

telergon
gorlan



M3 SERIES
Modular & compact switch fuses

www.telergon.com



gorlan

M3 SERIES

A FULLY NEW GENERATION OF SWITCH FUSES

The M3 Series from Telergon is a new fully modular range of switch-disconnectors with fuses. Available up to 250A and in 2P, 3P, 3P+N versions, along with the addition of a detachable neutral version. Compatible with a wide range of accessories (handles, auxiliary contacts, terminal shrouds...)

Designed to offer the most compact solution on the market, it is composed of 3 models - according to different sizes - which reinforce our competitiveness in the market thanks to a comprehensive and versatile range. Complete fuse isolation thanks to its double-break contact system.



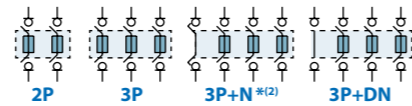
Up to 100A
M3|00



125-160A
M3|0



160-250A
M3|1



M3 SERIES | SWITCH-FUSES | 2P, 3P, 3P+N & 3P+DN | 32A-250A

Amp.	Fuse ⁽¹⁾	Size	Connection	Front operation				Side operation													
				2P	3P	3P+N ⁽²⁾	3P+DN (detachable neutral)	Direct handle	External handle ⁽³⁾ (shaft included)												
				Code	Code	Code	Code	Code	L	ON-OFF Code	ON-OFF TEST Code	ON-OFF Code	ON-OFF TEST Code								
32	BS-A1-A2	00	00	M3-00322PBB10	M3-00323PBB10	M3-00323NBB10	M3-00323DBB10	DM3SIB1	177	DM3SAB2	DM3SAB1	DM3AUB1	DM3AMB1	DM3ASB1	250	DS-EP04	DS-CAB1	DS-CEB1	-	-	-
50	14x51			M3-00502PBC20	M3-00503PBC20	M3-00503NBC20	M3-00503DBC20														
63	BS-A2-A3			M3-00632PBB20	M3-00633PBB20	M3-00633NBB20	M3-00633DBB20														
63	NH000			M3-00632PBD20	M3-00633PBD20	M3-00633NBD20	M3-00633DBD20														
80	BS-A3	0	0	M3-00802PBB30	M3-00803PBB30	M3-00803NBB30	M3-00803DBB30	DM3SIB1	177	DM3SAB2	DM3SAB1	DM3AUB1	DM3AMB1	DM3ASB1	250	DS-EP04	DS-CAB1	DS-CEB1	2P	DM3SF01	DM3CU01
100	22x58			M3-01002PBC30	M3-01003PBC30	M3-01003NBC30	M3-01003DBC30														
100	NH000	0	0	M3-01002PBD30	M3-01003PBD30	M3-01003NBD30	M3-01003DBD30	DM3SIB1	177	DM3SRB2	DM3SRB1	DM3AUB1	DM3AMB1	DM3ASB1	387	DS-EP05	DS-CAB1	DS-CEB1	3P	DM3SF02	DM3CU02
125	BS-A3			M3-01252PTB30	M3-01253PTB30	M3-01253NTB30	M3-01253DTB30														
125	22x58	0	0	M3-01252PTC30	M3-01253PTC30	M3-01253NTC30	M3-01253DTC30	DM3SIB1	177	DM3SAB2	DM3SAB1	DM3AUB1	DM3AMB1	DM3ASB1	250	DS-EP04	DS-CAB1	DS-CEB1	4P	DM3SF03	DM3CU03
160	NH00			M3-01252PTD40	M3-01253PTD40	M3-01253NTD40	M3-01253DTD40														
160	NH00	1	1	M3-01602PTD40	M3-01603PTD40	M3-01603NTD40	M3-01603DTD40	DM3SI11	227	DM3SA12	DM3SA11	DM3AUB1	DM3AM11	DM3AS11	375	DS-EP14	DS-CA11	DS-CE11	2P	DM3SF11	DM3CU11
200	BS-A4			M3-02002PSB60	M3-02003PSB60	M3-02003NSB60	M3-02003DSB60														
250	NH1, 0, 0S	1	1	M3-02502PSD50	M3-02503PSD50	M3-02503NSD50	M3-02503DSD50	DM3SI11	227	DM3SR12	DM3SR11	DM3AUB1	DM3AM11	DM3AS11	536	DS-EP15	DS-CA11	DS-CE11	3P	DM3SF12	DM3CU12
250	BS-B3			M3-02502PSB80	M3-02503PSB80	M3-02503NSB80	M3-02503DSB80														

* For UL references, please consult.

