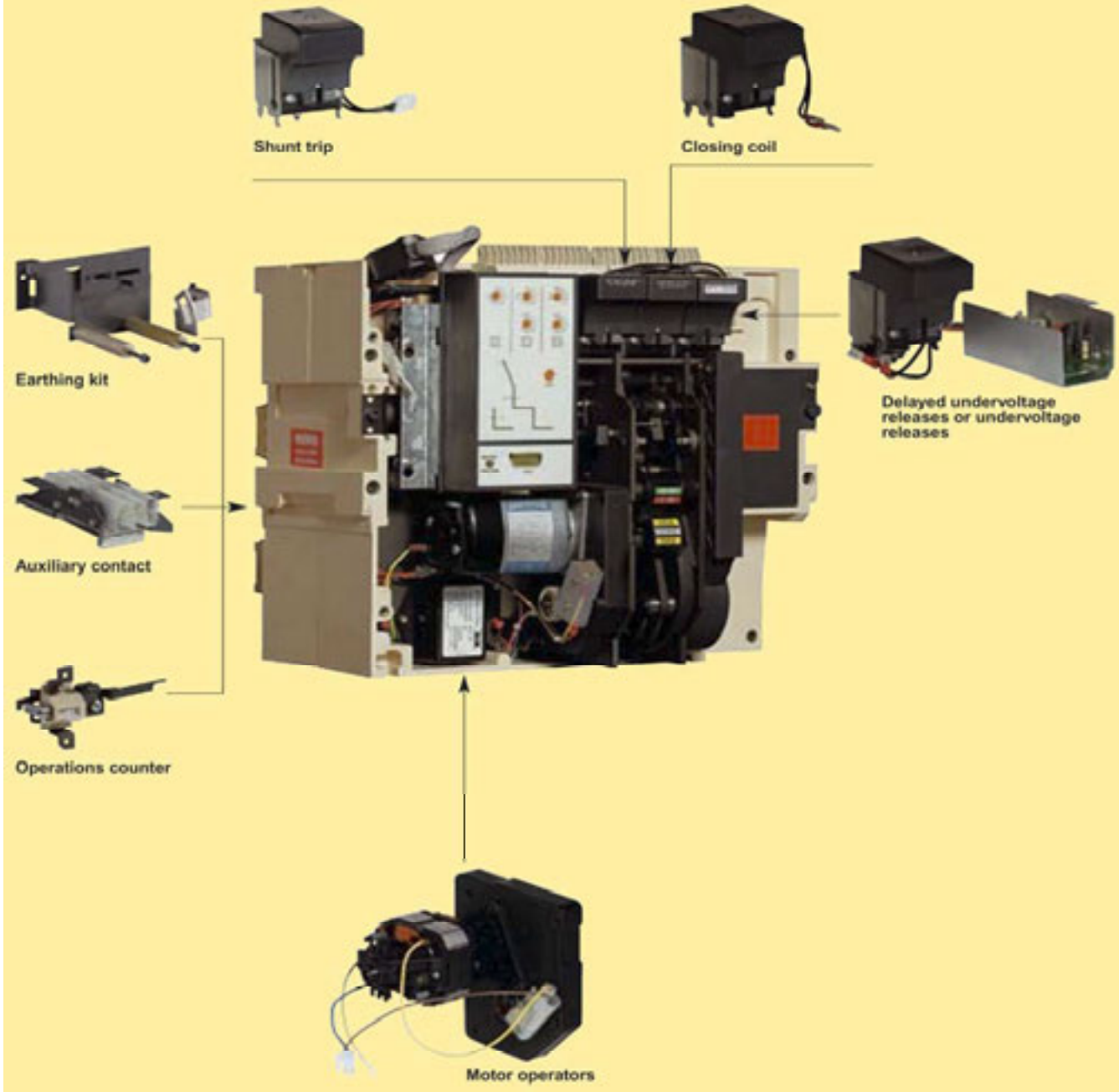
267 15
DMX 2500, mounted on base ref. 269 03

Pack	Cat.Nos		Conversion of a fixed device into a draw-out device
			Converting a fixed device requires a base, a set of cluster contacts and a mounting tool
			Bases for draw-out device
			Accept ACBs equipped with cluster contacts
	3P	4P	
1	269 00	269 03	For DMX 2500, DMX-H 2500 and DMX-I 2500
1	269 01	269 04	For DMX 4000, DMX-H 4000, DMX-L 2500/4000 and DMX-I 4000 In ≤ 3200 A
1	269 02	269 05	For DMX 4000, DMX-H 4000, DMX-L 2500/4000 and DMX-I 4000 In = 4000 A
			Sets of cluster contacts
			For use on the rear terminals of the fixed devices using the mounting tool
1	269 78	269 82	For DMX 2500, DMX-H 2500 and DMX-I 2500 In ≤ 1600 A
1	269 79	269 83	For DMX 2500, DMX-H 2500 and DMX-I 2500 In = 2000 A and 2500 A
1	269 80	269 84	For DMX 4000, DMX-H 4000, DMX-L 2500/4000 and DMX-I 4000 In ≤ 3200 A
1	269 81	269 85	For DMX 4000, DMX-H 4000, DMX-L 2500/4000 and DMX-I 4000 In = 4000 A
			Cluster mounting tool
			Necessary for mounting the clusters on the rear terminals of the device
1	269 08		Cluster mounting tool
			Door protection
1	269 07		Door protection IP 54 for draw-out device

DMX 2 500 - DMX 4 000
air-circuit breakers

Common auxiliaries from 800 to 4 000 A

Removing front plate gives direct access to all control and signalling accessories.
Front connection: 32 available connecting points



Number of control auxiliaries for DMX	
Shunt trip	1
Undervoltage releases	1
Delayed undervoltage releases	1
Closing coil	1

DMX
air circuit breakers

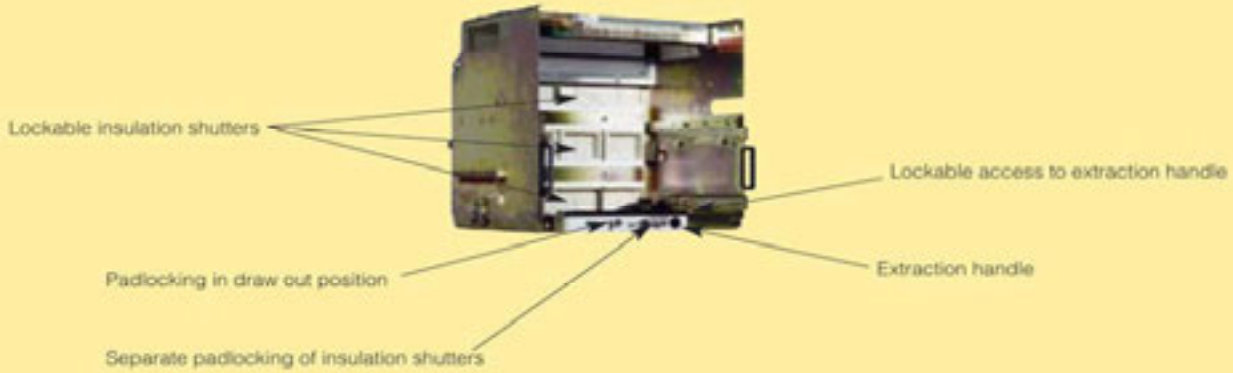
Delivery status of air circuit breakers

Fixed version
All air circuit breakers are supplied complete, equipped with:

- MP17 electronic protection unit trip
- Horizontal fixed rear terminals
- Contacts: 5 N/O + 3 N/C

Draw-out version
All air circuit breakers are supplied complete, equipped with MP17 trip and the following accessories:

Draw-out internal base



Rear view of the draw-out base (pivoting rear terminals)

DMX AIR CIRCUIT BREAKERS

DESCRIPTION		NORMAL			BACKUP		
		Cat. No	Quantity	Unit price	Cat. No	Quantity	Unit price
DMX a.c.bs	See p. 36						
Specific protection	Protection against earth faults, 3-pole DMX	26911			26911		
	Protection against earth faults, 4-pole DMX	26915			26915		
	Advanced trip, LT and ST protection, 3-pole DMX	26912			26912		
	Advanced trip, LT and ST protection, 4-pole DMX	26916			26916		
	Advanced trip, LT, ST and EF protection, 3-pole DMX	26913			26913		
	Advanced trip, LT, ST and EF protection, 4-pole DMX	26917			26917		
Options for STANDARD trip	Fixed external power supply	26927			26927		
	Diagnostic tester	26928			26928		
Options for ADVANCED trip	Ammeters	26919			26919		
	Portable external power supply	26920			26920		
	Load shedding	26921			26921		
	Communication	26922			26922		
	Trip early warning	26923			26923		
	Trip indication	26924			26924		
	Counting of electrical operations	26925			26925		
	Diagnostic tester	26926			26926		
	Fixed external power supply	26927			26927		
	Diagnostic tester	26928			26928		
Electrical accessories	Auxiliary contacts (5 N/O + 3 N/C)						
	Plugged in/test/drawn out contacts	26950			26950		
	"Charged spring" contact	26951			26951		
	Fault signal contact (1 N/O)	26952			26952		
	Current emission coil						
	Spring charging motor						
	Minimum voltage coil Normal						
	Minimum voltage coil Delayed						
Mechanical accessories	Locking OPEN O Ronis O Profalux						
	Locking CLOSED O Ronis O Profalux						
	Tamperproof insert	26966			26966		
	Operation counter	26969			26969		
	Panel locking (left mounting)	26968			26968		
	Panel locking (right mounting)	26967			26967		
	Supply inverter kit						
	Supply inverter cables						
	Closing coil						
	Electronic control box						
Spare parts	Draw-out base						
	Fixed/Draw-out conversion kit						
	Fixed/Draw-out conversion method						
	IP 54 protection	26907			26907		

XL
distribution equipment for DMX 2 500/4 000

097 20

097 21

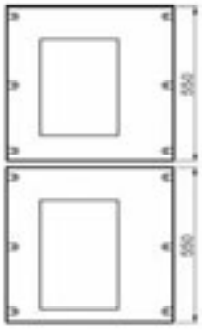
Pack	Cat. Nos	Device for fixing on crosspieces
		DMX fixed or draw-out versions fix directly onto separate crosspieces in XL 600, XL-A 400 [1], 600, 800 cabinets
		Crosspieces
		For mounting fixing plates which take DMX, according to the depth of the enclosure
1	095 66	Set of 2 crosspieces depth 400
1	095 67	Set of 2 crosspieces depth 600
1	095 68	Set of 2 crosspieces depth 800
		Fixing plates for equipment
		For DMX fixed version
1	097 20	For all 3 and 4-pole DMX 2500 and DMX 4000, For mounting in enclosures 700 mm wide For fitting the interlock system for 2 or 3 DMX 2500, DMX-I 2500 devices [2]
1	097 22	For all 3 and 4-pole DMX 2500 and DMX 4000, For mounting in enclosures 700 mm wide with extension (cable sleeve or enclosure) to the right For fitting the interlock system for 2 or 3 DMX-L 2500, DMX 4000, DMX-L 4000, DMX-I 4000 devices [2]
		For DMX draw-out version
1	097 21	For all 3 and 4-pole DMX 2500 and DMX 4000, draw-out version For mounting in enclosures 700 mm wide For fitting the interlock system for 2 or 3 DMX 2500 and DMX-I 2500 devices [2]
1	097 23	For all 3 and 4-pole DMX 2500 and DMX 4000, draw-out version For mounting in enclosures 700 mm wide with extension (cable sleeve or enclosure) to the right For fitting the interlock system for 2 DMX-L 2500, DMX 4000, DMX-L 4000, DMX-I 4000 devices [3]

(1) Separate on an XL 600, XL-A 600 or 800
(2) Special mounting for 3 devices, please consult us
(3) For 3 devices, please consult us

XL
distribution equipment for DMX 2 500/4 000

096 37

Pack	Cat. Nos	Faceplates
		For DMX fixed version
1	096 37	Metal
		For DMX draw-out version
1	096 38	Metal



Selection chart for DMX support plates

Device	Poles	Fixed version interlock: Without	Fixed version interlock: 2 devices	Fixed version interlock: 3 [1] devices	Draw-out version interlock: Without	Draw-out version interlock: 2 devices	Draw-out version interlock: 3 [1] devices
DMX 2500	3	097 20	097 20	097 20	097 21	097 21	097 21
	4	097 20	097 20	097 20	097 21	097 21	097 21
DMX-L 2500	3	097 20	097 20 or 097 22	097 20 or 097 22	097 21	097 21 or 097 23	on request
	4	097 20	097 22	097 22	097 21	097 23	on request
DMX-I 2500	3	097 20	097 20	097 20	097 21	097 21	097 21
	4	097 20	097 20	097 20	097 21	097 21	097 21
DMX -4000	3	097 20	097 20 or 097 22	097 20 or 097 22	097 21	097 21 or 097 23	on request
	4	097 20	097 22	097 22	097 21	097 23	on request
DMX-L 4000	3	097 20	097 20 or 097 22	097 20 or 097 22	097 21	097 21 or 097 23	on request
	4	097 20	097 22	097 22	097 21	097 23	on request
DMX-I 4000	3	097 20	097 20 or 097 22	097 20 or 097 22	097 21	097 21 or 097 23	on request
	4	097 20	097 22	097 22	097 21	097 23	on request

(1) Special mounting for 3 devices, please consult us

2. POWER PROTECTION AND SWITCHING

		DPX								
TYPE OF CASE		**DPX 125**	**DPX 125**			**DPX 160**			**DPX 250 ER**	
Type of MCCB		**DPX-E**	**DPX-E 16 kA**	**DPX 25 kA**	**DPX 36 kA**	**DPX 25 kA**	**DPX 36 kA**	**DPX 50 kA**	**DPX 36 kA**	**DPX 50 kA**
Number of poles		1	3-4						3-4	
Nominal rating In (A)		16-125	16-125			25-160			25-250	
ELECTRICAL CHARACTERISTICS CONFORMING TO EN 60947 - 2										
Rated operating voltage Ue (50-60 Hz) ±		230	500			500			500	
Rated operating voltage Ue = (V)		-	250			250			250	
Rated insulation voltage Ui ± (V)		290	500			500			500	
Rated impulse withstand voltage Uimp (kV)		6	6			6			6	
Category of use		A	A			A			A	
Ultimate breaking capacity	**230 V±**	16	22	35	40	40	50	65	50	65
(kA)	**400 V±**	-	16	25	36	25	36	50	36	50
	440 V±	-	10	18	20	20	25	30	25	30
	480/500 V±	-	8	12	14	10	12	15	12	15
	600 V±	-	-			-			-	
	690 V±	-	-			-			-	
	250 V⎓	-	16	25	30	25	36	40	36	45
Standard breaking capacity Ics (% Icu)		50	100	75	50	100	75	50	75	50
Rated closing capacity on short-circuit (400 V±)		32	32	52.5	75.6	52.5	75.6	100	75.6	105
Rated short time resistive current Icw (kA)										
Endurance (o.c. cycle)	**mechanical**	25 000	25 000			20 000			20 000	
	electrical	8 000	8 000			8 000			8 000	
Isolation capability		•	•			•			•	
TYPE OF PROTECTION										
Thermal-magnetic release		•	•			•			•	
Electronic release										
Earth leakage modules	**underneath**		•			•			•	
	side by side		•			•			•	
EXTERNAL ACCESSORIES										
Remote control			•			•				
Fixed type		•	•			•			•	
Plug-in type			•			•			•	
Draw-out type										
Rotary handle			•			•			•	
Supply inverter						•				
DIMENSIONS AND WEIGHT										
Dimensions (L x H x D) (mm)	**1-pole**	25 x 120 x 74								
	3-pole		75.6 x 120 x 74			90 x 150 x 74			90 x 176 x 74	
	4-pole		101 x 120 x 74			120 x 150 x 74			120 x 176 x 74	
Weight (kg)	**3-pole**		1			1.1			1.6	
	4-pole		1.2			1.5			2.1	

