## Section C **Switches**

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SNAP Connect® and Pre-Wired/Leaded Switches



#### Manual Motor Controllers

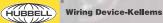


#### Switched Enclosures



Switches

www.hubbell-wiring.com



C-1

Index

# Switches SNAP Connect<sup>®</sup> Toggle and Decorator Series

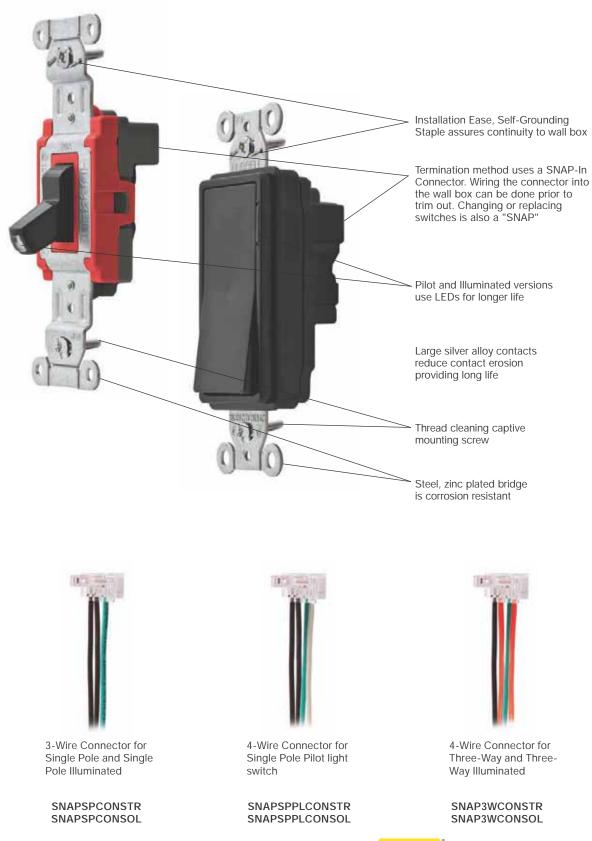




#### Switches **SNAP***Connect*<sup>®</sup> Toggle and Decorator Series *Features and Benefits*



Switches



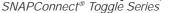
Dimensions in Inches (mm)

www.hubbell-wiring.com



Wiring Device-Kellems

## Switches **15 and 20 Ampere, 120-277 Volts AC** SNAPConnect<sup>®</sup> Toggle Series





SNAP Connect® Toggle Series Specification Grade, 15A, 120-277V AC

SNAP Connect<sup>®</sup> Toggle Series Specification Grade,

Single Pole

SNAP1201ILW

#### .88" (22.4) 1.74" (44.1) 2.38" (60.3) 4.18" (106.2) #6-32 TAP 1.30 (33.0) SNAP1201BK

| Description | Toggle Color | Single Pole | Double Pole | Three Way  | Four Way |
|-------------|--------------|-------------|-------------|------------|----------|
| Toggle.     | Black        | SNAP1201BK  | _           | SNAP1203BK | _        |
| 00          | Brown        | SNAP1201BR  | _           | SNAP1203BR | _        |
|             | Gray         | SNAP1201GY  | _           | SNAP1203GY | _        |
|             | lvory        | SNAP1201I   | _           | SNAP1203I  | _        |
|             | Light Almond | SNAP1201LA  | _           | SNAP1203LA | _        |
|             | Red          | SNAP1201R   | _           | SNAP1203R  | _        |
|             | White        | SNAP1201W   | _           | SNAP1203W  |          |

#### 20A. 120-277V AC

| 204, 120-21 | I AU         |             |             |            |          |
|-------------|--------------|-------------|-------------|------------|----------|
| Description | Toggle Color | Single Pole | Double Pole | Three Way  | Four Way |
| Toggle.     | Black        | SNAP1221BK  | _           | SNAP1223BK | _        |
|             | Brown        | SNAP1221BR  | —           | SNAP1223BR | _        |
|             | Gray         | SNAP1221GY  | _           | SNAP1223GY | _        |
|             | lvory        | SNAP1221I   | _           | SNAP1223I  | _        |
|             | Light Almond | SNAP1221LA  | _           | SNAP1223LA | _        |
|             | Red          | SNAP1221R   |             | SNAP1223R  | _        |
|             | White        | SNAP1221W   |             | SNAP1223W  | _        |

Double Pole

\_

\_\_\_\_

Three Way

SNAP1203ILBK

SNAP1203ILI

SNAP1203ILR

SNAP1203ILW

Four Way

\_\_\_\_

\_

#### .88 (22.4) 1 74" 4.1) 2.38' (60.3) 4.18" (106.2) #6-32 TAP 1.30 (33.0)

SNAP1221BK



Black SNAP1201ILBK Toggle, Blue LED. lvory SNAP1201ILI Red SNAP1201ILR

White

Illuminated, Light On with Load Off

Toggle Color

## Pilot, Light On with Load On

#### 15A. 120-277V AC

15A, 120-277V AC

Description

| Description | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|-------------|--------------|-------------|-------------|-----------|----------|
| Toggle,     | Black        | SNAP1201PLB | < _         | _         | _        |
| Red LED.    | lvory        | SNAP1201PLI | _           | _         | _        |
|             | Red          | SNAP1201PLR | _           | _         | _        |
|             | White        | SNAP1201PLW | _           | _         | _        |

#### Illuminated, Light On with Load Off 20A, 120-277V AC

| Description | Toggle Color | Single Pole  | Double Pole | Three Way    | Four Way |
|-------------|--------------|--------------|-------------|--------------|----------|
| Toggle,     | Black        | SNAP1221ILBK | _           | SNAP1223ILBK | _        |
| Blue LED.   | lvory        | SNAP1221ILI  | _           | SNAP1223ILI  | _        |
|             | Red          | SNAP1221ILR  | _           | SNAP1223ILR  | _        |
|             | White        | SNAP1221ILW  | _           | SNAP1223ILW  | _        |

#### Pilot, Light On with Load On 20A, 120-277V AC

| Description | Toggle Color | Single Pole  | Double Pole | Three Way | Four Way |
|-------------|--------------|--------------|-------------|-----------|----------|
| Toggle,     | Black        | SNAP1221PLBK | —           | _         | _        |
| Red LED.    | lvory        | SNAP1221PLI  | _           | _         | _        |
|             | Red          | SNAP1221PLR  | _           | _         | _        |
|             | White        | SNAP1221PLW  | _           | _         | _        |

#### SNAP Connect® Pigtails

| Description    | Single Pole (3 Wires) | 3 Way (4 Wires) | Single Pole with Pilot |
|----------------|-----------------------|-----------------|------------------------|
| Stranded Wire. | SNAPSPCONSTR          | SNAP3WCONSTR    | SNAPSPPLCONSTR         |
| Solid Wire.    | SNAPSPCONSOL          | SNAP3WCONSOL    | SNAPSPPLCONSOL         |

SNAP3WCONSTR

| HP Conversion Chart |      |       |      |         |  |  |  |
|---------------------|------|-------|------|---------|--|--|--|
|                     | 120V | 208V  | 240V | 277V AC |  |  |  |
| 15A                 | .5HP | 1.5HP | 2HP  | 2HP     |  |  |  |
| 20A                 | 1HP  | 2HP   | 2HP  | 2HP     |  |  |  |

Note: See page C-15 for accessories. See page C-16 for wallplates. See page C-18 for wiring diagrams.





#### Switches 15 and 20 Ampere, 120-277 Volts AC

SNAPConnect® Decorator Series

#### SNAP Connect® Decorator Series Specification Grade,

| 15A, 120-27 |              | Single Dele | Daubla Dala |            | Four Wov |
|-------------|--------------|-------------|-------------|------------|----------|
| Description | Toggle Color | Single Pole | Double Pole | Three Way  | Four Way |
| Rocker.     | Black        | SNAP2101BK  | _           | SNAP2103BK | _        |
|             | Brown        | SNAP2101BR  | _           | SNAP2103BR | _        |
|             | Gray         | SNAP2101GY  | _           | SNAP2103GY | _        |
|             | lvory        | SNAP2101I   | _           | SNAP2103I  | —        |
|             | Light Almond | SNAP2101LA  | _           | SNAP2103LA | _        |
|             | Red          | SNAP2101R   | —           | SNAP2103R  | —        |
|             | White        | SNAP2101W   | —           | SNAP2103W  | _        |
| 20A, 120-27 | 77V AC       |             |             |            |          |
| Description | Toggle Color | Single Pole | Double Pole | Three Way  | Four Way |
| Rocker.     | Black        | SNAP2121BK  | _           | SNAP2123BK | _        |
|             | Brown        | SNAP2121BR  | _           | SNAP2123BR | _        |
|             | Gray         | SNAP2121GY  | _           | SNAP2123GY | _        |
|             | lvory        | SNAP2121I   | _           | SNAP2123I  | _        |
|             |              |             |             |            |          |

SNAP2123LA

SNAP2123R

SNAP2123W

#### SNAP Connect® Decorator Series Specification Grade, Illuminated, Light On with Load Off 15A, 120-277V AC

SNAP2121LA

SNAP2121R

SNAP2121W

Light Almond

Red

White

| 10/ 4, 120 21        |                       |  |             |   |          |
|----------------------|-----------------------|--|-------------|---|----------|
| Description          | Toggle Color          | Single Pole                                | Double Pole | Three Way                                 | Four Way |
| Rocker,<br>Blue LED. | Black<br>Ivory<br>Red | SNAP2101ILBK<br>SNAP2101ILI<br>SNAP2101ILR |             | SNAP2103ILI<br>SNAP2103ILI<br>SNAP2103ILI |          |
|                      | White                 | SNAP2101ILW                                |             | SNAP2103IL\                               | -        |

#### Pilot, Light On with Load On 15A, 120-277V AC

| Description | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|-------------|--------------|-------------|-------------|-----------|----------|
| Rocker,     | Black        | SNAP2101PLB |             | _         | _        |
| Red LED.    | lvory        | SNAP2101PLR | l —         | —         | —        |
|             | Red          | SNAP2101PLI | _           | —         | —        |
|             | White        | SNAP2101PLW | V           |           |          |

#### Illuminated, Light On with Load Off 20A. 120-277V AC

| Description | Toggle Color | Single Pole | Double Pole | Three Way   | Four Way   |
|-------------|--------------|-------------|-------------|-------------|------------|
| Rocker,     | Black        | SNAP2121ILB | < _         | SNAP2123ILB | <b>、</b> _ |
| Blue LED.   | lvory        | SNAP2121ILI | _           | SNAP2123ILI | _          |
|             | Red          | SNAP2121ILR | _           | SNAP2123ILR | _          |
|             | White        | SNAP2121ILW |             | SNAP2123ILW |            |

#### Pilot, Light On with Load On 20A, 120-277V AC

| Description         | Toggle Color   | Single Pole                | Double Pole | Three Way | Four Way |
|---------------------|----------------|----------------------------|-------------|-----------|----------|
| Rocker,<br>Red LED. | Black<br>Ivory | SNAP2121PLB<br>SNAP2121PLI |             | _         | _        |
|                     | Red<br>White   | SNAP2121PLF<br>SNAP2121PLV | -           | —         | —        |

#### SNAP Connect® Pigtails

| Description    | Single Pole (3 Wires) | 3 Way (4 Wires) | Single Pole with Pilot |
|----------------|-----------------------|-----------------|------------------------|
| Stranded Wire. | SNAPSPCONSTR          | SNAP3WCONSTR    | SNAPSPPLCONSTR         |
| Solid Wire.    | SNAPSPCONSOL          | SNAP3WCONSOL    | SNAPSPPLCONSOL         |

Note: See page C-15 for accessories.

See page C-16 for wallplates. See page C-18 for wiring diagrams.



15Δ

20A

240V 277V AC

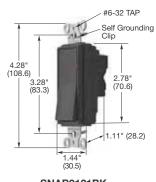
2HP

2HP

2HP

2HP





SNAP2121BK







100%

SNAP3WCONSTR

**HP Conversion Chart** 

208V

2HP

1.5HP

120V

5HP

1HP





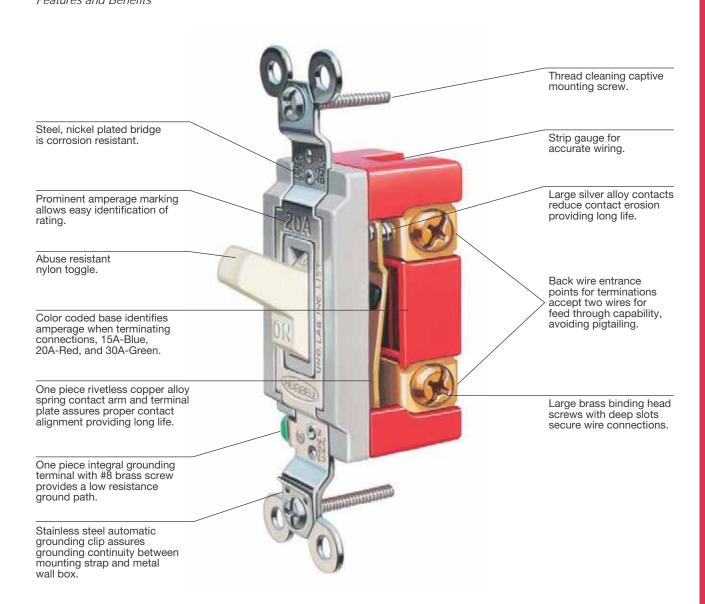
Switches







#### Switches HBL<sup>®</sup> Extra Heavy Duty Industrial Grade Features and Benefits





One piece rivetless copper alloy spring contact arm and terminal plate assures proper contact alignment reducing heat rise. Large silver alloy contacts reduce contact erosion and prevent welding, providing long life.



Heavy duty nylon toggle resists abuse and chemical attack making it suitable for

use in the toughest environments.





Thermoplastic elastomer rocker assures quiet operation and precise timing. Permanently lubricated assembly provides long life and trouble free operation.

One piece integral grounding terminal with #8 brass screw allows compliance to NEC<sup>®</sup>. Stainless steel automatic grounding clip assures grounding continuity between mounting strap and metal wall box. Steel nickel plated mounting strap provides a corrosion resistant finish.

NEC<sup>®</sup> is a registered trademark of the National Fire Protection Association (NFPA).

