

# DC Disconnect Switch

DM Series



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ISO 9001 Certified Quality System

## DM100202M0AEDSG



### Disconnect switch

#### Technical data according to IEC 60947-3:2021

Utilization category			PV1 (DC-21B)	PV2
Rated operational voltage	Ue	V dc	1100	1100
Rated operational current	Ie	A	12	5
Rated operational voltage (second rating)	Ue	V dc	1000	1000
Rated operational current (second rating)	Ie	A	20	10
Rated operational voltage (third rating)	Ue	V dc	750	750
Rated operational current (third rating)	Ie	A	32	18
Rated operational voltage (fourth rating)	Ue	V dc	700	700
Rated operational current (fourth rating)	Ie	A	40	20
Rated operational voltage (fifth rating)	Ue	V dc	500	-
Rated operational current (fifth rating)	Ie	A	50	-
Rated operational voltage (sixth rating)	Ue	V dc	-	-
Rated operational current (sixth rating)	Ie	A	-	-
Rated thermal current	Ith	A		50
DC Poles		Nr.		4
Rated conditional short-circuit current		kA		5
Rated insulation voltage	Ui	V dc		1500
Rated impulse withstand voltage	Uimp	kV		8
Rated short-time withstand current (1 s)	Icw	A		780
Rated short-circuit making capacity	Icm	kA		1,4
Power loss per layer at 20 A / 50 A		W		0,2 / 1,25
Maximum size of the fuse for the short-circuit protection	gPV	A		50

#### Mechanical characteristics

Type of mounting			Base mounting Back-side for DIN rail or 2 screws fixing For direct operation With pre-mounted status indicator
Layers		Nr.	6
Terminal screws orientation			Head up
External metal parts (screws, shaft)			Stainless steel
Cross-section of flexible/solid wires	Max.	mm <sup>2</sup> AWG	2x 6 2x 10
Cross-section of wires with fork lug	Max.	mm <sup>2</sup> AWG	1x 16 1x 6

Minimum required fine wire cross-section: IEC 60947-1, table 9

Terminal screws type			M4 – PH2
Terminal screws tightening torque		Nm	1,7 ±10%
Net weight		g	430

#### Protection degree IEC 529 EN 60529

To the terminal			IP20
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#### Ambient conditions

Pollution degree ins.			2
Operational ambient temperature		°C	-30 ÷ +50
Storage ambient temperature		°C	-30 ÷ +85
Damp heat test IEC 60068-2-30			90-100% RH at +55 °C

### Motor driven actuator

#### Motor characteristics

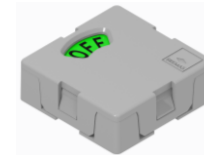
Rated operational voltage	Ue	V dc	24 ±5%
Rated operational current	Ie	A	0,4
Stall current	Max.	A	1,4
Free-load current		A	0,10
Free-load speed	Max.	rpm	20 ±3
Rated load current		A	0,15
Rated load speed		rpm	17,6 ±2
Output power at Max. efficiency		W	1,55
Terminal type			Solder (supplied with wiring)
Pre-soldered cables length		mm	300
Protection degree to the terminals			IP00*

#### Operating features

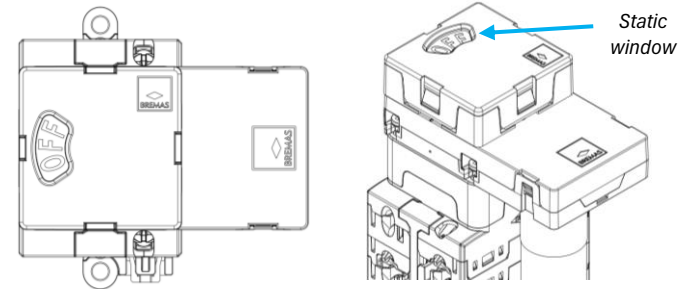
Rotation direction	Clockwise (90deg)		
Position (status indicator)	Rotary disc with static window at 09:00 o'clock		