DPX

DPX 250 ELECTRONIC RELEASE			DPX 250			DPX 630			DPX 630 ELECTRONIC RELEASE			DPX 1250			DPX 1 600 ELECT. RELEASE	
DPX 36 kA	DPX-H 70 kA	DPX-L 100 kA	DPX 36 kA	DPX-H 70 kA	DPX-L 100 kA	DPX 36 kA	DPX-H 70 kA	DPX-L 100 kA	DPX 36 kA	DPX-H 70 kA	DPX-L 100 kA	DPX 50 kA	DPX-H 70 kA	DPX-L 100 kA	DPX 50 kA	DPX-H 70 kA
3-4			3-4			3-4			3-4			3-4			3-4	
40-250			25-250			250-630			160-630			500-1250			630-1600	
690			690			690			690			690			690	
-			250			250			-			250			-	
690			690			690			690			690			690	
8			8			8			8			8			8	
A			A			A			B(160 - 400 A)		A(630 A)	A			B	
60	100	170	60	100	170	60	100	170	60	100	170	80	100	170	80	100
36	70	100	36	70	100	36	70	100	36	70	100	50	70	100	50	70
30	60	70	30	60	70	30	60	70	30	60	70	45	65	80	45	65
25	40	45	25	40	45	25	40	45	25	40	45	35	45	55	35	45
20	25	28	20	25	28	20	25	28	20	25	28	25	35	40	25	35
16	20	22	16	20	22	16	20	22	16	20	22	25	25	30	20	25
-	-	-	36	40	40	36	40	45	-	-	-	50	50	50	-	-
100	75	50	100	75	50	100	75	50	100	75	50	100	75	50	100	75
75.6	154	220	75.6	154	220	75.6	154	220	75.6	154	220	105	154	220	105	154
3									5						15 ≤ I 250 < 20	
20 000			20 000			15 000			15 000			10 000			10 000	
8 000			8 000			5 000			5 000			4 000			3 000	
•			•			•			•			•			•	
			•			•						•				
•									•						•	
•			•			•			•							
•			•			•			•			•			•	
•			•			•			•			•			•	
•			•			•			•							
•			•			•			•			•			•	
•			•			•			•			•			•	
•			•			•			•			•			•	
105 x 200 x 105			105 x 200 x 105			140 x 260 x 105			140 x 260 x 105			210 x 320 x 140			210 x 320 x 140	
140 x 200 x 105			140 x 200 x 105			183 x 260 x 105			183 x 260 x 105			280 x 320 x 140			280 x 320 x 140	
2.5			2.5			5.5			5.3 ≤ 400 < 5.8			12.2 ≤ 800 > 18			12.2 ≤ 800 > 18	
3.7			3.7			6.4			6.8 ≤ 400 < 7.4			15.1 ≤ 800 > 23.4			15.1 ≤ 800 > 23.4	

THERMAL-MAGNETIC DPX

Nominal rating (A)	Breaking capacity (kA)	Case	3P	3P+1/2 N	4P	Lateral earth leakage module 3P	Lateral earth leakage module 4P[1]	Underneath earth leakage module 3P	Underneath earth leakage module 4P[1]
16	25	DPX 125	250 36		250 44	260 12	260 13		260 14
	36		250 50		250 58	260 12	260 13		260 14
25	25	DPX 125	250 37		250 45	260 12	260 13		260 14
		DPX 160	251 21		251 29	260 20	260 21		260 22
		DPX 250 ER	252 01		252 11				
	36	DPX 125	250 51		250 59	260 12	260 13		260 14
	50	DPX 160	251 61		251 69	260 20	260 21		260 22
40	25	DPX 125	250 38		250 46	260 12	260 13		260 14
		DPX 160	251 22		251 30	260 20	260 21		260 22
		DPX 250 ER	252 02		252 12				
	36	DPX 125	250 52		250 60	260 12	260 13		260 14
		DPX 250	253 28		253 45			260 54	260 55
	50	DPX 160	251 62		251 70	260 20	260 21		260 22
	70	DPX 250	253 52		253 69			260 54	260 55
63	25	DPX 125	250 39		250 47	260 12	260 13		260 14
		DPX 160	251 23		251 31	260 20	260 21		260 22
		DPX 250 ER	252 03		252 13				
	36	DPX 125	250 53		250 61	260 12	260 13		260 14
		DPX 250	253 29		253 46			260 54	260 55
	50	DPX 160	251 63		251 71	260 20	260 21		260 22
	70	DPX 250	253 53		253 70			260 54	260 55
100	25	DPX 125	250 40	250 42	250 48	260 12	260 13		260 14
		DPX 160	251 24	251 26	251 32	260 20	260 21		260 22
		DPX 250 ER	252 04	252 07	252 14				
	36	DPX 125	250 54	250 56	250 62	260 12	260 13		260 14
		DPX 250	253 30	253 40	253 47			260 54	260 55
	50	DPX 160	251 64	251 66	251 72	260 20	260 21		260 22
		DPX 250 ER	252 44		252 54				
	70	DPX 250	253 54	253 64	253 71			260 54	260 55
125	25	DPX 125	250 41	250 43	250 49	260 12	260 13		260 14
	36		250 55	250 57	250 63	260 12	260 13		260 14
160	25	DPX 160	251 25	251 27	251 33	260 20	260 21		260 22
		DPX 250 ER	252 05	252 08	252 15		260 31		260 33
	36	DPX 250	253 31	253 41	253 48			260 54	260 55
	50	DPX 160	251 65	251 67	251 73	260 20	260 21		260 22
		DPX 250 ER	252 45	252 47	252 55		260 31		260 33
	70	DPX 250	253 55	253 65	253 72			260 54	260 55
250	25	DPX 250 ER	252 06	252 09	252 16		260 36		260 38
	36	DPX 250	253 32	253 42	253 49			260 54	260 55
	50	DPX 250 ER	252 46	252 48	252 56		260 36		260 38
	70	DPX 250	253 56	253 66	253 73			260 54	260 55
		DPX 630			255 36				
320	36	DPX 630	255 22	255 32	255 37			260 60	260 61
	70		255 42	255 52	255 57			260 60	260 61
400	36	DPX 630	255 23	255 33	255 38			260 60	260 61
	70		255 43	255 53	255 58			260 60	260 61
500	36	DPX 630	255 25	255 35	255 39			260 64	260 65
	70		255 45	255 55	255 59			260 64	260 65
630	36	DPX 630	255 24	255 34	255 40			260 64	260 65
	50	DPX 1250	258 01	258 08					
	70	DPX 630	255 44	255 54	255 60			260 64	260 65
		DPX 1250	258 15	258 22					
800	50	DPX 1250	258 02	258 09					
	70		258 16	258 23					
1000	50	DPX 1250	258 03	258 10					
	70		258 17	258 24					
1250	50	DPX 1250	258 04	258 11					
	70		258 18	258 25					

ELECTRONIC DPX

Nominal rating (A)	Breaking capacity (kA)	Case	3P	4P Neutral : 0 - 50 - 100%(1)	Underneath earth leakage module 3P	Underneath earth leakage module 4P
40	36	DPX 250	254 01	254 07	260 54	260 55
	70		254 13	254 19	260 54	260 55
100	36	DPX 250	254 03	254 09	260 54	260 55
	70		254 15	254 21	260 54	260 55
160	36	DPX 250	254 04	254 10	260 54	260 55
	70		254 16	254 22	260 54	260 55
250	36	DPX 250	254 05	254 11	260 54	260 55
		DPX 630	256 01	256 05	260 60	260 61
	70	DPX 250	254 17	254 23	260 54	260 55
		DPX 630	256 34	256 38	260 60	260 61
400	36	DPX 630	256 02	256 06	260 60	260 61
	70		256 35	256 39	260 60	260 61
630	36	DPX 630	256 03	256 07	260 64	260 65
	50	DPX 1600	257 01	257 05		
	70	DPX 630	256 36	256 40	260 64	260 65
		DPX 1600	257 33	257 37		
800	50	DPX 1600	257 02	257 06		
	70		257 34	257 38		
1250	50	DPX 1600	257 03	257 07		
	70		257 35	257 39		
1600	50	DPX 1600	257 04	257 08		
	70		257 36	257 40		

(1) Adjustable on the front

EQUIPMENT FOR PLUG-IN AND DRAW-OUT TYPES

Case		Draw-out: Front terminals	Draw-out: Threaded rear terminals	Draw-out: Flat rear terminals	Plug-in: Front terminals	Plug-in: Threaded rear terminals	Plug-in: Flat rear terminals
DPX 125	3P	+ 263 02 + 263 08	+ 263 03 + 263 08				
	4P	+ 263 04 + 263 09	+ 263 05 + 263 09				
DPX 160	3P	+ 263 12 + 263 18	+ 263 13 + 263 18				
	4P	+ 263 14 + 263 19	+ 263 15 + 263 19				
DPX 250 ER	3P	+ 265 14 + 265 12	+ 265 16 + 265 12				
	4P	+ 265 15 + 265 13	+ 265 17 + 265 13				
DPX 250	3P	+ 265 31 + 265 29	+ 265 33 + 265 29	+ 265 35 + 265 29	+ 265 31 + 265 29 + 265 45	+ 265 33 + 265 29 + 265 45	+ 265 35 + 265 29 + 265 45
	4P	+ 265 32 + 265 30	+ 265 34 + 265 30	+ 265 36 + 265 30	+ 265 32 + 265 30 + 265 46	+ 265 34 + 265 30 + 265 46	+ 265 36 + 265 30 + 265 46
	4P + earth leakage module	+ 265 37 + 265 30	+ 265 38 + 265 30	+ 265 39 + 265 30	+ 265 37 + 265 30 + 265 47	+ 265 38 + 265 30 + 266 47	+ 265 39 + 265 30 + 267 47
DPX 630	3P	+ 265 52 + 265 50	+ 265 54 + 265 50	+ 265 56 + 265 50	+ 265 52 + 265 50 + 265 66	+ 265 54 + 265 50 + 266 66	+ 265 56 + 265 50 + 267 66
	4P	+ 265 53 + 265 51	+ 265 55 + 265 51	+ 265 57 + 265 51	+ 265 53 + 265 51 + 265 67	+ 265 55 + 265 51 + 266 67	+ 265 57 + 265 51 + 267 67
	4P + earth leakage module	+ 265 58 + 265 51	+ 265 59 + 265 51	+ 265 60 + 265 51	+ 265 58 + 265 51 + 265 68	+ 265 59 + 265 51 + 266 68	+ 265 60 + 265 51 + 267 68
DPX 1600	3P				265 82		265 84
	4P				265 83		265 85

1 250 and 1 600 A switches
isolating switches

225 81

Isolating switches for on-load circuit breaking, as well as isolation, with visible break, of low voltage electrical circuits
Two control modes are possible on each device :
- manual (local control)
- tripping (remote opening), by simply adding a trip coil (Cat.Nos 227 68/69)

Panel mounting

Pack	Cat.Nos	**Front control**
		Direct
		External, with Cat.No 227 38 to be ordered separately
		1 250 A with top screen and phase separators (not mounted)
		Black handle
1	225 80	3 P
1	225 81	4 P
		1 600 A with top screen and phase separators (not mounted)
		Black handle
1	225 82	3 P
1	225 83	4 P

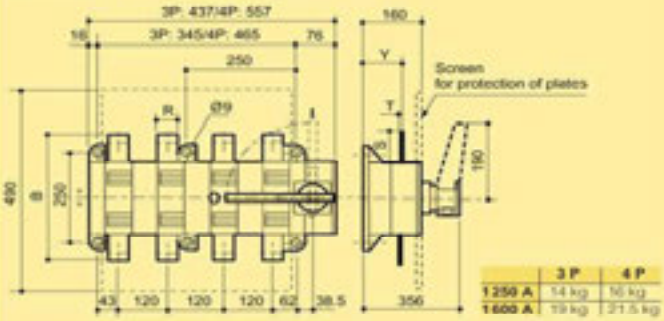
Accessories

		External front control
		Assembly comprising rods, self-adhesive drilling template, mounting accessory
		IP 54
1	227 38	For 1 250/1 600 A switches (distance from door to plate : 325 to 385 mm)
		Upstream protection screen (with phase separators)
1	227 55	For 1 250/1 600 A - 3 P switches
1	227 56	For 1 250/1 600 A - 4 P switches
		Auxiliary contacts
1	227 11	Set of 2 N/C + N/O auxiliary contacts
		Shunt trip coil
1	227 68	230 V
1	227 69	400 V
		Faceplate
		Metal for 1 250 and 1 600 A switches
1	096 30	Height 400 mm

1 250 and 1 600 A switches
isolating switches

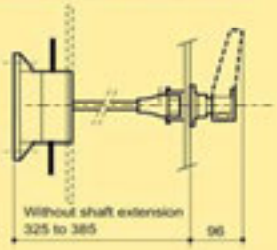
Conform to standards NF EN 60647-3, IEC 60947-3, BS EN 60947-3, VDE 0660-107, NBN EN 60947-3
Handle can be locked in open position using 3 Ø 6 mm padlocks Cat.No 227 99
Accept N/C + N/O auxiliary contacts (Cat.No 227 11)

1 250-1 600 with direct front control



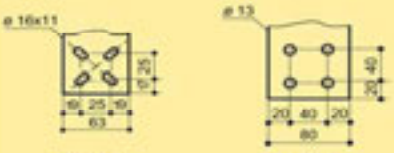
	3 P	4 P
1 250 A	14 kg	16 kg
1 600 A	19 kg	21.5 kg

With external front control



	B	R	S	T	Y
1 250 A	330	63	65	7	106
1 600 A	360	80	80	15	110

Connection plate



1 250 A — 1 600 A

Thermal current (Ith)	1 250 A	1 600 A
Terminals	With studs 4 oblong holes 16 x 11	With studs 4 holes Ø 13
Connection Cu (mm^2)	Up to 4 x 185 or 2 terminals 60 x 5	Up to 6 x 240 or 2 terminals 80 x 5
Insulation voltage (U_i)	1000 V	1000 V
Impulse resistant current (U_{imp})	8 kV	8 kV
AC 22 A / 500 V(1) (A)	1250	1600
AC 23 A / 400 V (A)	1250 (710 kW)	1600 (800 kW)
500 V(1) (A)	1000 (710 kW)	1250 (900 kW)
690 V(1) (A)	800 (750 kW)	1000 (900 kW)
DC 22 A / 250 V (1) (2) DC 23 A / 250 V (1) (2)	1250 A 1250 A	1600 A 1250 A
Breaking capacity (kA peak)	100	100
1s resistant current 1 s (I_{cw}) (kA rms)	36	45
Icc with fuses (kA rms)	100	100
Max. fuse rating (A)	1250	2 x 800
Short-circuit capacity (Icm) (kA peak)	40	40
Mechanical endurance	5000	3000

(1) Test conditions according to IEC 60947-3
(2) Number of poles involved in break : 2
(3) Motor power for information purposes only

20 A isolating switch
full load break isolating switch

224 90 + 227 33

224 94

Technical characteristics (p. 109)

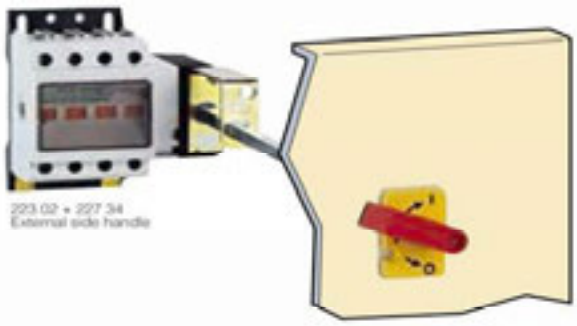
Safety switch for on load circuit breaking by visible isolation of the contacts
"Double break" type load switching with self cleaning contacts by rapid make and break movements

Pack	Cat.Nos	Front control, red handle
1	224 90	3 P
		Additional neutral pole
1	224 94	For making 3 P + N
		Accessories
1	227 00	N/C + N/O auxiliary contact 2 independent electrical contacts Rating : 4 A, 440 V (AC - 15 A)
1	227 33	Kit for front control with padlocking of door - IP 65

32 A Vistop™
full load break isolating switches with contact indication - screw or ⊔ rail mounting

225 05

225 02



223 02 + 227 34
External side handle

Technical characteristics (p. 109)

Safety switch for on-load circuit breaking by visible isolation of the contacts
"Double break" type load switching with self-cleaning contacts by rapid make and break movements

2 versions

With handle on side of the unit for flange mounting : supplied complete with gasket, screws and 30 to 170 mm extension shaft (supplied with the unit)

With handle on front of the unit which can be used for a door interlock facility to prevent the opening of an enclosure whilst circuits are energized [Cat.No 227 34 below to be ordered separately]

Pack	Cat.Nos		32 A			
	Front handle	Side handle		Connection	No of 17.5 mm modules Side handle removed	
			Black handle			
1	224 98	225 03	2 P	16 mm² cage terminals	4	3.5
1	225 00	225 05	3 P		4	3.5
1	225 02	225 07	4 P		5	4.5
			Red handle/yellow front plate(1)			
1	223 00	223 05	3 P	16 mm² cage terminals	4	3.5
1	223 02	223 07	4 P		5	4.5

		Accessories
		Left-hand side control
		Kit comprising : angle linking plate, fixing screws, front cover and technical sheet
1	227 30	For black handle
1	227 31	For red handle
1	227 34	Door interlock facility Distance from door = 46 to 191 mm
1	227 03	Auxiliary switch for on/off signalling (N/C +N/O) - 5 A - 250 V∿ - 2.58 lug
1	227 08	Set of 2 auxiliary switches for on/off signalling (N/C +N/O) - 5 A - 250 V∿ - 2.58 lug

(1) Other full load switch units for proximity switching (p. 108)

Vistop™ 63, 100, 125, 160 A
visible load break isolating switch din rail mounting

Safety isolating switches with visible breaking of load and positive action of the contacts
Double breaking of the phases by self-cleaning snap open/close action contacts
Label holders for identification of the circuits
Connection via cage terminals tightened by Allen key
Screw-fixing or on EN 50022 ⎓ rail (only on rail for 63A Vistop)

Two versions for mounting on faceplate :

- With left or right external side handle with seal to maintain the IP protection (up to IP 55), mounting accessories, self-adhesive drilling template, adjustable extension rod (30 to 170 mm)
- With direct or external front handle with Cat. No 227 32 to be ordered separately