⁽¹⁾ Fuses are not included.

⁽²⁾ Neutral pole early make & late break. Also available 4P under request.

⁽³⁾ Padlockable handle (direct and external) in OFF O position. Interlocked door (external handle) with the possibility of defeating it with a tool.

⁽⁴⁾ With the direct side handle code, the auxiliary contacts holder is included (Code **A**), as it is required for installation.

Please indicate in your order the switch code and the handle code separately. In addition, the auxiliary contacts and the holder required are managed separately. Please see your configuration in the Auxiliary contacts table.



M21 SERIES

Completes our switch-fuses product range

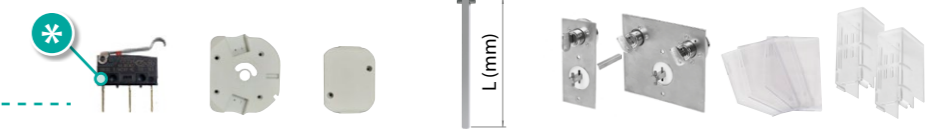
3P & 4P
400A up to 800A
Fuses NH2, 3 and BS B4, C1, C2, C3

For more information, check our Quick Selection Guide.

FUSE STANDARDS AND SUITABLE VERSIONS



Amp	Up to 100A M3 00							125-160A M3 0				160-250A M3 1			
	BS A1-A2	NFC 14x51	BS A2-A3	NH 000	BS A3	NFC 22x58	NH 000	BS A3	NFC 22x58	NH 00	NH 00	BS A4	BS B1-B2	NH1 0, 0S	BS B3
Pitch (mm)	27	27	27	27	31	31	35	35	35	35	35	55	55	55	55
Depth (mm)		115		137	115	137	137	137	147	147	147	172	172	172	172



Size	Side operation				Auxiliary contacts ⁽⁵⁾ (1 unit)	Auxiliary contacts holder		Shaft extensions	Safety key lock device ⁽⁶⁾		Phase barriers ⁽⁷⁾	Terminal shrouds ⁽⁸⁾		
	Direct handle ⁽⁴⁾	External handle ⁽³⁾ (shaft included)				Early contacts A	Simultaneous contacts B		Simple	Double				
	Code	L	ON-OFF Code	ON-OFF TEST Code		Code	Code		Code	Code			P	Code
00	DM3SSB1	177	DM3SBB2	DM3SBB1	DM3AUB1	DM3AMB1	DM3ASB1	250	DS-EP04	DS-CAB1	DS-CEB1	-	-	-
0	DM3SSB1	177	DM3SBB2	DM3SBB1	DM3AUB1	DM3AMB1	DM3ASB1	250	DS-EP04	DS-CAB1	DS-CEB1	2P	DM3SF01	DM3CU01
			DM3SEB2	DM3SEB1				387	DS-EP05			3P	DM3SF02	DM3CU02
			DM3SRB2	DM3SRB1				387	DS-EP05			4P	DM3SF03	DM3CU03
1	DM3SS11	227	DM3SB12	DM3SB11	DM3AUB1	DM3AM11	DM3AS11	375	DS-EP14	DS-CA11	DS-CE11	2P	DM3SF11	DM3CU11
			DM3SE12	DM3SE11				536	DS-EP15			3P	DM3SF12	DM3CU12
												4P	DM3SF13	DM3CU13

⁽⁵⁾ To be used as signaling or control contacts - Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac.

