

 Bremas Ersce SpA

 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. CR012MZ13RT4



(Image is purely indicative)



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



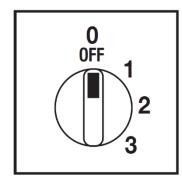
Technical characteristics: Body

- Multi step switch with OFF 1 pole 3 steps
- IP20 Protection degree
- Rated operational current le: 12A
- Rated thermal current Ith: 16A
- Rated insulation voltage Ui: 690V
- Rear mounting
- Fixing with 2 screw at 28mm vertical
- Switching angle: 45°
- 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.

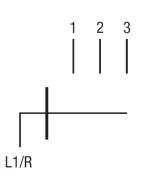
Technical characteristics: Knob

- Grey plate 48x48mm and black knob
- IP66 Protection degree
- Fixing:- 2 screw at 28mm vertical

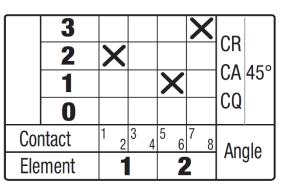
Positions



Electrical diagram



Electrical function



© 2017 Copyright Bremas Ersce. Subject to change without notice and errors excepted. Data reported in this paper are carefully checked and represent typical values of series production. The descriptions of the device and its applications, contexts of use, details of external controls, information on installation and operation are provided to the best of our knowledge. In any case, this does not mean that the features described may derive legal responsibilities that extend beyond the "Terms and Conditions" of Bremas Ersce. The customer / user is not absolved from the obligation to examine our information and recommendations and the relevant technical regulations before using the products for their own purposes.



 Bremas Ersce SpA

 Via castellazzo 9 - 20040 Cambiago (MI)

 Tel +39 02 95651611

 Fax +39 02 95651639

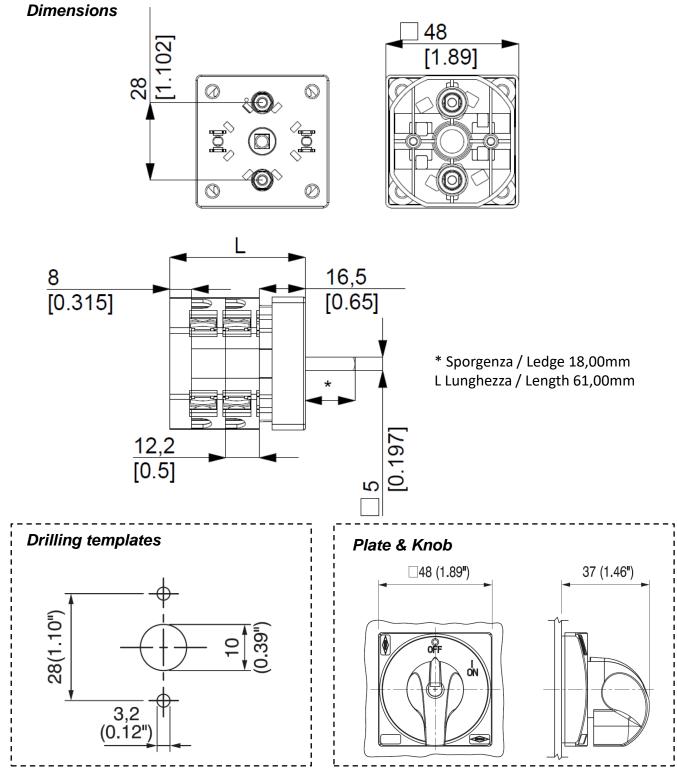
 www.bremas.eu

 info@bremas.it

ISO 9001 Certified Quality System

Cod. CR012MZ13RT4

measures in mm (in)



© 2017 Copyright Bremas Ersce. Subject to change without notice and errors excepted. Data reported in this paper are carefully checked and represent typical values of series production. The descriptions of the device and its applications, contexts of use, details of external controls, information on installation and operation are provided to the best of our knowledge. In any case, this does not mean that the features described may derive legal responsibilities that extend beyond the "Terms and Conditions" of Bremas Ersce. The customer / user is not absolved from the obligation to examine our information and recommendations and the relevant technical regulations before using their own purposes.



