**Bremas Ersce SpA**
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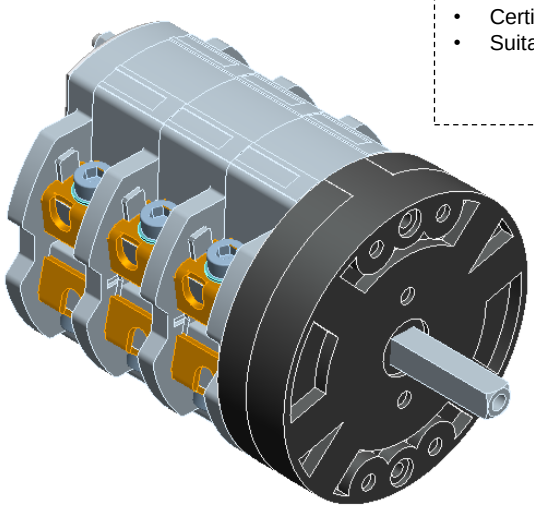
Tel +39 02 95651611 Fax +39 02 95651639
www.bremas.it info@bremas.it

**ISO 9001** Certified Quality System

## Cod. CA2000007PL4

### *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



(purely indicative picture)

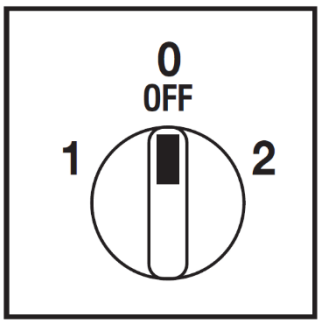

### *Technical characteristics*

- Change-over switch 3 pole
- IP00 Protection degree
- Rated operational current Ie: 160A (AC-21A)
- Rated thermal current Ith: 200A
- Rated insulation voltage Ui: 690V
- Panel mounting
- Switching angle: 60°
- Self-extinguishing thermosetting/thermoplastic class V2 housing
- Assembled with metal shaft and threaded stud bolts to ensure maximum operating reliability
- Positive opening double break contacts, made of silver and alloy

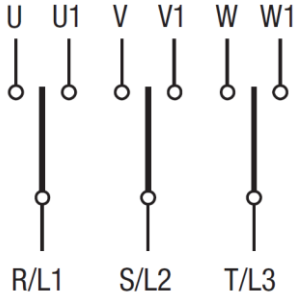
### *Technical characteristics: Plate and knob*

- Transparent plate 130x130mm and black knob
- IP40 Protection degree
- Fixing with 4 screws at 30x90mm

### *Positions*




### *Electrical diagram*




### *Electrical function*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2** | | X | | X | | X | | | | CR | | |
| | **0** | | | | | | | | | | CA | 60° | |
| | **1** | X | | X | | X | | | | | CQ | | |
| Contact | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Angle |
| Element | | **1** | | **2** | | **3** | | | | | | | |

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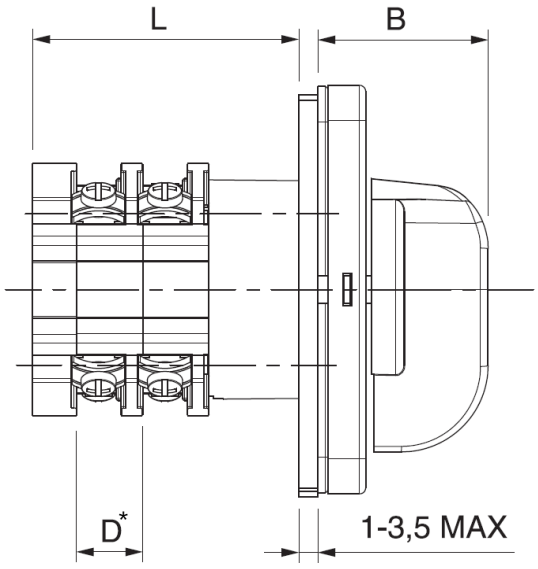
Measures in mm (in)

### *Dimensions*

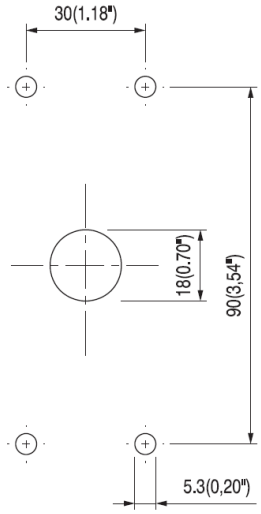



| X | Y | D | | no. of stages 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|
| - | ø 110 | 39 | L | 90 | 129 | 168 | 207 | 246 | 285 |
| - | ø (4,33") | (1,54") | | (3,54") | (5,08") | (6,61") | (8,15") | (9,69") | (11,22") |

