

69 Series Isolators



Technical Datasheet

Key Features

- 3, 4, 6 & 8 Pole Versions
- On Load 10A - 125A
- Red/Yellow or Black Handles
- Up to 3 Padlock Positions
- IP66 - NEMA 4X (DM69 IP40)
- Enclosed, DIN Rail, Base or Panel Mount Versions
- Lightweight Extension Shafts (100 - 400mm)
- Side Mounted Auxiliary Contacts
- UL Approved



Options & Ordering Codes

PE69 - 30 20 - L

Series Name

IP66 Enclosed Door Interlock	PE69
Base Mount Door Interlock, IP66	LB69
Front Panel Mount, IP66	PM69
Direct Handle Base Mount, IP40	DM69
Single Hole Mount, IP66	SH69

Number of Poles

3 Pole	30
4 Pole	40
6 Pole	60
8 Pole	80

Rating @ 400V

20	20 Amps AC21 (7.5kW AC23B)
25	25 Amps AC21 (10kW AC23B)
32	32 Amps AC21 (12.5kW AC23B)
40	40 Amps AC21 (16kW AC23B)
63	63 Amps AC21 (22kW AC23B)
80	80 Amps AC21 (22kW AC23B)
100*	100 Amps AC21 (37kW AC23B)
125*	125 Amps AC21 (45kW AC23B)

Handle Type

RY48	Direct Red/Yellow 48mm Handle
RY64	Direct Red/Yellow 64mm Handle
B48	Direct Black 48mm Handle
B64	Direct Black 64mm Handle
GREY	Grey with Black Handle
	Enclosed / Interlocked Handle
L	Large Enclosed / Interlocked Handle

* 3/4 pole only

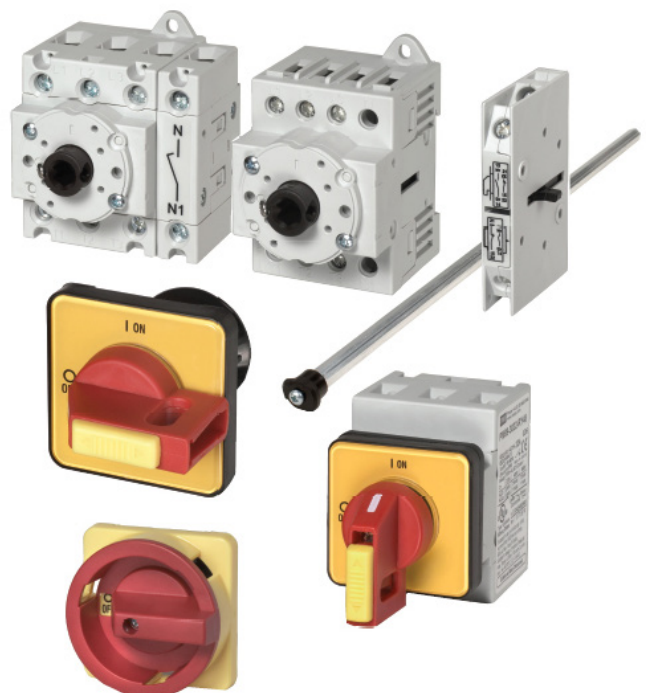
Accessories

Part Number	Description
H69-0001	Red / Yellow Handle 64x64mm
H69-0001-B	Black Handle 64x64mm
H69-0003	Red / Yellow Handle 48x48mm
H69-0004	Black Handle 48x48mm
EP69-0001	Legend Plate "MAIN SWITCH" 64mm Red/Yellow
J7049	Door Handle Mounting Tool

E69-0001	Extension Shaft - 100mm
E69-0002	Extension Shaft - 200mm
E69-0003	Extension Shaft - 300mm
E69-0004	Extension Shaft - 400mm

A69-0001	Auxiliary Contacts 1NO + 1NC
A69-0002	Auxiliary Contacts 2NO
A69-0003	Auxiliary Contacts 1NO + 1NC Overlapping
SN69-0001	Solid Neutral Block
SP690001	Add-On Neutral Switching Pole 20-40A, for base mount only
SP690002	Add-On Neutral Switching Pole 63-80A, for base mount only
SP690001P	Add-On Neutral Switching Pole 20-40A, for panel mount only
SP690002P	Add-On Neutral Switching Pole 63-80A, for panel mount only

