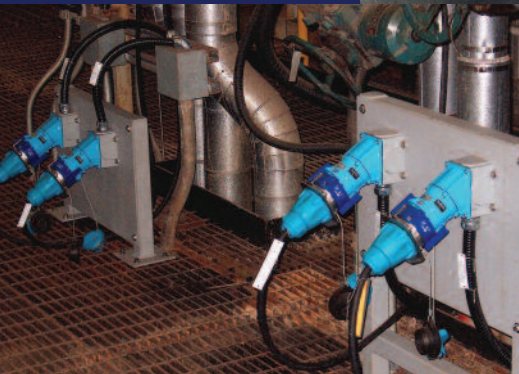




| | |
|----------------------|-------|
| Features and Ratings | p. 54 |
| DB30 | p. 57 |
| DB60 | p. 59 |
| DB100 | p. 61 |
| Spare parts | p. 63 |
| Dimensions | p. 65 |



Switch rated plugs and receptacles

DB's are the most rugged and highest horsepower rated plugs and receptacles in the DECONTACTOR™ Series product family. They are specifically designed for use on motors and other inductive loads. With their unique internal spring operating mechanism, two stage contact system, arc splitting feature and silver-nickel butt contacts, DB's can easily handle high horsepower inductive loads up to 60 hp.

Main Advantages

- ▼ Switch & Hp rated
- ▼ 100 kA short circuit rated*
- ▼ IP67 environmental ratings
- ▼ Up to 4 auxiliary contacts
- ▼ Durable metal construction.

* See note under General Ratings on the next page

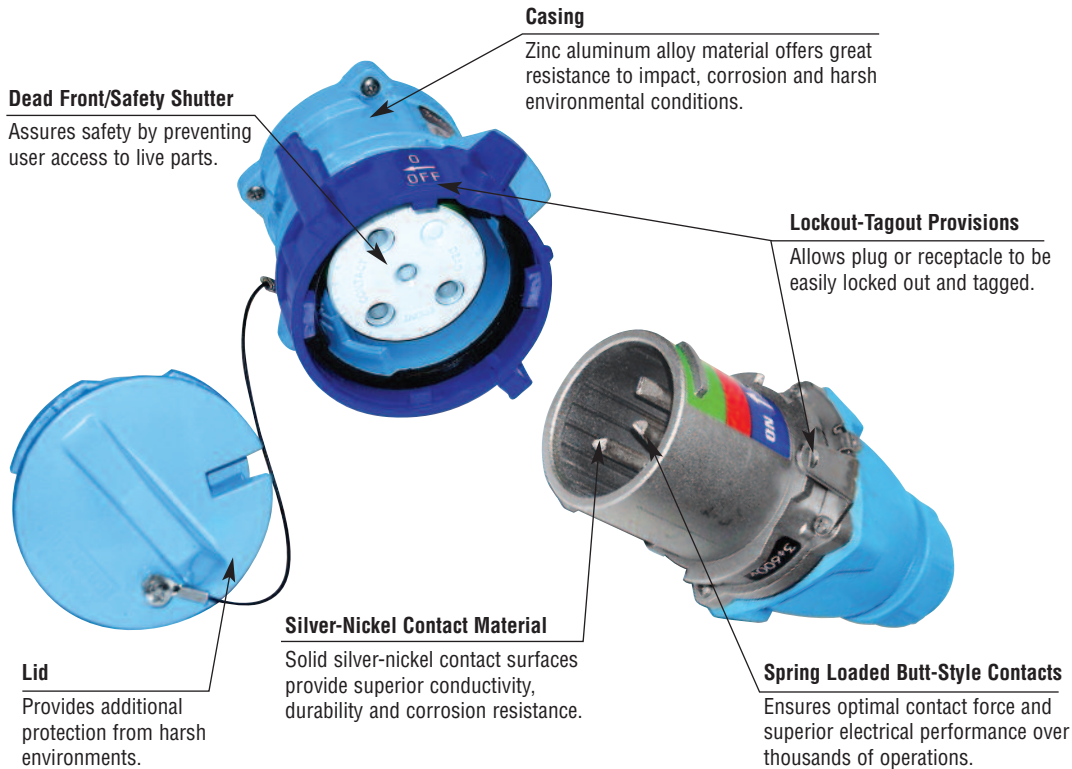
Highlighted Advantage

Simplify Compliance to
NFPA 70E & CSA Z462

See pgs 19-20 for
more information



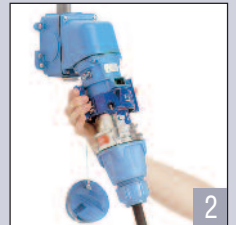
Product Features



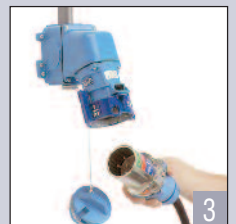
Operating Instructions



When the plug and receptacle are latched together, the circuit is connected.



