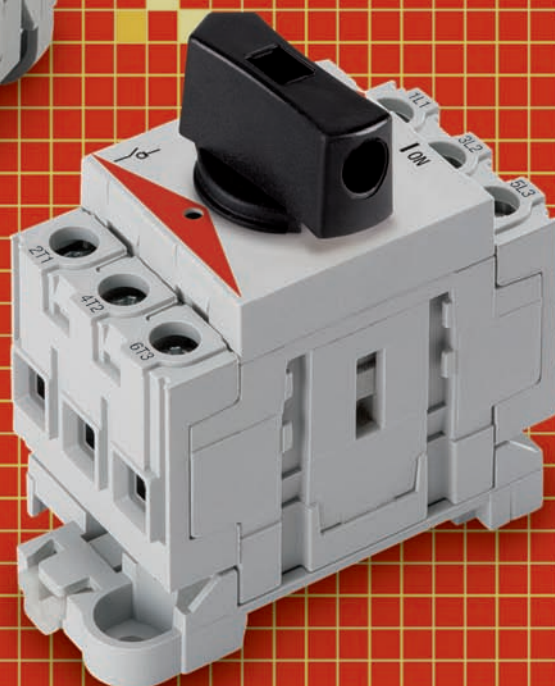


DS series

Switch-disconnectors



NEW

BREMAS

www.bremasersce.com

Product information

35 mm (1.38")



The new series of **DS switch-disconnectors** offers high performance and is targeted to the installation in distribution circuits and panel boards or directly on tooling machines, with ratings of 20-32-40 A in alternated current.

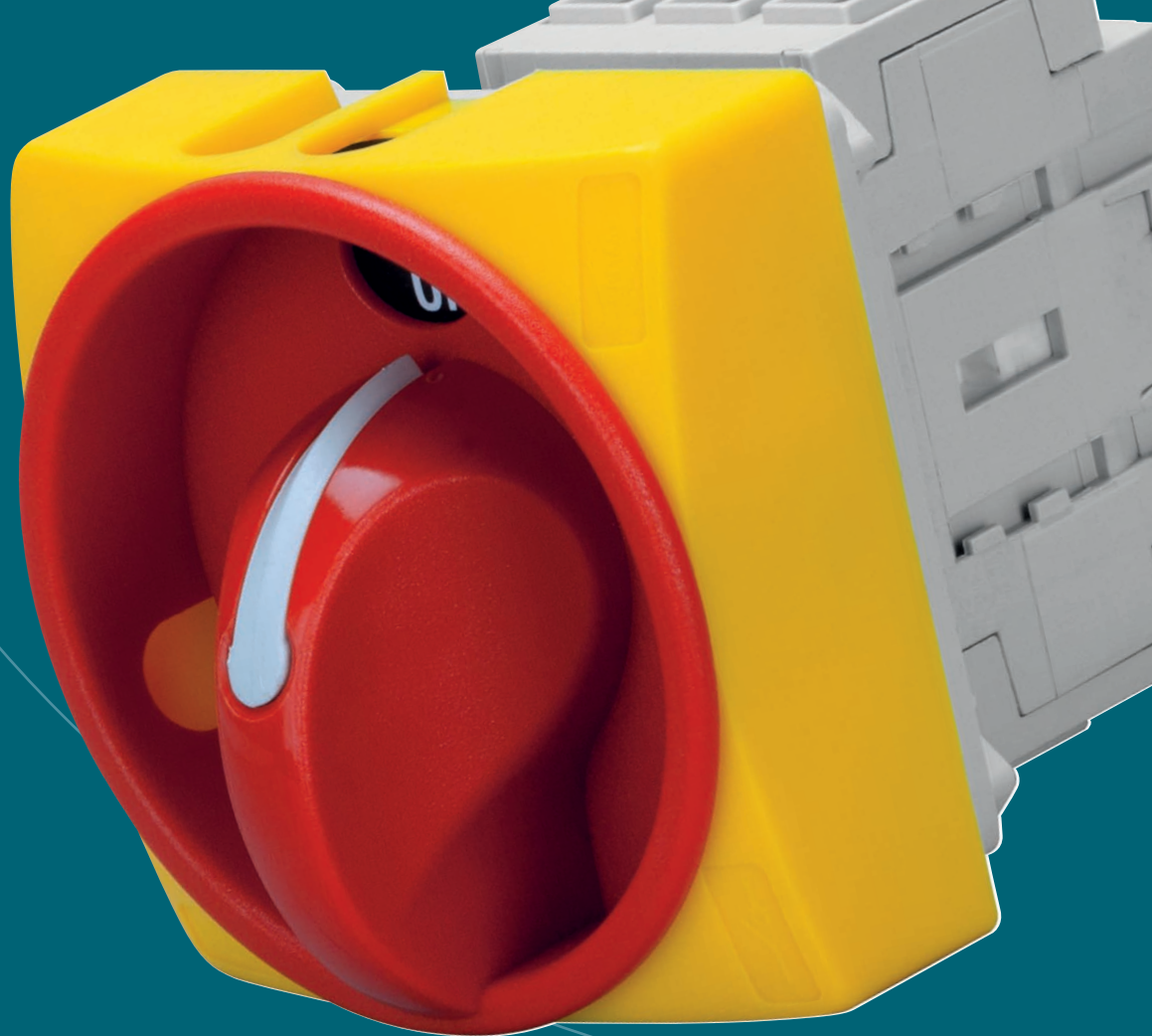
The **DS switch-disconnectors** have external dimensions amongst the most compact on the market and have a full range of IP66 handles, making it possible to install the switches even in narrow spaces and severe ambient conditions.