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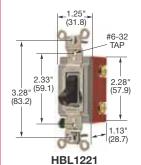
Features and Benefits

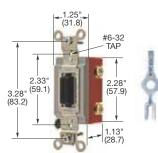
Switches

#### Switches 15, 20 and 30 Ampere, 120-277 Volts AC

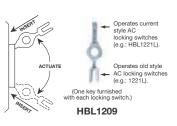


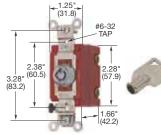
HBL® Extra Heavy Duty Industrial Series



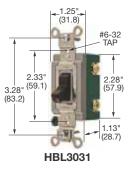


#### HBL1221L and Key





HBL1222RKL and Key



HBL<sup>®</sup> Extra Heavy Duty Industrial Series

#### HBL Extra Heavy Duty Industrial Series, Back and Side Wired 15A. 120-277V AC

| Description                        | Toggle Color  | Single Pole  | Double Pole                             | Three Way  | Four Way   |
|------------------------------------|---|--|---|--|--|
| Toggle,<br>back and<br>side wired. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Red<br>White | HBL1201AL<br>HBL1201BK<br>HBL1201<br>HBL1201GY<br>HBL1201LA<br>HBL1201LA<br>HBL1201R<br>HBL1201W | —<br>HBL1202<br>HBL1202I<br>—<br>—<br>— | HBL1203AL<br>HBL1203BK<br>HBL1203<br>HBL1203GY<br>HBL1203I<br><br>HBL1203W | —<br>HBL1204BK<br>HBL1204<br>HBL1204GY<br>HBL1204I<br>—<br>—<br>HBL1204W |

#### 100 0771/ 40

| 20A, 120-277V AC                   |   |   |   |  |  |  |  |
|------------------------------------|---|---|---|--|--|--|--|
| Description                        | Toggle Color  | Single Pole   | Double Pole   | Three Way  | Four Way   |  |  |
| Toggle,<br>back and<br>side wired. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>Red<br>White | HBL1221AL<br>HBL1221BK<br>HBL1221<br>HBL1221GY<br>HBL1221LA<br>HBL1221LA<br>HBL1221OW<br>HBL1221R<br>HBL1221W | HBL1222AL<br>HBL1222BK<br>HBL1222GY<br>HBL1222GY<br>HBL1222IA<br>HBL1222AW<br>HBL1222AW<br>HBL1222W | HBL1223AL<br>HBL1223BK<br>HBL1223<br>HBL1223GY<br>HBL1223I<br>HBL1223LA<br>HBL1223OW<br>HBL1223R<br>HBL1223W | HBL1224AL<br>HBL1224BK<br>HBL1224<br>HBL1224GY<br>HBL1224I<br>HBL1224LA<br>HBL1224DW<br>HBL1224R<br>HBL1224W |  |  |



| Description                           | Key Guide Color                 | Single Pole                                     | Double Pole                                     | Three Way                                       | Four Way  |
|---------------------------------------|---------------------------------|---|---|---|---|
| Key Guide,<br>back and<br>side wired. | Black<br>Gray<br>Ivory<br>White | HBL1201L<br>HBL1201LG<br>HBL1201LI<br>HBL1201LW | HBL1202L<br>HBL1202LG<br>HBL1202LI<br>HBL1202LW | HBL1203L<br>HBL1203LG<br>HBL1203LI<br>HBL1203LW | HBL1204L<br>HBL1204LG<br>HBL1204LI<br>HBL1204LW |
| Key for Locking switch.               |                                 | HBL1209*  |   |   |   |

#### 00 4 120 2771/ 10

| 20A, 120-277V AC                      |                                 |   |   |   |   |  |  |
|---------------------------------------|---------------------------------|---|---|---|---|--|--|
| Description                           | Key Guide Color                 | Single Pole                                     | Double Pole                                     | Three Way                                       | Four Way  |  |  |
| Key Guide,<br>back and<br>side wired. | Black<br>Gray<br>Ivory<br>White | HBL1221L<br>HBL1221LG<br>HBL1221LI<br>HBL1221LW | HBL1222L<br>HBL1222LG<br>HBL1222LI<br>HBL1222LW | HBL1223L<br>HBL1223LG<br>HBL1223LI<br>HBL1223LW | HBL1224L<br>HBL1224LG<br>HBL1224LI<br>HBL1224LW |  |  |
| Key for Locking                       | switch.                         | HBL1209*  |   |   |   |  |  |

#### HBL Extra Heavy Duty Industrial AC Barrel Key Locking Switch, Back and Side Wired

20A. 120-277V AC

| Description                                 | Key Guide Color | Single Pole  | Double Pole  | Three Way    | Four Way     |
|---|-----------------|--------------|--------------|--------------|--------------|
| Chrome operator,<br>back and side<br>wired. | Chrome          | HBL1221RKL** | HBL1222RKL** | HBL1223RKL** | HBL1224RKL** |
| Replacement Barre                           | el Key.         | HBL1209RKL*  |              |              |              |
| 30A, 120-277V                               | AC              |              |              |              |              |

| Description   | Key Guide Color | Single Pole | Double Pole | Three Way | Four Way |
|---------------|-----------------|-------------|-------------|-----------|----------|
| Nylon toggle. | Brown           | HBL3031     | HBL3032     | HBL3033   | _        |
|               | lvory           | HBL3031I    | HBL3032I    | HBL3033I  | _        |

See page C-15 for accessories. See page C-16 for wallplates.

See page C-17 for technical data.

See page C-18 for wiring diagrams. \* Not UL Listed, CSA Certified. \*\* Not Fed. Spec.

| HP Conversion Chart |      |       |      |         |  |  |  |
|---------------------|------|-------|------|---------|--|--|--|
|                     | 120V | 208V  | 240V | 277V AC |  |  |  |
| 15A                 | .5HP | 1.5HP | 2HP  | 2HP     |  |  |  |
| 20A                 | 1HP  | 2HP   | 2HP  | 2HP     |  |  |  |
| 30A                 | 2HP  | 2HP   | 2HP  | 2HP     |  |  |  |

C-8



Wiring Device-Kellems

Dimensions in Inches (mm)

#### Switches 15, 20 and 30 Ampere, 120-277 and 347 Volts AC

HBL<sup>®</sup> Extra Heavy Duty Industrial Series Momentary Contact and Maintained Contact Specification Grade

#### HBL Extra Heavy Duty Industrial Series, Illuminated and Pilot Light Toggle Switches, Illuminated Toggle, Light On with Load Off, Back and Side Wired

| Description                              | Toggle Color   | Rating          | Single Pole             | Double Pole | Three Way               |
|--|----------------|-----------------|-------------------------|-------------|-------------------------|
| Nylon toggle,<br>back and<br>side wired. | lvory          | 15A 120-277V AC | HBL1201IL               | —           | HBL1203IL               |
|  | lvory<br>Clear | 20A 120-277V AC | HBL1221IL<br>HBL1221ILC | _           | HBL1223IL<br>HBL1223ILC |
|  | Red            |                 | HBL1221ILR              | _           | _                       |

#### Pilot Light, Light On with Load On

| Description                              | Toggle Color          | Rating          | Single Pole                           | Double Pole         | Three Way                    |  |
|--|-----------------------|-----------------|---------------------------------------|---------------------|------------------------------|--|
| Nylon toggle,<br>back and<br>side wired. | Red                   | 15A 120-277V AC | HBL1201PL                             | —                   | HBL1203PL                    |  |
|  | Red<br>Clear<br>Green | 20A 120-277V AC | HBL1221PL<br>HBL1221PLC<br>HBL1221PLG | HBL1222PL<br>—<br>— | HBL1223PL<br>HBL1223PLC<br>— |  |
|  | Red                   | 30A 120-277V AC | HBL3031PL                             | HBL3032PL           | _                            |  |

#### Momentary Contact, Specification Grade, Three Position, Two Circuit, Center Off, Back and Side Wired

|                   | ,            | , ,              |                  | _ |
|-------------------|--------------|------------------|------------------|---|
| Description       | Toggle Color | 15A, 120-277V AC | 20A, 120-277V AC |   |
| Nylon toggle,     | Brown        | HBL1556          | HBL1557          |   |
| back and          | Gray         | HBL1556GY        | HBL1557GY        |   |
| side wired.       | lvory        | HBL1556I         | HBL1557I         |   |
|                   | Red          | HBL1556R         | _                |   |
|                   | White        | HBL1556W         | HBL1557W         |   |
| Key guide,        | Black        | HBL1556L         | HBL1557L         |   |
| back and          | lvory        | HBL1556LI        | HBL1557LI        |   |
| side wired.       | White        | HBL1556LW        | HBL1557LW        |   |
| Key for Locking s | switch.      | HBL1209*         |                  |   |

#### Maintained Contact, Specification Grade, Three Position, Two Circuit, Center Off, Single Pole, Double Throw

| Three Position,    | Three Position, Two Circuit, Center On, Single Pole, Double Throw |                 |                 |                 |  |  |  |
|--------------------|---|-----------------|-----------------|-----------------|--|--|--|
| Description        | Toggle Color  | 15A 120-277V AC | 20A 120-277V AC | 30A 120-277V AC |  |  |  |
| Nylon toggle, back | Brown   | HBL1381         | HBL1385         | _               |  |  |  |
| and side wired.    | lvory   | HBL1381I        | HBL1385I        | —               |  |  |  |
|                    | White   | —               | HBL1385W        | —               |  |  |  |

#### **Double Pole, Double Throw**

| Description                        | Toggle Color   | 15A 120-277V AC     | 20A 120-277V AC     | 30A 120-277V AC     |
|------------------------------------|----------------|---------------------|---------------------|---------------------|
| Nylon toggle, back and side wired. | Brown<br>Ivory | HBL1382<br>HBL1382I | HBL1386<br>HBL1386I | HBL1388<br>HBL1388I |
| Locking.                           |                | —                   | HBL1386L            | —                   |
| Key for Locking swi                | tch.           | _                   | HBL1209*            | _                   |

Note: Keys are supplied with each locking switch. For extra keys order HBL1209.

See page C-15 for accessories.

See page C-16 for wallplates.

See page C-17 for technical data.

See page C-18 for wiring diagrams.

\* Not UL Listed, CSA Certified.

#### HP Conversion Chart

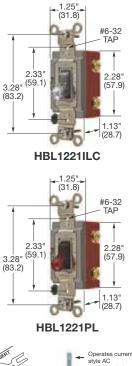
|     | 120V | 208V  | 240V | 277V AC |
|-----|------|-------|------|---------|
| 15A | .5HP | 1.5HP | 2HP  | 2HP     |
| 20A | 1HP  | 2HP   | 2HP  | 2HP     |
| 30A | 2HP  | 2HP   | 2HP  | 2HP     |



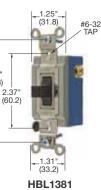




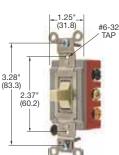
Switches







3.28" (83.3)

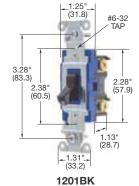


+\_1.31"\_+ (33.2) HBL1386I

HBL<sup>®</sup> Extra Heavy Duty Industrial Series

## Switches **15 and 20 Ampere, 120-277 Volts AC** Hubbell-Pro<sup>™</sup> Heavy Duty Industrial Series





25 (31.8)

\_1.31"\_
(33.2) 12211

> 25 (31.8)

÷

\_1.25"\_ (31.8)

G \_1.31"\_ (33.2) 1221PWI

3.28" (83.3)

3.28" (83.3)

3.28" (83.3)

2.38" (60.5)

1.31" (33.2)

2.38" (60.5)

2.38" (60.5)

#6-32 ⁄ TAP

2.28" (57.9)

1.13" (28.7)

#6-32 ⁄ TAP

(28.7)

#6-32 ⁄ TAP

2.28" (57.9)

1.13" (28.7)

28 7.9)

#### Hubbell-Pro<sup>™</sup> Heavy Duty Industrial Series, 15A. 120-277V AC

|             | 11/10        |             |             |           |          |
|-------------|--------------|-------------|-------------|-----------|----------|
| Description | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
| Toggle,     | Almond       | 1201AL      | _           | 1203AL    | _        |
| back and    | Black        | 1201BK      | _           | 1203BK    | _        |
| side wired. | Brown        | 1201B       | _           | 1203B     | _        |
|             | Gray         | 1201GY      | —           | 1203GY    |          |
|             | lvory        | 12011       | _           | 12031     | _        |
|             | Light Almond | 1201LA      | _           | 1203LA    | _        |
|             | White        | 1201W       | _           | 1203W     | _        |
|             |              |             |             |           |          |

#### Hubbell-Pro<sup>™</sup> Heavy Duty Industrial Series,

#### 20A, 120-277V AC

| Description | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|-------------|--------------|-------------|-------------|-----------|----------|
| Toggle,     | Almond       | 1221AL      | 1222AL      | 1223AL    | 1224AL   |
| back and    | Black        | 1221BK      | 1222BK      | 1223BK    | 1224BK   |
| side wired. | Brown        | 1221B       | 1222B       | 1223B     | 1224B    |
|             | Gray         | 1221GY      | 1222GY      | 1223GY    | 1224GY   |
|             | lvory        | 12211       | 12221       | 12231     | 12241    |
|             | Light Almond | 1221LA      | 1222LA      | 1223LA    | 1224LA   |
|             | Red          | 1221R       | 1222R       | 1223R     | 1224R    |
|             | White        | 1221W       | 1222W       | 1223W     | 1224W    |

#### Hubbell-Pro<sup>™</sup> Pre-Wired/Leaded Heavy Duty Industrial Series - 8" #12 AWG THHN 20A, 120-277V AC

| Description                 | Toggle Color  | Single Pole  | Double Pole  | Three Way   | Four Way   |
|-----------------------------|---|--|--|---|--|
| Toggle,<br>Pre-wired leads. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>Red<br>White | 1221PWAL<br>1221PWBK<br>1221PWB<br>1221PWGY<br>1221PWI<br>1221PWLA<br>1221PWCW<br>1221PWR<br>1221PWR | 1222PWAL<br>1222PWBK<br>1222PWB<br>1222PWGY<br>1222PWI<br>1222PWLA<br>1222PWOW<br>1222PWR<br>1222PWW | 1223PWAL<br>1223PWBK<br>1223PWB<br>1223PWGY<br>1223PWI<br>1223PWLA<br>1223PWOW<br>1223PWR<br>1223PWR<br>1223PWW | 1224PWAL<br>1224PWBK<br>1224PWB<br>1224PWGY<br>1224PWI<br>1224PWLA<br>1224PWCW<br>1224PWCW<br>1224PWR<br>1224PWW |

#### Hubbell-Pro<sup>™</sup> Hospital Call Switch, with Lanyard 20A, 120-277V AC

| Description | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|-------------|--------------|-------------|-------------|-----------|----------|
| Toggle,     | Gray         | HBL1221GHCS | _           | _         | _        |
| back and    | Ivory        | HBL1221IHCS | _           | _         | _        |
| side wired. | White        | HBL1221WHCS | _           | _         | _        |

Note: See page C-15 for accessories.