Turning the receptacle ring counterclockwise releases the plug and rapidly opens the circuit. The plug is ejected to its rest position.



From the rest position the 'dead' plug can be withdrawn by rotating it counterclockwise. The receptacle can be made watertight up to IP67 by replacing the lid and turning the locking ring fully clockwise.



To reconnect, insert plug and twist. Pushing the plug fully home safely makes the circuit. The plug is held in the 'on' position by a locking ring. IP 67 protection is enabled by fully rotating the locking ring in the clockwise direction.

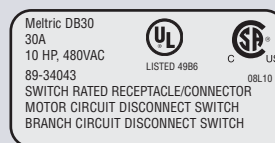
General Ratings

| | |
|----------------------------------|---------------------|
| Amperage | 30 to 100A |
| Voltage | 600 VAC |
| Frequency | 50-400 Hz |
| Horsepower | 1 1/2 to 60 hp |
| Short-Circuit (Make & Withstand) | 100kA* |
| Environmental | IP67 |
| Temperature | min -40°F/max 140°F |

* Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices horsepower ratings, except for the DB100, which was tested with 250A fuses.

Highlighted Feature

Typical Device Labels



DB Deconnectors are UL & CSA rated for "motor circuit" and "branch circuit" disconnect switching – up to 60 hp and up to 100A

Listings

| Category | UL | CSA | IEC |
|---|---|-----------------|---------------------|
| Plugs and Receptacles | UL 1682 | C22.2 No. 182.1 | 60309-1 |
| Branch Circuit Disconnect Switching (AC only) | UL Subject 2682 (Performance tests from UL 98) | UL Subject 2682 | 60947-3, AC22, AC23 |
| Motor Circuit Disconnect Switching (AC only) | UL Subject 2682 (Performance tests from UL 508) | UL Subject 2682 | |

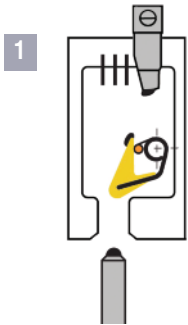
CE ratings available upon request

Product Features

Spring Loaded Operating Mechanism

DB Series Decontactors use an internal spring-loaded operating mechanism to open and close the contacts at high speed, independent of the manual motion of the user.

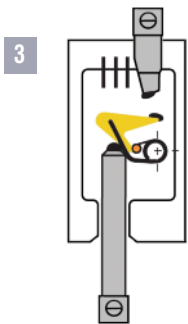
Load-Making



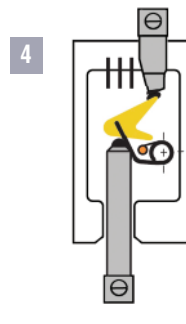
1. As the plug is first inserted into the receptacle, the contact travels toward the operating mechanism. Only the receptacle contact (shown at the top of the drawing) is live.



2. As the plug contact is inserted further, it engages a mobile intermediate contact on the operating mechanism, which it begins to move around a stop. This motion also begins to wind the operating spring.

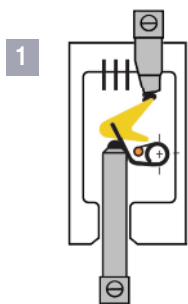


3. As the plug is inserted further, to the almost completely engaged position, the operating spring becomes fully loaded and the mobile contact rotates into a position where any further insertion motion will release it from the stop.

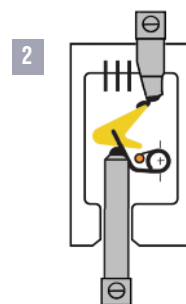


4. As the last small insertion motion is made, the mobile contact clears the stop and releases the energy in the spring. This instantly drives the mobile contact into engagement with the receptacle contact and completes the electrical connection.

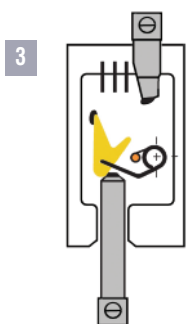
Load-Breaking



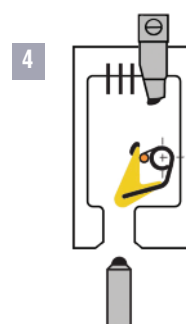
1. When the contacts are engaged, the operating spring is still almost fully charged. This maintains contact pressure and provides energy for the breaking operation.