All the most common fixing options are available: rear mounting, base mounting, direct command, with screws or on single hole Ø22 mm.

A reliable wiring is guaranteed by the screw cage terminals with captive plus/minus screws with IP20 protection.

A full range of accessories is also available, including shafts, terminal covers and a padlocking adapter for the direct command version.





DS SERIES SWITCH-DISCONNECTORS

3 or 4 pole switch-disconnectors according to IEC/EN 60947-3 (Ie = 20A, 32A, 40A; Ue = 800V) and UL 508 (Ie = 20A, 30A; Ue = 600V).

The body of the switch-disconnector is modular: a 4th pole or auxiliary contact can be added to the base 3 pole switch.

	IEC/EN 60947-3	UL 508
Ue	800V	600V
DS020	20A	20A
DS032	32A	30A
DS040	40A	*

* UL Pending

Fixing options for switch and plate/knob:

Switch fixing		Plate and knob fixing	
Rear mounting	Screws	Screws	□ 36 mm (1.42")
			□ 48 mm (1.89")
			2x28 mm (1.10") vertical
	Single hole Ø 22 (0.87")	Single hole Ø 22 (0.87")	
Base mounting	Snap mount on DIN rail	Screws	□ 36 mm (1.42")
			□ 48 mm (1.89")
	Screws	Single hole Ø 22 (0.87")	



Main features

Maximum installation flexibility



■ Complete fixing options

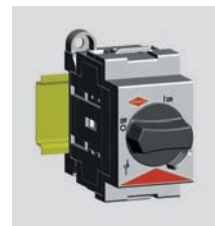
All the most common fixing options are available.

For rear mounting:

- 2 holes with 28mm vertical interaxis
- 4 holes with □ 36mm / □ 48mm interaxis
- Single hole ø 22 mm with fixing ring

For base mounting:

- Snap mount on DIN rail
- Screws
- Plate and knob fixed on panel with 4 holes with □ 36mm / □ 48mm interaxis