See page C-16 for wallplates.

See page C-18 for wiring diagrams.

| HP Conversion Chart |      |       |      |         |  |  |
|---------------------|------|-------|------|---------|--|--|
|                     | 120V | 208V  | 240V | 277V AC |  |  |
| 15A                 | .5HP | 1.5HP | 2HP  | 2HP     |  |  |
| 20A                 | 1HP  | 2HP   | 2HP  | 2HP     |  |  |

C-10

HBL1221IHCS



Dimensions in Inches (mm)

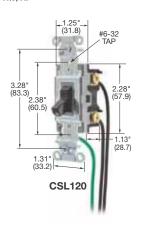
## Switches **15 and 20 Ampere, 120-277 Volts AC** *Pre-Wired/Leaded Toggle and Decorator Series*

Rocker Color

Description

#### Pre-Wired/Leaded Toggle Series Specification Grade - 8" #12 AWG THHN 15A 120-277V AC

| Description                        | Toggle Color  | Single Pole   | Double Pole   | Three Way   | Four Way  |
|------------------------------------|---|---|---|---|---|
| Toggle, Nylon,<br>Pre-wired leads. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>White        | CSL115AL<br>CSL115BK<br>CSL115<br>CSL115GY<br>CSL115I<br>CSL115LA<br>CSL115CW<br>CSL115W            | CSL215AL<br>CSL215BK<br>CSL215<br>CSL215GY<br>CSL215I<br>CSL215LA<br>CSL215DW<br>CSL215W            | CSL315AL<br>CSL315BK<br>CSL315<br>CSL315<br>CSL315GY<br>CSL315LA<br>CSL315DW<br>CSL315W             | CSL415AL<br>CSL415BK<br>CSL415<br>CSL415GY<br>CSL415I<br>CSL415LA<br>CSL415OW<br>CSL415W            |
| 20A, 120-277V<br>Description       | Toggle Color  | Single Pole   | Double Pole   | Three Way   | Four Way  |
| Toggle, Nylon,<br>Pre-wired leads. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>Red<br>White | CSL120AL<br>CSL120BK<br>CSL120<br>CSL120GY<br>CSL120I<br>CSL120LA<br>CSL120OW<br>CSL120R<br>CSL120W | CSL220AL<br>CSL220BK<br>CSL220<br>CSL220GY<br>CSL220I<br>CSL220LA<br>CSL220OW<br>CSL220R<br>CSL220W | CSL320AL<br>CSL320BK<br>CSL320<br>CSL320GY<br>CSL320I<br>CSL320LA<br>CSL320OW<br>CSL320R<br>CSL320W | CSL420AL<br>CSL420BK<br>CSL420<br>CSL420GY<br>CSL420I<br>CSL420IA<br>CSL420CW<br>CSL420R<br>CSL420W |



#6-32 TAP

(UL) S

E(Nr

#### Pre-Wired/Leaded Decorator Series Specification Grade - 8" #12 AWG THHN (H) (R 15A, 120-277V AC

Double Pole

Three Way

Four Way

Single Pole

| Description  | KOCKEI COIOI   | Single Fole  | Double Fole  | Three Way  | Tour way   | #6-32 TAP  |
|--|--|--|--|--|--|--|
| Rocker,<br>Polycarbonate,<br>Pre-wired leads.              | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>White | DSL115AL<br>DSL115BK<br>DSL115<br>DSL115GY<br>DSL115I<br>DSL115LA<br>DSL115OW<br>DSL115W | DSL215AL<br>DSL215BK<br>DSL215<br>DSL215GY<br>DSL215I<br>DSL215LA<br>DSL215DW<br>DSL215W   | DSL315AL<br>DSL315BK<br>DSL315<br>DSL315GY<br>DSL315I<br>DSL315LA<br>DSL315CW<br>DSL315W | DSL415AL<br>DSL415BK<br>DSL415<br>DSL415<br>DSL415I<br>DSL415LA<br>DSL415LA<br>DSL415OW<br>DSL415W   | 3.81"<br>(96.7)<br>(83.3)<br>-   |
| 20A, 120-277V  |  |  |  |  |  |  |
| Description  | Rocker Color   | Single Pole  | Double Pole  | Three Way  | Four Way   | - <u>1.48"</u> - <u>(28.4)</u>   |
| Rocker,<br>Polycarbonate,<br>Pre-wired leads.              | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>White | DSL120AL<br>DSL120BK<br>DSL120<br>DSL120GY<br>DSL120I<br>DSL120LA<br>DSL120OW<br>DSL120W | DSL220AL<br>DSL220BK<br>DSL220GY<br>DSL220GY<br>DSL220I<br>DSL220LA<br>DSL220OW<br>DSL220W | DSL320AL<br>DSL320BK<br>DSL320<br>DSL320GY<br>DSL320I<br>DSL320LA<br>DSL320OW<br>DSL320W | DSL420AL<br>DSL420BK<br>DSL420<br>DSL420GY<br>DSL420I<br>DSL420IA<br>DSL420LA<br>DSL4200W<br>DSL420W | (37.6)<br>DSL315W  |
| Illuminated, Li<br>20A, 120-277V                           | AC   |  |  |  |  |  |
| Description  | Rocker Color   | Single Pole  | Double Pole  | Three Way  | Four Way   | _  |
| Rocker,<br>Polycarbonate,<br>Pre-wired leads,<br>Blue LED. | Ivory<br>White   | DSL120IL<br>DSL120ILW  | _  | DSL320IL<br>DSL320ILW  | _  |  |
| Pilot, Light On<br>20A, 120-277V                           | AC   |  |  |  |  | -  |
| Description  | Rocker Color   | Single Pole  | Double Pole  | Three Way  | Four Way   | _  |
| Rocker,<br>Polycarbonate,<br>Pre-wired leads,<br>Red LED.  | Red  | DSL120PL   | —  | —  | —  | - HP Conversion Chart  |
| Note: See page C-15  | for accessories.   |  |  |  |  | 120V 208V 240V 277V AC   |
| <i>See page C-16</i><br><i>See page C-18</i>               | for wallplates.<br>for wiring diagrams.  |  |  |  |  | 15A         .5HP         1.5HP         2HP         2HP           20A         1HP         2HP         2HP         2HP |
| Dimensions in Inches (r                                    | mm)  |  | www.hubbell-w  | viring.com   | JBBELL   | Device-Kellems C-11  |

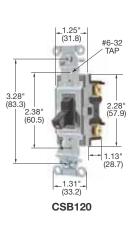


## Switches **15 and 20 Ampere, 120-277 Volts AC** Specification Grade Commercial Series



#### **Specification Grade Commercial Series,** 15A. 120-277V AC

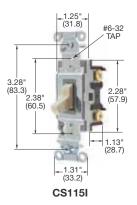
| 104, 120-211                       | I AO   |  |  |   |   |
|------------------------------------|--|--|--|---|---|
| Description                        | Toggle Color   | Single Pole  | Double Pole  | Three Way   | Four Way  |
| Toggle,<br>back and<br>side wired. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>White | CSB115AL<br>CSB115BK<br>CSB115<br>CSB115GY<br>CSB115I<br>CSB115LA<br>CSB115LA<br>CSB115W | CSB215AL<br>CSB215BK<br>CSB215<br>CSB215GY<br>CSB215I<br>CSB215LA<br>CSB215W | CSB315AL<br>CSB315BK<br>CSB315<br>CSB315GY<br>CSB315GY<br>CSB315LA<br>CSB315LA<br>CSB315W | CSB415AL<br>CSB415BK<br>CSB415<br>CSB415GY<br>CSB415GY<br>CSB415LA<br>CSB415LA<br>CSB415W |



#### **Specification Grade Commercial Series,**

#### 20A, 120-277V AC

| Description                        | Toggle Color  | Single Pole   | Double Pole   | Three Way   | Four Way  |
|------------------------------------|---|---|---|---|---|
| Toggle,<br>back and<br>side wired. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Red<br>White | CSB120AL<br>CSB120BK<br>CSB120<br>CSB120GY<br>CSB120I<br>CSB120LA<br>CSB120R<br>CSB120W | CSB220AL<br>CSB220BK<br>CSB220<br>CSB220GY<br>CSB220I<br>CSB220LA<br>CSB220R<br>CSB220W | CSB320AL<br>CSB320BK<br>CSB320<br>CSB320GY<br>CSB320I<br>CSB320LA<br>CSB320R<br>CSB320W | CSB420AL<br>CSB420BK<br>CSB420<br>CSB420GY<br>CSB420I<br>CSB420IA<br>CSB420R<br>CSB420W |



#### Specification Grade Commercial Series, 15A. 120-277V AC

| Description      | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|------------------|--------------|-------------|-------------|-----------|----------|
| Toggle,          | Almond       | CS115AL     | _           | CS315AL   | _        |
| side wired only. | Black        | CS115BK     | _           | CS315BK   | _        |
| 5                | Brown        | CS115       | _           | CS315     | _        |
|                  | Gray         | CS115GY     | _           | CS315GY   | _        |
|                  | lvory        | CS115I      | _           | CS315I    | _        |
|                  | Light Almond | CS115LA     | _           | CS315LA   | _        |
|                  | White        | CS115W      | _           | CS315W    | _        |

#### Specification Grade Commercial Series, 20A, 120-277V AC

| Description      | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|------------------|--------------|-------------|-------------|-----------|----------|
| Toggle,          | Almond       | CS120AL     | _           | CS320AL   | _        |
| side wired only. | Black        | CS120BK     | _           | CS320BK   | _        |
|                  | Brown        | CS120       | _           | CS320     | —        |
|                  | Gray         | CS120GY     | _           | CS320GY   | _        |
|                  | lvory        | CS120I      | _           | CS320I    |          |
|                  | Light Almond | CS120LA     | —           | CS320LA   | —        |
|                  | White        | CS120W      | —           | CS320W    | —        |
|                  |              |             |             |           |          |

Note: See page C-11 for pre-wired/leaded devices. See page C-15 for accessories. See page C-16 for wallplates. See page C-18 for wiring diagrams.

For pre-wired/leaded devices see page C-11.

| HP Conversion Chart |      |       |      |         |  |  |
|---------------------|------|-------|------|---------|--|--|
|                     | 120V | 208V  | 240V | 277V AC |  |  |
| 15A                 | .5HP | 1.5HP | 2HP  | 2HP     |  |  |
| 20A                 | 1HP  | 2HP   | 2HP  | 2HP     |  |  |



#### Switches 15 and 20 Ampere, 120-277 Volt AC

Style Line® Decorator Series Specification Grade

#### Style Line<sup>®</sup> Decorator Series Specification Grade, 15A. 120-277V AC

| Description | Rocker Color | Single Pole | Double Pole | Three Way | Four Way |
|-------------|--------------|-------------|-------------|-----------|----------|
| Rocker,     | Almond       | DS115AL     | _           | DS315AL   | _        |
| back and    | Black        | DS115BK     | _           | DS315BK   | _        |
| side wired. | Brown        | DS115       | _           | DS315     | _        |
|             | Gray         | DS115GY     | —           | DS315GY   | _        |
|             | lvory        | DS115I      | —           | DS315I    | —        |
|             | Light Almond | DS115LA     | —           | DS315LA   | _        |
|             | Office White | DS1150W     | —           | DS315OW   | —        |
|             | White        | DS115W      | —           | DS315W    | —        |

#### Style Line<sup>®</sup> Decorator Series Specification Grade, 20A, 120-277V AC

| Description                        | Rocker Color  | Single Pole  | Double Pole   | Three Way  | Four Way   |
|------------------------------------|---|--|---|--|--|
| Rocker,<br>back and<br>side wired. | Almond<br>Black<br>Brown<br>Gray<br>Ivory<br>Light Almond<br>Office White<br>Red<br>White | DS120AL<br>DS120BK<br>DS120<br>DS120GY<br>DS120I<br>DS120LA<br>DS120OW<br>DS120R<br>DS120W | DS220AL<br>DS220BK<br>DS220B<br>DS220GY<br>DS220I<br>DS220LA<br>DS220OW<br>DS220R<br>DS220W | DS320AL<br>DS320BK<br>DS320<br>DS320GY<br>DS320I<br>DS320LA<br>DS320OW<br>DS320R<br>DS320W | DS420AL<br>DS420BK<br>DS420<br>DS420GY<br>DS420I<br>DS420LA<br>DS420OW<br>DS420R<br>DS420W |

#### Style Line® Decorator Series Specification Grade, Illuminated, Light On with Load Off 20A, 120-277V AC

| Description   | Rocker Color | Single Pole | Double Pole | Three Way | Four Way |
|---------------|--------------|-------------|-------------|-----------|----------|
| Rocker,       | Black        | DS120ILBK   | _           | DS320ILBK | _        |
| with Red LED, | lvory        | DS120IL     | —           | DS320IL   | _        |
| back and side | White        | DS120ILW    | —           | DS320ILW  | _        |
| wired.        |              |             |             |           |          |

#### Style Line® Decorator Series Specification Grade, Pilot, Light On with Load On 20A, 120-277V AC

| Description    | Rocker Color | Single Pole | Double Pole | Three Way | Four Way |
|----------------|--------------|-------------|-------------|-----------|----------|
| Rocker,        | Black        | DS120PLBK   | _           | _         | _        |
| with Blue LED, | lvory        | DS120PLI    | _           | _         | _        |
| back and side  | White        | DS120PLW    | _           | _         | _        |
| wired.         |              |             |             |           |          |

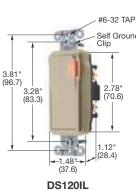
Note: See page C-11 for pre-wired/leaded devices. See page C-15 for accessories. See page C-16 for wallplates.