2. In order to break the circuit, the plug retaining ring is turned to the 'off' position. This releases the plug, which in turn releases the mobile contact and the spring energy in the operating mechanism.



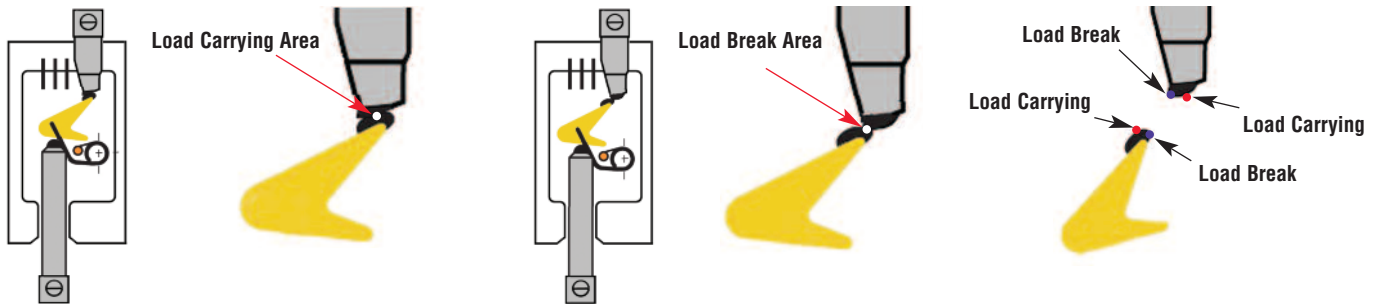
3. The spring energy instantly drives the mobile contact away from the live receptacle contact. It follows a different path than on making and is moved along an arc chute.



4. The mobile contact returns to its initial position, preparing the device to be used again.

Two Stage Contact System

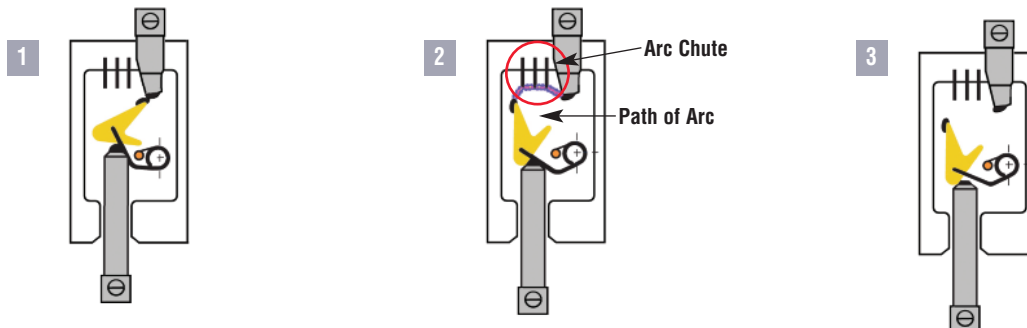
The operation of the DB's contacts was specifically designed to ensure that load-breaking and load-carrying are performed in separate locations on the contacts.



This is accomplished with the motion of the mobile contact relative to the receptacle contact. The opening of the contacts begins with a wiping action that moves the contact area toward the edges of the contacts, where load-breaking occurs. This allows numerous overload-breaking operations without deteriorating the main contact surfaces or the continuity of the connection.

Arc-Extinguishing System

For higher currents, or when significant overloads are involved, additional provision is desirable to handle the arcing that occurs during load-breaking. Meltric accomplishes this on its DB Series Decontactors with a series of magnetic V-shaped blades, which create an arc chute.



As the contacts open, the mobile intermediate contact moves along the arc chute. The arc is transferred to the magnetic "V" shaped blades, which splits and destabilizes it. This helps to cool and quickly extinguish the arc, minimizing any potential damage to the contacts. Together with the spring operator, two stage contact system and silver-nickel butt style contacts, this feature allows the DB series to easily and safely break high horsepower inductive loads and significant overloads.



