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ISO 9001 Certified Quality System

## Cod. CR0160031RT6



(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



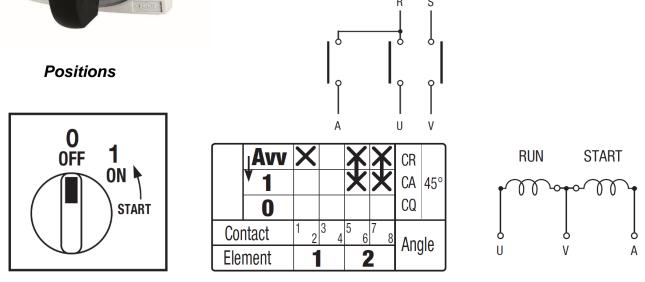
# Technical characteristics: Body

- Switch single-phase motor + aux phase
- 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: 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 67x67mm and black knob
- IP66 Protection degree
- Fixing:- 2 screw at 28mm vertical

## Electrical diagram and function



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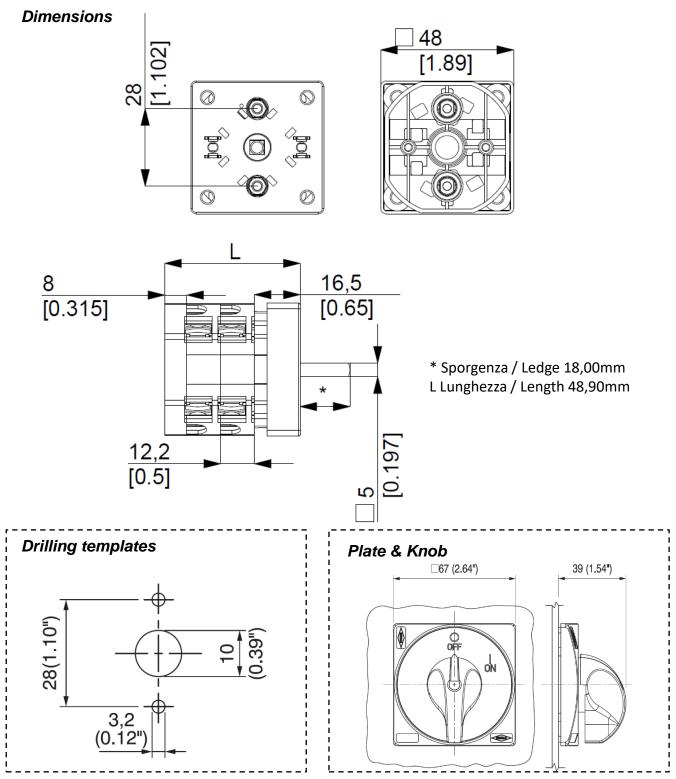
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measures in mm (in)