See page C-18 for wiring diagrams.

| HP Conversion Chart |      |       |      |         |  |  |
|---------------------|------|-------|------|---------|--|--|
|                     | 120V | 208V  | 240V | 277V AC |  |  |
| 15A                 | .5HP | 1.5HP | 2HP  | 2HP     |  |  |
| 20A                 | 1HP  | 2HP   | 2HP  | 2HP     |  |  |



C-13







Self Grounding Clip

#### Switches 15 and 20 Ampere, 120-277 and 347 Volts AC



HBL<sup>®</sup> Extra Heavy Duty Industrial Series Toggle Type Switches with Ground Screw and 347V AC PresSwitch<sup>®</sup> Specification Grade Push Button Switches

#### 1.30" (33.1) #6-32 \_ TAP 4 06 (103.1) 3.53" (89.7) 2.27" (57.7) 2 (6 1 19" (30.2)

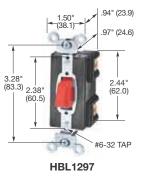
Switches

HBL18221CN

| 15A, 347V AC                             |                |                           | Only        |                           |             |
|--|----------------|---------------------------|-------------|---------------------------|-------------|
| Description                              | Toggle Color   | Single Pole               | Double Pole | Three Way                 | Four Way    |
| Nylon toggle,<br>back and<br>side wired. | Brown<br>Ivory | HBL18201CN<br>HBL18201ICN | _           | HBL18203CN<br>HBL18203ICN | HBL18204ICN |
| Locking.                                 |                | HBL18201LCN               | _           | HBL18203LCN               | I —         |
| Key for Locking sw                       | vitch.         | HBL1209*                  |             |                           |             |
| 20A, 347V AC                             |                |                           | ( Only      |                           |             |
| Description                              | Toggle Color   | Single Pole               | Double Pole | Three Way                 | Four Way    |
| Nylon toggle,<br>back and<br>side wired. | Brown<br>Ivory | HBL18221CN<br>HBL18221ICN | _           | HBL18223CN<br>HBL18223ICN | HBL18224ICN |



HBL1281



#### PresSwitch® Specification Grade Push Button, Standard Type 20A, 120-277V AC

| Description      | Toggle Color | Single Pole | Double Pole | Three Way | Four Way  |
|------------------|--------------|-------------|-------------|-----------|-----------|
| Nylon actuator,  | Brown        | HBL1281     | HBL1282     | HBL1283*  | HBL1284*  |
| side wired only. | Ivory        | HBL1281I    | HBL1282I    | HBL1283I* | HBL1284I* |

#### Momentary Type<sup>•</sup> 20A, 120-277V AC

| Description                               | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |  |
|---|--------------|-------------|-------------|-----------|----------|--|
| Circuit normally closed, side wired only. | Brown        | HBL1281MC*  | —           | —         | —        |  |
| Circuit normally open, side wired only.   | Brown        | HBL1281MO*  | —           | —         | —        |  |

#### Illuminated and Pilot Light PresSwitch®, 120V AC Lighted Actuator. Light On with Load Off•

HBL<sup>®</sup> Extra Heavy Duty Industrial Series

| Description          | Toggle Color | Single Pole | Double Pole | Three Way | Four Way  |
|----------------------|--------------|-------------|-------------|-----------|-----------|
| 15A, nylon actuator. | lvory        | —           | —           | _         | HBL1259I* |
| 20A, nylon actuator. | lvory        | HBL1287I    | _           | HBL1288I* | _         |

#### Pilot Light Actuator, Light On with Load On 20A, 120V AC

| Description     | Toggle Color | Single Pole | Double Pole | Three Way | Four Way |
|-----------------|--------------|-------------|-------------|-----------|----------|
| Nylon actuator. | Red          | HBL1297     | —           | HBL1298*  | —        |

Note: Keys are supplied with each locking switch. For extra keys order HBL1209.

See page C-15 for accessories. See page C-16 for wallplates.

See page C-17 for technical data.

See page C-17 for recriminal data. See page C-18 for wiring diagrams. \* Not UL Listed, CSA Certified.

Not HP rated.

| HP Co | onversior | n Chart |      |         |
|-------|-----------|---------|------|---------|
|       | 120V      | 208V    | 240V | 277V AC |
| 15A   | .5HP      | 1.5HP   | 2HP  | 2HP     |
| 20A   | 1HP       | 2HP     | 2HP  | 2HP     |
| 30A   | 2HP       | 2HP     | 2HP  | 2HP     |



#### Switches **Accessories**

Pilot Light, Brass Locking Attachment and Lockout Devices and Weatherproof Switch Plates for Toggle Switches

| Pilot Light, 120-277V AC   |                |
|--|----------------|
| Description  | Catalog Number |
| Red neon pilot light, back and side wired, fits standard switch plate. | HBL1220RJ      |

#### Brass Locking Attachment for Switches Available in Master Keying and Straight Keying Systems

| Description   | Catalog Number |
|---|----------------|
| Straight keying (all locks alike). Appropriate for most applications.<br>Straight cylinder type lock, each HBL96061 ordered operates on the<br>same key. All locks are keyed alike.               | HBL96061*      |
| Same as above except in dull chrome finish to match stainless steel plates.   | HBL96061DCH*   |
| Straight keying (individual). Straight cylinder type lock, each HBL96062 ordered operates on a different key. All locks are keyed differently and individually. This type cannot be master keyed. | HBL96062*      |

#### SWITCHOUT<sup>®</sup> Lockout Device

| Description  | Catalog Number |  |
|--|----------------|--|
| Yellow, nylon toggle switch lockout device.  | HSLDPK2*+      |  |
| Weatherproof Plates  |                |  |
| Description  | Catalog Number |  |
| Clear bubble plate, silicone rubber for use with all general purpose AC toggle and PresSwitch <sup>®</sup> switches. Fits both FS/FD and standard boxes. | HBL1795        |  |
| Cast aluminum lift cover plate with fiber shield. For standard toggle and PresSwitch <sup>®</sup> . Fits only FS/FD boxes.                               | HBL7420        |  |

#### Weatherproof Plates

| Weatherproof Plates  |                |  |
|--|----------------|--|
| Description  | Catalog Number |  |
| Gray neoprene PresSwitch <sup>®</sup> plate. Fits FS/FD and standard boxes.                      | HBL1750        |  |
| Same as above except yellow.   | HBL17CM50      |  |
| Gray neoprene PresSwitch <sup>®</sup> plate with 125V red pilot light.<br>Fits only FS/FD boxes. | HBL1785        |  |
| Same as above except yellow.   | HBL17CM85      |  |

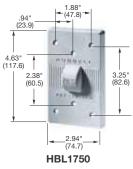
Note: \* Not UL Listed or CSA Certified.

Each locking wallplate is supplied with two keys.

+ Two devices per package.

See Section U for more information on safety lockout devices. See Section K for full line of wallplates.





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#### HBL96061 Shown with wallplate and switch



HSLDPK2



HBL1795



### Switches Accessories



Nylon and Metal Wallplates





#### Standard Size, Smooth Nylon, Toggle Switch Plates

|              | · · · · J · · · · J · · · · · · · · · · |       |       |  |
|--------------|---|-------|-------|--|
| Color        | Catalog Number                          |       |       |  |
| Almond       | NP1AL                                   | NP2AL | NP3AL |  |
| Black        | NP1BK                                   | NP2BK | NP3BK |  |
| Brown        | NP1                                     | NP2   | NP3   |  |
| Gray         | NP1GY                                   | NP2GY | NP3GY |  |
| lvory        | NP1I                                    | NP2I  | NP3I  |  |
| Office White | NP10W                                   | NP2OW | NP3OW |  |
| Red          | NP1R                                    | NP2R  | NP3R  |  |
| White        | NP1W                                    | NP2W  | NP3W  |  |
|              |   |       |       |  |

#### Standard Size, Smooth Metal, Toggle Switch Plates

| Color                    | Catalog Number |      |       |  |
|--------------------------|----------------|------|-------|--|
| Aluminum                 | SA1            | SA2  | 0     |  |
| Brass                    | SB1            | SB2  | SBP3* |  |
| Stainless Steel, 302/304 | SS1            | SS2  | SS3   |  |
| Stainless Steel, 430     | SS1L           | SS2L | SS3L  |  |





#### Standard Size, Smooth Nylon, Style Line® Switch Plates

| Color        | Catalog Number |         |         |  |
|--------------|----------------|---------|---------|--|
| Almond       | NP26AL         | NP262AL | NP263AL |  |
| Black        | NP26BK         | NP262BK | NP263BK |  |
| Brown        | NP26           | NP262   | NP263   |  |
| Gray         | NP26GY         | NP262GY | NP263GY |  |
| lvory        | NP26I          | NP262I  | NP263I  |  |
| Office White | NP26OW         | NP262OW | NP263OW |  |
| Red          | NP26R          | NP262R  | NP263R  |  |
| White        | NP26W          | NP262W  | NP263W  |  |

#### Standard Size, Smooth Metal, Style Line® Switch Plates

| Catalog Number |                   |  |  |
|----------------|-------------------|--|--|
| 0              | 0                 | 0  |  |
| SB26           | SB262             | 0  |  |
| SS26           | SS262             | SS263  |  |
| SS26L          | SS262L            | _  |  |
|                | ©<br>SB26<br>SS26 | Image: Optimized state         Image: Optized state         Image: Optized state <td>Image: Optimized state         Image: Optized state         Image: Optized state</td> | Image: Optimized state         Image: Optized state         Image: Optized state |

Note: See Section K for full line of wallplates.

① Available as a custom metal wallplate. See Section K for more information.



<sup>\*</sup> Brass plated.

#### SP, DP, 3-Way, 4-Way

#### Specifications

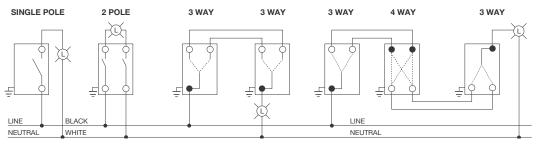
| Listings   | Component  | Material                                |  |
|--|--|---|--|
| UL Listed  | Base   | Thermoset, Color Coded by Amperage      |  |
| CSA Certified  | Тор  | Thermoset, Gray                         |  |
| Verified to Fed. Spec. W-S-896,                                      | Toggle   | Nylon                                   |  |
| SP, DP, 3-way and 4-way  | Terminals  | Brass                                   |  |
|  | Terminal Screws  | Brass                                   |  |
|  | Mounting Bridge  | Nickel Plated Steel                     |  |
|  | Contacts   | Silver Alloy                            |  |
|  | Moveable Contact Arm   | Brass                                   |  |
|  | Rocker   | Elastomer                               |  |
|  | Ground Terminal  | Nickel-Plated Steel                     |  |
|  | Ground Screw   | Brass                                   |  |
|  | Automatic Grounding Clip   | Stainless Steel                         |  |
| Electrical<br>Dielectric Voltage<br>Max. Working Voltage<br>Overload | Withstands 1500V AC minimum for 1 minute.<br>277V AC.<br>Minimum 4.8 times rated current for 100 cycles. |   |  |
| Temperature Rise   | 30°C maximum at rated currer   | nt.                                     |  |
| Max. Continuous Current  | 15A, 20A, 30A.   |   |  |
|  | 50,000 cycles min., tungsten filament  |   |  |
| Endurance  |  |   |  |
| Endurance  | lamp load Fed. Spec. #WS896  | , SP, DP, 3-way and 4-way.              |  |
| Endurance<br>Mechanical  | lamp load Fed. Spec. #WS896  | , SP, DP, 3-way and 4-way.              |  |
|  |  | x. solid and stranded copper wire only. |  |
| Mechanical<br>Terminal Accommodations                                |  |   |  |
| Mechanical   |  |   |  |
| Mechanical<br>Terminal Accommodations<br>Environmental               | #14 AWG min #10 AWG ma   |   |  |



## Switches Toggle Switch Wiring Diagrams



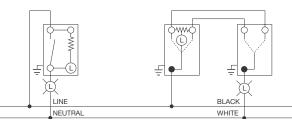
#### Standard Toggle Type Switches



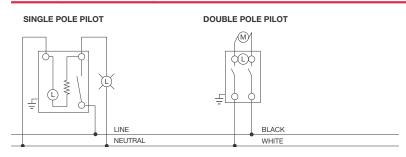
#### Illuminated Switches (light on with load off)

SINGLE POLE LIGHTED

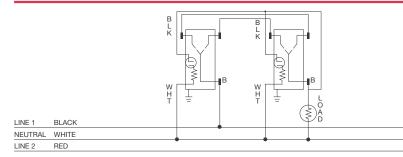
3 WAY LIGHTED



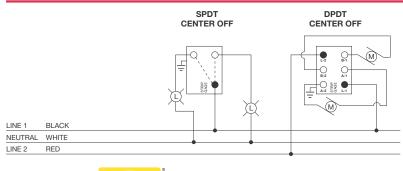
#### Pilot Light Switches (light on with load on)