This code includes just an individual auxiliary contact (1 pc per package), so it is necessary to order as many pcs as it would be needed of any type of contact.

⁽⁶⁾ Handle interlocked in OFF O position by using a key, that only can be removed when the handle is unlocked. Interlocking in other positions available under request.

⁽⁷⁾ Phase barriers include one unit less than the required number of poles. For example, phase barriers for 3P include 2 units.

⁽⁸⁾ One set for input or output.



Check the following table for the required auxiliary contacts configuration.

Depending on the case, it is necessary to order a holder as an accessory.

	AUX	TEST	Codes	
	Units			
Early aux contacts	1		x1	DM3AUB1
		1	x1	DM3AUB1
	1	1	x2	DM3AUB1
			x2	DM3AUB1
	2		x1	Code A
		2	x2	DM3AUB1
			x1	Code A
	2	1	x3	DM3AUB1
			x1	Code A
		2	x4	DM3AUB1
Simultaneous contacts			x1	DM3AUB1
	1		x1	Code B
	2		x2	DM3AUB1
		x1	Code B	

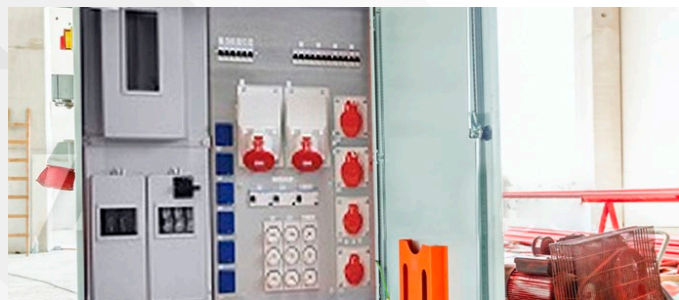
* For more configurations, please consult.

▶ A VERSATILE & WIDE PRODUCT RANGE WITH MULTIPLE BENEFITS



▶ APPLICATIONS

Temporary power distribution panels



HVAC



Motor control centers



Power electronics



Voltage Stabilizers

Drives/soft starters

UPS



Models for different kind of fuses up to 250A

DIN (NH 000, 00, 1).
BS (A1-A2-A3-A4-B1-B2-B3).
NFC (14x51, 22x58).
UL* (CLASS J).
* under request.



Safety & simplicity

The interlocked fuse protection covers cannot be opened in "ON" position.
The transparent fuse protection covers allow visibility of fuses.
Optimized button contact system for improved short-circuit performance.
Laser engraving includes the appropriate fuse type and amperage for each reference.



Modular, compact & versatile design

The most compact switch-disconnector with fuses in the market.
The molded case is perfectly adapted to the number of poles.
Smaller footprint.
Ergonomically designed and manufactured to meet the needs of the industrial sector.



Most demanding standards & quality tests

Automatic test procedures undertaken during the manufacturing process.
Laser engraving avoiding possible marking errors.
Traceability of the batch and serial number.



High performance

Up to 250 A | AC-23 A.
Suitable for multiple applications in industry, distribution and power electronics.



Easy to install & maintain

Intuitive and safe fuse removal.
Adjustable shaft extension enables versatility with varying control panel depths.
Cage (size 00) and terminal (0 and 1) connection options.
Innovative design allows for multiple installation orientations: horizontal (standard), vertical or 45°.
The opening-closing does not depend on the speed of the operator.

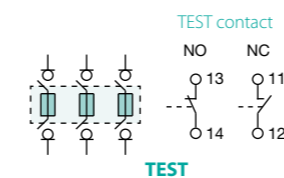


* For other standards (UL, CCC...) please consult.



Test position

Testing of the control circuit auxiliaries without switching the main contacts.
To simplify maintenance, while ensuring the safety of the device and the equipment.
In the TEST position, the fuse covers cannot be opened.