\* Pre soldered wiring with heat-shrink sheath

#### Status indicator



Rotary disc



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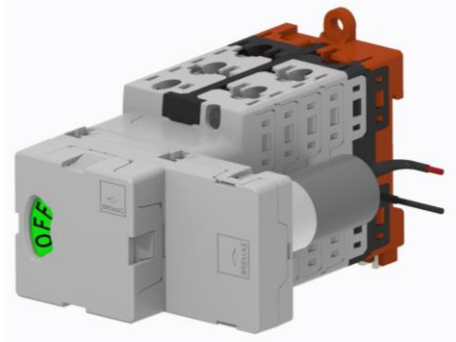
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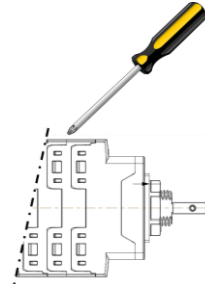


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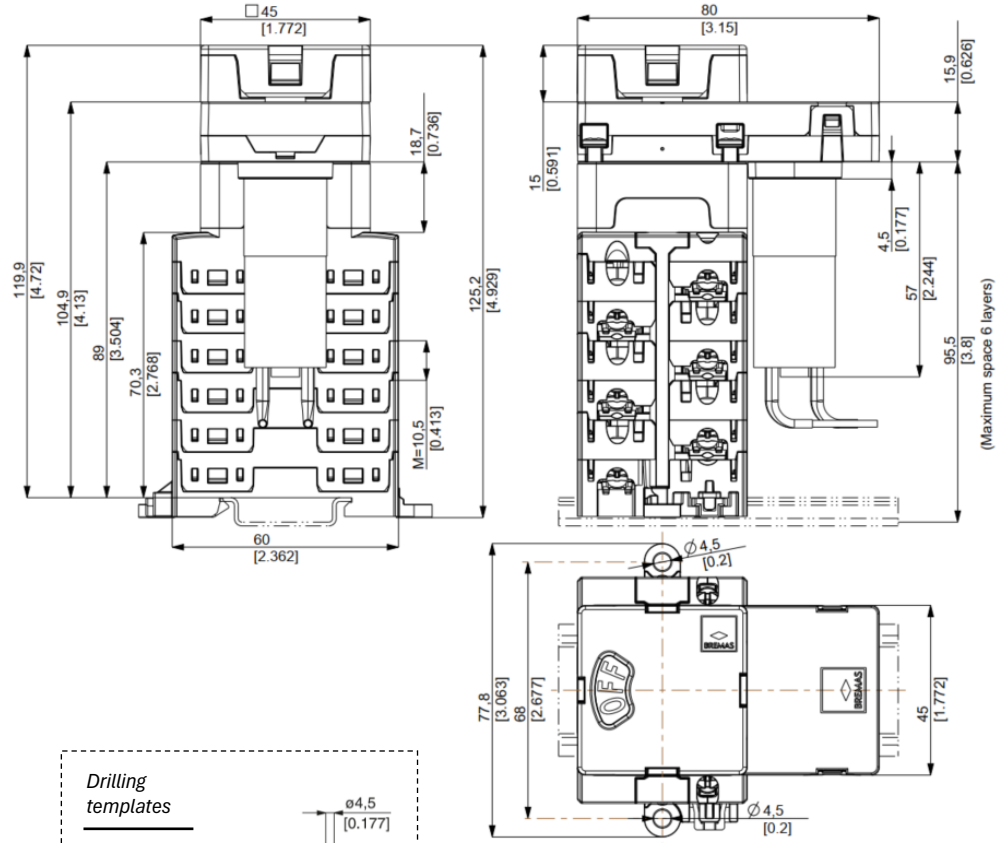
## Product image



## Screwdriver orientation for terminal fixing



## Dimensions



## Electrical Diagram



1	2	3	4	5	6	7	8	9	10	11	12	13	14	Layer
-2	+2	-1	+1	14	12									Marking
⊖	⊕	⊖	⊕	⊖	⊖									
⊖	⊕	⊖	⊕	⊖	⊖									
-2	+2	-1	+1	13	11									Marking
				X	X									0 / OFF
X	X	X	X	X										1 / ON

Power contacts      Used for Motor management