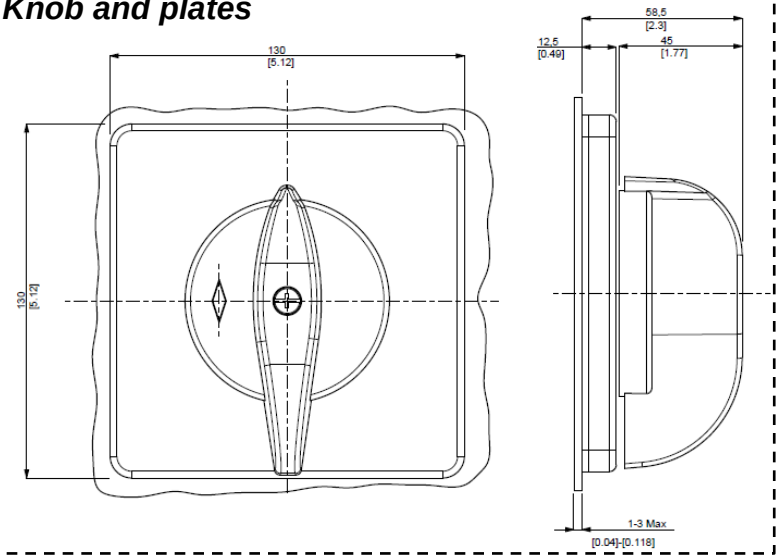
| Handle | B |
|---|---|
| PL3 | 44 (1,73") |
| PL4 | 62 (2,44") |
| PL5 | 63 (2,48") |
| PL9 | 73 (2,87") |
| 3N3-3L3 | 44 (1,73") |
| RL6-RK6 | 39 (1,54") |

* D – size of the single element

### *Drilling template*




### *Knob and plates*



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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 | | Ith | A | 200 |
| Rated thermal current for enclosed switch | | Ithe | A | 160 |
| Rated operation frequency | | | Hz | 50/60 |
| Power dissipation for each pole | | | W | 7 |
| **Rated operating current** | | | | |
| AC-21A Switching resistive loads, including moderate overloads | | Ie | A | 160 [5] |
| AC-22A Switching of mixed resistive and inductive loads, including moderate overloads | | Ie | A | 160 |
| 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) | 40 (125) |
| | | 400V | Kw (A) | 59 (106) |
| | | 500V | Kw (A) | 75 (108) |
| | | 690V | Kw (A) | - |
| AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole | | 110V | Kw (A) | 11 (125) |
| | | 230V | Kw (A) | 22 (120) |
| AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole | | 230V | Kw (A) | 30 (95) |
| | | 400V | Kw (A) | 45 (82) |
| | | 500V | Kw (A) | 59 (85) |
| | | 690V | Kw (A) | - |
| AC-3 Squirrel cage motors: starting, swtiching off motors during running 1 phase - 2 pole | | 110V | Kw (A) | 9 (102) |
| | | 230V | Kw (A) | 15 (82) |
| | | 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 | - |
| | | 400V | A | - |
| Rated breaking capability in AC-23A (cos φ=0,45) | | 230V | A | 1000 |
| | | 400V | A | 848 |
| **Short circuit protection** | | | | |
| Rated short time withstand current | | Icw | A | 2000 |
| Rated short-circuit make capacity | | Icm | A | 3000 |
| Rated conditional short-circuit current | | - | kA | 15 |
| With fuses class gG | | 500V | A | 200 |
| **Technical data UL/CSA** | | | | |
| Rated operating voltage | | Ue | UL/CSA V | 600/- |
| General use current | | Ie | UL/CSA A | 240/- |
| Short circuit rating @600Vac | | | Arms | - |
| Fuse size (Class RK5, 600Vac, 200kA A.I.C.) | | | A | - |
| **Rated operating power** | | | | |
| 1 phase - 2 pole | | 120V | Hp (A) | - |
| | | 240V | Hp (A) | - |
| 3 phase - 3 pole | | 200V | Hp (A) | - |
| | | 240V | Hp (A) | - |
| | | 480V | Hp (A) | - |
| | | 600V | Hp (A) | - |
| **Mechanical characteristics** | | | | |
| Mechanical life | | | Cycles x $10^6$ | 0,1 |
| | | | Cycles/hr | 120 |
| **Connection according to IEC 9471-1 and EN 50947-1** | | | | |
| Connecting capability | With flexible wires | Min-Max | mm² | 50-70 [1] |
| | | Min-Max | AWG | 1/0-2/0 |
| | With solid wires | Min-Max | mm² | 16-35 |
| Connection terminal screw dimensions | | | Type | M10 |
| Screw tightening torque | | | Nm | 23 |
| **Protection degree IEC 529 EN 60529** | | | | |
| Terminals | | | IP | 00 |
| **Ambient conditions** | | | | |
| Operating ambient temperature | | | °C | -25 ÷ +55 |
| Storage ambient temperature | | | °C | -30 ÷ +70 |
| Withstand to constant humid according to IEC 60068 | | | | 2-78 |
| Withstand to cyclic humid according to IEC 60068 | | | | 2-30 |

Notes:
[1] = Terminals for M10 bolts
[5] = at 500V