Possibility of attaching a 2-pole - 16 A auxiliary isolating switch Cat. No 227 22, or one or two N/C + N/O auxiliary Cat. No 227 04/07

Pack.	Cat. Nos Front handle	Cat. Nos Side handle		No of 17.5 mm modules
63 A				
			Black handle	
1	225 12	225 16	3-pole	7
1	225 15	225 18	4-pole	7
			Red handle/yellow faceplate	
1	223 12	223 16	3-pole	7
1	223 15	223 18	4-pole	7
100 A				
			Black handle	
1	225 20	225 25	3-pole	7.5
1	225 22	225 27	4-pole	9
			Red handle/yellow faceplate	
1	223 20		3-pole	7.5
1	223 22	223 27	4-pole	9
125 A				
			Black handle	
1	225 34	225 44	3-pole	7.5
1	225 39	225 46	4-pole	9
			Red handle/yellow faceplate	
1	223 34		3 pole	7.5
1	223 39		4 pole	9
160 A				
			Black handle	
1	225 51	225 54	3-pole	7.5
1	225 53	225 56	4 pole	9
			Red handle/yellow faceplate	
1	223 51		3-pole	7.5
1	223 53		4-pole	9

Vistop™ 63 to 160 A
accessories for rail mounting

Pack.	Cat. Nos		
		Front external handle	
		Kit comprising: connecting rods, bracket, self-adhesive drilling template, mounting accessories (including a seal for maintaining the IP protection of the enclosure (up to IP 55) and locking mechanism preventing the door being opened when the circuit is closed	
		For Vistop fixing on ⎓ rail or using screws	Door distance (mm)
1	227 32	63, 100, 125 et 160 A	35 to 470

Auxiliary switches for on-off signalling IP 2x - 5A - 250V

N/O + N/C contact

For incorporation in one-piece enclosue

1	227 04	Main contact	Connection (mm²)
1	227 07	Additional N/C + N/O auxiliary contact for 2N/C + 2N/O mounting	lug 2.58

Auxiliary isolating switch 2-pole - 16 A - 400 V

For creating 3 or 4-pole assemblies for simultaneous breaking of 2-pole auxiliary power supply (PLC, remote control), 16 A maximum
Mounts on the left side of Vistop 100 to 160 A

			Connection	No of 17.5 mm modules
1	227 22	2 P	Cage terminals	1.5

Sealable terminal shields

1	227 98	Set of 2 separate, sealable terminal shields Clip on upstream and/or downstream of Vistop 100 to 160 A

Vistop connection box for large cross-section cables and bars

For downstream connection of large cross-section cables and bars in the cages of Vistop 100, 125 and 160 A. (rail mounting). Installed by fitting in and clamping by the Vistop connection screws.
Transparent cover (connections visible)
3 possible sizes for the base + cover assembly by cutting to size
self-extinguishing insulated material
Fitted in XL and XL-A cabinets and enclosures using fixing device Cat. No 092 07
IP 2x - Sealable

2 versions :

- cage terminals for direct connection of copper cables without lugs up to 150 mm² or rigid or flexible copper bars
  Max. width 18 mm
- Stud terminals for copper or aluminium cables with lugs, or rigid or flexible bars

			Max. width (mm)
1	227 78	3-pole box, stud terminals	25
1	227 79	4-pole box, stud terminals	25
1	227 80	3-pole box, cage terminals	18
1	227 81	4-pole box, cage terminals	18

160 and 250 A Vistop™

full load break isolating switches with visible contact indication - screw or ⊔ rail mounting

225 30

225 32

225 42

Accessories (p. 107)
Technical characteristics (p. 110-111)

Safety switch for on-load circuit breaking by visible isolation of the contacts
"Double break" type load switching with self-cleaning contacts by rapid make and break movements
Screw fixing - supplied with terminal shields

2 versions

With handle on side of the unit for flange mounting : supplied complete with gasket, screws and 30 to 170 mm extension shaft

With handle on front of the unit which can be used for a door interlock facility to prevent the opening of an enclosure whilst circuits are energized [Cat.No 227 36 (160 and 250 A) to be ordered separately]

160 A

Black handle

Pack	Cat.Nos Front handle	Side handle		Connection	No of 17.5 mm modules	Side handle removed
1	225 30	225 35	3 P	Ø 8 mm	10	8.5
1	225 32	225 37	4 P	Ø 8 mm	12	10.5
			Red handle/yellow front plate			
1	223 32		4 P	Ø 8 mm	12	10.5

250 A

Black handle

Pack	Cat.Nos Front handle	Side handle		Connection	No of 17.5 mm modules	Side handle removed
1	225 40	225 45	3 P	Ø 10 mm	12.5	11
1	225 42	225 47	4 P	Ø 10 mm	12	13.5
			Red handle/yellow front plate			
1	223 40		3 P	Ø 10 mm	12.5	11
1	223 42		4 P	Ø 10 mm	15	13.5

400, 630, 800 A Vistop™

full load break isolating switches with visible contact indication - screw or ⊔ rail mounting *(continued)*

225 77

Accessories (p. 107)
Technical characteristics (p. 110-111)

400 A

Black handle

Pack	Cat.Nos Front handle	Side handle		Connection	No of 17.5 mm modules	Side handle removed
1	225 50	225 55	3 P	Ø 12 mm	16	15
1	225 52	225 57	4 P	Ø 12 mm	19	18
			Red handle/yellow front plate			
1	223 50		3 P	Ø 12 mm	16	15
1	223 52		4 P	Ø 12 mm	19	18

630 A

Black handle

Pack	Cat.Nos Front handle	Side handle		Connection	No of 17.5 mm modules	Side handle removed
1	225 60	225 65	3 P	Ø 12 mm	20	19
1	225 62	225 67	4 P	Ø 12 mm	25	24
			Red handle/yellow front plate			
1	223 60		3 P	Ø 12 mm	20	19
1	223 62		4 P	Ø 12 mm	25	24

800 A - screw mounting

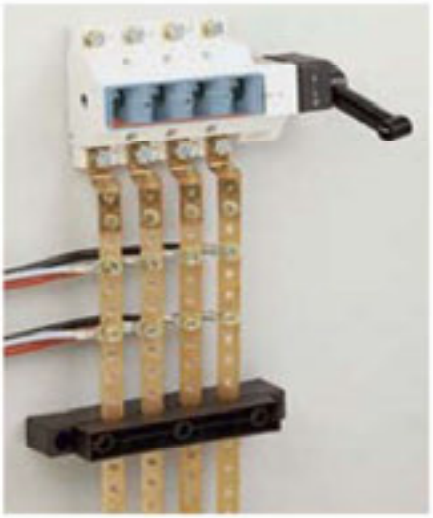
Black handle

Pack	Cat.Nos Front handle	Side handle		Connection with studs	No of 17.5 mm modules	Side handle removed
1	225 70	225 75	3 P	4 holes Ø 8 mm	20	19
1	225 72	225 77	4 P	+ 1 hole Ø 13 mm	25	24

1250 and 1600 A switches

Trip free isolating switches (p. 103)

distribution blocks for Vistop™
160 to 800 A



227 73
mounted with a set of bars

Distribution blocks for Vistop™

Patented device
Distribution kit for direct connection to the Vistop plates
This distribution system specially designed for Vistop enables a large number of connections of varying cross-sections to be used

The set comprises :
- a multifunction support with the same centre distances as Vistop. This isolating support takes 4 bars in any position, flat, oblique, or vertical
- a set of 4 x 2 adjustable angle brackets for providing the electrical contact
- class 8.8 self-locking connection screws
- a set of 2 insulating spacers which enable the direct attachment of a protective screen to the Vistop (screen not provided)

Simple to set up with no machining required, providing total flexibility according to requirements
Screw mounting :
- on a plate
- on the rail with accessories Cat.Nos 364 78/79

Pack	Cat.Nos	For Vistop	Dimensions of bars (mm)	Bars cat. Nos
1	227 73	160 A	18 x 4	374 34
1	227 74	250 A	25 x 5	374 18
1	227 75	400 A	32 x 5	374 19
1	227 76	630 A	50 x 5	374 40
1	227 77	800 A	50 x 5 (x 2)	374 40 (x 2)

Copper connection bars

Length 1 m ± 0.01
With Ø M6 threaded holes
20 mm pitch

Pack	Cat.Nos	
10	374 34	Cross-section 18 x 4 mm

Length 1750 mm ± 5
With Ø M6 threaded holes
and Ø 8.5 (250 A) - Ø 10.5 (400 A)
unthreaded holes

4	374 18	Cross-section 25 x 5 mm
4	374 19	Cross-section 32 x 5 mm

Length 1750 mm ± 5
Two rows of Ø 10.5
unthreaded holes
One central row of Ø 6.5
unthreaded holes

1	374 40	Cross-section 50 x 5 mm

accessories for Vistop™
160 to 800 A

227 47

227 99

Door interlock facility

Complete with shaft linkage system shaft support, fixing accessories and interlock device to prevent opening of enclosure while circuits are energized

Pack	Cat.Nos	For Vistop	Distance from door (mm)
		Screw mounting	
1	227 36	160 and 250 A	35 to 465
1	227 37	400, 630 and 800 A	85 to 465

Auxiliary switch for on-off signalling NC + NO contact

Fits on handle side of switch
Supplied with fixing screws

Pack	Cat.Nos	For Vistop	Contact rating	Connection (mm)
1	227 02	Screw mounting 160, 250, 400, 630 and 800 A	10 A - 250 V or screws	6.35 lug

2 NC + NO contacts
Fit on the handle side of switch
Supplied with fixing screws

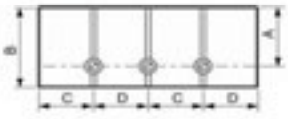
Pack	Cat.Nos	For Vistop	Contact rating	Connection (mm)
1	227 10	Screw mounting 160, 250, 400, 630 and 800 A	10 A - 250 V	6.35 lug or screws

Transparent sealable terminal shields
Can be fitted to either set of terminals. Each Vistop is supplied with a terminal sheed to be fitted on the top

Pack	Cat.Nos 3 P	Cat.Nos 4 P	For Vistop
4	227 47	227 48	160 A
4	227 49	227 50	250 A
1	227 51	227 52	400
1	227 53	227 54	630, 800 A

Pack	Cat.Nos	
1	227 99	**Padlock Ø 6 mm**

Dimensions



	A	B	C	D
160 A	52	63	33	35
250 A	77	90.5	43	48
400 A	89	126	51	58
630 A	97.8	132.8	72.5	82
800 A	97.8	132.8	72.5	82

full load switch units
12 and 25 A - IP 65

226 02

226 60

Technical characteristics (p. 112)

12 and 25 A - IP 65 full load switch units
For "proximity switching"

For on-load circuit breaking, isolation and locking equipment located remotely from a control cabinet
Applications:
VMC breaking, motors, fixed or mobile machines, air conditioners
Can also be used as a :
- general switch
- emergency breaker
- emergency stop

Totally isolated enclosure - IP 65
Black base
Red front-mounted rotary knob on yellow background for immediate visual identification from a distance
The rotary knob can take up to 4 padlocks (Ø 6 mm) in position 0

Pack	Cat.Nos	12 A
		For breaking/isolating a single speed motor - IK 08
		Supplied complete with 2 x 6 mm² relay terminal
1	226 60	3-pole - 12 A
1	226 62	3-pole + N - 12 A
		N can be used as a contact for report of position
		25 A
		For breaking/isolating a single speed motor - IK 07
		Supplied complete with 2 anti-fraud locking screws and 1 relay terminal for continuity of neutral or earth (2 x 10 mm²)
1	226 00	3-pole - 25 A
		Can incorporate a contact for remote control
1	226 02	3-pole + N - 25 A
		N can be used as a contact for report of position
		For breaking/isolating a two-speed motor
1	226 04	6-pole - 25 A

full load isolating switch units
32 to 160 A - IP 65

Technical characteristics (p. 112)

Vistop with side red handle, yellow front plate version mounted in :
- IP 65 plastic boxes with transparent hinged cover for 32 A to 160 A units

Fitted with an auxiliary N/C + N/O contact for position signal
Vistop padlockable in open position
For agricultural machinery, textile industry machines, printing presses, wood-working or plastic industries, lifting bridges, industrial process rotating electrical machines

Pack	Cat.Nos	Switch units with full load break isolating switches Vistop - IK 07			
		32 A			
		Supplied with 2 cable glands 21 P - ISO 25			
				Connection	Earth terminal nominal capacity
1	226 05	3 P		16 mm² cage terminals	10 mm²
1	226 07	4 P			
		63 A			
		Supplied with 2 cable glands 29 P - ISO 32			
1	226 15	3 P		cage terminals	50 mm²
1	226 17	4 P		50 mm² flexible 70 mm² rigid	50 mm²
		100 A			
		Supplied with 2 cable glands 36 P - ISO 50			
1	226 25	3 P		cage terminals	50 mm²
1	226 27	4 P		50 mm² flexible 70 mm² rigid	50 mm²
		125 A			
		Supplied with 2 cable glands 36 P - ISO 50			
1	226 33	3 P		cage terminals	50 mm²
1	226 34	4 P		50 mm² flexible 70 mm² rigid	50 mm²
		160 A			
		Supplied with 2 cable glands 36 P - ISO 50			
1	226 35	3 P		cage terminals	50 mm²
1	226 37	4 P		50 mm² flexible 70 mm² rigid	50 mm²

modular fuse carriers
for industrial cylindrical cartridge fuses type aM or gG

Conform to standard IEC 60269-2/2.1 and to NF C 63-210. Isolators conform to IEC 60947-3.
ICC :
- 20 kA with 8.5 x 31.5 cartridge fuse
- 100 kA with 10 x 38 cartridge fuse

Fuse not supplied (p. 116)

Pack	Cat.Nos	Cartridge dimensions (mm)	Voltage	Number of 17.5 mm modules
		Single pole		
10	058 06	8.5 x 31.5	400 V~	1
10	058 08	10 x 38	500 V~	1
		Single pole + neutral		
10	058 16	8.5 x 31.5	400 V~	1
10	058 18	10 x 38	500 V~	1
		Double pole		
5	058 26	8.5 x 31.5	400 V~	2
5	058 28	10 x 38	500 V~	2
		3-pole		
3	058 36	8.5 x 31.5	400 V~	3
3	058 38	10 x 38	500 V~	3
		3-pole + neutral		
2	058 46	8.5 x 31.5	400 V~	4
2	058 48	10 x 38	500 V~	4

Joining kits

10	057 92	For 2 single pole fuse carriers
10	057 93	For 3 single pole fuse carriers
10	057 94	For 4 single pole fuse carriers

Accessories

Blow-out indicator

Sealable terminal shields

10	057 90	Blow-out indicator 250 V~
1	057 96	Early break N/O + N/C contact auxiliary 5 A - 250 V~ (0.5 mod.)
3	057 99	Support for padlocks Ø 4 mm
2	044 44	Sealable terminal shield (4 separable poles)

DX
MCBS up to 125 A

modular SP fuse carriers
for HRC cylindrical fuses

Conform to IEC 60269-2
Veritas approved
Height under front plate : 44 mm
⊔ rail mounting or panel mounting
IP2X - IP2XC under front plate

SP 51 for HRC fuses 14 x 51

Pack	Cat.Nos		Connection	No of 17.5 mm modules
5	215 01	Single pole	1 x 35 mm² or 2 x 16 mm²	1.5
1	215 03	Double pole		3
1	215 04	Triple pole		4.5
1	215 05	Triple pole + equipped neutral		6
		With 5 A - 250 V~ changeover micro-switch		
		Signalling and cut-out functions		
		Supplied with 3 x 2.8 mm clips		
1	215 36	Triple pole	1 x 35 mm² or 2 x 16 mm²	4.5

SP 58 for HRC fuses 22 x 58

			Connection	No of 17.5 mm modules
3	216 01	Single pole	1 x 50 mm² or 2 x 25 mm²	2
1	216 04	Triple pole		6
1	216 05	Triple pole + equipped neutral		8
		With 5 A - 250 V~ changeover micro-switch		
		Signalling and cut-out functions		
		Supplied with 3 x 2.8 mm clips		
1	216 36	Triple pole	1 x 50 mm² or 2 x 25 mm²	6

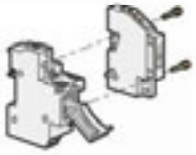
HRC cartridge fuses

fuse carriers - SP
accessories

044 40

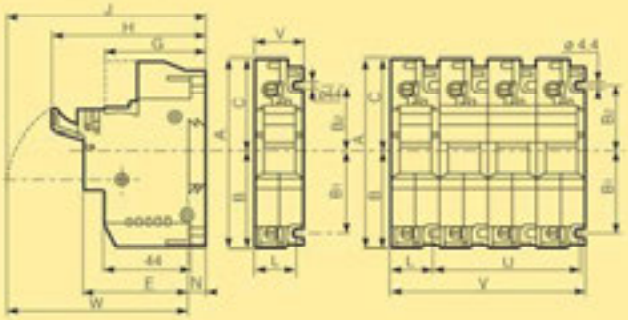
216 92

Pack	Cat.Nos		No of 17.5 mm modules
10	044 40	**Spacing unit** Placed between mechanisms to aid cooling	0.5
6	216 92	**Changeover micro-switch unit** Side mounting on SP 51 or SP 58 Right side 5 A - 250 V~ For signalling and cut-out functions	0.5
5	216 96	**Link handle for association of single pole units** SP 51 or SP 58 Length 300 mm Can be cut to required length	



fuse carriers - SP

SP 51 and SP 58



In mm	A	B	B_1	B_2	C	E	G	H 1 P	H multi	J 1 P
SP 51	106	54.5	45	35	51.5	55	53	81	84	96
SP 58	140	74	65	45	66	59	53	87	90	111

