# Manual motor controllers

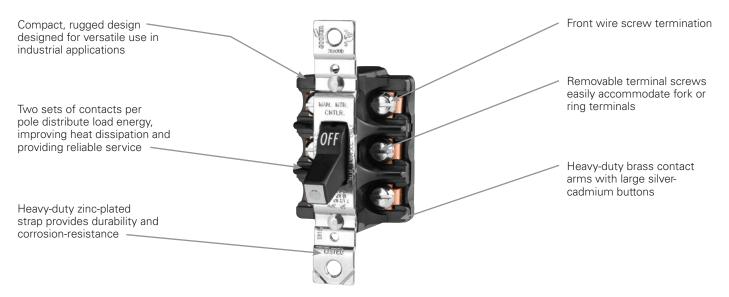


# Switch solutions built tough for dependable motor control

Arrow Hart's comprehensive offering of industrial grade manual motor control switches are engineered to provide reliable performance in industrial applications

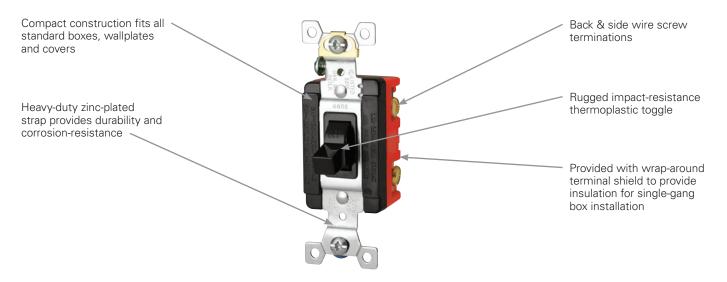
# Manual motor control switch AH7810UD, AH6810U features & benefits

2-Pole & 3-pole, 30A, 600V/AC models available



# Manual motor control switch AH6808UDAC, AH6808UCO features & benefits

2-Pole, 30A & 40A, 600 V/AC models available

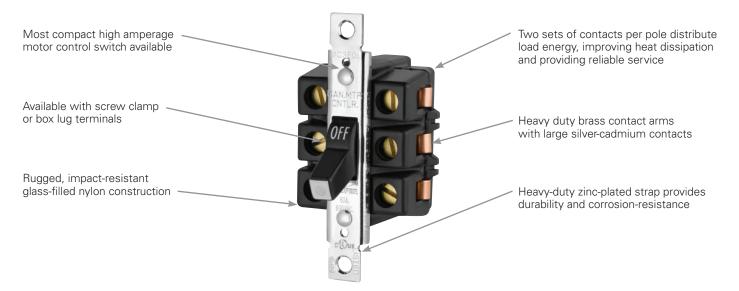


Compliances, specifications and availability are subject to change without notice.



# Manual motor control switch AHMC 40 & 60 series features & benefits

2-pole & 3-pole, 40A & 60A, 600V/AC models provided with box lug terminations available



# Manual motor control switch AH4371, AH4361 features & benefits

2-pole, 5A, 10A, 20A, & 30A, 125/250V/AC/DC models available



Compliances, specifications and availability are subject to change without notice.

www.eaton.com

www.arrowhart.com

# Manual motor controllers



## Motor control switch quick reference guide

| Amps  | Volts         | Poles | Max. AWG<br>wire size | Switch<br>Cat. no. | With cover plate | With NEMA 1<br>enclosure | With NEMA<br>3R enclosure | With NEMA<br>3, 7 & 9 enclosure |
|-------|---------------|-------|-----------------------|--------------------|------------------|--------------------------|---------------------------|---------------------------------|
| 30    | 600           | 2     | 10                    | AH6810U            | AH6810F          | AH6810G                  | AH6810W                   | AH6810E                         |
| 30    | 600           | 3     | 10                    | AH7810UD*          | AH7810FD         | AH7810GD                 | AH7810WD                  | AH7810ED                        |
| 40    | 600           | 2     | 8                     | AH6808UC0          | _                | _                        | _                         | —                               |
| 40    | 600           | 2     | 8                     | AHMC240C           | —                | AHMC240C-1               | AHMC240C-3                | —                               |
| 40    | 600           | 2     | 4                     | AHMC240L           | —                | AHMC240L-1               | AHMC240L-3                | —                               |
| 40    | 600           | 3     | 8                     | AHMC340C           | —                | AHMC340C-1               | AHMC340C-3                | —                               |
| 40    | 600           | 3     | 4                     | AHMC340L           | —                | AHMC340L-1               | AHMC340L-3                | —                               |
| 60    | 600           | 2     | 4                     | AHMC260L           | —                | AHMC260L-1               | AHMC260L-3                | —                               |
| 60    | 600           | 3     | 4                     | AHMC360L           | _                | AHMC360L-1               | AHMC360L-3                | —                               |
| 10/20 | 250/125 AC/DC | 2     | 10                    | AH4361             | —                | AH27940G                 | —                         | _                               |
| 20/30 | 250/125 AC/DC | 2     | 10                    | AH4371             | —                | —                        | _                         |                                 |
| 20/30 | 600/250       | 2     | 10                    | AH6808UDAC         | AH6808FDAC       | AH6808GDAC               | AH6808WDAC                | _                               |
|       |               |       |                       |                    |                  |                          |                           |                                 |