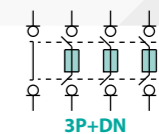
New direct handle with "push off to detach" system

Easy to remove and fit, making it much easier and quicker to operate.
It can be only removed in OFF position.
Simplified tool-free mounting and disassembly.
Direct and panel handle with front or side operation.



Detachable neutral

A simpler and safer disconnection.
The fixed neutral access cover can only be reinstalled with the jumper assembled.
Suitable for applications that require a fixed neutral.
Size optimization. Option of having a 3P+N, in the size of a 3P.

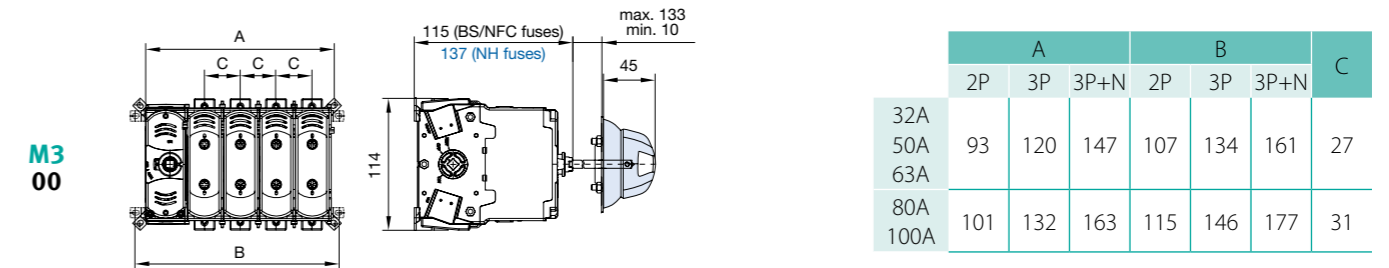


► TECHNICAL DATA

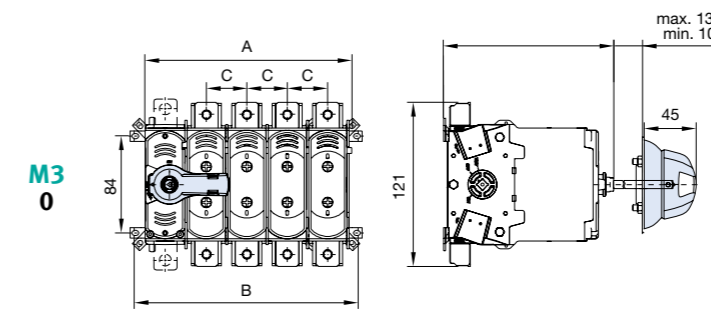
IEC-EN-UNE 60947-1 IEC-EN-UNE 60947-3			00					0		1			
			32 A	50 A	63 A	80 A	100 A	125 A	160 A	160 A	200 A	250 A	
Fuse type			BS-A1-A2	NFC 14x51	NH000 BS-A2-A3	BS-A3	NH000 NFC 22x58	NH00 BS-A3 NFC 22x58	NH00	BS-A4	BS-B1-B2	NH1 BS-B3	
Electrical features	Thermal current in ambient at 35°C (and temporarily 40 °C)	I _{th}	A	32	50	63	80	100	125	160	160	200	250
	Rated insulation voltage	U _i	Vac	1.000					1.000	1.000			
	Rated impulse withstand voltage	U _{imp}	kV	8					8	12			
	AC rated operational current ^{*(2)} (Rated frequency 50 / 60 Hz)	Ue 415 V AC21A	A	32	50	63	80	100	125	160	160	200	250
		Ue 415 V AC22A	A	32	50	63	80	100	125	160	160	200	250
		Ue 415 V AC23A	A	32	50	63	80	80	125	160*	160	200	250
	Power losses in fuses ^{*(1)}	NH/DIN	W	-	-	5.8	-	6.6	9	11.2	-	-	17
		BS	W	2.9	-	5.6	6.5	-	11.3	-	14	14	18
		NFC	W	-	4.8	-	-	9	11.4	-	-	-	-
	Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	256	400	504	640	640	1000	1280	1280	1600	2000
Rated making capacity	400 V; cos φ = 0,45	A	320	500	630	800	800	1250	1600	1600	2000	2500	
Short circuit behavior	Conditional short-circuit current ^{*(3)}	NH/DIN	kA rms	-	100	100	-	100	100	-	-	100	
		BS	kA rms	80	-	80	80	-	80	-	80	80	
	Maximum cut - off current	kA (peak)	4.2	9.5	10.5	14	14	16.5	19.5	29	29	32	
Mechanical data	Durability, number of operating cycles ^{*(4)}		Cycles	10.000					8.000	8.000			
	Maximum weight	2P	kg	0.6	0.6	0.6	0.7	0.7	1	2.6			
		3P	kg	0,85	0,85	0,85	1	1	1.3	3.4			
		3P+N	kg	1.1	1.1	1.1	1.3	1.3	1.6	4.2			
Rigid Cu wire ^{*(5)}	Min. Section	mm ²	6	10	16	25	35	50	70	70	95	150	
	Max. Section	mm ²	25			50	70 ^{*(e1)}		185 ^{*(e1)}				
Connection capacity	Bar	Max. Width	mm	-					25	30			
	Tightening torque (+5% / -10%)	Flange	Nm	2					-	-			
		Terminal	Nm	-					6	18			