In mm	J multi	L	N	U 2 P	U 3 P	U 4 P	V 1 P	V 2 P	V 3 P	V 4 P	W 1 P	W multi
SP 51	99	20.7	9	26.5	53	79.5	26.5	53	79.5	106	87	90
SP 58	114	27	9	36	72	108	36	72	108	144	101	109

Choice of equipment

Type	Rated current	Maximum cartridge rating 400 V~		500 V~		690 V~	
		gG	aM	gG	aM	gG	aM
SP 51	50 A	50	50	50	40	25	25
SP 58	100 A (125 A in 400 V)	125	125	100	100	50	50

These values are standardized according to IEC 60269-2/2-1
They can be reduced under certain specific applications

Index of protection: IP 2X - IP 2XC - under casing

Equipment derating

Recommended for equipment exposed to high temperatures:

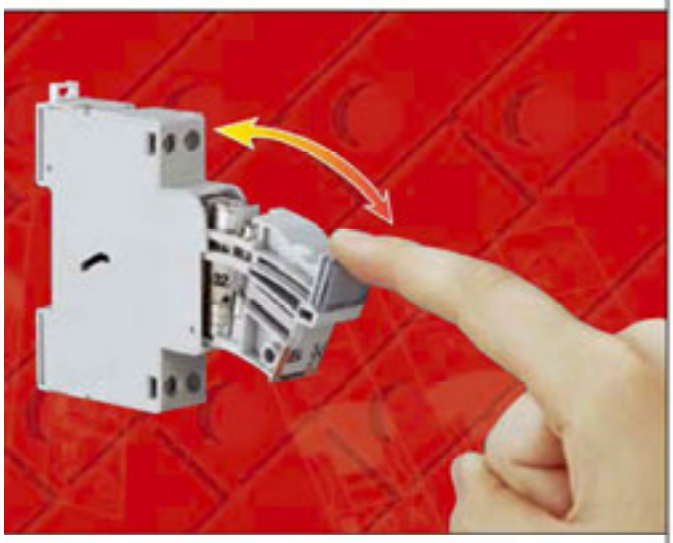
- Ambient temperature over 35 °C : derate fuse by one rating per 10 °C (UTE C 20-051 IEC 60943)
- Side-by-side equipment in simultaneous function

2 - 3 devices	0.9 x In
4 - 5 devices	0.8 x In
6 - 7 - 8 - 9 devices	0.7 x In
≥ 10 devices	0.6 x In

This coefficient is to be applied on the nominal rating of the base (IEC 60439-1)

- Uninterrupted usage: it may be necessary to upgrade the bases by one size

FUSE CARRIERS



COMPLETE SAFETY

- Cartridge totally visible
- Class II ⧈ insulation along the entire length of the carrier

PRACTICAL

- Each fuse carrier is designed to take:
  - a blow-out indicator
  - a padlock

domestic cartridge fuses

Miniature type 5 x 20

Instant reaction fuse - Ceramic body
Conform to IEC 60127 - NF EN 60-127 - VDE 0820-1
High rupture capacity (A)

For use with dimmers, Viking terminals and emergency lighting units

Pack	Cat.Nos	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)
10	102 02	0.2		
10	102 05	0.5		
10	102 06	0.63		
10	102 10	1		
10	102 12	1.25		
10	102 16	1.6		
10	102 20	2	230	1500
10	102 25	2.5		
10	102 30	3.15		
10	102 50	5		
10	102 63	6.3		
10	102 96	10(1)	230	500

Cylindrical

Pack	Without indicator	With indicator	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)	Protected section (mm²) copper	Colour identification
			6.3 × 23				
10	103 06		6	230	6000	1.5	
			8.5 × 23				
10	113 02	114 02	2				
10	113 04	114 04	4				
10	113 06	114 06	6	230	6000	1.5	
10/**100**	113 10(2)	114 10(2)	10				
10	113 18		For old 16 A sockets				
			10.3 × 25.8				
10	116 06		6				
10	116 10		10	230	6000	2.5	
10	116 16	117 16	16				
			8.5 × 31.5				
10	123 01		1				
10	123 02	124 02	2				
10	123 04	124 04	4				
10	123 06	124 06	6				
10	123 08	124 08	8	400	20000	2.5	
10/**100**	123 10		10				
10		124 10	10				
10	123 12	124 12	12				
10/**100**	123 16	124 16	16				
10/**100**	123 20(2)	124 20(2)	20				
			10.3 × 31.5				
10	126 16	127 16	16				
10	126 20	127 20	20	400	20000	4	
10	126 25(2)	127 25(2)	25				
			10.3 × 38				
10/**100**	133 32(2)		32	400	20000	6	
10		134 32(2)	32				
			Neutral links				
10	123 00		8.5 × 31.5				
10	133 00		10 × 38				

(1) Rating not described by standards
(2) Conform to NF C 61-303

HRC cartridge fuses

Cylindrical type gG

Conform to NF C 63-210/211 - EN 60269-1 and 2 and IEC 60269-1, 2 and 2-1
Veritas approved

Pack	Cat.Nos		Rating (Amps)	Voltage ∿ (Volts)	Rupture capacity (Amps)
	Without indicator	With indicator	**10 x 38 HRC**		
10	133 94		0.5		
10	133 01		1		
10	133 02	134 02	2		
10	133 04	134 04	4		
10	133 06	134 06	6		
10	133 08	134 08	8	500	100 000
10	133 10	134 10	10		
10	133 12	134 12	12		
10	133 16	134 16	16		
10	133 20	134 20	20		
10	133 25	134 25	25		
	Without striker	With striker	**14 x 51 HRC**		
10	143 02		2		
10	143 04	145 04	4		
10	143 06	145 06	6		
10	143 10	145 10	10		
10	143 16	145 16	16	500	100 000
10	143 20	145 20	20		
10	143 25	145 25	25		
10	143 32	145 32	32		
10	143 40	145 40	40		
10	143 50 (1)	145 50 (1)	50		
			22 x 58 HRC		
10	153 04		4		
10	153 06		6		
10	153 10		10		
10	153 16		16		
10	153 20		20		
10	153 25	155 25	25	500	100 000
10	153 32	155 32	32		
10	153 40	155 40	40		
10	153 50	155 50	50		
10	153 63	155 63	63		
10	153 80	155 80	80		
10	153 96	155 96	100		
10	153 97 (1)	155 97 (1)	125	400	

(1) Overrating described by standards

HRC cartridge fuses *(continued)*

Cylindrical type aM (motor rated)

Conform to NF C 60-200 - EN 60269-1
IEC 60269-1
Veritas approved

Pack	Cat.Nos		Rating (Amps)	Voltage ∿ (Volts)	Rupture capacity (Amps)
	Without striker	With striker	**8.5 x 31.5**		
10	120 01		1		
10	120 02		2		
10	120 04		4	400	20 000
10	120 06		6		
10	120 08		8		
10	120 10		10		

Conform to NF C 63-210/211 - EN 60296-1
IEC 60269-1, 2 and 2-1
Veritas approved

			10 x 38 HRC		
10	130 92		0.25		
10	130 95		0.50		
10	130 01		1		
10	130 02		2		
10	130 04		4		
10	130 06		6	500	100 000
10	130 08		8		
10	130 10		10		
10	130 12		12		
10	130 16		16		
10	130 20 (1)		20	400	
10	130 25 (1)		25	400	
			14 x 51 HRC		
10	140 02	141 02	2		
10	140 04	141 04	4		
10	140 06	141 06	6		
10	140 08	141 08	8		
10	140 10	141 10	10		
10	140 12	141 12	12	500	100 000
10	140 16	141 16	16		
10	140 20	141 20	20		
10	140 25	141 25	25		
10	140 32	141 32	32		
10	140 40	141 40	40		
10	140 45 (1)	141 45 (1)	45	400	
10	140 50 (1)	141 50 (1)	50	400	
			22 x 58 HRC		
10	150 25	151 25	25		
10	150 32	151 32	32		
10	150 40	151 40	40	500	100 000
10	150 50	151 50	50		
10	150 63	151 63	63		
10	150 80	151 80	80		
10	150 96	151 96	100		
10	150 97	151 97	125	400	

Neutral links

10	123 00	8.5 x 31.5
10	133 00	10 x 38
10	143 00	14 x 51
10	153 00	22 x 58

(1) Overrating described by standards
(2) Overrating not described by standards

HRC blade type cartridge fuses
NH type

Type gG (IEC)/gL (VDE)

Conform to EN 60269-1 and 2 - IEC 60269-1, 2 and 2-1 - VDE 0636-21 Veritas approved

Fully insulated end plate and handle lugs

Pack	Cat Nos: With indicator	Cat Nos: With striker	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)
			Size C 00		
9	159 25		25		
9	159 32		32		
9	159 35		35		
9	159 40		40		
9	159 50		50	500	120 000
9	159 63		63		
9	159 80		80		
9	159 10		100		
			Size 00		
10	163 18		25		
10	163 20		32		
10	163 22		35		
10	163 25		40		
10	163 30		50	500	120 000
10	163 35		63		
10	163 40		80		
10	163 45		100		
10	163 50		125		
10	163 55		160		
			Size 0		
3	168 35	169 35	63		
3	168 40	169 40	80		
3	168 45	169 45	100	500	120 000
3	168 50	169 50	125		
3	168 55	169 55	160		
3	168 60 (1)		200		
			Size 1		
3	173 50	174 50	125		
3	173 55	174 55	160	500	120 000
3	173 60	174 60	200		
3	173 65	174 65	250		
			Size 2		
3	178 60	179 60	200		
3	178 65	179 65	250	500	120 000
3	178 70	179 70	315		
3	178 75	179 75	400		
			Size 3		
3	181 25	181 75	500	500	120 000
3	181 30	181 80	630		
			Size 4		
1	185 30	185 80	630		
1	185 35	185 85	800	500	120 000
1	185 40	185 90	1 000		
1	185 45 (1)	185 95 (1)	1 250		

HRC blade type cartridge fuses
NH type *(continued)*

Type aM (motor rated)

Conform to EN 60269-1 and 2 - IEC 60269-1, 2 and 2-1 - VDE 0636-22 Veritas approved

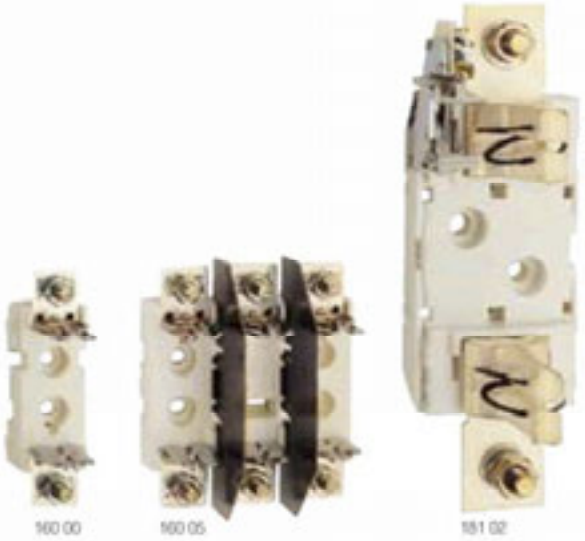
Fully insulated end plate and handle lugs

Pack	Cat Nos: With indicator	Cat Nos: With striker	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)
			Size 00		
3	160 18		25		
3	160 20		32		
3	160 25		40		
3	160 30		50	500	120 000
3	160 35		63		
3	160 40		80		
3	160 45		100		
3	160 50 (1)		125	400	
			Size 0		
3	165 35	166 35	63		
3	165 40	166 40	80	500	120 000
3	165 45	166 45	100		
3	165 50	166 50	125		
3	165 55	166 55	160		
			Size 1		
3	170 50	171 50	125		
3	170 55	171 55	160	500	120 000
3	170 60	171 60	200		
3	170 65	171 65	250		
			Size 2		
3	175 60	176 60	200		
3	175 65	176 65	250	500	120 000
3	175 70	176 70	315		
3	175 75	176 75	400		
			Size 3		
3	180 25	180 75	500	500	120 000
3	180 30	180 80	630		
			Size 4		
1	184 30	184 80	630		
1	184 35	184 85	800	500	120 000
1	184 40	184 90	1 000		

Neutral blades

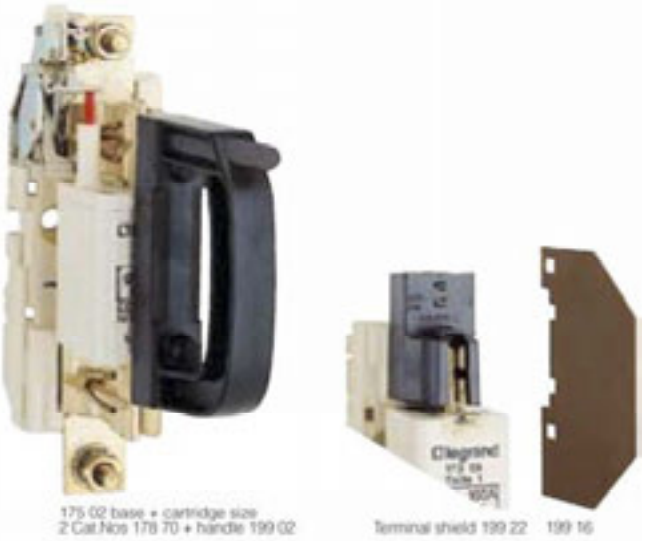
1	181 04	Size 3
1	185 04	Size 4

blade type cartridge fuses
accessories



Pack	Cat.Nos Single pole	Cat.Nos Triple pole	Bases for blade type cartridge fuses	Mounting	Connection
			Conform to EN 60269-1 and 2 and IEC 60269-1, 2 and 2-1 - VDE 0636-21 Veritas approved Fibreglass reinforced polyester base Triple pole bases supplied with 2 dividers Contact points are sprung except for size 4 (bolts) Bases with 10 A - 250 V~ micro-switch have a "cartridge present" signalling device for fuses with standardised striker		
			Size 00 - 100 A		
3	160 00		bare	screw	M8
1		160 04	bare	screw	
3	160 01		bare	⎍ rail	
1		160 05	bare	⎍ rail	
			Size 00 - 160 A		
3	162 00		bare	screw	M8
1		162 04	bare	screw	M8
			Size 0 - 160 A		
3	165 00		bare	screw	
1		165 03	bare	or	M8
3	165 02		with micro-switch	⎍ rail	
			Size 1 - 250 A		
3	170 00		bare	screw	
1		170 03	bare	or	M10
1	170 02		with micro-switch	⎍ rail	
			Size 2 - 400 A		
3	175 00		bare	screw	
1		175 03	bare	or	M10
1	175 02		with micro-switch[1]	⎍ rail	
			Size 3 - 630 A		
1	181 00		bare	screw	M12
1	181 02		with micro-switch[1]		
			Size 4 - 1 250 A		
1	185 00		bare	screw	M16
1	185 02		with micro-switch[1]		

blade type cartridge fuses
accessories *(continued)*



Pack	Cat.Nos	Accessories for blade type cartridge fuses
5	199 02	**Handle** for all sizes
		Separation dividers
10	199 09	Size 00 (for Cat.Nos 160 00/01 and Cat.No 162 00)
10	199 15	Size 0
10	199 16	Size 1
10	199 17	Size 2
2	199 18	Size 3
2	199 19	Size 4
		Terminal shields For complete protection of blade type cartridge fuse bases
10	199 20	Size 00
10	199 21	Size 0
10	199 22	Size 1
10	199 23	Size 2

4. VOLTAGE SURGE PROTECTORS

VOLTAGE SURGE PROTECTORS

JUST AS
IMPORTANT
AS AN MCB

TOTAL PROTECTION

Voltage surge protectors are an essential addition to the protection of an installation.

A voltage surge protector prevents the destruction of electrical equipment.