TS69-0001	Terminal Cover 20-40A 3/4P Base Mount Switch
TS69-0002	Terminal Cover 3P for 63-80A Base Mount Switch & 20-80A Panel Mount Switch
TS69-0003	Terminal Cover 4P for 63-80A Base Mount Switch & 20-80A Panel Mount Switch



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Technical Specifications

Data according to IEC 947-3, IEC 947-5-1, VDE 0660, EN 60947-3, EN 60947-5-1

Technical Datasheet

Type		..69..20	..69..25	..69..32	..69..40	..69..63	..69..80	..69..100	..69..125		
Main Contacts											
Rated thermal current I_{th} open	A	20	25	32	40	63	80	100	125		
Rated thermal current I_{th} enclosed	A	20	25	32	40	63	80	100	110		
Rated insulation voltage U_i ¹⁾	V	690	690	690	690	690	690	1000 ³⁾	1000 ³⁾		
Rated operational current I_o AC21A	A	20	25	32	40	63	80	100	125		
Making capacity I_{eff}	3x380-440V	A	160	190	220	300	370	440	725	850	
Breaking capacity	3x220-240V	A	160	180	200	250	330	380	580	680	
	3x380-440V	A	160	180	200	250	330	380	580	680	
	3x660-690V	A	80	110	140	170	190	220	330	420	
Disconnection property performed up to	V	690	690	690	690	690	690	1000	1000		
Motor switch	AC3	3x400V	A	12	16	23	30	37	37	60	72
Motor switch	AC3	3x220-240V	kW	3	4	5.5	7.5	11	11	18.5	22
Direct switching of single motors	3x380-440V	kW	5.5	7.5	11	15	18.5	18.5	30	37	
	3x660-690V	kW	5.5	7.5	11	15	18.5	18.5	22	30	
Main switch	AC23	3x400V	A	16	20	25	32	45	45	72	85
Motor switch	AC23A	3x220-240V	kW	4	5.5	7.5	9	15	15	22	30
Main switch	AC23B	3x380-440V	kW	7.5	10	12.5	16	22	22	37	45
Safety switch	3x660-690V	kW	5.5	7.5	11	15	18.5	18.5	30	37	
Rated conditional short-circuit current	400V	kA _{eff}	10	10	10	10	10	10	10	5	
Max. fuse size	gL (gG)	A	25	35	40	40	63	80	100	125	
Mechanical life	x10 ³	200	200	200	200	100	100	100	100	100	
Rated short-time withstand current (1 sec. current)	A	250	300	400	500	600	850	1200	1500		
Temperature Range	open	-40°C to +90°C									
	enclosed	-40°C to +40°C									
	storage	-50°C to +90°C									
Power loss per pole AC21 = I_{th}											
P/pole [W]	PM, SH	0.322	0.503	0.824	1.288	2.739	4.416	5.330	8.328		
	LB, DM, PE	0.364	0.569	0.933	1.458	2.739	4.416	5.330	8.328		
R/pole [mΩ]	PM, SH	0.805	0.805	0.805	0.805	0.690	0.690	0.533	0.533		
	LB, DM, PE	0.911	0.911	0.911	0.911	0.690	0.690	0.533	0.533		
Cable cross sections	mm ²	0.5 - 10				1 - 25		4 - 50			
solid or stranded	AWG	20 - 8 (10)				16 - 3 (10)		10 - 00 (10)			
flexible	mm ²	0.5 - 6				4 - 16		10 - 35			
	AWG	20 - 10				16 - 6		8 - 2			
flexible (+ multicore cable end)	mm ²	0.5 - 6				0.75 - 16		6 - 35			
	AWG	20 - 10				16 - 6		8 - 2			
Size of terminal screw		M3.5				M5		M6			
Tightening torque	Nm	1.7 - 2.3				2.8 - 4		1.7 - 4.5			
Auxiliary contacts											
Rated insulation voltage U_i ¹⁾	V	690									
Rated thermal current I_{th} , i_{the}	A	10									
Switching capacity	AC15	220-240V	A								2.5
	AC15	380-440V	A								1.5
Rated conditional short-circuit current	kA _{eff}	3									
Max. short circuit protection	gL (gG)	10									
Cable cross sections	mm ²	0.75 - 2.5									
Solid or stranded	AWG	14 - 12									
Flexible (+ multicore cable end)	mm ²	0.75 - 2.5 (1.5)									
	AWG	18 - 14									