#### Three Way Pilot Switches



#### Three Position Switches, Momentary and Maintained





#### Switches Certification Chart

#### UL, CSA, and Fed. Spec. Listing Data

| Catalog<br>Number | WS896<br>Listed | UL Listed<br>UL20 | CSA<br>Certified | Catalog<br>Number        | WS896<br>Listed | UL Listed<br>UL20 | CSA<br>Certified |  |
|-------------------|-----------------|-------------------|------------------|--------------------------|-----------------|-------------------|------------------|--|
| 1201              | Yes             | Yes               | Yes              | HBL1224                  | Yes             | Yes               | Yes              |  |
| 1203              | Yes             | Yes               | Yes              | HBL1221L                 | Yes             | Yes               | Yes              |  |
| 1221              | Yes             | Yes               | Yes              | HBL1222L                 | Yes             | Yes               | Yes              |  |
| 1222              | Yes             | Yes               | Yes              | HBL1223L                 | Yes             | Yes               | Yes              |  |
| 1223              | Yes             | Yes               | Yes              | HBL1224L                 | Yes             | Yes               | Yes              |  |
| 1224              | Yes             | Yes               | Yes              | HBL1221IL                | Yes             | Yes               | Yes              |  |
| 1221PW            | Yes             | Yes               | Yes              | HBL1223IL                | Yes             | Yes               | Yes              |  |
| 1222PW            | Yes             | Yes               | Yes              | HBL1221PL                | Yes             | Yes               | Yes              |  |
| 1223PW            | Yes             | Yes               | Yes              | HBL1222PL                | Yes             | Yes               | Yes              |  |
| 1224PW            | Yes             | Yes               | Yes              | HBL1223PL                | Yes             | Yes               | Yes              |  |
| CS115             | Yes             | Yes               | Yes              | HBL1221RKL               | No              | Yes               | Yes              |  |
| CS315             | Yes             | Yes               | Yes              | HBL1222RKL               | No              | Yes               | Yes              |  |
| CS120             | Yes             | Yes               | Yes              | HBL1223RKL               | No              | Yes               | Yes              |  |
| CS320             | Yes             | Yes               | Yes              | HBL1224RKL               | No              | Yes               | Yes              |  |
| CSB115            | Yes             | Yes               | Yes              | HBL1259I                 | No              | No                | No               |  |
| CSB215            | Yes             | Yes               | Yes              | HBL1281                  | No              | Yes               | Yes              |  |
| CSB215<br>CSB315  | Yes             | Yes               | Yes              | HBL1281                  | No              | Yes               | Yes              |  |
| CSB415            | Yes             | Yes               | Yes              | HBL1282                  | No              | No                | No               |  |
| CSB120            | Yes             | Yes               | Yes              | HBL1203                  | No              | No                | No               |  |
| CSB120<br>CSB220  | Yes             | Yes               | Yes              | HBL1287I                 | No              | Yes               | Yes              |  |
|                   |                 |                   |                  |                          |                 |                   |                  |  |
| CSB320            | Yes             | Yes               | Yes              | HBL1288I                 | No              | No                | No               |  |
| CSB420            | Yes             | Yes               | Yes              | HBL1281MO                | No              | No                | No               |  |
| CSL115            | Yes             | Yes               | Yes              | HBL1281MC                | No              | No                | No               |  |
| CSL215            | Yes             | Yes               | Yes              | HBL1297                  | No              | Yes               | Yes              |  |
| CSL315            | Yes             | Yes               | Yes              | HBL1298                  | No              | No                | No               |  |
| CSL415            | Yes             | Yes               | Yes              | HBL1381                  | No              | Yes               | Yes              |  |
| CSL120            | Yes             | Yes               | Yes              | HBL1382                  | No              | Yes               | Yes              |  |
| CSL220            | Yes             | Yes               | Yes              | HBL1385                  | No              | Yes               | Yes              |  |
| CSL320            | Yes             | Yes               | Yes              | HBL1386                  | No              | Yes               | Yes              |  |
| CSL420            | Yes             | Yes               | Yes              | HBL1386L                 | No              | Yes               | Yes              |  |
| DS115             | No              | Yes               | Yes              | HBL1388                  | No              | Yes               | Yes              |  |
| DS315             | No              | Yes               | Yes              | HBL1556                  | No              | Yes               | Yes              |  |
| DS120             | No              | Yes               | Yes              | HBL1557                  | No              | Yes               | Yes              |  |
| DS220             | No              | Yes               | Yes              | HBL1556L                 | No              | Yes               | Yes              |  |
| DS320             | No              | Yes               | Yes              | HBL1557L                 | No              | Yes               | Yes              |  |
| DS420             | No              | Yes               | Yes              | HBL3031                  | Yes             | Yes               | Yes              |  |
| DS120IL           | No              | Yes               | Yes              | HBL3032                  | Yes             | Yes               | Yes              |  |
| DS320IL           | No              | Yes               | Yes              | HBL3033                  | Yes             | Yes               | Yes              |  |
| DS120PL           | No              | Yes               | Yes              | HBL3031PL                | Yes             | Yes               | Yes              |  |
| DSL115            | Yes             | Yes               | Yes              | HBL3031PL                | Yes             | Yes               | Yes              |  |
| DSL215            | Yes             | Yes               | Yes              | HBL3032PL                | Yes             | Yes               | Yes              |  |
| DSL315            | Yes             | Yes               | Yes              | SNAP1201                 | Yes             | Yes               | Yes              |  |
| DSL415            | Yes             | Yes               | Yes              | SNAP1201IL               | Yes             | Yes               | Yes              |  |
| DSL120            | Yes             | Yes               | Yes              | SNAP1201PL               | Yes             | Yes               | Yes              |  |
| DSL220            | Yes             | Yes               | Yes              | SNAP1203                 | Yes             | Yes               | Yes              |  |
| DSL220            | Yes             | Yes               | Yes              | SNAP1203IL               | Yes             | Yes               | Yes              |  |
| DSL320<br>DSL420  | Yes             | Yes               | Yes              | SNAP 12031L<br>SNAP1221  | Yes             | Yes               | Yes              |  |
| HBL1201           | Yes             | Yes               | Yes              | SNAP1221                 | Yes             | Yes               | Yes              |  |
| HBL1201           | Yes             | Yes               | Yes              | SNAP12211L<br>SNAP1221PL | Yes             | Yes               | Yes              |  |
| HBL1202           | Yes             | Yes               | Yes              | SNAP1221PL<br>SNAP1223   | Yes             | Yes               | Yes              |  |
|                   |                 |                   |                  |                          |                 |                   |                  |  |
| HBL1204           | Yes             | Yes               | Yes              | SNAP1223                 | Yes             | Yes               | Yes              |  |
| HBL1201IL         | Yes             | Yes               | Yes              | SNAP1223IL               | Yes             | Yes               | Yes              |  |
| HBL1203IL         | Yes             | Yes               | Yes              | SNAP2101                 | Yes             | Yes               | Yes              |  |
| HBL1201PL         | Yes             | Yes               | Yes              | SNAP2101IL               | Yes             | Yes               | Yes              |  |
| HBL1203PL         | Yes             | Yes               | Yes              | SNAP2101PL               | Yes             | Yes               | Yes              |  |
| HBL1201L          | Yes             | Yes               | Yes              | SNAP2103                 | Yes             | Yes               | Yes              |  |
| HBL1202L          | Yes             | Yes               | Yes              | SNAP2103IL               | Yes             | Yes               | Yes              |  |
| HBL1203L          | Yes             | Yes               | Yes              | SNAP2121                 | Yes             | Yes               | Yes              |  |
| HBL1204L          | Yes             | Yes               | Yes              | SNAP2121IL               | Yes             | Yes               | Yes              |  |
| HBL1221           | Yes             | Yes               | Yes              | SNAP2121PL               | Yes             | Yes               | Yes              |  |
| HBL1222           | Yes             | Yes               | Yes              | SNAP2123                 | Yes             | Yes               | Yes              |  |
| HBL1223           | Yes             | Yes               | Yes              | SNAP2123IL               | Yes             | Yes               | Yes              |  |

Note: Catalog numbers above represent all colors and variations.



## Switches 600 to 2000 Watts, 120 Volts AC 60Hz

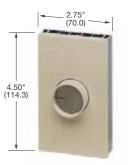
Slide and Rotary Control Dimmers



600 and 1000W Dimmer Fits Single-Gang Wall Boxes. **AS63** and **AS103** 



1500 and 2000W Dimmer Fits Single-Gang Wall Boxes. **AS153** and **AS203** 



600 and 1000W Dimmer Fits Single-Gang Wall Boxes. AR61 and AR101



1500 and 2000W Dimmer Fits Single-Gang Wall Boxes. AR151 and AR201

| Architectural | Grade, | Incandescent | Preset | Slide | Control | Dimmers |
|---------------|--------|--------------|--------|-------|---------|---------|
|               |        |              |        |       |         |         |

| Description                     | Color | Rating               | Catalog Number |
|---------------------------------|-------|----------------------|----------------|
| Single pole/three way - preset. | White | 600W, 120V AC, 60Hz  | AS63           |
| Single pole/three way - preset. | White | 1000W, 120V AC, 60Hz | AS103          |
| Single pole/three way - preset. | White | 1500W, 120V AC, 60Hz | AS153          |
| Single pole/three way - preset. | White | 2000W, 120V AC, 60Hz | AS203          |

#### Accessories

| Description   | Color          | Catalog Number |
|---|----------------|----------------|
| Small plate kit for 600W and 1000W<br>models. Includes non-metallic<br>trimplate and slide. | lvory<br>White | AS1I<br>AS1W   |
| Large plate kit for 1500W and 2000W models. Includes non-metallic trimplate and slide.      | lvory<br>White | AS2I<br>AS2W   |

Note: The dimmers listed above can be wired for single pole or three way applications. See page C-21 for ganging and derating.

| Architoctural | Grada  | Incondocoont | Poton  | Control | Dimmore |
|---------------|--------|--------------|--------|---------|---------|
| Architectural | Grade, | Incandescent | Rotary | Control | Dimmers |

| Description  | Color          | Rating               | Catalog Number |
|--|----------------|----------------------|----------------|
| Single pole - push on/off.<br>Three way - push on/off. | Beige<br>Beige | 600W, 120V AC, 60Hz  | AR61<br>AR63   |
| Single pole - push on/off.<br>Three way - push on/off. | Beige<br>Beige | 1000W, 120V AC, 60Hz | AR101<br>AR103 |
| Single pole, rotary on/off.                            | Beige          | 1500W, 120V AC, 60Hz | AR151          |
| Single pole, rotary on/off.                            | Beige          | 2000W, 120V AC, 60Hz | AR201          |

| Accessories   |                |                |
|---|----------------|----------------|
| Description   | Color          | Catalog Number |
| Small plate kit for 600W and 1000W models. Includes non-metallic trimplate and knob.  | Beige<br>White | AR1BE<br>AR1W  |
| Large plate kit for 1500W and 2000W models. Includes non-metallic trimplate and knob. | Beige<br>White | AR2BE<br>AR2W  |

Note: See page C-21 for ganging and derating.





## Switches **Dimmer Ganging and Derating**

One small dimmer in this box.

Single-Gang

Gangable Switchbox

3/4 Space (Use Close Nipple) Switches

#### Architectural Grade Slide and Rotary Series Number of Switchboxes Required with Dimmer Side sections Intact

|                   |   | Nu | Number of Small Controls (600W and 1000W) |     |    |     |    |     |
|-------------------|---|----|---|-----|----|-----|----|-----|
|                   |   | 0  | 1   | 2   | 3  | 4   | 5  | 6   |
| Number of         | 0 | 0  | 1   | 1+1 | 4  | 1+4 | 7  | 1+7 |
| Large Controls    | 1 | 1  | 3   | 5   | 6  | 8   | 9  | 11  |
| (1500W and 2000W) | 2 | 4  | 6   | 7   | 9  | 10  | 12 | 13  |
|                   | 3 | 6  | 8   | 10  | 11 | 13  | 14 | 16  |
|                   | 4 | 9  | 11  | 12  | 14 | 15  | 17 | 18  |
|                   |   |    | Number of Gangs Required                  |     |    |     |    |     |

Note: When ganging an even number of small controls with no side sections removed (plus numbers in chart), use gangable switchboxes with tapped ears as shown below. Do not use plaster rings or gangbox covers. Space an additional switchbox ¾ in. apart from the other switchbox(es). A ¾ in. close nipple is recommended as a spacer between the switchboxes.

#### Number of Switchboxes Required with Side sections Removed

|                   |   | Number of Small Controls (600W and 1000W) |   |    |    |    |    |    |  |
|-------------------|---|---|---|----|----|----|----|----|--|
|                   |   | 0   | 1 | 2  | 3  | 4  | 5  | 6  |  |
| Number of         | 0 | 0   | 1 | 2  | 3  | 4  | 5  | 6  |  |
| Large Controls    | 1 | 1   | 3 | 4  | 5  | 6  | 7  | 8  |  |
| (1500W and 2000W) | 2 | 3   | 5 | 6  | 7  | 8  | 9  | 10 |  |
|                   | 3 | 5   | 7 | 8  | 9  | 10 | 11 | 12 |  |
|                   | 4 | 7   | 9 | 10 | 11 | 12 | 13 | 14 |  |
|                   |   | Number of Gangs Required                  |   |    |    |    |    |    |  |

Note: When removing side sections, remove only inner side sections. Do not remove side sections on outer ends of gang. The same installation rules apply to rotary dimmers (not shown).

#### Derating Chart

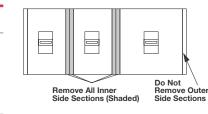
| <u> </u>                    |                             |                               |
|-----------------------------|-----------------------------|-------------------------------|
| No side<br>sections removed | One side<br>section removed | Both side<br>sections removed |
| 600W                        | 600W                        | 500W                          |
| 1000W                       | 900W                        | 700W                          |
| 1500W                       | 1250W                       | 1000W                         |
| 2000W                       | 1800W                       | 1500W                         |
|                             |                             |                               |

Note: When ganging any combination of small and large controls, place a small control on one extreme end of the gang, and a large control at the other end of the gang. When ganging with side sections intact, use offset mounting holes. When ganging with side sections removed, use center mounting holes. Allow a 1/32 in. gap (space) between controls for ease in attaching the faceplate.

#### Specification Grade Slide and Rotary Series Switchboxes Required: Side sections removed

#### Derating Chart

| 1 dimmer<br>in wall box | 2 dimmers<br>in wall box | 3 or more dimmers<br>in wall box |
|-------------------------|--------------------------|----------------------------------|
| 600W                    | 500W                     | 400W                             |
| 1000W                   | 800W                     | 650W                             |
| 5A fan speed            | 4A fan speed             | 3A fan speed                     |



Example of four-gang installation

Three small dimmers in this box

Four-Gang Gangable Switchbox



## Switches Heavy Duty Panel Mount Panel Mount and Bat Handle Switches





HBL11



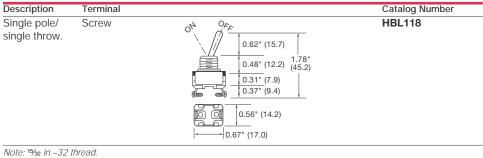
HBL123SP

| Description  | Terminal       | •  | Catalog Number         |
|--|----------------|--|------------------------|
| Single pole/<br>single throw.  | Screw<br>Spade | .61" (15.5)  | HBL11<br>HBL11SP       |
| Single pole/<br>single throw<br>momentary.                             | Screw<br>Spade | Cash and the second sec | HBL11M<br>HBL11SPM     |
| Single pole/<br>double throw.  | Screw<br>Spade | 1.13°<br>(28.7)<br>→ Screw Terminal Shown  | HBL12<br>HBL12SP       |
| Single pole/<br>double throw<br>3-position<br>center off.              | Screw<br>Spade | C(28,7)<br>Screw Terminal Shown  | HBL123<br>HBL123SP     |
| Single pole/<br>double throw<br>3-position<br>center off<br>momentary. | Screw<br>Spade | (28.7)<br>Screw Terminal Shown   | HBL123MM<br>HBL123SPMM |

10A 250V AC 20A 125V AC Horsepower Rated ¾ HP, 125-250V AC

Note: All threaded stems 15/32 in.-32 thread.