The DDN version is available for mounting in panel boards with 46mm knock-out

Time and cost saving for shaft cutting

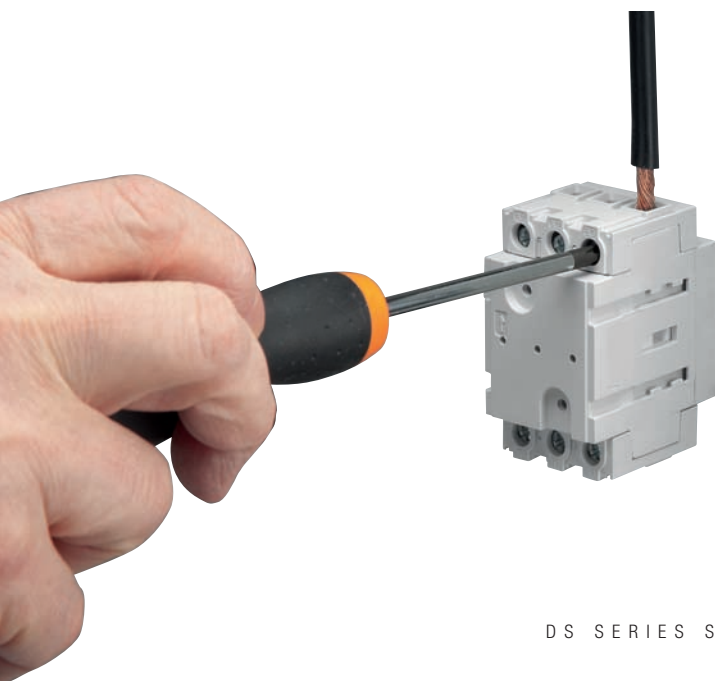


■ Adjustable depth for the smart shaft insertion

The base mounting version includes an ergonomic handle for direct command of the switch which incorporates a housing for the shaft with a fixing screw.

The height of the shaft can be adjusted within an excursion of 20 mm, therefore the need of cutting the shaft can be reduced. Base mounting switches are provided with 175 mm shafts.

Practical and reliable wiring



■ Wiring made easy and fast

The access to the terminals is differentiated depending on the fixing option.

- Rear mounting: rear access to terminals
- Base mounting: front access to terminals

Screw cage terminals for 10 mm² flexible conductor or 16 mm² solid conductor. The clamps are provided with captive plus/minus terminal screws and are left opened.



Protection against direct contact is guaranteed even when the panel is opened. Optional covers for the terminals are available.

Plates and knobs for every application



■ A complete IP66 range

All the most common plates and knobs are available, for base and rear mounting, with or without padlocking. For all these plates and knobs the IP66 degree of protection is guaranteed, allowing the installation even in difficult applications.

■ Solutions for saving installation time

Single hole Ø22 mm (0.87") versions are available for rear and base mounting: they reduce the installation time up to 70%.



I/ON



O/OFF

■ Safety for the operator

The base mounting plates and knobs are provided with door interlock mechanism in "I/ON" position to avoid door opening when the board is connected to the supply.

4TH pole and auxiliary contacts



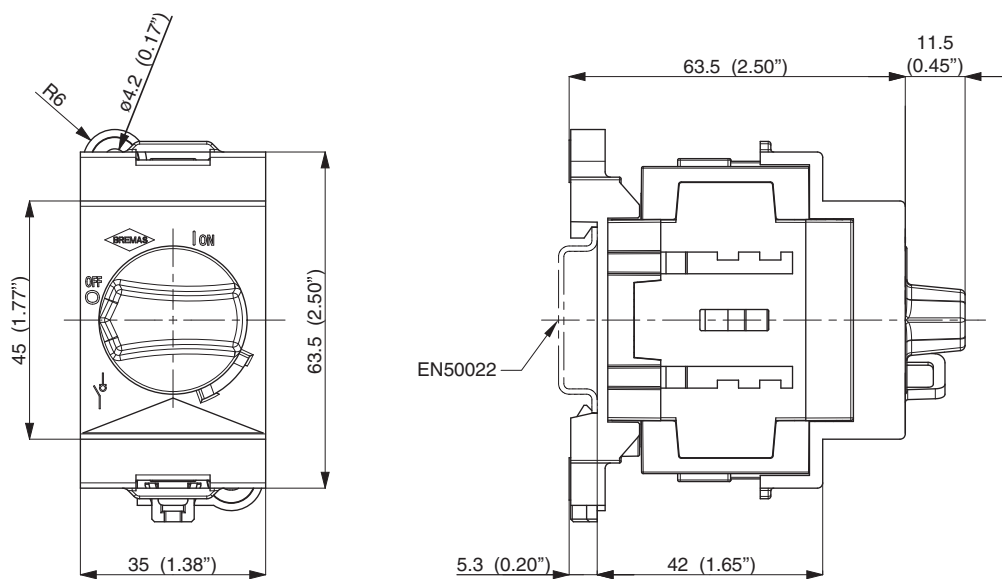
■ Space and wiring flexibility

The 4th pole and auxiliary contact can be mounted without tools on the right or left side.