* Utilization category B.
^{*(1)} Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation.
^{*(2)} Other voltages and / or utilization categories. Please consult.
^{*(3)} With a protective device limiting the cut - off current and the joule integral to the indicated values.
^{*(4)} According to the standards, for other values please consult.
^{*(5)} The minimum sections are for the rated current of the equipment, in lower amperage fuses the minimum cable may be lower too.
^{*(e1)} Larger sections are allowed through the use of phase barriers.

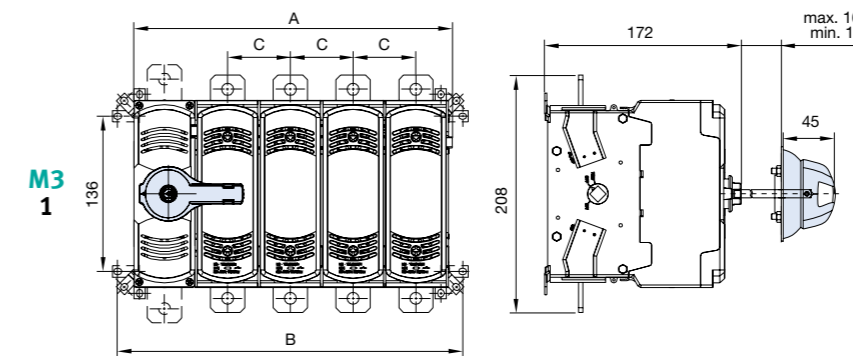
► DIMENSIONAL DRAWINGS (mm)



	A			B			C
	2P	3P	3P+N	2P	3P	3P+N	
32A	93	120	147	107	134	161	27
50A							
63A							
80A	101	132	163	115	146	177	31
100A							