 Bremas Ersce SpA

 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. CR012MZ13RT4

Technical data IEC 947-3 EN 60947-3				
Rated insulation voltage		Ui	V	690
Rated operating voltage		Ue	V	690
Rated impulse withstand voltage		Uimp	kV	6
Rated thermal current for open switch		Ith	A	16
Rated thermal current for enclosed switch		Ithe	А	16
Rated operation frequency			Hz	50/60
Power dissipation for each pole			W	0,27
Rated operating current				
AC-21A Switching resistive loads, including moderate overloads		le	A	12
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads		le	A	12
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)	3 (9)
the 254 stricting of motor rougs of other inging inductive rougs 5 priose 5 pole		400V	Kw (A)	4 (9)
		500V	Kw (A)	-
		690V	Kw (A)	-
AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole		110V	Kw (A)	0,75 (8,5)
AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole		230V	Kw (A)	1,5 (8,5)
		230V	Kw (A)	2,2 (7)
	400V	Kw (A)	3,5 (7)	
		500V	Kw (A)	-
		690V	Kw (A)	-
AC-3 Squirrel cage motors: starting, swtiching off motors during running 1 phase - 2 pole		110V	Kw (A)	0,37 (4)
		230V	Kw (A)	1,1 (6)
		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	4
		400V	А	3
Rated breaking capability in AC-23A (cos φ=0,45)		230V	А	72
		400V	А	72
Short circuit protection				
Rated short time withstand current		Icw	A	150
Rated short-circuit make capacity		Icm	А	-
Rated conditional short-circuit current		-	kA	4
With fuses class gG		500V	A	16
Technical data UL/CSA				
Rated operating voltage		Ue	UL/CSA V	600/ -
General use current		le	UL/CSA A	12
Short circuit rating @600Vac			Arms	5000
Fuse size (Class RK5, 600Vac, 200kA A.I.C.)			A	60
Rated operating power				
1 phase - 2 pole		120V	Hp (A)	0,5 (9,8)
phase - 2 pole		240V	Hp (A)	1,5 (10)
phase - 3 pole			Hp (A)	
				15/60)
		200V		1,5 (6,9)
		240V	Hp (A)	2 (6,8)
		240V 480V	Hp (A) Hp (A)	2 (6,8) 3 (4,8)
		240V	Hp (A)	2 (6,8)
		240V 480V 600V	Hp (A) Hp (A) Hp (A)	2 (6,8) 3 (4,8) 5 (6,1)
Panel tickness		240V 480V	Hp (A) Hp (A) Hp (A) mm	2 (6,8) 3 (4,8) 5 (6,1) 4
Panel tickness		240V 480V 600V	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶	2 (6,8) 3 (4,8) 5 (6,1) 4 2
Mechanical characteristics Panel tickness Mechanical life		240V 480V 600V	Hp (A) Hp (A) Hp (A) mm	2 (6,8) 3 (4,8) 5 (6,1) 4
Panel tickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1		240V 480V 600V Max	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120
Panel tickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	With flexible wires	240V 480V 600V Max Min-Max	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ²	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4
Panel tickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	With flexible wires	240V 480V 600V Max	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120
Panel tickness Vechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability	With flexible wires	240V 480V 600V Max Min-Max	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ²	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4
Panel tickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) Cycles x 10 ⁶ Cycles/hr mm ² AWG	2 (6.8) 3 (4.8) 5 (6.1) 4 2 120 2x1,5-4 16-10
Panel tickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ²	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6
Panel tickness Vechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connection terminal screw dimensions Screw tightening torque		240V 480V 600V Max Min-Max Min-Max	Нр (A) Нр (A) Нр (A)	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel tickness Vechanical 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		240V 480V 600V Max Min-Max Min-Max	Нр (A) Нр (A) Нр (A)	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Panel tickness		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) Mm Cycles x 10 ⁶ Cycles/hr Mm ² AWG mm ² Type Nm	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1
Panel tickness 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 Ferminals		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) Mm Cycles x 10 ⁶ Cycles/hr Mm ² AWG mm ² Type Nm	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1
Panel tickness 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 Deperating ambient temperature		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) Cycles x 10 ⁶ Cycles/hr Cycles/hr Mm ² AWG mm ² Type Nm	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1 20
Panel tickness Vechanical 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 Ferminals Ambient conditions		240V 480V 600V Max Min-Max Min-Max	Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr Mm ² AWG mm ² Type Nm IP	2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1 20 -25 ÷ +55

© 2017 Copyright Bremas Ersce. Subject to change without notice and errors excepted. Data reported in this paper are carefully checked and represent typical values of series production. The descriptions of the device and its applications, contexts of use, details of external controls, information on installation and operation are provided to the best of our knowledge. In any case, this does not mean that the features described may derive legal responsibilities that extend beyond the "Terms and Conditions" of Bremas Ersce. The customer / user is not absolved from the obligation to examine our information and recommendations and the relevant technical regulations before using the products for their own purposes.