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

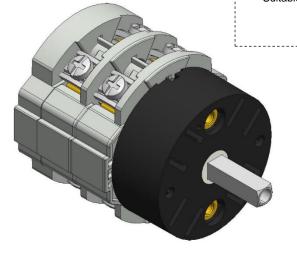
ISO 9001 Certified Quality System

#### Cod. CA0120007PL1

# 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





(Image is purely indicative)



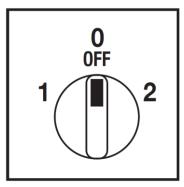
## Technical characteristics: Body

- Change-over switch 3 pole
- IP00 Protection degree
- Rated operational current le: 12A (AC-21A)
- Rated thermal current Ith: 16A
- · Rated insulation voltage Ui: 690V
- · Panel 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.

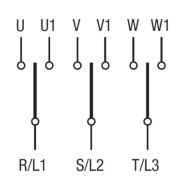
### Technical characteristics: Knob

- Transparent plate 52x52mm and black knob
- Fixing with 2 screws at 28mm vertical
- IP 40 Protection degree

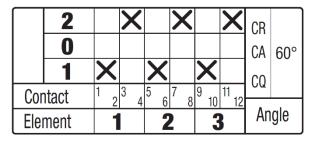
**Positions** 



Electrical diagram



# Electrical function

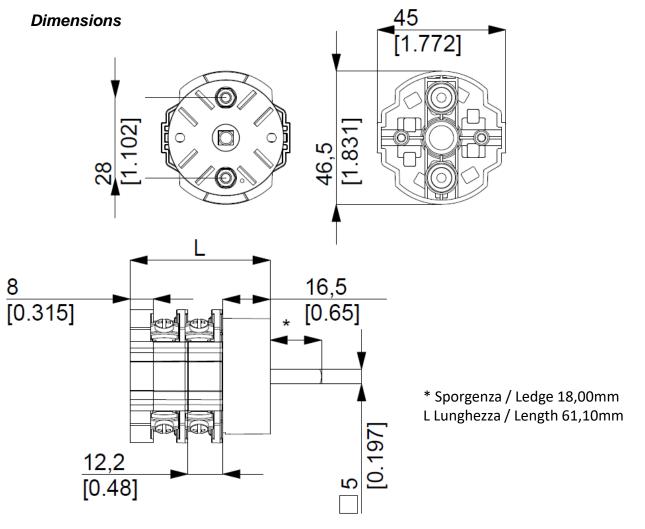


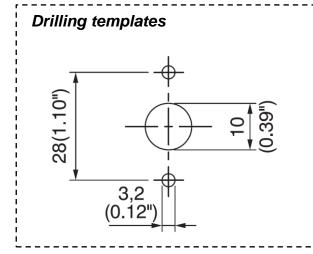
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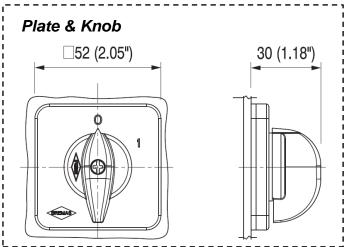
ISO 9001 Certified Quality System

### Cod. CA0120006PL1

measures in mm (in)