#### 10A 240V AC 15A 120V AC



#### 4A 250V 8A 125V 10A 120V AC 1/3 HP 120V AC

| Description                   | Terminal   |  | Catalog Number |
|-------------------------------|--|--|----------------|
| Single pole/<br>single throw. | #18 Std.<br>AWG<br>Copper Wire<br>Leads 105° C<br>Black. | OFF (14.2)<br>15/32-32 THRD 0.56"<br>(14.2)<br>15/32-32 THRD 0.25"<br>Keyway<br>.080 x .035<br>.098" - 0.98" - 0.50"<br>(24.9)<br>.050" (12.7)<br>.050"<br>.050" (12.7)<br>.050"<br>.050" (12.7)<br>.050" (12.7) | HBL11WL        |

Note: 15/32 in.-32 thread, keyway .080 x .035.

| Specifications  |  |
|---|--|
| mpact Resistant Thermoplastic Body.   |  |
| ine Silver Contacts.  |  |
| Knurled Nut, Hex Nut And Strap All Nickel Plated.                                 |  |
| Keyed Brass Bushing Nickel Plated.  |  |
| Brass Toggle Nickel Plated.   |  |
| Choice of Terminal Design: .250 in. (6.3) Male Tab Spade Type or 6/32 Screw Type. |  |
| JL Recognized.  |  |



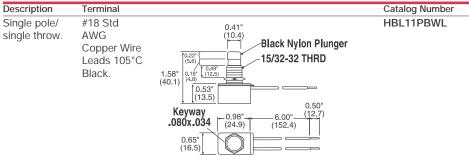
## Switches Heavy Duty Panel Mount Panel Mount and Bat Handle Switches

#### 10A 250V AC 20A 125V AC Horsepower Rated 11/2 HP, 125-250V AC Catalog Number Description Terminal Double pole/ Screw HBL21 .75" (19.1) .47" (11.9) .80" (20.3) single throw. HBL21SP Spade 6 6 1.30" (33.0) Þ Ē ЛК OFF Double pole/ Screw HBL22 .75" (19.1) double throw. .80" (20.3) HBL22SP Spade R P î Ø 1.30" (33.0) È 0 Double pole/ **HBL223** Screw .75" (19.1) double throw + .80" (20.3) HBL223SP Spade ON STP/ T 3 position 1.30" (33.0) 4000 OFF 6 center off. RA 1 013 Double pole/ Screw HBL223MM .75" (19.1) double throw Spade .80" (20.3) HBL223SPMM 3 position fT 1.30" (33.0) ģ center off momentary. L S Silicone SSB1 rubber boot.

Note: All threaded stems 15/32 in.-32 thread.

See Section W, Marine Electrical Products for information on 12V DC tapered handle switches.

#### 4A 250V 8A 125V 10A 120V AC 1/3 HP 120V AC



Note: 15/32 in.-32 thread, keyway .080 x .034.

Switches





**HBL223** 





HBL11PBWL

Dimensions in Inches (mm)



#### Switches Pendant Pushbutton Stations

PBS and CPB2 Series



1.06" (26.9) 9.13" (231.9) 2.38" (60.5)

#### CPB2 Series Compact Pendant Stations, Two Button, NEMA 4X Description Catalog Number

| Single-speed normally open-normally closed                                      | CPB20                           |
|---|---------------------------------|
| without mechanical interlock.   |                                 |
| Single-speed with mechanical interlock between pushbuttons.                     | CPB21                           |
| Two-speed with mechanical interlock between pushbuttons.                        | CPB22                           |
| Note: Included with product: nylon cord grip and sealing washer (must be instal | led to achieve NEMA 4X rating). |

Indication label pack. Cord dia. range .375–625 in (9.5–15.9) Ambient temperatures: 25°F to 140°F (32°C to 60°C).

Typical applications: Package electric motor hoists. Remote control of machinery.

#### **Contact Ratings, CPB2 Series**

| e officier fraungo, er |         |         |
|------------------------|---------|---------|
| Single-Speed           | Voltage | Current |
| AC                     | 120V    | 6A      |
| 35% PF                 | 240V    | 3A      |
| DC                     | 125V    | 1.1A    |
| IND                    | 250V    | .55A    |
| Two-Speed              | Voltage | Current |
| AC                     | 120V    | 3A      |
| 35% PF                 | 240V    | 1.5A    |
|                        |         |         |

**IP44** 

IP55

| Description             | Catalog Number |
|-------------------------|----------------|
| 2 button, single speed. | PBS2           |
| 2 button, two speed.    | PBS22          |
| 4 button, single speed. | PBS4           |
| 4 button, two speed.    | PBS42          |
| 6 button, single speed. | PBS6           |
| 6 button, two speed.    | PBS62          |
| 8 button, single speed. | PBS8           |
| 8 button, two speed.    | PBS82          |

#### **Product Dimensions, PBS Series**

| Style    | Α              | Approx. Wt. Assembled | Catalog Number |
|----------|----------------|-----------------------|----------------|
| 2 button | 7.88" (200.0)  | 2.5 lbs               | PBS2           |
| 4 button | 13.69" (347.6) | 4.5 lbs               | PBS4           |
| 6 button | 18.0" (457.2)  | 5.5 lbs               | PBS6           |
| 8 button | 22.31" (566.7) | 7.5 lbs               | PBS8           |

Note: Housing: Yellow vinyl rubber.

#### **Contact Interrupting Ratings, PBS Series**

|                           |         | -       |  |
|---------------------------|---------|---------|--|
| Two-Speed Single Break    | Voltage | Current |  |
| AC                        | 120V    | 6A      |  |
| 35% PF                    | 240V    | 3A      |  |
| DC                        | 125V    | .4A     |  |
| IND                       | 250V    | .2A     |  |
| Single-Speed Double Break | Voltage | Current |  |
| AC                        | 120V    | 6A      |  |
| 35% PF                    | 240V    | 3A      |  |
| DC                        | 125V    | 1.1A    |  |
| IND                       | 250V    | .55A    |  |
|                           |         |         |  |



3.25" (82.6)

0.88"-(22.4)

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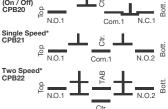
30mm K.O.



3.50" (88.9)

#### Wiring Diagram CPB2 Series Momentary (On / Off) CPB20 ŧ.

CPB21



\*Mechanical "floating ball" interlock prevents activating both Pushbuttons simultaneously.



PBS6

Cable Entrance Threaded 1" (25.4) NPT I.D. 1.125" (28.6) O.D.

C ſ

#### Switches PBS Series Pendant Pushbutton Station Accessories

#### **Replacement Inserts**

When the insert switches are in need of replacement, simply unplug the old insert and plug in a new one. Description Catalog Number Single speed insert momentary N.O. and N.C. PG2 On-Off insert (no mechanical interlock). PG6 Momentary, start-stop, reset-stop. 3 speed insert, momentary. Used to a maximum of 3 speed points. MS2 5 speed insert, momentary. Used to a maximum of 5 speed points. MS5 For five speed applications replace an existing terminal board with the TB5 terminal board and replace an existing insert with the five speed (MS5) insert.

#### **Conversion Inserts**

In addition to single speed and two speed applications, pre-assembled units can be adapted to handle other applications.

| Description   | Catalog Number |
|---|----------------|
| Terminal board Catalog No. TB2 is required for                    | TB2            |
| each insert switch PG2, PG6 and MS2.                              |                |
| Terminal board Catalog No. TB5 is required for insert switch MS5. | TB5            |
|   |                |

#### Accessories

| Description  | Catalog Number            |
|--|---------------------------|
| Indicator labels for replacement package contains 1 each:<br>hoist, trolley, bridge, forward-reverse, raise-lower, in-out, right left,<br>east-west, north-south, reset-stop, start-stop, power, main hoist,<br>aux. hoist, on-off, up-down. | PBSLP                     |
| Rubber button cover for replacement purposes.  | PBSBC                     |
| 120V red pilot light for 4, 6, and 8 button units only.  | PBSPL1*                   |
| Note: * Each pendant station can accommodate one of the pilot light in the 1.20 in. (30.6  | ) diameter mounting hole. |

Kellems® Deluxe Aluminum Cord Fitting

Outdoor or indoors where subject to moisture, splash or submersion. Kellems grips provide strain relief for multi-conductor cable.

| Description   | Cord Range              | Catalog Number |  |  |  |
|---------------|-------------------------|----------------|--|--|--|
| Kellems grip. | .750"875" (19-22.2)     | 07401023       |  |  |  |
| Kellems grip. | .875"-1.00" (22.2-25.4) | 07401025       |  |  |  |





MS5



TB2





PBSLP

PBSBC

PBSPL1





#### Switches **30 Ampere, 600 Volts AC Manual Motor Controllers** Industrial – Extra Heavy Duty AC Manual Motor Controllers,



Industrial – Extra Heavy Duty AC Manual Motor Controller Double and Three Pole (Without Overload Protection) "Suitable as Motor Disconnect"

> (4) #10-32 TAP

#### 30A 600V AC Manual Motor Controllers,

| Description   | Catalog Number  |
|---|---|
| 30A, double pole, single throw, AC manual motor controller, black nylon handle, side and back wired.  | HBL7832D  |
| 30A, double pole, single throw, AC manual motor controller, black nylon handle, short toggle.   | HBL7832DS   |
| 30A, double pole, single throw, AC manual motor controller.<br>50 piece bulk pack.  | HBL7832DX   |
| HBL7832D in HBL1390 Type 1 enclosure with non-metallic cover,<br>½ in. and ¾ in. knockouts on top, bottom and back of steel frame.  | HBL1392D  |
| HBL7832D in HBL1370 metal Type 1 enclosure.   | HBL1372D  |
| HBL7832D in NEMA 3R non-metallic enclosure.   | HBL13R22D   |
| HBL7832D in HBL13R90 metal Type 3R enclosure.   | HBL13R92D   |
|   |   |
| HBL7832D in NEMA 3R flip-lid enclosure. Three Pole  | HBL13R12D   |
| Three Pole  | Catalog Number  |
| Three Pole<br>Description<br>30A, three pole, single throw, AC manual motor controller,   |   |
| Three Pole  | Catalog Number  |
| Three Pole Description 30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired. 30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle. HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover,   | Catalog Number<br>HBL7810D  |
| Three Pole         Description         30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.         30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle.         HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.   | Catalog Number<br>HBL7810D<br>HBL7810DS   |
| Three Pole         Description         30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.         30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle.         HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.         HBL7810D in HBL1370 metal Type 1 enclosure.   | Catalog Number<br>HBL7810D<br>HBL7810DS<br>HBL1389D                                       |
| Three Pole         Description         30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.         30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.         30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle.         HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.         HBL7810D in HBL1370 metal Type 1 enclosure.         HBL7810D in NEMA 3R non-metallic enclosure. | Catalog Number<br>HBL7810D<br>HBL7810DS<br>HBL1389D<br>HBL1379D                           |
| Three Pole         Description         30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.         30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle.         HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.         HBL7810D in HBL1370 metal Type 1 enclosure.         HBL7810D in NEMA 3R non-metallic enclosure.         HBL7810D in HBL13R90 metal Type 3R enclosure.   | Catalog Number<br>HBL7810D<br>HBL7810DS<br>HBL1389D<br>HBL1379D<br>HBL13R23D              |
| Three Pole Description 30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired. 30A, three pole, single throw, AC manual motor controller,   | Catalog Number<br>HBL7810D<br>HBL7810DS<br>HBL1389D<br>HBL1379D<br>HBL13R23D<br>HBL13R89D |

#### Motor Rating

| in otor i taning |         |         |         |         |       |  |
|------------------|---------|---------|---------|---------|-------|--|
| Product          | 120V AC | 240V AC | 480V AC | 600V AC | Phase |  |
| 30A Double Pole  | 2HP     | 5HP     | 10HP    | 15HP    | 1     |  |
| 30A Three Pole   | 3HP     | 71∕₂HP  | 15HP    | 20HP    | 3     |  |
| 40A Double Pole  | 2HP     | 5HP     | 10HP    | 15HP    | 1     |  |
| 40A Three Pole   | 3HP     | 71∕₂HP  | 15HP    | 20HP    | 3     |  |
| 50A Double Pole  | 2HP     | 5HP     | 10HP    | 15HP    | 1     |  |
| 50A Three Pole   | 3HP     | 71∕₂HP  | 15HP    | 25HP    | 3     |  |
| 60A Double Pole  | -       | 10HP    | 15HP    | 20HP    | 1     |  |
| 60A Three Pole   | -       | 10HP    | 25HP    | 30HP    | 3     |  |
| 85A Double Pole  | -       | 10HP    | 15HP    | 20HP    | 1     |  |
| 85A Three Pole   | -       | 10HP    | 25HP    | 40HP    | 3     |  |







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3.28° (83.3) 3.78° (96.0) HBL7810D (2).20 Dia. Mtg. Holes (100.8) 4.52° (114.8)

\_2.25"\_ (57.1)

HBL1389D

2.62" (66.5)



HBL13R13D



30 Ampere, 600 Volts AC Manual Motor Controllers

HBL1379D



#### Switches 40, 50, 60 and 85 Ampere, 600 Volts AC Manual Motor Controllers Industrial – Heavy Duty AC Manual Motor Controllers,



Industrial – Heavy Duty AC Manual Motor Controllers, Double and Three Pole (Without Overload Protection) "Suitable as Motor Disconnect"

#### 40A 600V AC Manual Motor Controllers

| Description   | Catalog Number              |
|---|-----------------------------|
| 40A, double pole, single throw, AC manual motor controller, black nylon handle, side wired. | HBL7842D                    |
| 40A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.  | HBL7843D                    |
| Note: Catalog numbers HBL7842D and HBL7843D dimensions are the same as F                    | BL7810D shown on page C-26. |

#### 50A 600V AC Manual Motor Controllers

| Description   | Catalog Number |
|---|----------------|
| 50A, double pole, single throw, AC manual motor controller, black nylon handle, side wired. | HBL7852D       |
| 50A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.  | HBL7853D       |

Note: Catalog numbers HBL7852D and HBL7853D dimensions are the same as HBL7810D shown on page C-26.