CONTROL OF PROTECTION

As well as being a specialist in the manufacture of MCBs, Legrand is also a specialist in voltage surge protectors. Manufacturing control enables it to guarantee the reliability of its products and ensure that they operate perfectly in terms of coordination and cascading.

voltage surge protectors

039 21

039 33

Voltage surge protectors for distribution boards or consumer units
Conform to standard IEC 61643
Fitted with built-in thermal protection
Consist of a bracket and a plug-in replacement module with indicator
Green: surge protector operational
Orange: module needs replacing
Can be fitted with a signalling auxiliary to transfer surge protector status
For 230/400 VAC supply
Frequency : 50/60 Hz

High protection - H

I max : 70 kA - 8/20 µs wave
UP : 2.0 kV (protection level)
For neutral earthing systems : EE, EN, IE

Pack	Cat.Nos		Associated protection	Number of 17.5 mm modules
1	039 20	1-pole	068 64	1
1	039 21	2-pole	069 24	2
1	039 22	3-pole	069 44	3
1	039 23	4-pole	070 04	4

Increased protection - I

I max : 40 kA - 8/20 µs wave
UP : 1.8 kV (protection level)
For neutral earthing systems : IE, ENC

			Associated protection	Number of 17.5 mm modules
1	039 30	1-pole	063 77	1
1	039 31	2-pole	064 69	2
1	039 32	3-pole	064 89	3
1	039 33	4-pole	065 64	4

I max : 40 kA - 8/20 µs wave
UP : 1.4 kV (protection level)
For neutral earthing systems : EE, ENS

			Associated protection
1	039 35	1-pole	063 77
1	039 36	2-pole	064 69
1	039 38	4-pole	065 64

Standard protection - S

I max : 15 kA - 8/20 µs wave
UP : 1.2 kV (protection level)
For neutral earthing systems : EE, ENS

			Associated protection	Number of 17.5 mm modules
1	039 40	1-pole	063 77	1
1	039 41	2-pole	064 69	2
1	039 43	4-pole	065 64	4

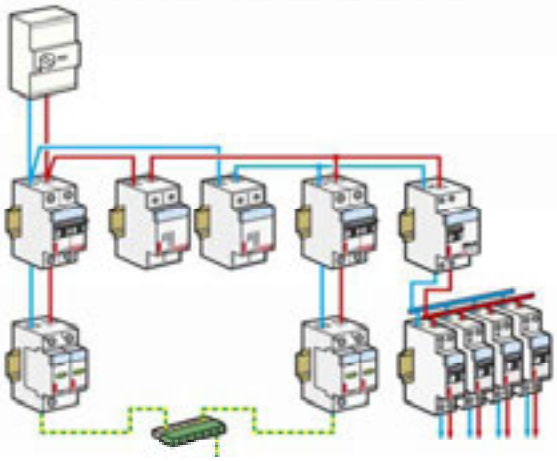
voltage surge protectors

Pack	Cat Nos	Replacement modules	I max (kA)	UP (kV)	For surge protector
		Plug-in replacement modules With indicator Green: surge protector operational Orange: module needs replacing			
5	039 28		70	2.0	039 20/21/22/23
5	039 34		40	1.8	039 30/31/32/33
5	039 39		40	1.4	039 35/36/38
5	039 44		15	1.2	039 40/41/43

Pack	Cat Nos	Signalling auxiliaries
		With changeover microswitch 2 A - 250 V~ Clip onto the base of the surge protector
1	039 55	For 1-pole module
1	039 56	For 2-pole module
1	039 57	For 3-pole module
1	039 58	For 4-pole module

Pack	Cat Nos	Decoupling inductors	Number of 17.5 mm modules
		For coordination of 2 voltage surge protectors within less than 2 m distance in the same installation For multipole voltage surge protectors, each conductor must be equipped with one decoupling inductor	
1	039 62	35 A - 500 V~	2
1	039 63	63 A - 500 V~	4

Wiring of decoupling inductors



voltage surge protectors for telephone lines

For protection of : telephone, fax, modem, etc, connected on the internal telephone line, against overvoltages of atmospheric origin
Installed in a distribution box, especially the ELV/signal box Cat.No 011 95 (please consult us)
Connected in series on the telephone line
Mechanical indication of operation :
- green: surge protector operational
- orange: surge protector needs replacing

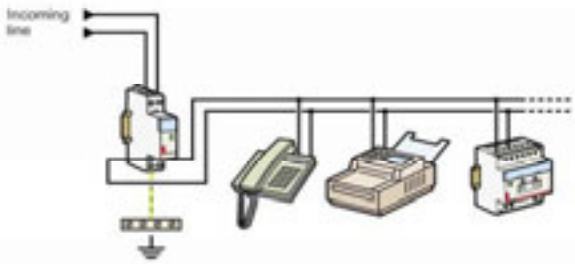
Conform to standard IEC 61643-2

Pack	Cat Nos	Voltage surge protector for telephone lines
1	038 28	**Analogue**
1	038 29	**Digital**

Characteristics

	Analog 038 28	Digital 038 29
Maximal discharge current (I maxi)	10 kA	
Protection level (UP)	300 V	100 V
Terminal capacity flexible/rigid	0.5 to 2.5 mm²	
Degree of protection	IP 20	
Operating temperature	- 10 °C to + 40 °C	
Storage temperature	- 20 °C to + 70 °C	

Protection of a telephone line Installation principle



VOLTAGE SURGE PROTECTORS

isolating switches

Conform to standard IEC 60669-1
Visible contact indication
Breaking capacity AC 22 A according to IEC 60947-3
Double break contacts

Pack	Cat Nos	Nominal rating (A)	Number of 17.5 mm modules
		Single pole - 250 V~ (1)	
10	043 02	20	1
10	043 05	32	1
10	043 10	63	1
5	043 14	100	1
		Single pole with indicator - 250 V~ (1) Supplied with lamp	
10	043 03	20	1
		Double pole - 400 V~ (1)	
10	043 22	20	1
10	043 25	32	1
5	043 30	63	2
5	043 34	100	2
2	043 38	125	2
		Double pole with indicator - 250 V~ (1) Supplied with lamp	
10	043 23	20	1
10	043 26	32	1
		3-pole - 400 V~ (1)	
5	043 42	20	2
5	043 45	32	2
3	043 50	63	3
3	043 54	100	3
2	043 58	125	3
		4-pole - 400 V~ (1)	
5	043 62	20	2
5	043 65	32	2
2	043 70	63	4
2	043 74	100	4
2	043 78	125	4
		Auxiliary changeover switch 250 V~ Indicates the "on" or "off" position of the contact, max. 3	
1	073 50	5	0.5

Accessories

2	044 42	Support for Ø 4 mm and Ø 6 mm padlocks
1/3	044 43	Padlocks Ø 4 mm
1	227 99	Padlocks Ø 6 mm
2	044 44	Sealable terminal shield (4 separable poles)
1	044 47	Insulated shields

changeover switches and control selector switches

Conform to standard IEC 60669-1
Breaking capacity AC 22 A according to IEC 60947-3

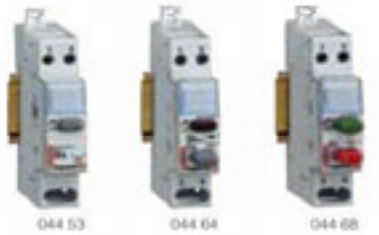
Pack	Cat Nos	Nominal rating (A)	Number of 17.5 mm modules
		Changeover switches	
		Two-way - 250 V~	
10	043 82	20	1
		Double two-way - 400 V~	
5	043 83	20	2
		Two-way with centre point - 250 V~	
10	043 85	20	1
		Double two-way with centre point - 400 V~	
5	043 86	20	2
		N/O + N/C switch - 250 V~	
10	043 88	20	1

Control selector switches

Pack	Cat Nos		Number modules of 17.5 mm
		4 directions with stop position Single pole	
1	046 55	16 A - 400 V~	3

VOLTAGE SURGE PROTECTORS

push-buttons and control switches



Conform to standard IEC 60669-1
Breaking capacity AC 12 A according to IEC 60947-5-1
Supplied in push-button position
Can be converted to control switches
Accept insertion of supply busbars

Pack	Cat.Nos		Number of 17.5 mm modules
		Single functions	
		20 A - 250 V~	
10	044 53	1 N/O	1
10	044 54	1 N/C	1
10	044 55	2 N/O	1
10	044 58	1 N/O + N/C	1
		Dual fonctions	
		20 A - 250 V~	
10	044 63	1 N/O + green indicator(1)	1
10	044 64	1 N/C + red indicator(1)	1
10	044 68	1 N/O (green) + 1 N/C (red)	1

Accessories

		Coloured control buttons
10	044 73	Green
10	044 74	Red

Replacement lamps (see opposite)

Indicators (see opposite)

indicators

Supplied with diffuser and lamp E 10 - 230 V~
Replaceable diffuser and lamp
Allow supply busbar to be inserted

Pack	Cat.Nos		Number of 17.5 mm modules
		Single indicators 250 V~	
10	044 83	Green	1
10	044 84	Red	1
10	044 85	Orange	1
10	044 86	Blue	1
10	044 87	Colourless	1
		Double indicator 250 V~	
10	044 88	Green + red	1
		Colour diffusers	
10	044 93	Green	
10	044 94	Red	
10	044 95	Orange	
10	044 96	Blue	
10	044 97	Colourless	
		Replacement lamps E 10 - 1.2 W	
10	044 33	24 V incandescent	
10	044 36	230 V neon	
10	044 37	230 V fluo for blue and green diffusers	
		Three-phase voltage indicator	
		Supplied with lamps 230/400 V~ non replaceable	
2	031 43	3 neon lamps - colourless - 0.5 module	

VOLTAGE SURGE PROTECTORS

time-lag switch and cut-off warning

047 02

047 10

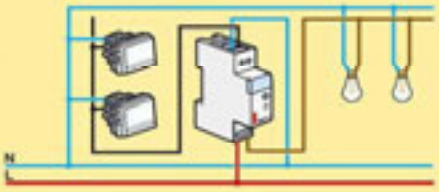
Pack	Cat.Nos	Time-lag switches	No. of 17.5 mm modules
		Allows supply busbar to be inserted Switches a lighting circuit on and off for a specific time 2 000 W incandescent 2 000 W halogen - 230 V~ Recyclable	
10	047 02	**Staircase time-lag switch** Power supply : 230 V~ - 50/60 Hz Output : 16 A - 250 V~ - μ cos φ = 1 2 000 W incandescent 2 000 W halogen - 230 V~ 1 000 VA fluo-serie compensated 120 VA fluo-parallel compensated 14 μF Adjustable from 30 s to 10 min. 3-wire or 4-wire connection	1
		Cut-off warning	
		Energy and safety efficient : coupled with a time-lag switch Cat.Nos 047 02, provides gradual reduction of light at the end of the time period, and thus reduces the time period	
1	047 10	Power supply : 230 V~ - 50/60 Hz Output : 5 A - 230 V~ 1 000 W incandescent 1 000 W halogen : 230 V~ Cutt-off warning : around 30 s	2

time-lag switch and cut-off warning

Time-lag switch

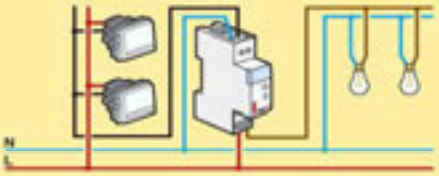
3-wire connection

Allows :
- unlimited numbers of unlit push-buttons
- 50 lit push-buttons max. (neon R = 1 mA max.)
  Constant lighting possible



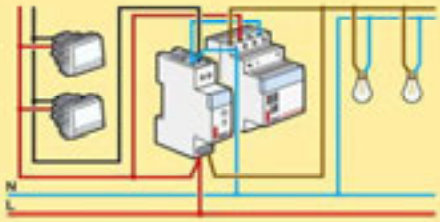
4-wire connection

Allows :
- unlimited numbers of unlit push-buttons
- 50 lit push-buttons max. (neon R = 1 mA max.)
  Constant lighting possible



Cut-off warning

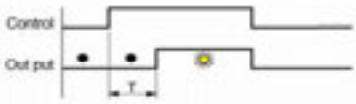
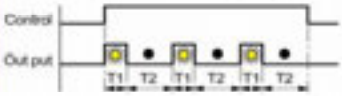
Cat.No 047 10 with time-lag switch Cat.No 047 02
Cut-off warning : around 30 s



time delay relays

047 41

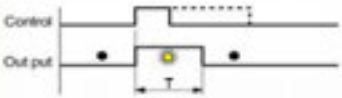
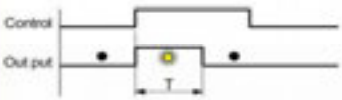
047 42

Pack	Cat Nos		Number of 17.5 mm modules
		For controlling the switching on and/or off of equipment (lighting, ventilation, control system, signalling systems) for preset period from 0.1 s to 100 h Supply voltage : 12 to 230 V~ - 50/60 Hz and ⎓ Output : 8 A - 250 V~ - µ cos φ = 1 Contact N/O	
1	047 40	**On delay** Delay load switch on  The time period starts when the relay is switched on. At the end of the time period (T) the load is switched on	1
1	047 41	**Off delay** Delays load switch off (ventilation, etc.) The time period (T) starts with the opening of the switch or the non-illuminated push-button. At the end of the time period, the load is switched off	1
1	047 42	**Flashing** Switches a load on and off (lighting, bells) cyclically and for differing time periods  	1

time delay relays *(continued)*

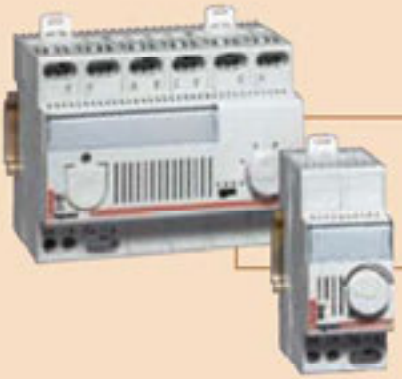
047 45

047 44

Pack	Cat Nos		Number of 17.5 mm modules
1	047 43	**Timer** Switches on a load for a preset period (contactor)  The time period (T) starts with the closing of the switch or the non-illuminated push-button At the end of the time period, the load is switched off	1
1	047 45	**On delay** Delays load switch on for a preset period  The time period (T) starts when the relay is switched on At the end of the time period (T), the load is switched off	1
1	047 44	**Multifunction** • On delay • Off delay • On\off delay • Timer (pulse) • Timer and passing contact • Delay on power-up • Flashing (open output) • Totalizer on delay • Totalizer delay on power-up	1

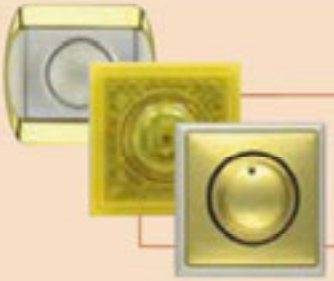
LIGHTING CONTROL FOR
ALL TYPES OF SOURCES

Remote dimmers for mounting in an enclosure up to 25 000 W

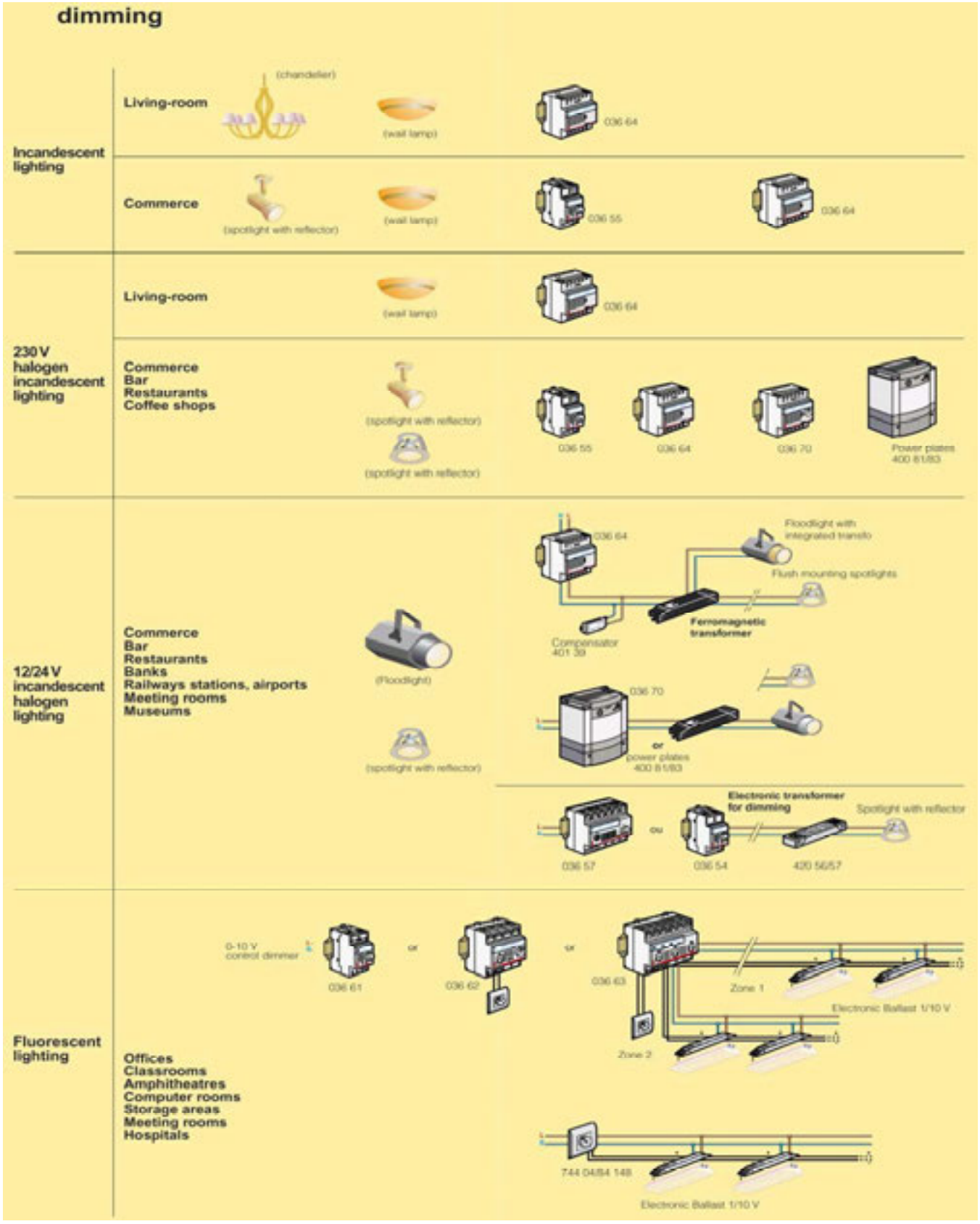


Lexic dimmers and remote dimmers up to 5 000 W

Electronic transformers for dimming 12 V halogen bulbs



Galea, Structura, Tenara, dimmer switches


dimming
Incandescent lighting
Living-room
(chandelier)
(wall lamp)
036 64
Commerce
(spotlight with reflector)
(wall lamp)
036 55
036 64
Living-room
(wall lamp)
036 64
230 V halogen incandescent lighting
Commerce
Bar
Restaurants
Coffee shops
(spotlight with reflector)
(spotlight with reflector)
036 55
036 64
036 70
Power plates 400 81/83
12/24 V incandescent halogen lighting
Commerce
Bar
Restaurants
Banks
Railways stations, airports
Meeting rooms
Museums
(Floodlight)
(spotlight with reflector)
036 64
Floodlight with integrated transfo
Flush mounting spotlights
Ferromagnetic transformer
Compensator 401 39
036 70
or
power plates 400 81/83
Electronic transformer for dimming
Spotlight with reflector
ou
036 57
036 54
420 56/57
Fluorescent lighting
Offices
Classrooms
Amphitheatres
Computer rooms
Storage areas
Meeting rooms
Hospitals
0-10 V control dimmer
036 61
or
036 62
or
036 63
Zone 1
Electronic Ballast 1/10 V
Zone 2
744 04/84 148
Electronic Ballast 1/10 V