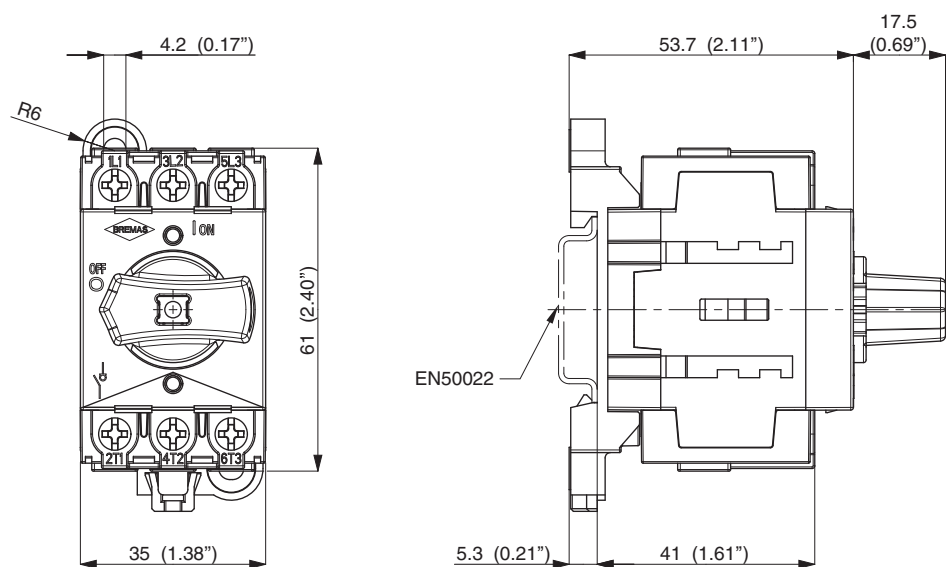
Technical drawings

Base mounting

DDN

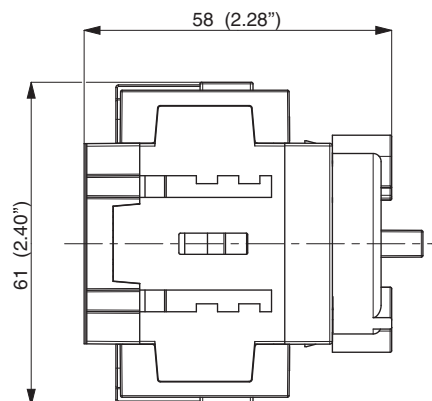
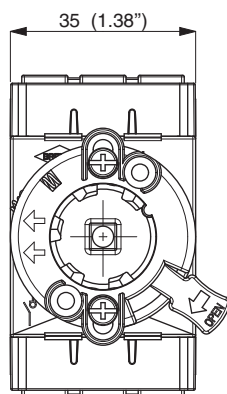


Direct command

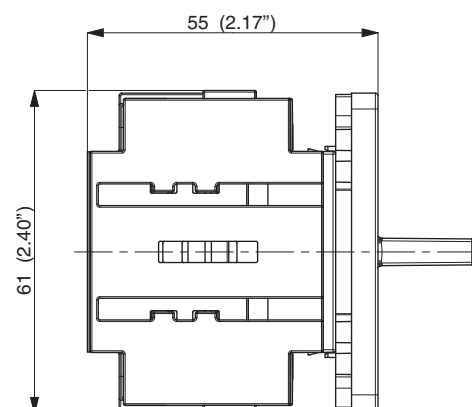
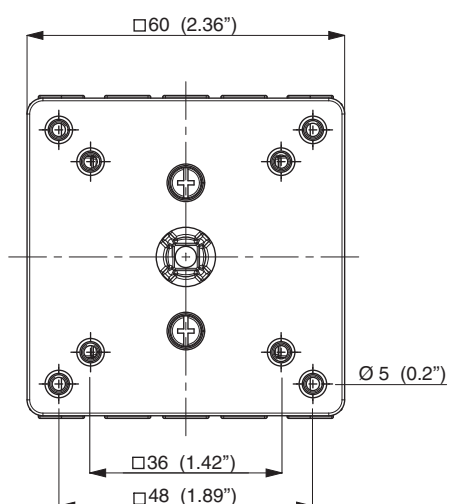


Rear mounting

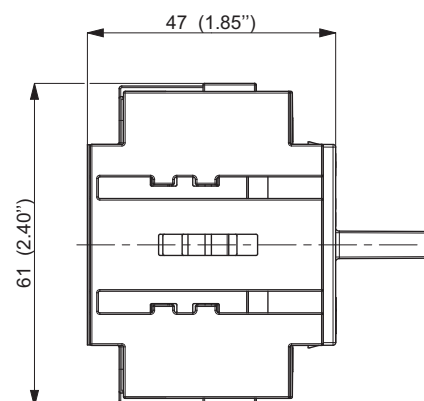
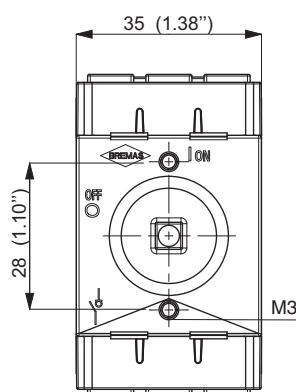
single hole $\varnothing 22$ (0.87") with locking nut