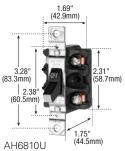
### Motor control switch enclosure quick reference guide

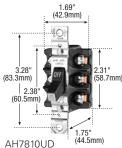
| NEMA type     | Description   | Catalog no. | Visual reference | Drawing<br>(Larger versions available in Technical Reference, page Q-22)  |
|---------------|---|-------------|------------------|---|
| _             | Cover plate   | _           |                  | (14.35mm)<br>(14.35mm)<br>(4.85mm)<br>(4.85mm)<br>(4.85mm)<br>(4.85mm)  |
| Туре 1        | NEMA 1 enclosure,<br>single gang  | AHN1GD      |                  | 1/2" (12.70mm) Conduit KD Centered on Back<br>1/2" (12.70mm) Centered on Back  |
| Туре 1        | NEMA 1 enclosure,<br>double gang  | AHN1GD2     |                  | (118.62mm)<br>Knockdust for 75 - 1.00 (18.05-25.43mm)<br>Conduit (5 Pic 3) - 250 (6.55mm)<br>(19.05 mm)<br>(19.05 mm)<br>(19  |
| Туре 1        | NEMA 1 enclosure,<br>double gang extra deep   | AHN1GD2D    |                  | (118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.52mm)<br>(118.5  |
| Type 3R       | NEMA 3R enclosure   | AHN3WD      |                  | 6.00 <sup>°</sup><br>(152.40mm)<br>(152.40mm)<br>(114.30 <sup>°</sup> m)<br>(114.30 <sup>°</sup> m)<br>( |
| Туре 3, 7 & 9 | Type 3, 7 & 9 enclosure,<br>Class 1, Div 1&2, Groups<br>C, D, Class II, Groups E,<br>F, G | _           |                  | (17. dom)<br>(18. d  |

Compliances, specifications and availability are subject to change without notice.



# Manual motor controllers





4.50" (114.3mm)



# Industrial grade manual motor controllers

## **Product description**

and acrylic paint finish copperless aluminum

2-pole & 3-pole 30A, 600V/AC

Α

30

#### Two-position, maintained contact, single throw, 2-pole, single-phase

|   |               |   |                              | <u> </u>                   |             |      |       |
|---|---------------|---|------------------------------|----------------------------|-------------|------|-------|
| Ra<br>A   | ating<br>V/AC | Description   | Termination<br>style         | Max. AWG<br>wire size      | Catalog no. | ٩    | Rains |
| 30  | 600           | Switch only   | Front wired screw            | #10 AWG                    | □ AH6810U   | •    | •     |
|   |               | Switch in NEMA Type 1 enclosure   | Front wired screw            | #10 AWG                    | □ AH6810G   | •    | •     |
|   |               | Switch in NEMA Type 3R enclosure  | Front wired screw            | #10 AWG                    | □ AH6810W*  | ٠    | •     |
|   |               | Switch in NEMA Type 3, 7 & 9 enclosure for hazardous enclosures. Class I, Div. 1 & 2, Groups C, D; Class II, Groups E, F, G | Front wired screw            | #10 AWG                    | □ AH6810E   | •    | •     |
| *For Canada, order Cat. no. AH6810WR<br>type 3, 7, 9 enclosure: iron back box with galvanized |               |   | Horsepower rated<br>120 V/AC | d for motor lo<br>240 V/AC | •           | V/AC |       |

2

ΗP

5

7.5

7.5

#### Two-position, maintained contact, single throw, 3-pole, 3-phase c (UL) us

| Ra<br>A | ating<br>V/AC | Description   | Termination<br>style         | Max. AWG<br>wire size | Catalog no. |     |
|---------|---------------|---|------------------------------|-----------------------|-------------|-----|
| 30 600  | 600           | Switch only   | Front wired<br>screw & clamp | #10 AWG               | □ AH7810UD  | • • |
|         |               | Switch with cover plate for flush mounting  | Front wired<br>screw & clamp | #10 AWG               | □ AH7810FD  | • • |
|         |               | Switch in NEMA Type 1 single-gang enclosure   | Front wired<br>screw & clamp | #10 AWG               | □ AH7810GD  | • • |
|         |               | Switch in NEMA Type 1 double-gang enclosure   | Front wired<br>screw & clamp | #10 AWG               | □ AH7810GDB | • • |
|         |               | Switch in NEMA Type 3R enclosure  | Front wired<br>screw & clamp | #10 AWG               | □ AH7810WD  | • • |
|         |               | Switch in NEMA Type 3, 7 & 9 Enclosure for hazardous enclosures. Class I, Div. 1 & 2, Groups C, D; Class II, groups E, F, G | Front wired<br>screw & clamp | #10 AWG               | □ AH7810ED  | •   |