dimmers
remote dimmers
for incandescent and halogen lighting

036 55

036 64

Pack	Cat.Nos	
		Used to control lighting : - traditional incandescent 230 V~ - halogen incandescent 230 V~ - ELV halogen incandescent with ferromagnetic or electronic transformer for dimming Controls : - on front face - remote via simple non-illuminated push-buttons, dual push-buttons, rotary dimmer switches, with preset levels or via infrared control
		500 W dimmer for incandescent lamps 230 V~ - 50/60 Hz Two 17.5 mm modules
1	036 55	Used to vary the light level of an installation : - of traditional incandescent lamps, 230 V~ : 60 to 500 W - of halogen incandescent lamps, 230 V~ : 60 to 500 W Minimum power : 60 W Dimmer control via knob on front face
		420 W dimmer for halogen lamps with electronic transformers 230 V~ - 50/60 Hz Two 17.5 mm modules
1	036 54	Used to vary the light level of an installation : - of Legrand ELV halogen lamps with electronic transformers for dimming Cat.Nos 420 56/57 : 60 to 420 VA - of traditional incandescent lamps, 230 V~ : 60 to 320 W - of halogen incandescent lamps, 230 V~ : 60 to 320 W Minimum power : 60 VA Dimmer control via knob on front face
		1 000 W remote dimmer for incandescent lamps 230 V~ - 50/60 Hz Four 17.5 mm modules
1	036 64	Used to vary the light level of an installation : - of traditional incandescent lamps, 230 V~ : 100 to 1 000 W - of halogen incandescent lamps, 230 V~ : 100 to 1 000 W - of ELV halogen incandescent lamps with ferromagnetic transformer with compensator cat.No 401 39, 100 to 1 000 VA Minimum power : 100 W On/off control and remote dimming via simple or illuminated push-buttons Storage of last lighting level in the event of an OFF command

remote dimmers
for incandescent and halogen lighting

036 70

036 57

Pack	Cat.Nos	
		1 000 W remote dimmer 230 V~ - 50/60 Hz Four 17.5 mm modules
1	036 70	Used to vary the light level of an installation : - of traditional incandescent lamps, 230 V~ : 100 to 1 000 W - of halogen incandescent lamps, 230 V~ : 100 to 1 000 W - of ELV halogen lamps with ferromagnetic transformer, 100 to 1 000 VA - of fluorescent tubes, Ø 26 mm, 100 to 1 000 VA, with electronic dimmer ballasts Cat.Nos 401 51/52/53/54/55/57 and precharging unit Cat.No 401 48 - of compact fluorescent lamps : 100 to 1 000 VA with remote dimmer electronic ballasts and precharging unit Cat.No 401 48 Minimum power : 100 W Three functions : • Dimmer (D = V on product) : used to set a light level via the knob on the front face and to control on/off switching via a local control on the front face • Remote dimmer (R = T on product) : used for remote location of on/off control and dimming via simple non-illuminated push-buttons, dual-function push-buttons and control auxiliary. The minimum light level is adjusted via the knob on the front face • Slave (S = E on product) : for power ratings above 1 000 W, the product is used in conjunction with other remote dimmers Cat.Nos 036 70 or 036 57 (single or 3-phase). Up to 4 slaves can be used per master remote dimmer Up to 4 slaves can be used per master remote dimmer
		1 000 W remote dimmer for halogen lamps with electronic transformers 230 V~ - 50/60 Hz Six 17.5 mm modules
1	036 57	Used to vary the light level of an installation : - of Legrand ELV halogen lamps with electronic transformer : 100 to 1 000 VA - of traditional incandescent lamps, 230 V~ : 100 to 800 W - of halogen incandescent lamps, 230 V~ : 100 to 800 W Minimum power : 100 VA Three functions : • Dimmer (D = V on product) : used to set a light level via the knob on the front face and to control on/off switching via a local control on the front face • Remote dimmer (R = T on product) : used for remote location of on/off controls and dimming via simple non-illuminated push-buttons, dual-function push-buttons and control auxiliaries. The minimum light level is adjusted via the knob on the front face • Slave (S = E on product) : for power ratings above 1 000 W, the product is used in conjunction with other remote dimmers Cat.No 036 57 (single or 3-phase) Up to 4 slaves can be used per master remote dimmer General control : used for on/off switching of an unlimited number or remote dimmers in parallel and storing their lighting level in the event of an OFF command Storage of last lighting level in the event of a power cut Storage of last lighting level in the event of an OFF command

dimmer and remote control dimmer
for fluorescent lighting

036 61 036 62 036 63

Pack	Cat.Nos	
		Used to control the following lighting types : - fluorescent tubes, Ø 26 mm and 16 mm, with electronic ballast 1 - 10 V - compact fluorescent lamps with electronic ballast 1 - 10 V Controls fluorescent loads of 800 VA to 6 000 VA using a combination of products Controls on front face and remote control via : - simple non-illuminated push-buttons - dual push-buttons - rotary dimmer switches, with preset levels or infrared control (see control auxiliaries)
		Dimmer for fluorescent sources
1	036 61	230 V∿ - 50/60 Hz. Two 17.5 mm modules Used to vary the light level of an installation of fluorescent tubes and lamps with electronic ballast 1 - 10 V Controllable power : 800 VA Control current : 50 mA Minimum lighting level adjustment on front face Dimmer control via knob on front face
		Remote dimmer for fluorescent sources
1	036 62	230 V∿ - 50/60 Hz. Four 17.5 mm modules Used to vary the light level of an installation of fluorescent tubes and lamps with electronic ballast 1 - 10 V Controllable ballast power : 1 500 VA Control current : 50 mA Minimum lighting level adjustment via knob on front face Three functions : • Dimmer (D = V on product) : used to set a light level via the knob on the front face and to control on/off switching via a local control on the front face • Remote dimmer (R = T on product) : used for remote location of on/off controls and dimming via simple non-illuminated push-buttons, dual-function push-buttons and control auxiliaries. The minimum light level is adjusted via the knob on the front face • Slave (S= E on product) : for power ratings above 1 500 W, the product is used in conjunction with other remote dimmers Cat.No 036 62 (single or 3-phase). Up to 4 slaves can be used per master remote dimmer Storage of last lighting level in the event of a power cut Storage of last lighting level in the event of an OFF command
		Remote dimmer for fluorescent sources with 2 zones
1	036 63	230 V∿ - 50/60 Hz. Six 17.5 mm modules Used to vary the lighting level independently of two zones with fluorescent lighting consisting of tubes and lamps with electronic ballast 1 - 10 V Possibility of varying both lighting levels via a general control on the front face Controllable ballast power : 800 VA per zone Control current : 50 mA per zone Minimum lighting level adjustment of each zone via knob on front face. ON/OFF control and remote dimming control via simple non-illuminated push-buttons. General control : used for ON/OFF switching of an unlimited number of remote dimmers in parallel and storing their lighting level in the event of an OFF command. Storage of last lighting level in the event of a power cut. Storage of last lighting level in the event of an OFF command

power dimmers
for mounting in enclosures up to 25 000 W

400 81

Pack	Cat. Nos	**Remote control power dimmers for mounting in enclosures**
		Local control on front face or remote control, light level adjustment via knob on front face Three functions : • Dimmer (V) : used to set a light level and control ON/OFF switching via a local control, simple non-illuminated pushbutton, dual-function pushbutton or remote peripheral device • Remote control dimmer (T) : used to set a light level, control ON/OFF switching and dimming via local control, simple non-illuminated pushbuttons, dual-function pushbuttons, peripheral devices and dimming auxiliaries. The minimum light level is adjustable • Slave (E) : for higher power ratings, the product is used in conjunction with other remote power dimmers (single or-3 phase). Up to 4 slaves can be used per master remote dimmer (same Cat. No. as for slave remote control dimmer). Commands are generated by the master remote dimmer General control : used for ON/OFF switching of an unlimited number of remote control dimmers and storing the lighting level of each remote control dimmer before an OFF command
		2 500 W remote control power dimmer
1	400 81	230 V∿, 50/60 Hz Used to vary the light level of an installation : • of traditional incandescent lamps, 230 V∿ : 300 to 2 500 W • of halogen incandescent lamps,230 V∿ : 300 to 2 500 W • of fluorescent tubes, Ø 26 mm • of compact fluorescent lamps • of 12 V halogen lamps with ferromagnetic transformer : 300 to 2500 W Mini. power : 300 W Up to 12 500 W can be controlled in master/slave arrangement with 4 slave remote dimmers combined with 1 master remote dimmer In the event of a power cut, storage of last lighting level Memorise their lighting level before switching off Dim. : L 181 x H 232 x D 117 mm - Weight : 2.2 Kg
		5 000 W remote control power dimmer
1	400 83	230 V∿ - 50/60 Hz Used to vary the light level of an installation : • of traditional incandescent lamps, 230 V∿ : 300 to 5 000 W • of halogen incandescent lamps, 230 V∿ : 300 to 50 000 W • of fluorescent tubes, Ø 26 mm • of compact fluorescent lamps • of 12 V halogen lamps with ferromagnetic transformer : 300 to 5 000 W Mini. power : 300 W Up to 25 000 W can be controlled in master/slave arrangement with 4 slave remote control dimmers combined with 1 master remote control dimmer In the event of a power cut, storage of last lighting level Memorise their lighting level before switching off Dim. : L 181 x H 232 x D 117 mm - Weight : 2.2 kg

transformers

420 56

420 60

Pack	Cat. Nos	Electronic transformers for dimming 12 V halogen lamps
		Varies the light levels of 12 V halogen lamps Can be used with dimmers Cat. Nos 744 18 - 841 42 - 036 54 and remote dimmers Cat. No 036 57 230 V∿ 50/60 Hz, secondary 12 V Class II ⊞ Overload and short- circuit protection Dimming range : 0 to 100 % Dim. : 120 x 42 x 30 mm, fixing centres 85 mm
1	420 56	**Power 70 VA** Mini 20 VA
1	420 57	**Power 105 VA** Mini 35 VA
		Ferromagnetic transformers for 12 V halogen lamps
		Provide a power supply for 12 V halogen lamps with or without dimming facility Conforms to standard IEC/IN 615 58-2/615 58-6
		Flush-mounting transformer Primary 230 V∿, secondary 12 V Class II ⊞
10	420 60	Power 50 W
		Plug-in moulded transformer Primary 230/240 V∿, secondary 12 V Class II ⊞
1	420 61	Power 100 VA
1	420 63	Power 300 VA
		Compensator for dimming ELV halogen lamps with ferromagnetic transformer Only used for dimming ELV halogen lamps with ferromagnetic transformer 1 compensator per dimmer or remote control dimmer
1	401 39	Connects in parallel to the dimmer or remote dimmer output

DIMMING AND PROGRAMMING

FEEL FREE
TO INSTALL COMFORT

FROM 500 W TO 1 000 W

A complete range of dimmers and remote control dimmers from 500 W to 1 000 W.

FROM 60 MINUTE TO 7 DAY PROGRAMME

A complete range of programmable time switches to suit any situation, analogue dial or digital display, from 60 minute to 7 day programme.

Rex time switches
programmable with analogue dial

037 40 037 55

Supply voltage : 230 V~ +10% - 15%
Manual override
Supplied with transparent protective cover

Pack	Cat.Nos	**60 minute programme** (compact size)	Number of 17.5 mm modules
		Used to control ventilation, extractor fans, etc Vertical analogue dial Minimum switching time : 37.5 s Segments programmed individually (1 segment = 37.5 s) 1 output via N/O contact 16 A - 250 V~ - μ cos φ = 1	
1	037 42	Without working reserve - 50 Hz	1
		24 hour programme	
		Vertical analogue dial (compact size) Minimum switching time : 15 min Segments programmed individually (1 segment = 15 min) Accuracy : ± 5 min/day 1 output via N/O contact 16 A - 250 V~ - μ cos φ = 1	
1	037 30	Without working reserve - 50 Hz	1
1	037 40	With 100 hour working reserve - 50/60 Hz	1
		Horizontal analogue dial (large display) Minimum switching time : 45 min Segments programmed individually (1 segment = 15 min) Accuracy : ± 5 min/day 1 output via changeover switch 16 A - 250 V~ - μ cos φ = 1	
1	037 52	Without working reserve - 50 Hz	3
1	037 53	With 100 hour working reserve - 50/60 Hz	3
		7 day programme	
		Vertical analogue dial (compact size) Minimum switching time : 2 hours Segments programmed individually (1 segment = 2 hours) Accuracy : ± 30 min/day 1 output via N/O contact 16 A - 250 V~ - μ cos φ = 1	
1	037 43	Without working reserve - 50 Hz	1
1	037 44	With 100 hour working reserve - 50/60 Hz	1
		Horizontal analogue dial (large display) Minimum switching time : 6 hours Segments programmed individually (1 segment = 2 hours) Accuracy : ± 30 min/day 1 output via changeover switch 16 A - 250 V~ - μ cos φ = 1	
1	037 55	With 100 hour working reserve - 50/60 Hz	3

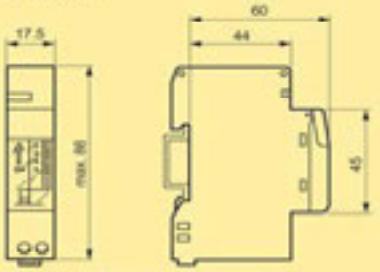
Rex time switches
programmable with analogue dial

Technical data

Cat. Nos	Programme	Segment	Min. Switching time	Working reserve	16 A output via contact N/O	16 A output via contact changeover switch	Number of 17.5 mm modules
037 42	1 h	37.5 s	37.5 s	without	1	-	1
037 30	24 h	15 mn	15 mn	without	1	-	1
037 40	24 h	15 mn	15 mn	100 h	1	-	1
037 52	24 h	15 mn	45 mn	without	-	1	3
037 53	24 h	15 mn	45 mn	100 h	-	1	3
037 43	7 days	2 h	2 h	without	1	-	1
037 44	7 days	2 h	2 h	100 h	1	-	1
037 55	7 days	2 h	2 h	100 h	-	1	3

Dimensions of Rex time switches

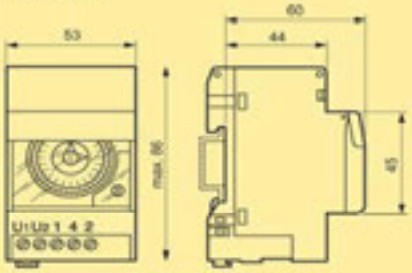
1 module



037 42/30/40/43/44

wiring diagram

3 modules



037 52/53/55

wiring diagram

Rex time switches
programmable with digital display

037 64

037 00

Used to start and stop an electrical circuit (lighting, heating) at selected pre-programmed times
A programme consists of a make time and a break time for the circuit
Determined for 1 day, it can be repeated on certain days or all the other days of the week
Temporary (automatic feedback) or permanent (forced start or stop) output override
The supply voltage busbar can be passed through
Supplied with 1-module box to hold the instructions