4 holes with screws



2 holes with screws



DS series switch disconnectors

Technical data according to IEC 947-3 EN 60947-3			DS020	DS032	DS040	
Rated insulation voltage	Ui	V	800	800	800	
Rated operating voltage	Ue	V	800	800	800	
Rated impulse withstand voltage	Uimp	kV	8	8	8	
Rated thermal current in open air	Ith	A	25	32	40	
Rated thermal current in enclosure	Ithe	A	25	32	40	
Rated operation frequency		Hz	50/60	50/60	50/60	
Power dissipation for each pole		W	0,6	1,3	2,5	
Rated operational current Ie			DS020	DS032	DS040	
AC-21A Switching resistive loads, including moderate overloads	Ie	A	20	32	40	
AC-22A Switching of mixing resistive and inductive loads, including moderate overloads	Ie	A	20	32	40	
Rated operational power			DS020	DS032	DS040	
AC-23A Switching of motor loads or other highly inductive loads	230V	kW (A)	-	-	-	
AC-23A Switching of motor loads or other highly inductive loads	400V	kW (A)	9 (18)	11 (22)	15 (28)	
	690V	kW (A)	9 (13)	11(16)	15 (22)	
AC-3 Squirrel cage motors: starting, switching off motors during running	400V	kW (A)	5,5 (10)	7,5 (14)	11 (21)	
	690V	kW (A)	5,5 (6)	7,5 (8)	11 (12)	
Rated breaking capacity in AC-23A (Cosφ 0,45)	400V	A	144	176	228	
	690V	A	80	96	128	
Short circuit protection			DS020	DS032	DS040	
Rated short time withstand current (1s)	Icw	A	300	400	(*)	
Rated short time make capacity	Icm	A	750	750	(*)	
Rated conditional short circuit current		kA	10	10	(*)	
with fuses class gG	500V	A	20	32	(*)	
Technical data according to UL			DS020	DS032	DS040	
Rated insulation voltage	Ui	V	600	600	(*)	
Rated operating voltage	Ue	V	600	600	(*)	
General use current	Ie	A	20	30	(*)	
Line protection fuses (class RK5, 600Vac, 200kA A.I.C.)		A	20	30	(*)	
Short Circuit Rating@600Vac		A _{rms}	5	5	(*)	
Rated operational power			DS020	DS032	DS040	
1 phase - 2 pole	120V	Hp (FLA)	1 (16)	1,5 (20)	(*)	
	240V	Hp (FLA)	2 (13,2)	3 (18,7)	(*)	
3 phase - 3 pole	240V	Hp (FLA)	5 (15,2)	7,5 (22)	(*)	
	480V	Hp (FLA)	10 (14)	15 (21)	(*)	
	600V	Hp (FLA)	15 (17)	20 (22)	(*)	
(*) UL pending for DS040						
Mechanical characteristics			DS020	DS032	DS040	
Mechanical endurance (120 cycles/h)		Man.	> 200.000	> 200.000	> 200.000	
Connections according to IEC 947-3 EN 60947-3			DS020	DS032	DS040	
Connecting capability	flexible wires	Min-Max	mm²	1,5-10	1,5-10	1,5-10
		Min-Max	AWG	16-8	16-8	16-8
	solid wires	Min-Max	mm²	1,5-16	1,5-16	1,5-16
Terminal screws		Tipo	M4	M4	M4	
Screw tightening torque		Nm	1,7	1,7	1,7	
Protection degree according to IEC 529 EN 60529			DS020	DS032	DS040	
Contact block		IP	IP20	IP20	IP20	
Ambient conditions			DS020	DS032	DS040	
Operating ambient temperature		°C		-25/+55		
Storage ambient temperature		°C		-25/+55		
Withstand to constant humid climate according to IEC 60068	IEC 60068 parte:			2-78		
Withstand to cyclic humid climate according to IEC 60068	IEC 60068 parte:			2-30		



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