## 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. CA0120006PL1

echnical data IEC 947-3 EN 60947-3			
ated insulation voltage	Ui	V	690
ated operating voltage	Ue	V	690
ated impulse withstand voltage	Uimp	kV	6
ated thermal current for open switch	Ith	A	16
ated thermal current for enclosed switch	Ithe	A	16
ated operation frequency		Hz	50/60
ower dissipation for each pole		W	0.27
ated operating current			_
C-21A Switching resistive loads, including moderate overloads	le	A	12
C-22A Switching of mixed resistive and inductive loads, including moderate overloads	le	A	12
C-20A Connecting and disconnecting under no loads conditions			-
ated operating power			
C-23A Switching of motor loads or other highly inductive loads 3 phase - 3 pole	230V	Kw (A)	3 (9)
	400V	Kw (A)	4 (9)
		Kw (A)	-
	690V	Kw (A)	-
C-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole	110V	Kw (A)	0,75 (8,5)
2 22/2 Witching of motor loads of other nightly modelive loads 1 phase 2 pole	230V	Kw (A)	1,5 (8,5)
AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole	230V	Kw (A)	2,2 (7)
Ac-5 Squirer Cage Hotors, Starting, switching on Hotors during running 5 phase - 5 pole	400V	KW (A)	
	500V	KW (A)	3,5 (7)
			-
C 2 Squirral cago materes starting statishing off maters during supplies 1 whose 2 and	690V	Kw (A)	
C-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)	-
C-4 Squirrel cage motors: starting, pluggign, inching	230V	Kw (A)	-
	400V	Kw (A)	-
C-15 Control of a.c electromagnetic loads	230V	A	4
	400V	A	3
ated breaking capability in AC-23A (cos φ=0,45)	230V	A	72
	400V	Α	72
nort circuit protection			
ated short time withstand current	Icw	A	150
ated short-circuit make capacity	Icm	A	-
ated conditional short-circuit current	<u> </u>	kA	4
Tith fuses class gG	500V	A	16
echnical data UL/CSA			
ated operating voltage	Ue	UL/CSA V	600/ -
eneral use current	le	UL/CSA A	12
nort circuit rating @600Vac		Arms	5000
		A	
ise size (Class RK5, 600Vac, 200kA A.I.C.)		,,	60
			60
ited operating power	120V	Hp (A)	0,5 (9,8)
ited operating power	120V 240V		
oted operating power ohase - 2 pole		Hp (A)	0,5 (9,8)
nted operating power phase - 2 pole	240V	Hp (A) Hp (A)	0,5 (9,8) 1,5 (10)
nted operating power phase - 2 pole	240V 200V	Hp (A) Hp (A) Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9)
oted operating power ohase - 2 pole	240V 200V 240V	Hp (A) Hp (A) Hp (A) Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8)
phase - 3 pole	240V 200V 240V 480V	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8)
phase - 3 pole phase - 3 pole phase - display the state of the state o	240V 200V 240V 480V	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8)
phase - 2 pole  phase - 3 pole  phase in the state of the	240V 200V 240V 480V 600V	Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)
phase - 2 pole  phase - 3 pole  chanical characteristics  and tickness	240V 200V 240V 480V 600V	Hp (A)	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)
echanical characteristics  mel tickness echanical life	240V 200V 240V 480V 600V	Hp (A) mm Cycles x 10 <sup>6</sup>	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)
echanical characteristics unel tickness echanical life onnection according to IEC 9471-1 and EN 50947-1	240V 200V 240V 480V 600V	Hp (A)  mm Cycles x 10 <sup>6</sup> Cycles/hr	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)
echanical characteristics unel tickness echanical life onnection according to IEC 9471-1 and EN 50947-1	240V 200V 240V 480V 600V  Max  xible wires Min-Ma	Hp (A) Cycles x 10 <sup>6</sup> Cycles/hr	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4
echanical characteristics  echanical life  ennection according to IEC 9471-1 and EN 50947-1  ennecting capability  With flee	240V   200V   240V   480V   600V   Max	Hp (A) Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1) 4 2 120 2x1,5-4 16-10
echanical characteristics  enel tickness echanical life  innection according to IEC 9471-1 and EN 50947-1  menecting capability  With fig	240V 200V 240V 480V 600V  Max  xible wires Min-Ma	Hp (A) Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG x mm <sup>2</sup>	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6
echanical characteristics  echanical characteristics  unel tickness echanical life  connection according to IEC 9471-1 and EN 50947-1  menecting capability  With file  With so	240V   200V   240V   480V   600V   Max	Hp (A)  Mp (A) Hp (A)  Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG x mm <sup>2</sup> Type	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5
echanical characteristics  echanical life  energy of the second of the s	240V   200V   240V   480V   600V   Max	Hp (A) Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG x mm <sup>2</sup>	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6
With so connection terminal screw dimensions crew tightening torque rotection degree IEC 529 EN 60529	240V   200V   240V   480V   600V   Max	Hp (A) Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG x mm <sup>2</sup> Type Nm	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5
echanical characteristics  echanical life  pinnection according to IEC 9471-1 and EN 50947-1  pinnecting capability  with fle  with so  ponnection terminal screw dimensions  rew tightening torque  otection degree IEC 529 EN 60529  erminals	240V   200V   240V   480V   600V   Max	Hp (A)  Mp (A) Hp (A)  Cycles x 10 <sup>6</sup> Cycles/hr  x mm <sup>2</sup> x AWG x mm <sup>2</sup> Type	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5
reted operating power phase - 2 pole  phase - 3 pole  echanical characteristics  mel tickness echanical life  princetion according to IEC 9471-1 and EN 50947-1  princeting capability  With fle  With so  mencetion terminal screw dimensions rew tightening torque  otection degree IEC 529 EN 60529  rminals mbient conditions	240V   200V   240V   480V   600V   Max	Hp (A)  Mm  Cycles x 10 <sup>6</sup> Cycles/hr  x mm² x AWG x mm² Type Nm	0,5 (9,8) 1,5 (10) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5 1
reted operating power phase - 2 pole  phase - 3 pole  echanical characteristics  mel tickness echanical life  minection according to IEC 9471-1 and EN 50947-1  minecting capability  With file  With so  minection terminal screw dimensions rew tightening torque otection degree IEC 529 EN 60529  rminals  mbient conditions perating ambient temperature	240V   200V   240V   480V   600V   Max	Hp (A)  Mp (A)  Mp (A)  Cycles x 10 <sup>6</sup> Cycles/hr  x mm² x AWG x mm² Type Nm	0,5 (9,8) 1,5 (10) 1,5 (6,9) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5 1
reted operating power phase - 2 pole  phase - 3 pole  echanical characteristics  mel tickness echanical life  princetion according to IEC 9471-1 and EN 50947-1  princeting capability  With fle  With so  mencetion terminal screw dimensions rew tightening torque  otection degree IEC 529 EN 60529  rminals mbient conditions	240V   200V   240V   480V   600V   Max	Hp (A)  Mm  Cycles x 10 <sup>6</sup> Cycles/hr  x mm² x AWG x mm² Type Nm	0,5 (9,8) 1,5 (10) 2 (6,8) 3 (4,8) 5 (6,1)  4 2 120  2x1,5-4 16-10 2x1,5-6 M3,5 1

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