Pack	Cat Nos		Number of modules
		24 hour programme	
1	037 64	Power supply : 230 V∿ - 50/60 Hz • Minimum switching time : 1 min Accuracy : ± 2.5 s/day Working reserve : > 20 hours Permanent programme backup 230 V∿ - 50/60 Hz supply 1 output 16 A - 250 V∿ - μ cos φ = 1	2
		7 day programme	
1	037 00 [1]	Power supply : 230 V∿ - 50/60 Hz • Minimum switching time : 1 min Accuracy : ± 2.5 s/day Working reserve : > 20 hours Permanent programme backup 1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	1
1	037 61	1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	2
1	037 71	2 outputs 16 A - 250 V∿ - μ cos φ = 1 2 changeover switches	2
		7 day programme	
1	037 10	• Minimum switching time : 1 s Accuracy : ± 1 s/day Clock programme backup : 100 hours Manual advance time changes: summer/winter Display can be removed from base 230 V∿ - 50/60 Hz supply 4 outputs 10 A - 250 V∿ - μ cos φ = 1 4 changeovers switches	6
		7 day programme	
1	037 63	• Minimum switching time : 1 min Accuracy : ± 2.5 s/day Working reserve : > 20 hours Permanent programme back-up 24 V∿ and ⎓ - 50/60 Hz supply and ⎓ 1 output 16 A - 24 V∿ - μ cos φ = 1 1 changeover switch	2

Rex time switches
programmable with digital display *(continued)*

037 06

037 28 + Aerial supplied

Power supply : 230 V∿ - 50/60 Hz
• Minimum switching time : 1 min
Accuracy : ± 2.5 s/day
Working reserve : > 20 hours
Permanent programme backup
7 day programme

Pack	Cat Nos		Number of modules
		Programmable (pulse)	
1	037 06	Used to control a contactor, a latching relay, a motor, buzzers, etc at selected times for a predetermined time period 16 starting times per day Adjustable pulse duration : 1 s to 23 min 59 s 1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	2
		Programmable: auxiliary contact	
1	037 50	Used for remote override control of the current programme Hence, for heating, lighting, and ventilation, it is possible to bypass the current programme and restart using a switch outside the board 1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	2
		Programmable with input control plus time extension	
1	037 81	Programmable for 1 minute minimum at 1 minute intervals with input control that enables the time switch to be actived irrespective of the programme Possible applications: pump control or factory gates Allows operation of the apparatus via a push-button outside the set programme Extended time programmable from 1 minute to 23 hours 59 minutes after switch off of input signal (manual override or other device) 1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	2
		Programmable : radio-controlled	
1	037 28	Used to obtain extremely accurate updated setting via radio synchronisation Receives time signals from the DCF 77 radio transmitter at Frankfurt via the reception aerial supplied (IP 54) Working reserve : 10 min Especially suitable for programming secure installations (access points, alarms etc), industrial installations (pumping station, etc) 1 output 16 A - 250 V∿ - μ cos φ = 1 1 changeover switch	2

Other voltages and frequencies : please consult us

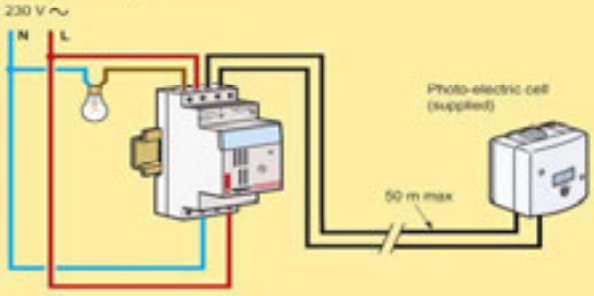
light sensitive switches

Pack	Cat.Nos		No of 17.5 mm modules
		Supplied with photoelectric cell housed in Plexo weatherproof box - IP 55-5	
		1 function	
1	037 23	Supply voltage : 230 V∿ - 50/60 Hz Output 5 A - 250 V∿ - μ cos φ = 1 1 200 W incandescent 800 VA fluo series compensated 300 VA fluo parallel compensated 45 μF Switches on at sunset, switches off at sunrise (eg. in car parks, green areas, etc) Timer response of approx. 45 sec Adjustable from 0.5 to 2 000 lux	2
		4 functions	
1	037 25	Supply voltage : 230/240 V∿ - 50/60 Hz Output 10 A - 250 V∿ - μ cos φ = 1 2 000 W incandescent 2 000 VA fluorescent series compensated 300 VA fluo parallel compensated 45 μF Adjustable from 0.5 to 2 000 lux Timer response of approx. 5 sec 4 possible programmes : 1 - Switches on at sunset and off at sunrise (eg. in car parks, green areas, etc) 2 - Switches off when natural light level is low and comes on when natural light level is high (eg. to imitate daily cycle in battery farming conditions) 3 - Automatically switches on at sunset following deliberate switching off by means of a push-button or timer (eg. shop windows and illuminated signs, etc) 4 - Automatically switches off at dawn following deliberate switching on by means of a push-button or timer at night (eg. offices, workshops)	5
		Programmable	
1	037 21	Supply : 230 V∿ - 50/60 Hz Output via changeover switch: 10 A - 250 V∿ cos φ = 1 - 1 000 W incandescent Programmable light sensitive time switch Controls lighting according to the time and light level Minimum switching interval : 1 min. Working reserve : 100 hrs Capacity : 8 programmes (daily/weekly) Light level adjustable from 2 to 60 000 lux With time-delay of 60 sec. Manual switch : override/programme/stop. Automatic changeover to summer/winter time. Temporary override with automatic return to programme	2
		Accessory	
1	916 87	Spare photoelectric cell for installation in light sensitive switches Cat.Nos 037 21, 037 23 or 037 25 Supplied housed in Plexo weatherproof box IP 55-5	

light sensitive switches

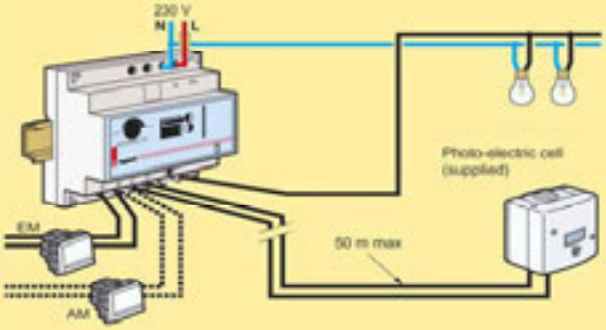
Light sensitive switch (Cat.No 037 23)

A single supply circuit



4 function light sensitive switch (Cat.No 037 25)

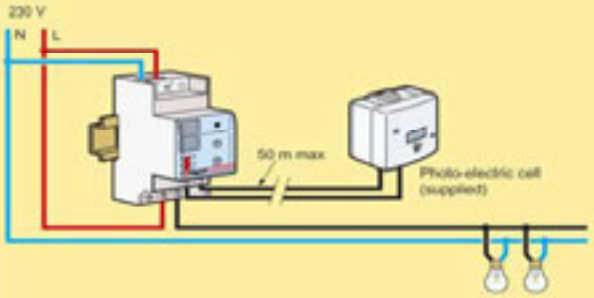
Example for connecting the **3rd programme**
At night fall, after automatic switch on, EM push-button allows manual switch off
Switching back on will be automatic on next evening
AM push-button also allows manual switch on at night fall



No of fluorescent tubes for Cat.No 037 25

Tube	No compensated	Series compensated	Parallel compensated
Ø 38 - 65 W	18	30	4
Ø 38 - 40 W	28	50	7
Ø 26 - 58 W	20	35	5
Ø 26 - 36 W	30	55	8

Programmable light sensitive switch (Cat.No 037 21)



Caution : Do not locate the photo-cell facing the lamps to be controlled by the light sensitive switch, facing street lighting or rear a main thorough fare

light sensitive switch *(continued)*

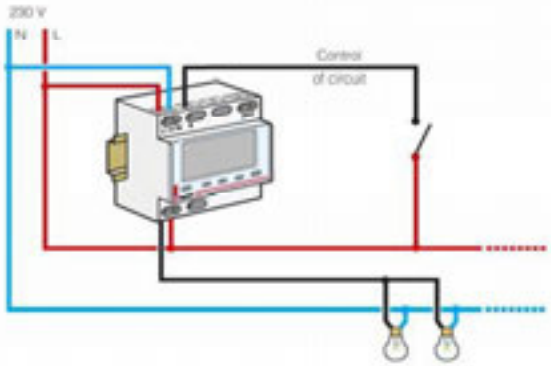
037 20

Pack	Cat.Nos	
1	037 20	**Night-time programmed switch** Supply: 230 V∿ - 50/60 Hz For switching lighting systems in response to sunrise, sunset and time without using separate light sensors. Just put in the longitude and latitude, time and date and it calculates automatically for the whole year Night switching of the lighting through additionally programmed ON-OFF times possible The control input enables the activation of the time switch (eg. ON-OFF switching of the lights by normal switches) irrespective of the time switch programming Ideal for illuminated signs, shop windows, car parks, etc Automatic summer/winter setting can be overridden by external control unit ON-OFF switch points can be moved towards or backwards for up to 60 minutes Radio synchronisation possible using aerial Accuracy: ± 1 second per day Working reserve: 6 year (real time reserve using a lithium battery) Output 16 A - 250 V∿ - µcos φ = 1 1 changeover switch 1 channel, 1 programme

Accessory

1	047 50	Radio reception aerial for signals from the Frankfurt transmitter, with a range of 1 500 km ; for optional installation on light sensitive switch Cat.No 037 20

Wiring



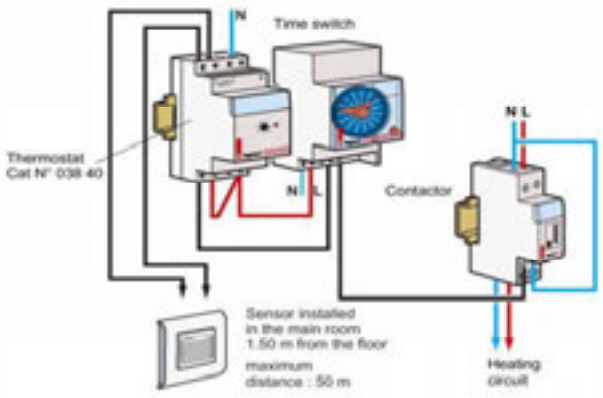
electronic room thermostat

038 40

744 70
with frame
and Mosaic plate

Pack	Cat.Nos		No of 17.5 mm modules
		Ensures a degree of temperature control for use in shops and offices in a housing which are inaccessible to the public, or to children in the case of private accommodation Temperature is measured by a sensor placed in the room or area to be controlled (see opposite)	
1	038 40	**Electronic room thermostat** Power supply 230 V∿ - 50/60 Hz Adjustment range: 3° to 30 °C Adjustment button on the front Breaking capacity : 6 A - 250 V∿ with µ cos φ = 1 With changeover contact: cut-off in the case of a temperature rise (e.g. heating) or in the case of temperature drop (e.g. air-conditioning)	2
1	744 70	**Sensor for electronic room thermostat** Mosaic Flush-mounting or surface mounting in Mosaic frame Cat.Nos 893 14/20 placed at 1.50 m from the floor Maximum distance between thermostat and sensor : 50 m for a normal wire Mosaic sensor 2 module mechanism Mounting with Mosaic frame and surround Cat.Nos 748 02 and 750 02 (p. 327-328)	

Connection of a thermostat to a 7-day programme time switch



power contactors

040 33

040 75

A location on the device enables a supply busbar to run through

Conform to IEC 61095

All power contactors have a handle covered with a blanking plate
Stop or start override without automatic return is possible (use tool)

Power contactors with 24 V~ coil

Pack	Cat Nos	I max	Type of contact	Number of 17.5 mm modules
2-pole - 250 V~ 24 V~ coil				
1	040 33	16 A	NC + NO	1
1	040 41	20 A	2 NO	1
1	040 73	63 A	2 NO	2
4-pole - 400 V~				
1	040 74	63 A	4 NO	3

Power contactors with 230 V~ coil

Pack	Noiseless	Standard	I max	Type of contact	Number of 17.5 mm modules
2-pole - 250 V~					
1		040 38	16 A	NC + NC	1
1	040 52	040 49	20 A	2 NO	1
1		040 50	20 A	2 NC	1
1		040 68	40 A	2 NO	2
1		040 75	63 A	2 NO	2
1		040 76	63 A	2 NC	2
3-pole - 400 V~					
1		040 69	40 A	3 NO	3
1		040 77	63 A	3 NO	3

power contactors *(continued)*

040 85

040 53

040 79

Power contactors with 230 V~ coil

Pack	Cat Nos	I max	Type of contact	Number of 17.5 mm modules
4-pole - 400 V~ 230 V~ coil				
1	040 53	20 A	4 NO	2
1	040 54	20 A	4 NC	2
1	040 55	20 A	2 NO + 2 NC	2
1	040 70	40 A	4 NO	3
1	040 78	63 A	4 NO	3
1	040 79	63 A	4 NC	3

Auxiliary devices for contactors

For contactors up to 63 A
Auxiliary changeover switch
Fitted on left-hand side of contactor
Used to signal the position status of the contacts on the product to which it is connected

Pack	Cat Nos	I max.	Voltage	Changeover switch	Number of modules 17.5 mm
1	040 85	5 A	250 V~	NC + NO	0.5

NEW

contactors
for emergency stop

040 95

Contactors without handle for emergency stop and special circuits

Pack	Cat Nos	I max	Type of contact	Number of 17.5 mm modules
2-pole - 230 V~				
1	040 95	63 A	2 NO	2
4-pole - 400 V~				
1	040 98	63 A	4 NO	3

pulse operated latching relays

040 15

040 87

040 85

A location on the device enables a supply busbar to run through

Pack	Cat.Nos	Pulse operated latching relays				
		Conform to standard IEC 60669-2-2 For breaking fluorescent circuits : • 30 tubes 40 W - 1.20 m non-compensated • 50 tubes 40 W - 1.20 m series compensated • 10 tubes 40 W - 1.20 m parallel compensated Max. capacity 45 µF				
		Single pole - 16 A - 250 V~	Control current ~ voltage	Control current = voltage	Type of contact	Number of 17.5 mm modules
10	040 15		230 V	110 V	1 N/O	1
		2-pole - 16 A - 250 V~				
10	040 16		230 V	110 V	2 N/O	1
		4-pole - 16 A - 400 V~				
		Can be used for 3-pole assembly				
1	040 19		230 V	110 V	4 N/O	2

Auxiliary devices for pulse operated latching relays

• Fitted on left-hand side of latching relay
• 1 auxiliary per latching relay

Auxiliary changeover switch

Used to signal the position status of the contacts on the product with which it is associated

		I max.	Voltage	Contact	Number of 17.5 mm modules
1	040 85	2 A	250 V~ - 50 Hz	N/C + N/O	0.5

Auxiliary device for centralised control (1)

Fitted on left-hand side of latching relay
Centralized control possible from a specific location (e.g. porter's lodge)
Can be controlled via time switches
One auxiliary per latching relay to control

			Number of 17.5 mm modules
1	040 86	For latching relays 12 V~ to 48 V~ or latching relays 8 V= to 24 V=	0.5
1	040 87	For latching relays 230 V~ - 50 Hz	0.5

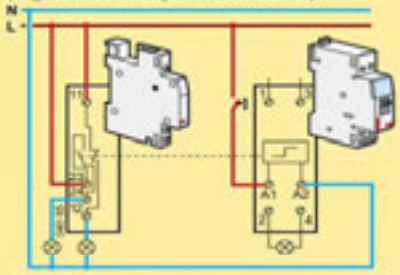
Compensator for pulse operated latching relays

		• Used to control 230 V~ - 50 Hz pulse operated latching relays via illuminated push-buttons without malfunctions • Connects to the terminals of the pulse operated latching relay coil	Number of 17.5 mm modules
1	040 89	Impedance compensator for 230 V~ - 50 Hz pulse operated latching relays	1

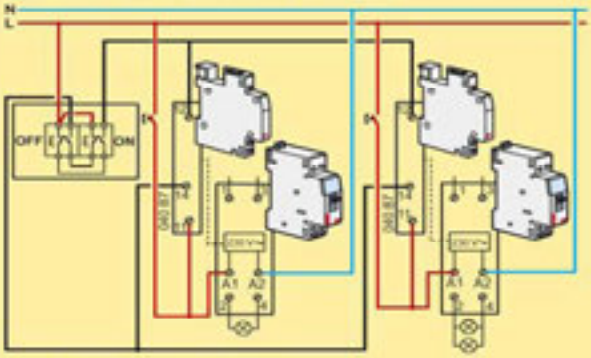
(1) Possible to control 20 pulse operated latching relays equipped with centralized control

pulse operated latching relays

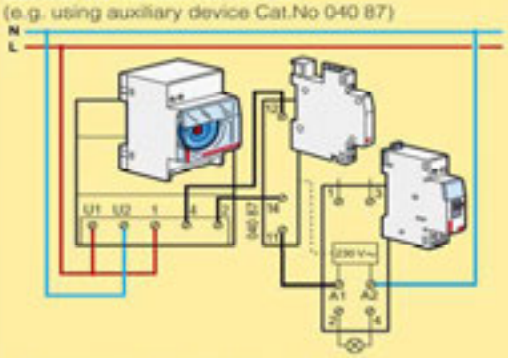
Signalling
(e.g. with auxiliary Cat.No 040 85)