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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
	ithe		
Rated operation frequency		Hz	50/60
Power dissipation for each pole		W	0,5
Rated operating current			
AC-21A Switching resistive loads, including moderate overloads	le	Α	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		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	A	112
Short circuit protection	4007	~	112
	10000	•	240
Rated short time withstand current	lcw	A	-
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
IFuse size (Class RK5, 600Vac, 200kA A.I.C.)		A	25 (30)
Fuse size (Class RK5, 600Vac, 200kA A.I.C.) Rated operating power		Α	25 (30)
Rated operating power	120V		
	120V	Hp (A)	1 (16)
Rated operating power 1 phase - 2 pole	240V	Нр (А) Нр (А)	1 (16) 2 (12)
Rated operating power	240V 200V	Hp (A) Hp (A) Hp (A)	1 (16) 2 (12) 2 (7,8)
Rated operating power 1 phase - 2 pole	240V 200V 240V	Hp (A) Hp (A) Hp (A) Hp (A)	1 (16) 2 (12) 2 (7,8) 3 (9,6)
Rated operating power 1 phase - 2 pole	240V 200V 240V 480V	Нр (А) Нр (А) Нр (А) Нр (А) Нр (А)	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11)
Rated operating power 1 phase - 2 pole 3 phase - 3 pole	240V 200V 240V	Hp (A) Hp (A) Hp (A) Hp (A)	1 (16) 2 (12) 2 (7,8) 3 (9,6)
Rated operating power  1 phase - 2 pole  3 phase - 3 pole Mechanical characteristics	240V 200V 240V 480V 600V	Нр (А) Нр (А) Нр (А) Нр (А) Нр (А) Нр (А)	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9)
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness	240V 200V 240V 480V	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) mm	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4
Rated operating power  1 phase - 2 pole  3 phase - 3 pole Mechanical characteristics	240V 200V 240V 480V 600V	Нр (А) Нр (А) Нр (А) Нр (А) Нр (А) Нр (А)	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9)
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness	240V 200V 240V 480V 600V	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) mm	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness	240V 200V 240V 480V 600V	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 <sup>6</sup>	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2
Rated operating power  1 phase - 2 pole  3 phase - 3 pole  Mechanical characteristics  Panel thickness  Mechanical life	240V 200V 240V 480V 600V Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) mm Cycles x 10 <sup>6</sup>	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1	240V 200V 240V 480V 600V Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) mm <u>Cycles x 10<sup>6</sup></u> Cycles/hr	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability       With flexible	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> AWG	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2 2x1,5-4 16-10
Rated operating power  1 phase - 2 pole  3 phase - 3 pole  Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability With flexible With flexible With solid w	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Hp (A) Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup>	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6
Rated operating power  1 phase - 2 pole  3 phase - 3 pole  Mechanical characteristics Panel thickness Mechanical life Connection according to IEC 9471-1 and EN 50947-1 Connecting capability With fiexible With fiexible With solid w Connection terminal screw dimensions	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Cycles x 10 <sup>e</sup> Cycles x 10 <sup>e</sup> Cycles/hr mm <sup>2</sup> AWG mm <sup>2</sup> Type	1 (16) 2 (12) 2 (7.8) 3 (9.6) 7,5 (11) 7,5 (9) 4 2 2 4 2 2 4 2 2 4 5 4 16-10 2 2 4,5-6 M3,5
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability         With flexible         With solid w         Connection terminal screw dimensions         Screw tightening torque	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Hp (A) Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup>	1 (16) 2 (12) 2 (7,8) 3 (9,6) 7,5 (11) 7,5 (9) 4 2 120 2x1,5-4 16-10 2x1,5-6
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability         With flexible         With solid w         Connection terminal screw dimensions         Screw tightening torque         Protection degree IEC 529 EN 60529	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mm Cycles x 10 <sup>6</sup> Cycles/hr mm <sup>2</sup> AWG mm <sup>2</sup> Type Nm	1 (16) 2 (12) 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
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability         With flexible         With solid w         Connection degree life 529 EN 60529         Terminals	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Cycles x 10 <sup>e</sup> Cycles x 10 <sup>e</sup> Cycles/hr mm <sup>2</sup> AWG mm <sup>2</sup> Type	1 (16) 2 (12) 2 (7.8) 3 (9.6) 7,5 (11) 7,5 (9) 4 2 2 4 2 2 4 2 2 4 5 4 16-10 2 2 4,5-6 M3,5
Rated operating power  1 phase - 2 pole  3 phase - 3 pole  Mechanical characteristics Panel thickness Mechanical life  Connection according to IEC 9471-1 and EN 50947-1  Connecting capability  Connecting capability  Connecting capability  Connection terminal screw dimensions Screw tightening torque Protection degree IEC 529 EN 60529 Terminals  Ambient conditions	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles/hr Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup> AWG mm <sup>2</sup> Type Nm	1 (16) 2 (12) 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
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability         With flexible         With solid w         Connection terminal screw dimensions         Screw tightening torque         Protection degree IEC 529 EN 60529         Terminals         Ambient conditions         Operating ambient temperature	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Cycles x 10 <sup>6</sup> Cycles/hr Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup> AWG mm <sup>2</sup> IVP Nm IP	1 (16) 2 (12) 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
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connection according to IEC 9471-1 and EN 50947-1         Connection capability         With flexible         With solid w         Connection terminal screw dimensions         Screw tightening torque         Protection degree IEC 529 EN 60529         Terminals         Ambient conditions         Operating ambient temperature         Storage ambient temperature	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Cycles x 10 <sup>6</sup> Cycles x 10 <sup>6</sup> Cycles/hr Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup> AWG mm <sup>2</sup> Type Nm	$\begin{array}{c} 1 \ (16) \\ 2 \ (12) \\ 2 \ (7.8) \\ 3 \ (9.6) \\ 7.5 \ (11) \\ 7.5 \ (11) \\ 7.5 \ (11) \\ 7.5 \ (12) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
Rated operating power         1 phase - 2 pole         3 phase - 3 pole         Mechanical characteristics         Panel thickness         Mechanical life         Connection according to IEC 9471-1 and EN 50947-1         Connecting capability         With flexible         With solid w         Connection terminal screw dimensions         Screw tightening torque         Protection degree IEC 529 EN 60529         Terminals         Ambient conditions         Operating ambient temperature	240V 200V 240V 480V 600V Max wires <u>Min-Max</u> Min-Max	Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Hp (A) Mp (A) Cycles x 10 <sup>6</sup> Cycles/hr Cycles/hr Mm <sup>2</sup> AWG mm <sup>2</sup> AWG mm <sup>2</sup> IVP Nm IP	1 (16) 2 (12) 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

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