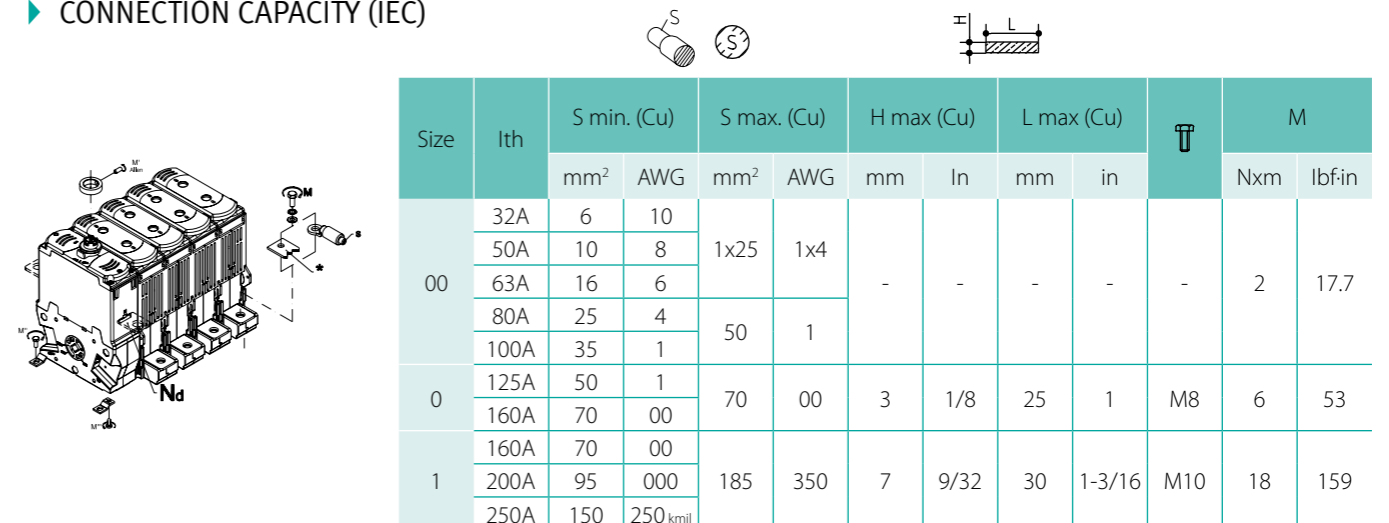


	A			B			C	
	2P	3P	3P+N	2P	3P	3P+N		
NH	125A	109	144	179	124	159	194	35
160A								
BS	125A	110	146	182	125	161	197	36
NFC	160A							

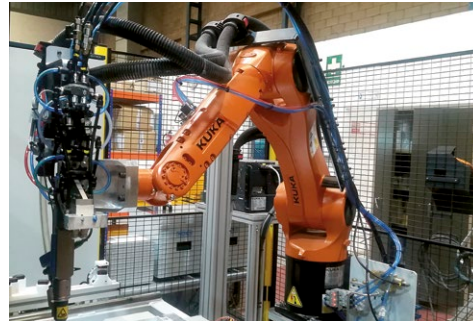
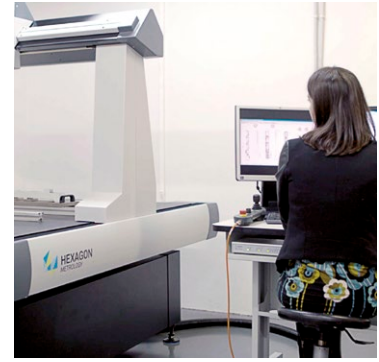


	A			B			C
	2P	3P	3P+N	2P	3P	3P+N	
160A							
200A	168	223	278	192	247	302	55
250A							

► CONNECTION CAPACITY (IEC)



Due to the continuous improvement & modifications of our products, the details included in this catalogue can be modified at any time without prior consent.



As the switch specialist, we design and manufacture low voltage switchgear solutions. We anticipate our customers' needs and offer electromechanical products for industrial applications, utilities, railway and green energy sector.

Telergon is an innovative, **customer orientated** firm and we are strongly committed to R&D as a tool to boost the future of the industry. Due to this attitude, the company offers a wide range of **standard products** but also the possibility to **customize** them according to special requirements.

Product range

- Cam switches
- Manual & motorized load break switches
- Fuse switches
- Manual & motorized changeover switches
- DC switch-disconnectors

Our knowledge, acquired through an experience of **more than 65 years**, together with the involvement of its highly qualified professionals, has allowed Telergon to be present in **more than 100 countries**, always providing the best service and working under the strictest **quality** standards.

Quality Telergon



General standards*



* Please, consult.

Other independent standards



Test in independent laboratories



Telergon, SAU
Ctra. Castellón – Pol. La Cartuja
50720 La Cartuja Baja
Zaragoza, Spain



Tel. +34 976 500 876
comercial@telergon.com
www.telergon.com