Control centralized at one point
(e.g. using auxiliary device Cat.No 040 87)



Control via maintained contact
(e.g. using auxiliary device Cat.No 040 87)



Control via illuminated push-button
(e.g. compensator Cat.No 040 89)
• Connect a compensation module with 9 to 16 illuminated push-buttons with consumption of 0.55 mA (or total current consumption of 4.5 mA to 8 mA)
• Connect 2 compensation modules with 17 to 24 illuminated push-buttons with consumption of 0.55 mA (or total current consumption of 8.5 mA to 12 mA)

Lighting

Max. number of 1.20 m fluorescent tubes (4.5 µF capacity)

Type	non compensated	compensated serie	parallel compensation
Unit power	40 W	40 W	40 W
Max. number(1)	30	50	10

Technical characteristics

Latching relay	Un	Control power 50/60 Hz	Control power d. c.	Coil consumption under Un (50/60 Hz)	Connection
1 P	230 V	230 V	110 V	18 VA	4 mm² max. flexible or rigid wires
2 P	230 V	230 V	110 V	18 VA	
4 P	230 V	230 V	110 V	32 VA	

(1) With a 3-phase circuit, max. number of fluorescent tubes per phase is that of the distribution board divided by √3

measuring electrical energy

Pack	Cat.Nos	Ammeters
		Analog ammeter Measures the intensity of the current circulating in an electrical circuit in Amperes (A)
		Direct connection
1	046 02	To alternating or direct current Range: 0-30 A (4 x 17.5 mm modules)
		Connected using a 5 A current transformer (CT)
1	046 00	The metre is fitted with an appropriate dial for the intensity of the current being measured (4 modules)
		Measuring dials for ammeter Cat.No 046 00
2	046 10	0-50 A
2	046 13	0-100 A
2	046 15	0-200 A
2	046 17	0-300 A
2	046 18	0-400 A
2	046 20	0-600 A
2	046 21	0-800 A
2	046 22	0-1000 A
2	046 23	0-1200 A
2	046 24	0-1500 A
2	046 25	0-2000 A
		Digital ammeter Connected using a 5 A current transformer (CT) Reading range adjusted according to the current transformer used (100, 400, 600, 1 000 A) Voltage : 230 V∿ - 50/60 Hz
1	046 05	Measurement : 0 to 999 A (4 modules)

Current transformers (CT)

Used with ammeters or electricity meters
Supply a current of 0 to 5 A to the secondary which is proportional to the primary current
Fix to plate or rail EN 50022
Secondary joining with terminals for lugs, cage terminals or screws

		Transformation ratio	Precision in %	Power in VA
		For cable Ø 21 mm		
1	046 30	50/5	3	2
		For cable Ø 22 mm and 30 x 10 bar		
1	046 33	100/5	1	2
1	046 35	200/5	1	4
		For cable Ø 35 mm and 40 x 10 bar		
1	046 37	300/5	1	8
1	046 38	400/5	1	12
1	046 40	600/5	1	15
1	046 41	800/5	1	12
1	046 42	1 000/5	1	12
		For bar 50 x 12		
1	046 03	1 200/5	1	15
NEW		**Compact for cable Ø 21 mm and 16 x 12 bar 44 x 47.5 mm fixing centres**		
1	046 31	50/5	1	1.25
1	046 34	100/5	1	2.5
1	046 36	200/5	1	5.5
		For bar 10 x 100 or 10 x 125 mm		
1	046 44	1 200/5	1	12
1	046 45	1 500/5	1	20
1	046 46	2 000/5	1	25

measuring electrical energy

(continued)

Pack	Cat.Nos	Voltmeters
		Analog voltmeter Used to measure the AC or DC voltage (V) in an electrical circuit
1	046 60	Range 0-500 V (4 modules)
		Digital voltmeter Used to measure the AC voltage (V) in an electrical circuit Supply voltage: 230 V∿ - 50/60 Hz 3-digit display via green LEDs
1	046 62	Measurement 0-600 V (4 modules)

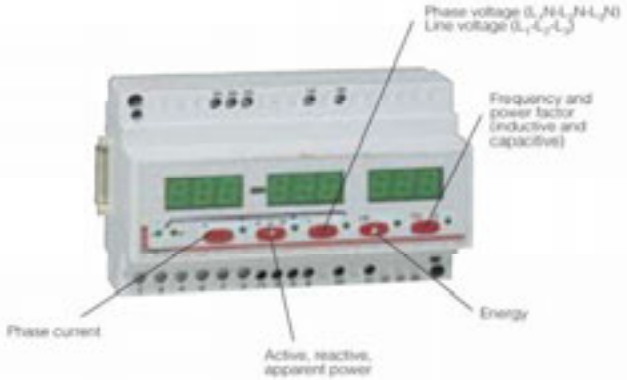
Selector switches

For manual switching of circuits being measured

		4-position ammeter selector switch
1	046 50	For measuring currents in a 3-phase circuit using only one ammeter with a current transformer (3 modules)
		4-position voltmeter selector switch
1	046 52	For measuring phase-to-phase voltages of a 3-phase circuit without neutral using only one voltmeter (3 modules)
		7-position voltmeter selector switch
1	046 53	For measuring phase-to-phase voltages and phase-neutral voltages of a 3-phase circuit with neutral (3 modules)

Digital frequency meter

		For measuring the frequency in Hertz (Hz) of a 230 V∿ electrical circuit Supply voltage 230 V∿ (connected to circuit to be measured) 3-digit display via green LEDs
1	046 64	Measurement 40-80 Hz (4 modules)
1	046 65	Multifunction measuring central unit

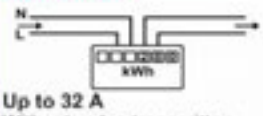


measuring electrical energy
(continued)

046 72

046 74

Pack | Cat.Nos | **Single-phase electricity meters - direct connection**



Single-phase direct connection

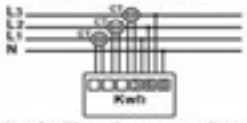
1 | 046 71 | **Up to 32 A** | Number of 17.5 mm modules
Without pulse transmitter
Scrolling digital display
6 digits, 1 unit = 1 kWh
4

NEW
Up to 63 A
1 | 046 72 | Without pulse transmitter | 2
Display: LCD screen
5 digits, 1 unit = 1 kWh

NEW
Three-phase meters

Direct connection up to 63 A per phase
1 | 046 73 | Operating voltage: 400 V~ - 50/60 Hz (3-phase + N) | Number of 17.5 mm modules
Display: LCD screen
5 digits, 1 unit = 1 kWh | 4
Partial counting with reset
Used with pulse transmitter to feed back remote electrical energy consumption measurements via volt-free contact
1 x 200 ms pulse every 10 kWh

NEW
Connection via current transformer (CT) up to 6000 A
1 | 046 74 | Operating voltage: 400 V~ - 50/60 Hz (3-phase + N) | Number of 17.5 mm modules
Current transformation ratio: 50/5 - 100/5 - 200/5 - 300/5 - 400/5 - 500/5 -600/5 - 800/5 adjustable by selector switch | 4
Display: LCD screen
5 digits, 1 unit = 1 kWh



Three-phase Ct connection

Used with pulse transmitter to feed back remote electrical energy consumption measurements via volt-free contact. 10/x pulses of 200 ms per kW (x = rating of current transformer)

measuring electrical energy
(continued)

046 94

046 91

Pack | Cat.Nos | **Totalising hour counters**

Used to count the operating hours of a machine or an electrical device to determine the exact operating duration and thus perform preventive maintenance as necessary

Counter with numerical display
Capacity: 5 digits + 2 units (99999.99 hours)
Precision: 1/100e hour
Consumption: 0.2 VA

			Number of 17.5 mm modules
1	046 94	230 V~ - 50 Hz	2
1	046 91	24 V~ - 50 Hz	2

transformers

042 20 042 25 042 51

Transformers protected against overloads and short circuits. In the event of an overload, switch off the power supply and allow the transformer to cool down before switching on again.
⎵ rail mounting for 2 x 5 modules
wall mounting for 3 x 4 modules

Bell transformers with label holders

Conform to IEC / EN 61558-2-8
Transformers protected against overloads and short-circuits
Possibility for supply busbars to run through (Cat.Nos 042 20/25)

230 V / 8 V

Pack	Cat.Nos	Depth 60 mm	Secondary	Rating	Power	Number of 17.5 mm modules
1	042 20		8 V~	0.5 A	4 VA	2
			230 V / 12 V - 8 V			
1	042 25		12/8 V~	0.66/1 A	8 VA	2
1	042 28		12 V~	1 A	12 VA	3
1	042 41		12/8 V~	2/3 A	24 VA	4
			230 V / 24 V - 12 V			
1	042 37		24/12 V~	1/1.5 A	24 - 18 VA	4

Safety transformers

Conform to IEC / EN 61558-2-6

230 V / 12 or 24 V per sockets for 16 and 25 VA
Per coupling series parallel with supplied terminal strips for 40 and 60 VA

Pack	Cat.Nos	Depth 68 mm	P (VA)	No-load loss (W)	Voltage % drop Cos φ = 1	Efficiency Cos φ = 1	Ucc (%)	I (A) primary loaded	Number of 17.5 mm modules
1	042 51		16	2.3	18	0.76	16	0.099	4
1	042 52		25	2.4	18	0.79	16	0.142	4
1	042 53		40	3.4	12	0.84	17	0.22	5
1	042 54		63	2.5	13	0.86	20	0.33	5

buzzers and bells

041 07 041 13

50 Hz AC
Connection by screw terminals, with label holder
Caution: remove lamps from illuminated push-buttons when used with Cat.Nos 041 01/10/11

Bells - IP 30-1

Pack	Cat.Nos	Voltage (V~)	Power (VA)	Consum. (mA)	IP (1) (dB)	Number of 17.5 mm modules
10	041 01	8/12	4.8	600	78	1
10	041 07	230	4	23	78	1

Buzzers - IP 30-1

10	041 13	230	4	20	75	1

(1) Acoustic power at 1 m

socket outlets

042 80 042 82 042 85

Pack	Cat.Nos		Number of 17.5 mm modules
		Allow insertion of supply busbars	
		10/16 A - 250 V~	
		French standard	
10	042 80	2 P + ⏚ shuttered	2.5
10	042 82	2 P + ⏚ shuttered and tamper-proof for protected or special circuits	2.5
10	042 83	2 P + ⏚ shuttered with light indicator	2.5
		German standard	
10	042 85	2 P + ⏚ German standard	2.5
10	042 88	2 P + ⏚ with light indicator	2.5
		20 A - 400 V~	
		French standard	
5	042 91	3 P + ⏚ shuttered	3.5
5	042 92	3 P + N + ⏚ shuttered	3.5
		Accessory	
		Spacing unit	
		Places between two devices which may cause a rise in temperature Enables there to be a whole number of modules, and to allow insertion of the supply busbars Enables wires to pass inside of the unit	
10	044 40	0.5 module	

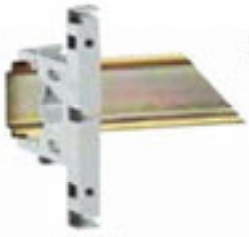
special supports

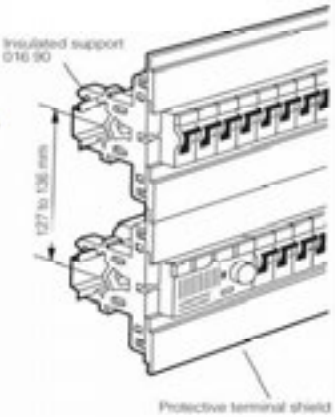
044 05
Equipment model: auxiliary control
044 06
Equipment model: diodes, switch
748 72
Equipment model: ACO(1) socket 742 70

Pack	Cat.Nos		Number of 17.5 mm modules
10	044 05	For mounting pre-drilled Ø 22.5 mm control and signalling auxiliaries	3
10	044 06	Used as blanking cover for other equipment (ex. switch, printed-circuits...)	3
		Mosaic support	
10	748 72	For mounting Mosaic 2-module mechanisms Width 46.3 mm	

(1) Aco: Registered trademark

protective terminal shield





Pack	Cat.Nos	Protective terminal shield
		Ensures the protection of wiring and terminals in modular mechanisms fitted in cabinets (Atlantic or Marina)
	Light grey	**Insulated support for protective terminal shields**
10	016 90	Clips on to rail EN 50022 for protective terminal shield
		Protective terminal shield
5	016 91	Width 45 mm - Length 1 m Clips on to support Cat.No 016 90 (above)

rails

Pack	Cat.Nos	
10	374 02	2 m - Rail EN 50035
10	374 04	2 m - Rail EN 50022 - depth 7.5 mm
10	374 07	2 m - Rail EN 50022 - depth 15 mm
10	389 71	2 m - C section

adaptors for mounting on rail

Pack	Cat.Nos	
10	044 16	**Claws** width 10 mm - Threaded hole For screw Ø 4 mm
10	044 17	**Claws** Width 17.5 mm Smooth hole Ø 3.8 mm Supplied with fixing screws Ø 3.5 mm. Length 13 mm
1	262 99	**Spacer for modular units (20 modules)** Can be adapted on standard rail and permit on one rail the installation of DPX up to 160 A and modular units
		Adaptors for mounting on rails and
100	364 78	For screw Ø 4 mm
100	364 79	For screw Ø 6 mm
		Universal supports and
5	048 11	For distribution terminal blocks (p. 103)

finishing accessories

Pack	Cat.Nos	
	Light grey	**Clip-on blanking plates**
20	016 54	6.5 modules separable by single or half module
	White RAL 9010	
20	016 56	6.5 modules separable by module or half module
5	016 51	24 modules separable by module (half module at each end)
	RAL 7032	
5	016 52	24 modules separable by module (half module at each end)
10	044 06	3 clip-on modules for rail
5	044 41	Spacing unit - 1 module

portable labelling system

385 85

For making identification labels for distribution boards, cables and wiring accessories
Professional quality labels on adhesive tape
Numerous print functions and setups, data memorisation and import possible

Pack	Cat. Nos	Portable labelling system
1	385 85	Supplied complete in carrying case, including: • A hand-held printer with protective bumper • 1 power supply 200-240 V~ 50/60 Hz / 9 volts • 2 tape cassettes • 1 serial link cable for PC • Software on CD for importing data onto memory card • 1 x 64 K memory card Operates with 6 LR6 batteries (not supplied) or rechargeable battery (not supplied) or power supply (supplied)

Accessories

Pack	Cat. Nos		
1	385 98		**64 K memory card** For saving data (pages, labels, symbols) using the import software Storage of data, reducing data entry operations on sites
1	385 99		**Rechargeable battery pack** For the above printer
			Tapes for hand-held printer
	White	Metal grey	Permanent polyester (faceplates and component marking-indoor or outdoor use) Length 5.5 m
1	385 81		Width 9 mm
1	385 82	385 84	Width 12 mm
1	385 83	385 86	Width 19 mm
			Flexible polyamide (cable marking, curved surface-indoor use)
	White	Yellow	Length 3.5 m
1	385 87	385 89	Width 12 mm
1	385 88	385 90	Width 19 mm

other identification methods

Pack	Cat. Nos	LAB-LX label creation software for PC
		Operates on PC with Windows 3.1/95/98 Prints out on ordinary A4 paper Prints out labels for Lexic label holder
1	049 58	3" 1/2 disk, 1.4 Mo

portable labelling system

Technical characteristics

- Automatic stop
- Thermal transfer printing
- Integrated cutter
- 1 to 4 lines of printing (19 mm)
- Variety of style: boxed, bold, underlined, etc.
- Justification of text
- Standard electrical symbols or via 64 K card
- Barcode option, 6 formats
- Memorisation of 8 commonly used labels or 4 typical print setups
- Copy and incrementation function

Labelling methods

Lexic: on module or on faceplate (permanent polyester)

Terminals: horizontal or vertical marking

Cables : flag or wrapped markers (flexible polyamide)

Accessories
Fixed length according to label holders

Memorisation of labels on 64 K memory card

For creating cards specific to a site, a project, etc.
Import of data or files from .txt format applications or data entry via the keypad
Import software supplied on CD-Rom
Possible import from softwares at ASCII, Excel®, Word®, XL Pro formats
Compatible with Windows® 95/98/2000/ME/NT/XP

Types of label which can be created

Pack	Cat. Nos	Accessories for previous title printers
		For title printer Cat. No 040 50 Tape refill (black characters on white background)
10	049 53	Width 9 mm
10	049 54	Width 12 mm
		For previous title printer Cat. No 063 20 Tape refill (black characters on white background) (BROTHER compatible)
10	063 21	Width 12 mm
		Tape cutting blade
10	063 24	For Cat. No 049 50 and 063 20