Data according to UL & cUL

Rated voltage	V	600	600	600	600	600	600	600	600	
Ampere rating "General Use"	A	20	25	32	40	63	80	100	125	
DOL rating 3-phase	110 - 120V	HP	1	1.5	2	2	3	5	10	15
	220 - 240V	HP	3	5	5	5	10	10	25	30
	440 - 480V	HP	7.5	10	10	10	20	20	50	60
	550 - 600V	HP	10	10	15	15	25	25	60	60
DOL rating 1-phase	110 - 120V	HP	1	1	1	1	2	2	5	7.5
	200 - 208V	HP	1	2	2	2	3	3	10	10
	220 - 240V	HP	2	2	3	3	5	5	15	15
Fuse size (RK5)	Manual motor controller	A	40	50	50	70	90	110	125	125
5kA / 600V	Motor disconnect	A	40	50	50	50	70	70	125	125
Tightening torque	Nm	1.7 - 2.3				2.8 - 4		1.7 - 4.5		
	lb.inch	11 - 20				24 - 35		15 - 40		

1) Suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry): Uimp = 6kV. Data for other conditions on request

2) Fuse RK1 / 10kA / 600V

3) Uimp = 8kV

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Dimensions (mm)

Base Mounting LB69..

ON-OFF Switches 3-Pole, 4-Pole

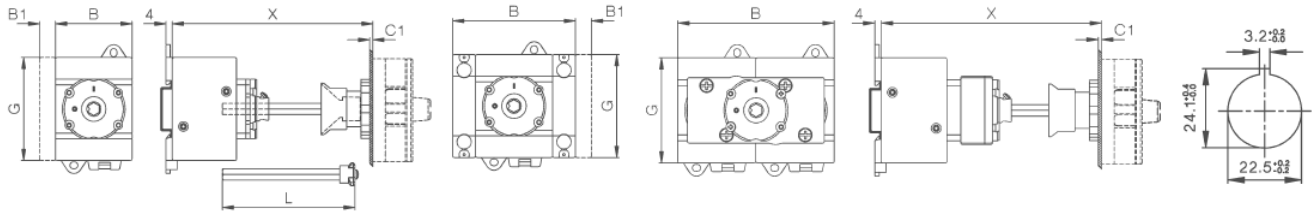
L = X - 40 ± 3 20-80A
L = X - 44 ± 3 100-125A

ON-OFF Switches 6-Pole, 8-Pole

L = X - 60 ± 3

6-pole
for 20-40A only
L = X - 40 ± 3

Mounting
holes



Type	A	3-pole B	4-pole B	6-pole B	3, 4-pole 8-pole B	aux. contact B1	4-pole PE B2	C1	D1	D2	D3	E	G	K	K1	J
LB69..20-40	64	48	48	77	97	10	14.5	1-5	9	5	M4	48	64	25	48	70
LB69..63-80	64	48	62.5	97	126	10	14.5	1-5	9	5	M4	48	64	25	48	70
LB69..100-125	64	78	78	-	-	10	-	1-5	9	5	M4	48	85	38	-	90