#### 60A 600V AC Manual Motor Controllers

| Description   | Catalog Number |
|---|----------------|
| 60A, double pole, single throw, AC manual motor controller, black nylon handle, back wired. | HBL7862D       |
| Same as HBL7862D except front wired.  | HBL7862FWD     |
| HBL7862FWD in Type 3R enclosure.  | HBL16R92D      |
| 60A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.  | HBL7863D       |
| Same as HBL7863D except front wired.  | HBL7863FWD     |
| HBL7863FWD in a Type 3R enclosure.  | HBL16R93D      |
| 60A, three pole, rotary controller in NEMA 4X stainless steel enclosure.                    | HBL16S63D      |
| 60A, three pole, rotary controller in NEMA 4X non-metallic enclosure.                       | HBL16X63D      |
| Note: See page C-29 for technical data.   |                |

#### 85A 600V AC Manual Motor Controllers

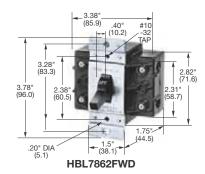
| Description   | Catalog Number |
|---|----------------|
| 85A, double pole, single throw, AC manual motor controller, black nylon handle, back wired. | HBL7882D       |
| 85A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.  | HBL7883D       |

#### Motor Controller Accessories

| Description  | Catalog Number |
|--|----------------|
| Finger Guards, fit 30, 40 and 50 amp controllers.    | HBLFG30        |
| Auxiliary Contacts, for use in rotary switches only. | HBLAUX         |

IP44 SUITABILITY









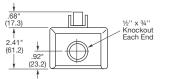
HBL16S63D



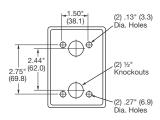
#### Switches 30 and 60 Ampere Enclosures



#### <u>IP44\*</u>



END VIEW HBL1370/HBL1372D/HBL1379D



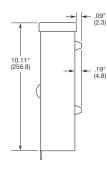
#### BACK VIEW HBL1370/HBL1372D/HBL1379D

| 00 | A   | En el s |        |
|----|-----|---------|--------|
| 30 | Amp | Encio   | osures |

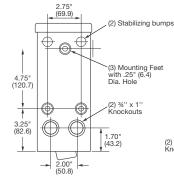
| Description   |  | Catalog Numbe  |
|---|--|--|
|   | with non-metallic cover (without switch<br>n top, bottom and back of steel frame.  |  |
|   | with metallic cover (without switch)<br>n top, bottom and back of steel frame.   | HBL1370  |
| Type 3R metal enclosure without                         | switch.  | HBL13R90   |
| * Enclosure rating.<br>See page C-29 for technical dat. | 2.75*<br>(69.9)<br>2.04*<br>(51.8)<br>(3) Mounting Feet<br>with .25* (6.4)<br>Dia. Hole<br>(3) Mounting Feet<br>(3) Mounting Feet<br>(6.4)<br>Dia. Hole<br>(6.2)<br>(6.2)<br>(6.2)<br>(6.3)<br>(6.3)<br>(6.3)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.2)<br>(6.2)<br>(6.5)<br>(6.4)<br>(6.1)<br>(6.2)<br>(6.2)<br>(6.2)<br>(6.2)<br>(6.3)<br>(6.3)<br>(6.3)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.5)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.5)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.4)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6.5)<br>(6. | -4.40°<br>(111.8)<br>3.00°<br>(76.2) 3.30°<br>(83.8) |
| SIDE VIEW   | BACK VIEW  | END VIEW   |

#### **60 Amp Enclosures**

| Description  | Catalog Number |
|--|----------------|
| Type 3R metal enclosure without switch.  | HBL16R90       |
| <i>Note: 60 amp manual motor controllers are suitable for use with enclosure HBL16R90.</i><br>* <i>Enclosure rating.</i> |                |

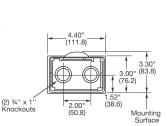


SIDE VIEW HBL16R90 / HBL16R92D HBL16R93D



BACK VIEW

HBL16R90 / HBL16R92D HBL16R93D



END VIEW HBL16R90 / HBL16R92D HBL16R93D

## Switches Technical Information Heavy Duty Manual Motor Controllers



Switches

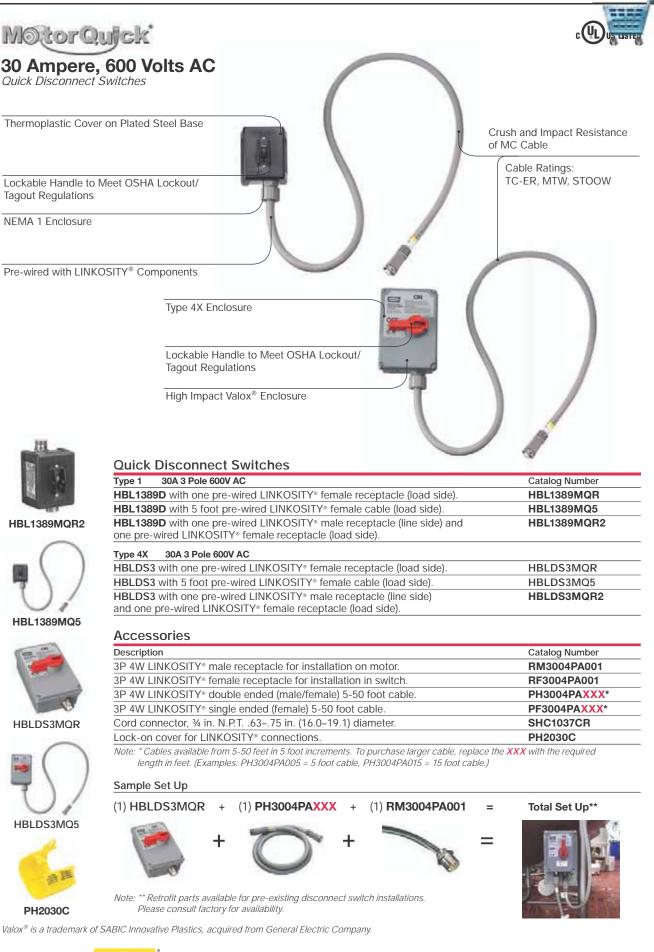
#### 30, 40, 50, 60 and 85A, Double Pole and Three Pole

#### **Specifications**

| Base<br>Cover<br>Yoke<br>Toggle<br>Terminal Screws<br>Contact Blades<br>Contacts<br>Brush Lifter<br>2,200V AC max for 1 min<br>6,000 cycles at rated swit<br>600V AC RMS.<br>5.000 and 10.000 RMS w |   |
|---|---|
| 6,000 cycles at rated swit 600V AC RMS.   |   |
| 6,000 cycles at rated swit 600V AC RMS.   |   |
| 6,000 cycles at rated swit 600V AC RMS.   |   |
| Class "J" fuses as marker<br>Min. continuous: -40°C w<br>10,000 Cycles.<br>20 inch pounds.<br>25 inch pounds.   |   |
|   |   |
| 40A #14 AWG min #8 /<br>50A #14 AWG min #8 /<br>60A #14 AWG min #4 /  | 0 AWG max. solid and stranded copper wire only.<br>AWG max. solid and stranded copper wire only.*<br>AWG max. solid and stranded copper wire only.*<br>AWG max. solid and stranded copper wire only.<br>AWG max. solid and stranded copper wire only.                     |
|   |   |
| 40A controller - #8 AWG<br>50A controller - #8 AWG<br>60A controller - #6 AWG   | 75°C*.<br>75°C; #4 AWG 60°C.  |
|   | Min. continuous: -40°C v<br>10,000 Cycles.<br>20 inch pounds.<br>25 inch pounds.<br>25 inch pounds.<br>30A #14 AWG min #10<br>40A #14 AWG min #8<br>50A #14 AWG min #4<br>85A #14 AWG min #4<br>85A #14 AWG min #4<br>30A controller - #10 AWG<br>50A controller - #8 AWG |

Note: \* Use listed/certified ring terminal.





C-30



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Dimensions in Inches (mm)

## MotorQujck'



## **30 Ampere, 600 Volts AC** *Quick Disconnect Switches*

| Dimensions  | Type 1  |   | Туре 4  | X   |                       |
|---|---|---|---|---|-----------------------|
| Male<br>LINKOSITY<br>Receptacle ~<br>(MQR2 Option)<br>3.40°<br>(86.36)<br>↓ (22.35)<br>Fen<br>LINKC<br>Rece<br>HP Rating<br>120V AC 3<br>240V AC 7.5<br>480V AC 15<br>600V AC 20                          | 4.52"<br>(114.81)   | B         5.12         (105)           C         4.12         (105)           D         6.62         (168)           E         7.62         (194)           F         8.50         (216)           G         4.12         (105) | 4.75 (121)<br>8.00 (203)<br>9.95 (253)<br>11.00 (279)<br>5.94 (151)<br>Male<br>LINKOSITY<br>Receptacle,<br>(MQR2 Option<br>Fe<br>LINKOS | A<br>B<br>C<br>O<br>O<br>FF<br>C<br>O<br>O<br>FF<br>C<br>O<br>C<br>FF<br>C<br>O<br>C<br>FF<br>C<br>O<br>C<br>FF<br>C<br>O<br>C<br>C<br>C<br>C |                       |
| Specifications  | Туре 1  |   | Туре 4  | x   |                       |
| Electrical Performance<br>Dielectric Voltage<br>Electrical Life<br>Max. Working Voltage<br>Short Circuit Withstand Rating<br>as Motor Disconnect<br>Short Circuit Withstand Rating<br>as Motor Controller | 2,200V AC minimum fr<br>6,000 cycles with load<br>600V AC RMS.<br>10,000 RMS symmetri<br>with 60A max J fuses.<br>10,000 RMS symmetri<br>with 125A RK5 fuses. | d.<br>ical amps when testec<br>ical amps when testec  | 6,000 cy<br>600V AC<br>10,000 R   | C minimum for 1 m<br>rcles with load.<br>RMS.<br>MS symmetrical am<br>IS symmetrical amp  | ps.                   |
| Mechanical<br>Mechanical Life<br>Terminal Accommodations<br>Terminal Torque<br>Impact Resistance  | 10,000 minimum cycl           Amps         AWG N           30         #14           30         20 inch  |   | 10,000 n<br>Amps<br>30<br>30<br>UL746C  | ninimum cycles.<br>AWG Min.<br>#14<br>20 inch pound   | AWG Max.<br>#10<br>ds |
| Environmental<br>Flammability<br>Operating Temp.  | UL94HB/V-0.<br>Max. continuous<br>Min. continuous w/o i   | 60°C<br>impact -40°C  |   |   | ion.                  |
| Listings<br>UL 508  | Industrial Control Equip  | pment File #E36355  | Industria   | Control Equipment   | File #E36355          |

#### LINKOSITY<sup>®</sup> Connection

| Certifications          |                              | Materials                      |                                  |
|-------------------------|------------------------------|--------------------------------|----------------------------------|
| Connecting Components   | Listed to UL 2238 and UL 50. | Connectivity System Components |                                  |
|                         |                              | Contact Carrier                | Nylon 6/6, white.                |
| Electrical Performance  |                              | Contact Materials              | Pins - brass.                    |
| Voltage                 | Up to 600V AC.               |                                | Sockets - leaded nickel copper   |
| Amperage                | Up to 30A.                   |                                | w/ stainless steel sleeve.       |
| Environmental           |                              | Contact Plating                | Hard gold over palladium/nickel. |
| Connectivity System Con | nponents                     | Overmold Material              | Glass filled polyurethane, gray. |
| Moisture Resistance     | UL Type 4, 4X, 12 and 13.    | Coupling Hardware              | Nickel plated brass.             |
| Ingress Protection      | IP67 Suitability.            | Cable (16 AWG and Up)          | UL 600V Type TC-ER, MTW 90°C or  |
| Flammability            | UL94HB cables /              |                                | STOOW 600V 105°C.                |
| 5                       | UL94V-0 receptacles.         |                                |                                  |



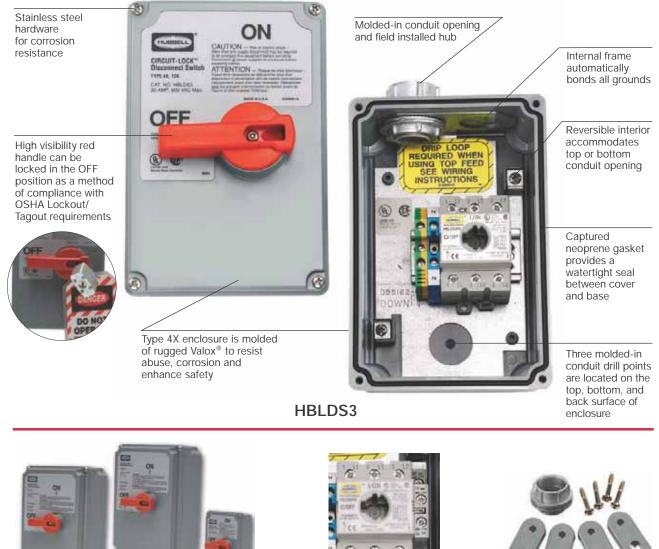
## Switched Enclosures Circuit-Lock<sup>®</sup> Unfused Disconnect Switches "Suitable as Motor Disconnect"



Features and Benefits

#### Circuit-Lock® 30, 60, and 100 Ampere Unfused Disconnect Switches

NEC section 430.102(B) requires each motor controller to have a disconnect within line of sight from the motor and driven equipment. NEC section 430.109(A)(6) recognizes that a manual motor controller and disconnect can be the same unit, provided it has been tested for this purpose. Hubbell's Circuit-Lock® Unfused Disconnect Switches are UL listed as a manual motor controller and also "suitable as a motor disconnect" and meet these code requirements. In addition, the enclosure offers the ability to lock directly wired motor loads in the OFF position to comply with OSHA Lockout/Tagout regulations. This safety enclosure is Type 4X (Wash down, Corrosion resistant) and is also suitable for use with metallic conduit. The switch is mounted on an internal frame that is integral with the enclosure and bonds all grounds, and it accepts auxiliary contacts that can be used to signal PLC controllers.



Conduit hub and adjustable mounting feet are supplied for ease of installation.

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



Auxiliary contacts are available for control circuit applications including the ON/OFF control of pilot lights or signal for programmable controllers.



Circuit-Lock® Unfused Disconnect Switches are

available in 30, 60 and 100 Amp, 600V AC ratings.

www.hubbell-wiring.com

## Switched Enclosures Circuit-Lock<sup>®</sup> Unfused Disconnect Switches "Suitable as Motor Disconnect"

UL Listed, CSA Certified TYPE 4, 4X and 12 Enclosure Rating

Switched Enclosures

**IP66** 

#### 30, 60 and 100 Amp Unfused Disconnect Switches

| <u>, , , , , , , , , , , , , , , , , , , </u>   |                      |
|---|----------------------|
| Description   | Catalog Number       |
| 30A Circuit-Lock disconnect switch.   | HBLDS3               |
| 30A Circuit-Lock disconnect switch for use with variable frequency drives.  | $HBLDS3VFD^{\Delta}$ |
| 30A Circuit-Lock disconnect switch with HBLAC1 aux. contact.  | HBLDS3AC             |
| 30A Circuit-Lock disconnect switch with HBLAC2 aux. contact.  | HBLDS3AC2            |
| 30A Circuit-Lock disconnect switch without conduit knockout or conduit fitting.   | HBLDS3NK             |
| 30A Circuit-Lock disconnect switch with HBLAC1 aux. contact without conduit knockout or conduit fitting.  | HBLDS3ACNK           |
| 30A Circuit-Lock disconnect switch with 3 aux. contacts, w/o conduit knockouts.<br>Break before main break – 1 set "normally open", 1 set "normally closed".<br>Break after main break – 2 sets "normally open", 1 set "normally closed". | HBLDS33ACNK          |
| 60A Circuit-Lock disconnect switch.   | HBLDS6               |
| 60A Circuit-Lock disconnect switch with HBLAC1 aux. contact.  | HBLDS6AC             |
| 100A Circuit-Lock disconnect switch.  | HBLDS10              |
| 100A Circuit-Lock disconnect switch with HBLAC1 aux. contact.   | HBLDS10AC            |
|   |                      |

#### Auxiliary Contacts for 30, 60 and 100 Amp Switch, A600 Pilot Duty

| Description   | Catalog Number |
|---|----------------|
| "Break After Main Break", 1 set of n/o contacts, 1 set of n/c contacts. | HBLAC1*        |
| "Break Before Main Break", 1 set of n/o contacts.                       | HBLAC2*        |

#### **Ground Block**

| Description                | Catalog Number |
|----------------------------|----------------|
| For 30A switches.          | HBL30RGB       |
| For 60A and 100A switches. | HBL60100RGB    |

#### **Neutral Block**

| Description        | Catalog Number |
|--------------------|----------------|
| For 30A switches.  | HBL30RNB       |
| For 60A switches.  | HBL60RNB       |
| For 100A switches. | HBL100RNB      |

Note: \* Not for use with HBLDS33ACNK.

