

 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

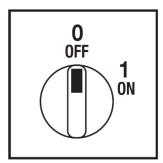
Cod. CR0160004RT4



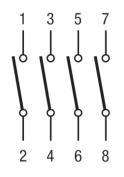
(Image is purely indicative)



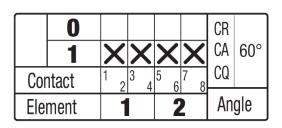
Positions



Electrical diagram



Electrical function





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

- ON-OFF switch 4 pole
- 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 48x48mm and black knob
- IP66 Protection degree
- Fixing:- 2 screw at 28mm vertical

© 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 descriptions before using the products for their own purposes. 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.

Cod. CR0160004RT4



 Bremas Ersce SpA

 Via castellazzo 9 - 20040 Cambiago (MI)

 Tel +39 02 95651611

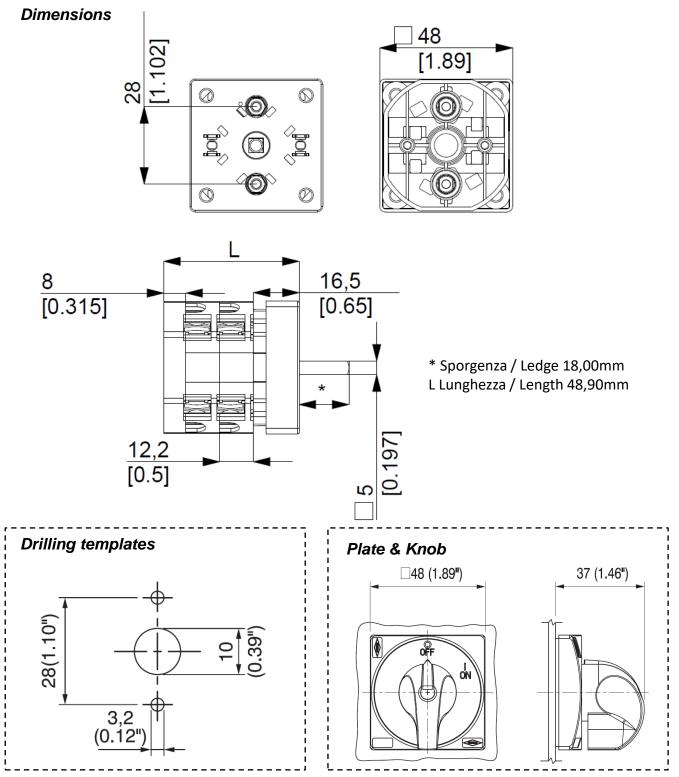
 Fax +39 02 95651639

 www.bremas.eu

 info@bremas.it

ISO 9001 Certified Quality System

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 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. CR0160004RT4

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	lth	A	20
Rated thermal current for enclosed switch	Ithe	A	20
Rated operation frequency		Hz	50/60
Power dissipation for each pole		W	0,5
Rated operating current			0,5
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	2221		
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	А	6
	400V	А	4
Rated breaking capability in AC-23A (cos ϕ =0,45)	230V	А	112
	400V	А	112
Short circuit protection			
Rated short time withstand current	Icw	А	240
Rated short-circuit make capacity	Icm	А	-
Rated conditional short-circuit current	-	kA	4
With fuses class gG	500V	А	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.)		А	25 (30)
Rated operating power			
1 phase - 2 pole	120V	Hp (A)	1 (16)
	240V		2 (12)
3 phase - 3 pole	240V 200V	Hp (A) Hp (A)	2 (12)
3 phase - 3 pole		Hp (A)	2 (7,8)
3 phase - 3 pole	200V 240V	Hp (A) Hp (A)	2 (7,8) 3 (9,6)
3 phase - 3 pole	200V 240V 480V	Hp (A) Hp (A) Hp (A)	2 (7,8) 3 (9,6) 7,5 (11)
3 phase - 3 pole	200V 240V	Hp (A) Hp (A)	2 (7,8) 3 (9,6)
	200V 240V 480V 600V	Hp (A) Hp (A) Hp (A) Hp (A)	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9)
Mechanical characteristics Panel thickness	200V 240V 480V	Нр (А) Нр (А) Нр (А) Нр (А) тт	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4
Mechanical characteristics Panel thickness	200V 240V 480V 600V	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2
Mechanical characteristics Panel thickness Mechanical life	200V 240V 480V 600V	Нр (А) Нр (А) Нр (А) Нр (А) тт	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1	200V 240V 480V 600V Max	Hp (A) Hp (A) Hp (A) Hp (A) Mm Cycles x 10 ⁶ Cycles/hr	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120
Mechanical characteristics Panel thickness Mechanical life	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁷	2 (7.8) 3 (9.6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) Cycles x 10 ⁶ Cycles/hr mm ² AWG	2 (7.8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ²	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Quarter of the solid wires Quarter of the solid wires Connection terminal screw dimensions	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ² Type	2 (7.8) 3 (9.6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Vith flexible wires Connection terminal screw dimensions Screw tightening torque	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ²	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Quarter of the state of	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ² Type Nm	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connecting capability Connection grapability Connection terminal screw dimensions Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529 Terminals	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ² Type	2 (7.8) 3 (9.6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability With flexible wires	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Type Nm IP	2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1 20
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability With flexible wires	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ² Type Nm IP °C	2 (7.8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6 M3,5 1 20 -25 ÷ +55
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability Connecting capability Mith flexible wires Connection terminal screw dimensions Screw dimensions Screw dimensions Terminals Protection degree IEC 529 EN 60529 Terminals Querating ambient temperature Storage ambient temperature	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Cycles x 10 ⁶ Type Nm IP	$\begin{array}{c} 2 \ (7.8) \\ 3 \ (9.6) \\ 7.5 \ (11) \\ 7.5 \ (9) \\ \end{array}$ $\begin{array}{c} 4 \\ 2 \\ 120 \\ \end{array}$ $\begin{array}{c} 2 \\ 2x1,5-4 \\ 16\cdot10 \\ 2x1,5-6 \\ M3,5 \\ 1 \\ \end{array}$ $\begin{array}{c} 20 \\ \end{array}$ $\begin{array}{c} -25 \div +55 \\ -30 \div +70 \end{array}$
Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability With flexible wires	200V 240V 480V 600V Max 	Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 ⁶ Cycles/hr mm ² AWG mm ² Type Nm IP °C	2 (7.8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 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.