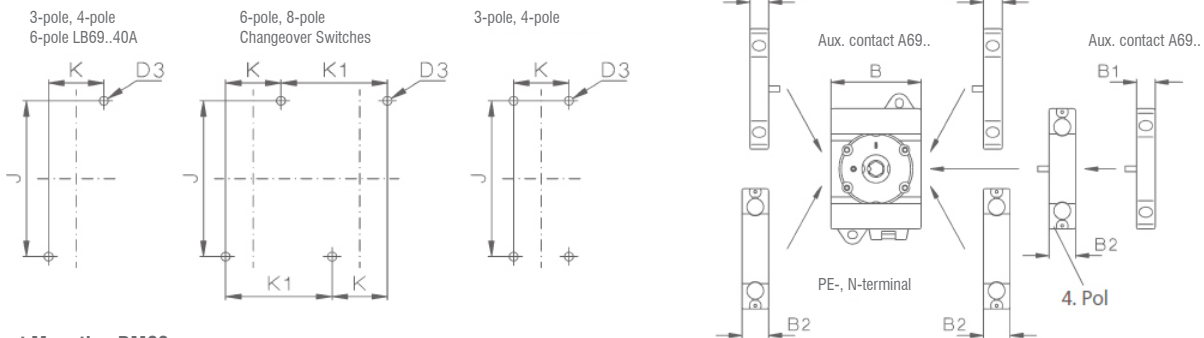
Base mounting

ON-OFF Switches LB/PM69..20-80A

LB/PM69..100-125A

Mounting of Accessories LB69..20-80A

Base mounting, for distribution boards

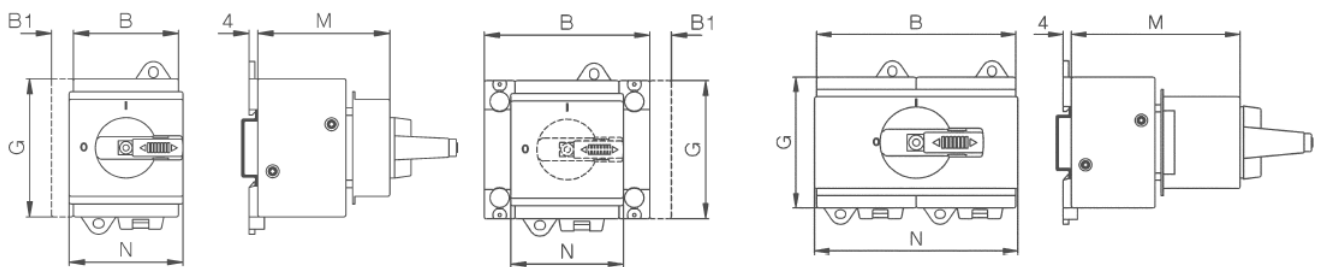


Direct Mounting DM69..

ON-OFF Switches 3-Pole, 4-Pole

ON-OFF Switches 6-pole
for DM69..20-40A only

ON-OFF Switches 6-pole, 8-pole



Type	Handle Type	3-pole B	4-pole B	6-pole B	8-pole B	aux. contact B1	4-pole N B2	4-pole N G	3-pole 4-pole M	6-pole M	8-pole M	3-pole 4-pole N	6-pole N	8-pole N
DM69..20-40	RY48/B48	48	48	77	96	10	14.5	64	60	60	74	52	52	97
DM69..63-80	RY48/B48	48	62.5	96	125	10	14.5	64	60	74	74	52	97	126
DM69..100-125	RY48/B48	78	78	-	-	10	-	85	60	-	-	78	-	-

Installation cover with low height handle DM69.. -LH

Main switch 3-pole, 4-pole

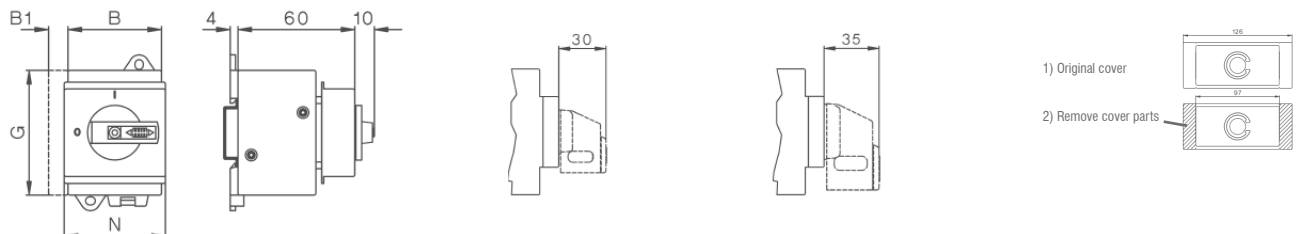
DM69..20-80A

Padlock device RY48/B48

DM69..20-80A

Padlock device RY48/B48

DM69..100-125A



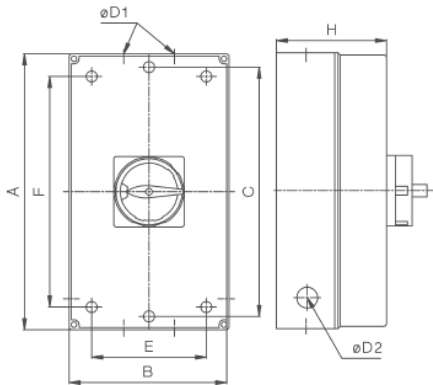
69 Series Isolators



Dimensions (mm)

Enclosed PE69..