Type 3, 7, 9 enclosure: iron back box with galvanized steel and acrylic paint finish copperless aluminum Also available in Type 4X enclosure (see page E-23)

| Hor | Horsepower rated for motor loads per UL508 |          |          |          |  |  |
|-----|--|----------|----------|----------|--|--|
|     | 120 V/AC                                   | 240 V/AC | 480 V/AC | 600 V/AC |  |  |
| HP  | 3  | 7.5      | 15       | 15       |  |  |

#### Accessories for 30A manual motor controllers

| Description  | Catalog no. | ٤   |
|--|-------------|-----|
| Empty enclosure, NEMA type 1 single-gang                                       | □ AHN1GD    | • • |
| Empty enclosure, NEMA type 3R  | 🗆 AHN3WD    | •   |
| Wet-location plastic 1-gang weather protective flush mount toggle switch cover | □ S2983     | • • |
| Cast aluminum single gang 3-hole powder coated back box                        | □ 1113      | • • |
| 1-Gang, standards size 302/304 stainless steel wallplate                       | 93071       | • • |









AHN1GD

AHN3WD

S2983

93071

Specification information: AH6800 & AH7800 series: E-45

Compliances, specifications and availability are subject to change without notice.

Indicates NAFTA compliant - Page Q-30

www.eaton.com www.arrowhart.com

# Industrial manual motor control switches specification & performance data



# Industrial grade manual motor controllers

### **Product description**

Single-phase & 3-phase 20/30A, 600/250V/AC; 30A, 250V/AC; 40A, 600V/AC; 30A, 600V/AC 10/20A, 250/125V/AC/DC; 20/30A, 250/125V/AC/DC

| Switch type                  | Industrial single-phase & 3-phase<br>maintained contact motor controllers<br>AH6800 & AH7800 series  | Industrial single-phase & 3-phase<br>maintained contact motor controllers<br>AHMC200 & AHMC300 series   | Industrial 3-position 2-circuit<br>maintained & momentary contact<br>motor controllers<br>AH4300 & AH27900 series  |
|------------------------------|--|---|--|
| Wiring type                  | Back & side wire screw, front wired screw or<br>front wired screw & clamp  | Side wire, side wired screw & clamp,<br>or side wired box lug   | Side wired screw   |
| Testing & code<br>compliance | • cULus Listed to UL508, file no. E135083  | • cULus Listed to UL508, file no. E135083   | <ul> <li>Listed to UL20, file no. E135162, except<br/>AH4300 series</li> <li>AH4300 series: UL recognized component</li> </ul>   |
| Environmental specifications | Flammability: Meets UL94 requirements;<br>V2 rated<br>Temperature rating: -20°C to 65°C<br>(-4°F to 149°F)   | Flammability: Meets UL94 requirements;<br>V2 rated<br>Temperature rating: -20°C to 65°C<br>(-4°F to 149°F)  | Flammability: Meets UL94 requirements;<br>V2 rated<br>Temperature rating: -20°C to 65°C<br>(-4°F to 149°F)   |
| Electrical<br>specifications | Dielectric voltage: Withstands 1500V per<br>UL20<br>Current interrupting: Yes, at full-rated current<br>Temperature rise: Max. 30°C (86°F) after 100<br>cycles of overload and 30,000 cycles of<br>endurance testing                                   | Dielectric voltage: Withstands 1500V per<br>UL20<br>Current interrupting: Yes, at full-rated current<br>Temperature rise: Max. 30°C (86°F) after 100<br>cycles of overload and 30,000 cycles of<br>endurance testing                            | Dielectric voltage: Withstands 1500V per<br>UL20<br>Current interrupting: Yes, at full-rated current<br>Temperature rise: Max. 30°C (86°F) after 100<br>cycles of overload and 30,000 cycles of<br>endurance testing   |
| Mechanical<br>specifications | Terminal accommodation:<br>#14 AWG - #10 AWG<br>Voltage ratings: 600V max  | Terminal accommodation:<br>#14 AWG - #8 AWG; #14 AWG - #4 AWG<br>Voltage ratings: 600V max  | Terminal accommodation:<br>#14 AWG - #10 AWG<br>Voltage ratings: 600V max  |
| Materials                    | Toggle: Glass-filled nylon<br>Top housing: Glass-filled nylon<br>Bottom housing: Glass-filled nylon<br>Strap: Plated steel<br>Terminals: Copper alloy<br>Terminal screws: Plated brass<br>Contacts: Silver alloy<br>Moveable contact arm: Copper alloy | Toggle: Glass-filled nylon<br>Top housing: Glass-filled nylon<br>Bottom housing: Glass-filled nylon<br>Strap: Plated steel<br>Terminals: Copper alloy<br>Terminal screws: Brass<br>Contacts: Silver alloy<br>Moveable contact arm: Copper alloy | Toggle: Thermoplastic, glass-filled nylon<br>Top housing: Thermoset<br>Bottom housing: Thermoset<br>Strap: Plated steel<br>Terminals: Copper alloy<br>Terminal screws: Brass<br>Contacts: Silver plated copper<br>Moveable contact arm: Silver plated copper |

Compliances, specifications and availability are subject to change without notice.