

Via castellazzo 9 - 20040 Cambiago (MI)
Tel +39 02 95651611 Fax +39 02 95651639
www.bremas.eu info@bremas.it

ISO 9001 Certified Quality System

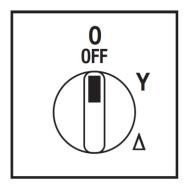
Cod. CR0160010RT6



(Image is purely indicative)



Positions



Standard and Approvals

- · Switch according to IEC/EN 60947-3
- Certified UL60947-4-1A and CAN/CSA C22.2 No. 60947-4-1-07
- Suitable as Manual Motor Controller



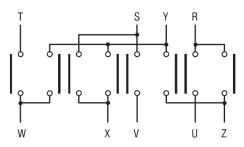
Technical characteristics: Body

- STAR-DELTA starter
- IP20 Protection degree
- Rated operational current le: 16A
- · Rated thermal current Ith: 20A
- · Rated insulation voltage Ui: 690V
- · Rear mounting
- Fixing with 2 screw at 28mm vertical
- Switching angle: 60°
- Class V2 self-extinguishing thermoplastic housing
- Assembled with metal shaft and threaded stud bolts to ensure maximum operating reliability
- Positive opening double break contacts, silver alloy made.

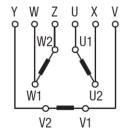
Technical characteristics: Knob

- Grey plate 67x67mm and black knob
- IP66 Protection degree
- Fixing:- 2 screw at 28mm vertical

Electrical diagram and function



	Δ	>	K	X	X		X		X	X	CR	
	Y	>	K			×	X	X	X		CA	60°
	0										CQ	
Contact		1	2	3 4	5 6	7 8	9 10	11 12	13 14	15 16	Anglo	
Element			1		2		3		4		Angle	



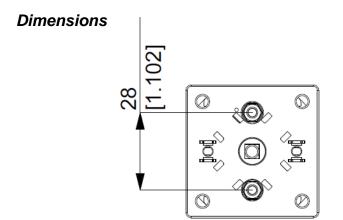


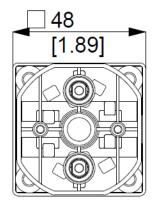
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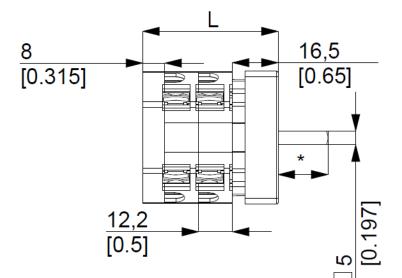
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measures in mm (in)

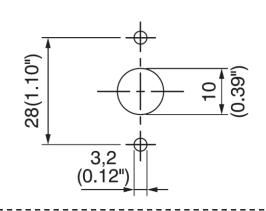


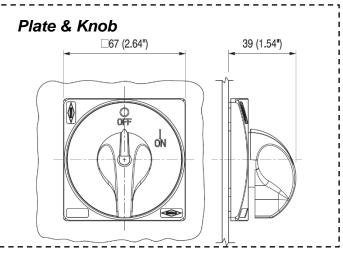




* Sporgenza / Ledge 18,00mm L Lunghezza / Length 73,20mm

Drilling templates







Bremas Ersce SpA
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Technical data IEC 947-3 EN 60947-3				
Rated insulation voltage		Ui	V	690
Rated operating voltage Rated impulse withstand voltage		Ue	V	690
		Uimp	kV A	20
Rated thermal current for open switch Rated thermal current for enclosed switch		Ithe	A	20
		itile	Hz	50/60
Rated operation frequency Power dissipation for each pole			W Hz	
			vv	0,5
Rated operating current				16
AC-21A Switching resistive loads, including moderate overloads		le	A	16
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads		le	A	16
AC-20A Connecting and disconnecting under no loads conditions				-
Rated operating power				
AC-23A Switching of motor loads or other highly inductive loads 3 phase - 3 pole		230V	Kw (A)	4 (14)
		400V	Kw (A)	7,5 (14)
		500V	Kw (A)	-
		690V	Kw (A)	-
AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole		110V	Kw (A)	1,1 (12)
		230V	Kw (A)	2,2 (14)
AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole		230V	Kw (A)	3,7 (12)
		400V	Kw (A)	5,5 (10)
		500V	Kw (A)	=
		690V	Kw (A)	-
AC-3 Squirrel cage motors: starting, swtiching off motors during running 1 phase - 2 pole		110V	Kw (A)	0,75 (9)
		230V	Kw (A)	1,5 (8)
		400V	Kw (A)	-
AC-4 Squirrel cage motors: starting, pluggign, inching		230V	Kw (A)	-
		400V	Kw (A)	-
AC-15 Control of a.c electromagnetic loads		230V	A	6
		400V	A	4
Rated breaking capability in AC-23A (cos φ=0,45)		230V	A	112
		400V	A	112
Short circuit protection				
Rated short time withstand current		lcw	A	240
Rated short-circuit make capacity		Icm	A	-
Rated conditional short-circuit current		-	kA	4
With fuses class gG		500V	A	20
Technical data UL/CSA				
Rated operating voltage		Ue	UL/CSA V	600/-
General use current		le	UL/CSA A	16
Short circuit rating @600Vac			Arms	5000
Fuse size (Class RK5, 600Vac, 200kA A.I.C.)			Α	25 (30)
Rated operating power				
1 phase - 2 pole		120V	Hp (A)	1 (16)
		240V	Hp (A)	2 (12)
3 phase - 3 pole		200V	Hp (A)	2 (7,8)
		240V	Hp (A)	3 (9,6)
		480V	Hp (A)	7,5 (11)
		600V	Hp (A)	7,5 (9)
Mechanical characteristics				
Mechanical characteristics Panel thickness		Max	mm	4
		Max	mm Cycles x 10 ⁶	2
Panel thickness		Max -		
Panel thickness		Max -	Cycles x 10 ⁶	2
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	With flexible wires	Max -	Cycles x 10 ⁶	2
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	With flexible wires	-	Cycles x 10 ⁶ Cycles/hr	2 120
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	With flexible wires With solid wires	Min-Max	Cycles x 10 ⁶ Cycles/hr mm ²	2 120 2x1,5-4
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm²	2 120 2x1,5-4 16-10 2x1,5-6
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG	2 120 2x1,5-4 16-10
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm² Type	2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel thickness Mechanical life		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm² Type	2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm² Type Nm	2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529 Terminals Ambient conditions		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm² Type Nm	2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529 Terminals Ambient conditions Operating ambient temperature		Min-Max Min-Max	Cycles x 10° Cycles/hr mm² AWG mm² Type Nm	2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529 Terminals Ambient conditions		Min-Max Min-Max	Cycles x 10 ⁶ Cycles/hr mm² AWG mm² Type Nm	2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1