Technical Datasheet



Type PE69..	Pole	A	B	C	D1	D2	E	F	H
20-40A Standard Enc. ³⁾	3, 4	130	98	120	2 x 25.5/20.5	-	75	100	76
20-40A Large Enc. ³⁾	3, 4	180	98	170	2 x 25.5/20.5 / 16.5/12.5	-	75	150	76
20-40A Enc. ⁴⁾	6	200	140	188.5	40.5/32.5 + 16.5 + 12.5	-	100	160	86
63-80A Enc. ⁴⁾	3, 4	200	140	188.5	40.5/32.5 + 16.5 + 12.5	-	100	160	86
100-125A Enc. ⁴⁾	3, 4	200	140	188.5	40.5/32.5 + 16.5 + 12.5	-	100	160	86
20-40A Enc. ⁵⁾	8	240	176	228.5	2 x 40.5/32.5	-	120	200	120
63-80A Enc. ⁵⁾	6, 8	240	176	228.5	2 x 40.5/32.5	-	120	200	120

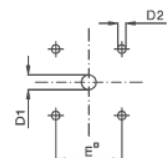
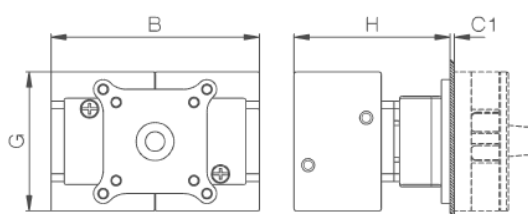
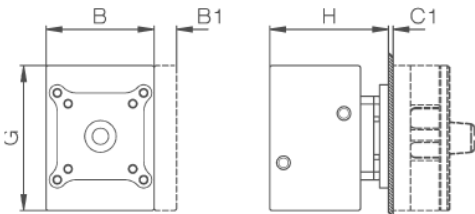
Max. quantity of poles + aux. contact in enclosure:-
 3) 1 additional pole + 1 auxiliary
 4) 20-40A no addition, 63-80A + 1 additional pole + 1 auxiliary, 100-125A no addition
 5) 20-40A + 2 additional poles, 63-80A 8 pole no addition, 63-80A 6 pole + 1 auxiliary

Main Switches, Switches Disconnectors PM69..

Panel mounting PM69..
 ON-OFF Switches 3-pole, 4-pole

ON-OFF Switches 6-pole, 8-pole

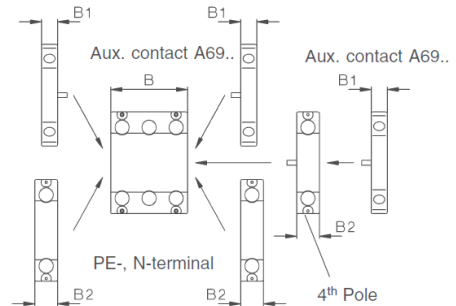
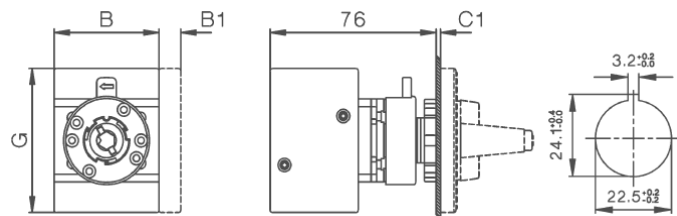
Mounting holes



Single hole mounting SH69..
 ON-OFF Switches 3-pole, 4-pole

Mounting holes

Mounting of add-on modules 20-80A
 Panel mounting, Single hole mounting



Type	Handle Type	A	3-pole B	4-pole B	6-pole B	8-pole B	aux contact B1	4-pole N B2	C1	D1	D2	E	F	G	3-pole 4-pole H	6-pole 8-pole H
PM69/SH69	RY48/B48	48	48	62.5	-	-	10	14.5	1 - 5	9	5	36	-	64	54	-
PM69/SH69	RY64/B64	64	48	62.5	97	126	10	14.5	1 - 5	9	5	48	-	64	54	74
PM69/SH69 100-125A	RY64/B64	64	78	78	-	-	10	-	1 - 5	9	5	48	-	85	60	-

Handles for LB69.. Switches

H69-0001 / RY64
 H69-0001-B / B64

H69-0003 / RY48
 H69-0004 / B48