30A Units are supplied with one ¾ in. N.P.T. Raintight conduit fitting. 60A and 100A Units are supplied with two 1¼ in. N.P.T. Raintight conduit fittings. <sup>A</sup> See page C-34 for wiring details.



HBLDS3AC



HBLAC1



HBLAC2



HBL30RGB

HBL30RNB



#### Switched Enclosures Circuit-Lock<sup>®</sup> Unfused Disconnect Switches "Suitable as Motor Disconnect"



IP66



HBLDS3RC



HBLDS3RS



#### **Replacement Covers**

| Description        | Catalog Number |
|--------------------|----------------|
| For 30A switches.  | HBLDS3RC       |
| For 60A switches.  | HBLDS6RC       |
| For 100A switches. | HBLDS10RC      |

#### **Replacement Switches**

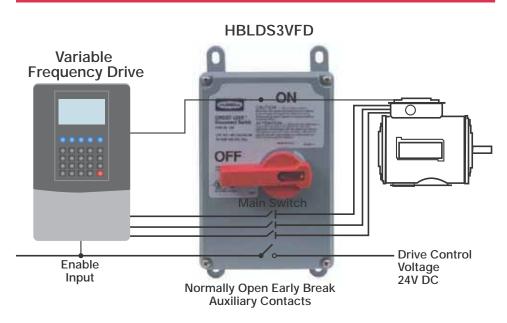
| Replacement Switches       |                |
|----------------------------|----------------|
| Description                | Catalog Number |
| For 30A switches.          | HBLDS3RS       |
| For 60A and 100A switches. | HBLDS60100RS   |
| For HBLDS33ACNK.           | HBLDS33ACRS    |

#### **Replacement Mounting Feet**

| Description                | Catalog Number       |
|----------------------------|----------------------|
| For 30A switches.          | HBLRFT1 <sup>Δ</sup> |
| For 60A and 100A switches. | HBLRFT2 <sup>A</sup> |

Note: 30A Units are supplied with one ¾ in. N.P.T. raintight conduit fitting. 60A and 100A Units are supplied with two 1¼ in. N.P.T. raintight conduit fittings. kage of 10 feet and 10 screws.

#### Variable Frequency Drive Diagram



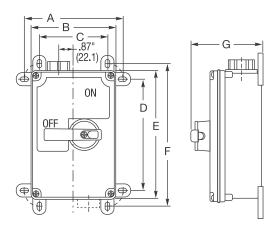
**Switched Enclosures** 



# Switched Enclosures Circuit-Lock<sup>®</sup> Unfused Disconnect Switches Dimensions and Specifications

#### Dimensions

|     | 30A  |       | 60A/10 | A00   |
|-----|------|-------|--------|-------|
| Key | inch | (mm)  | inch   | (mm)  |
| A   | 6.00 | (152) | 7.75   | (197) |
| В   | 5.12 | (130) | 6.87   | (175) |
| С   | 4.12 | (105) | 4.75   | (121) |
| D   | 6.62 | (168) | 8.00   | (203) |
| E   | 7.62 | (194) | 9.95   | (253) |
| F   | 8.50 | (216) | 11.00  | (279) |
| G   | 4.12 | (105) | 5.94   | (151) |
|     |      |       |        |       |



#### **Horsepower Ratings**

| Voltage        | 30A | 60A | 100A |  |
|----------------|-----|-----|------|--|
| 1Ø 120V AC     | 1   | 7.5 | 7.5  |  |
| 1Ø 200–240V AC | 3   | 15  | 15   |  |
| 1Ø 480V AC     | 5   | 30  | 30   |  |
| 3Ø 200–240V AC | 7.5 | 30  | 30   |  |
| 3Ø 480V AC     | 15  | 50  | 50   |  |
| 3Ø 600V AC     | 15  | 50  | 50   |  |

#### Circuit-Lock<sup>®</sup> Unfused Disconnect Switches

| Specifications                 |   |
|--------------------------------|---|
| Moisture Resistance            | Outdoor – Type 4X (Wash down, Corrosion resistant), IP66 suitability;                 |
|                                | Indoor – 30A Type 12K (Dust-tight, Falling Dirt, Noncorrosive Liquids with Knockout). |
|                                | 60A and 100A Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liquids).                |
| Flammability                   | UL94-5VA and V0 Classification.   |
| Operating Temperature          | Maximum Continuous 67°F (75°C);   |
|                                | Minimum Continuous -40°F (-40°C) without impact.                                      |
| UV Resistance                  | All materials are UV stabilized.  |
| Dielectric Voltage             | Withstands 3000V AC minimum.  |
| Max. Working Voltage           | 600V AC RMS.  |
| Current Interrupting           | Certified for current interrupting at full rated current and voltage.                 |
| Short Circuit Withstand Rating | Suitable for use on a circuit capable of delivering not more than 10,000 RMS          |
| (Motor Disconnect)             | symmetrical amperes, 600V AC max.   |
| Terminal Identification        | In accordance with UL, CSA and international conventions.                             |
| Product Identification         | Identification and ratings are part of external label.                                |
| Mounting                       | External fully adjustable feet.   |
| Impact Resistance              | In accordance with UL 746C.   |
| Materials                      |   |
| Part                           | Material  |
| Base                           | Valox®  |
| Тор                            | Valox®  |
| Handle                         | Valox®  |
| Conduit Hub                    | Zinc 30A Unfused - ¾ in.; 60/100A Unfused - 1¼ in.                                    |
| Enclosure Gasket               | Neoprene  |
| Shaft (Unfused)                | Valox®  |
| Shaft Seal                     | Molded Neoprene   |
| Frame                          | Galvanized Steel  |
| Enclosure Screws               | Stainless Steel 300 Series  |

Valox<sup>®</sup> is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.

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# **Switched Enclosures**

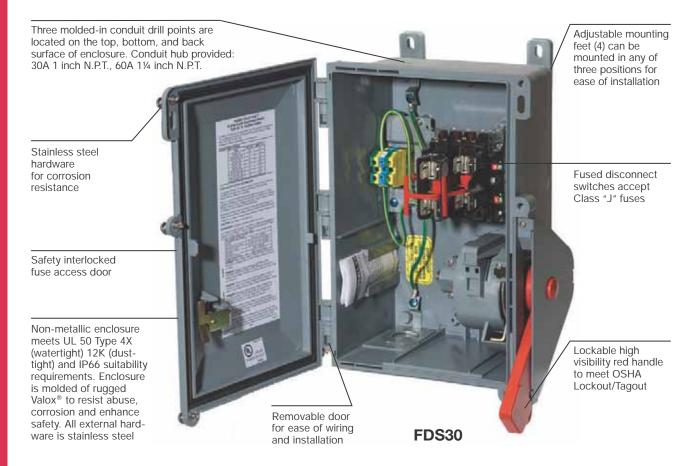
## Switched Enclosures Circuit-Lock<sup>®</sup> Fused Disconnect Switches "Suitable as Motor Disconnect"



Features and Benefits

#### Circuit-Lock® 30 and 60 Ampere Fused Disconnect Switches

The Circuit-Lock Fused Disconnect Switch provides fused switched control of a directly wired load. The switch cannot be turned ON unless the enclosure cover is closed. The fuses cannot be accessed until the switch is turned OFF. The fuse holder accepts Class "J" fuses. This enclosure is non-metallic and is listed for Outdoor/Indoor (Type 4X Wash down, Corrosion resistant). The handle can be locked in the OFF position to comply with OSHA Lockout/Tagout regulations.





Conduit hub and adjustable mounting feet are supplied with each Circuit-Lock Fused Disconnect Switch.



Stainless steel ¼ inch turn door fasteners for quick, easy access to fuses.



Enclosure door can be locked to prevent unauthorized access. Additionally, if the switch is ON, the door cannot be opened.



Compact Fused Disconnect Switch accepts Class "J" fuses. Fuse holders are top mounted for easy access. The switch accepts auxiliary contacts for control circuit applications including the ON/OFF control of remote pilot lights or signal for programmable controllers.

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Wiring Device-Kellems

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Circuit-Lock<sup>®</sup> Fused Disconnect Switches Features and Benefits

## Switched Enclosures Circuit-Lock<sup>®</sup> Fused Disconnect Switches "Suitable as Motor Disconnect"

Dimensions

30A Circuit-Lock fused disconnect switch.

60A Circuit-Lock fused disconnect switch.

Auxiliary contact, normally open, A600 pilot duty.

Watertight Closure Plug Kits

**Replacement Mounting Feet** 

<sup>△</sup> Package of 10 feet and 10 screws.

fused disconnect switches.

For 30A Circuit-Lock fused disconnect switch.

For 60A Circuit-Lock fused disconnect switch.

Replacement mounting feet and screws for 30A and 60A

Note: 30A Units supplied with two 1 in. N.P.T. raintight conduit fittings. 60A Units supplied with two 1¼ in. N.P.T. raintight conduit fittings.

Auxiliary contact, normally closed, A600 pilot duty.

Note: \*Class "J" fuses not included.

**Auxiliary Contacts** 

Description

Description

Description

Description

30 and 60 Amp Fused Disconnect Switches

UL Listed, CSA Certified TYPE 4, 4X and 12 Enclosure Rating

IP66

Catalog Number

Catalog Number

Catalog Number

Catalog Number

HBLRFT2<sup>A</sup>

**MICPK30** 

MICPK60

ACFSNO

ACFSNC

FDS30\*

FDS60\*







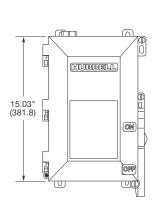
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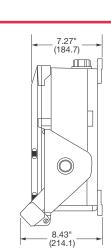


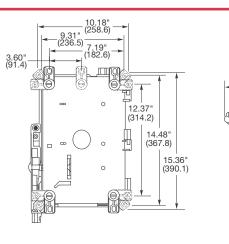
**MICPK30** 

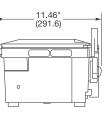


**Dimensions** 









Circuit-Lock<sup>®</sup> Fused Disconnect Switches and Dimensions

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Wiring Device-Kellems

## Switched Enclosures Circuit-Lock<sup>®</sup> Fused Disconnect Switches Horsepower Ratings and Specifications



#### **Horsepower Ratings**

| Catalog Number | Ratings    | Volts            | Standard HP | Maximum HP* |
|----------------|------------|------------------|-------------|-------------|
| FDS30          | 30A        | 120V AC          | 0.5         | 2           |
|                | 600V AC    | 208-240V AC      | 1.5         | 3           |
|                | Max.       | 3Ø 240V AC       | 3           | 7.5         |
|                |            | 3Ø 480V AC       | 5           | 15          |
|                |            | 3Ø 600V AC       | 7.5         | 20          |
|                |            | 3Ø Y 120/208V AC | 3           | 5           |
|                |            | 3Ø Y 277/480V AC | 5           | 15          |
|                |            | 3Ø Y 347/600V AC | 7.5         | 20          |
| FDS60          | 60A        | 120V AC          | 1.5         | 3           |
|                | 600V AC    | 208-240V AC      | 3           | 7.5         |
| Max.           | 3Ø 240V AC | 7.5              | 15          |             |
|                | 3Ø 480V AC | 15               | 30          |             |
|                | 3Ø 600V AC | 15               | 40          |             |
|                |            | 3Ø Y 120/208V AC | 7.5         | 15          |
|                |            | 3Ø Y 277/480V AC | 15          | 30          |
|                |            | 3Ø Y 347/600V AC | 15          | 40          |

Note: \* Requires time delay fuses.

30A Units supplied with two 1 in. N.P.T. raintight conduit fittings.

60A Units supplied with two 1¼ in. N.P.T. raintight conduit fittings.

#### Fuse and Short Circuit Information

| Horsepower Ratings | The starting current of motors of more than the standard horsepower rating may require the use of fuses with appropriate time-delay characteristics.                     |
|--------------------|--|
| 0                  | Suitable for use on a circuit capable of delivering not more than 100,000 RMS symmetrical amperes at the voltage rating of receptacle when protected by Class "J" fuses. |

Note: Replacement fused switch must be the same type Hubbell switch as original and have equal or greater short circuit current withstand rating.

#### Circuit-Lock<sup>®</sup> Fused Disconnect Switch

| Specifications          |   |
|-------------------------|---|
| Moisture Resistance     | Outdoor – Type 4X (Wash down, Corrosion resistant), IP66 suitability;<br>Indoor – Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liguids). |
| Flammability            | UL94-5VA and V0 Classification.   |
| Operating Temperature   | Maximum Continuous 75°C;  |
|                         | Minimum Continuous -40°C without impact.  |
| UV Resistance           | All materials are UV stabilized.  |
| Dielectric Voltage      | Withstands 3000V AC minimum.  |
| Max. Working Voltage    | 600V AC RMS.  |
| Impact Resistance       | In accordance with UL 746C.   |
| Terminal Identification | In accordance with UL, CSA and international conventions.   |
| Product Identification  | Identification and ratings are part of external label.  |
| Mounting                | External fully adjustable feet.   |
| Fuse Types              | UL Listed, Class "J"; CSA Certified, HRCI-J.  |

| Materials        |   |
|------------------|---|
| Part             | Material                                    |
| Base             | Valox®                                      |
| Door             | Valox®                                      |
| Handle           | Valox®                                      |
| Conduit Hub      | Zinc, 30A Fused – 1 in., 60A Fused – 1¼ in. |
| Enclosure Gasket | Neoprene                                    |
| Shaft            | Brass                                       |
| Shaft Seal       | Neoprene                                    |
| Frame            | Galvanized Steel                            |
| Ground Plate     | Galvanized Steel                            |
| Enclosure Screws | Stainless Steel 300 Series                  |

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Horsepower Ratings and Specifications