DECONTACTOR™ – 30A

Switch Rated Plugs & Receptacles

Ratings

- Voltage**
600 VAC
- Switch Ratings (AC)**
Branch Circuit & Motor Circuit Disconnect Switching
- Horsepower Ratings**

| | | |
|------|----|----------|
| 120V | 1Ø | 1 1/2 hp |
| 240V | 1Ø | 3 hp |
| 208V | 3Ø | 7 1/2 hp |
| 240V | 3Ø | 7 1/2 hp |
| 480V | 3Ø | 10 hp |
| 600V | 3Ø | 10 hp |
- Short Circuit Rating**
100kA Close & Withstand
Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp rating.
- Environmental Ratings**
IP67
- Temperature Range**
Min -40°F/Max 140°F
See pg 210 for temps below -15°F.
- Wiring Capacity**
Min 14 AWG Max 8 AWG
Aux Contacts - Max 14 AWG
- Listings**
UL, CSA, IEC, CE*
* Contact Customer Service

Receptacle (female)



Don't forget to add installation accessories to your order

Inlet (male)



| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-34167 |
| 125V | 1P+N+G | 89-34075 |
| 125/250V | 2P+N+G | 89-34076 |
| 208V | 2P+G | 89-34162 |
| 208V | 3P+G | 89-34163 |
| 250V | 2P+G | 89-34072 |
| 250V | 3P+G | 89-34073 |
| 277V | 1P+N+G | 89-34045 |
| 277/480V | 3P+N+G | 89-34047 |
| 347/600V | 3P+N+G | 89-34147 |
| 480V | 2P+G | 89-34042 |
| 480V | 3P+G | 89-34043 |
| 600V | 2P+G | 89-34142 |
| 600V | 3P+G | 89-34143 |

| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-38167 |
| 125V | 1P+N+G | 89-38075 |
| 125/250V | 2P+N+G | 89-38076 |
| 208V | 2P+G | 89-38162 |
| 208V | 3P+G | 89-38163 |
| 250V | 2P+G | 89-38072 |
| 250V | 3P+G | 89-38073 |
| 277V | 1P+N+G | 89-38045 |
| 277/480V | 3P+N+G | 89-38047 |
| 347/600V | 3P+N+G | 89-38147 |
| 480V | 2P+G | 89-38042 |
| 480V | 3P+G | 89-38043 |
| 600V | 2P+G | 89-38142 |
| 600V | 3P+G | 89-38143 |

Other voltage configurations are available – contact customer service at 800.433.7642.

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 2 Auxiliary/Pilot Contacts Recept # - 172*

Inlet Options

Suffix

With 2 Auxiliary/Pilot Contacts Inlet # - 172*

* Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity

DB30 Order Example:

To order 2 auxiliary/pilot contacts on an inlet and receptacle add -172 to the part numbers.

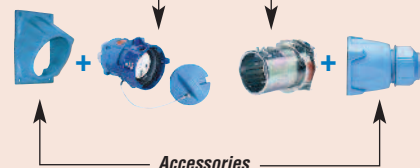
DB30 Metal inlet 3P+G=89-38043-172

DB30 Metal receptacle 3P+G=89-34043-172

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Accessories

Angle, Handle, etc are interchangeable (see opposite page)

See pgs 187-196 for detailed information on these options

Installation Accessories

Handles



| NPT | Poly Handle | Metal Handle |
|--------|-------------|--------------|
| 1/2" | 3PH12 | 3H12 |
| 3/4" | 3PH34 | 3H34 |
| 1" | 3PH1 | 3H1 |
| 1 1/4" | 3PH114 | 3H114 |
| 1 1/2" | - | 3H112 |

| Cable Range | Poly Handle w/Clamp & Bushing | Nylon Handle |
|---------------|-------------------------------|--------------|
| .39 - 1.18 | - | FH311 |
| .750 - .875 | 3PM514 | - |
| .875 - 1.000 | 3PM516 | - |
| 1.000 - 1.125 | 3PM518 | - |
| 1.125 - 1.250 | 3PM520 | - |
| 1.250 - 1.375 | 3PM522 | - |

Notes: • For available cord grips, see pgs 183-184.

Angles



| Metal 30° Angle | Metal 70° Angle | Metal Angle FS/FD Box 30° | Metal Straight Adapter |
|-----------------|-----------------|---------------------------|------------------------|
| MA3 | 89-3A027 | MAFS3 | MS3 |

NPT Guidelines

| Cable Range | NPT |
|--------------|--------|
| .062 - .5 | 1/2" |
| .187 - .75 | 3/4" |
| .437 - 1.10 | 1" |
| .750 - 1.375 | 1 1/4" |

NPT sizes are determined by the cable diameter and third party cord grip.

Junction Boxes



| NPT | Metal Box | Metal Box with Metal Angle |
|--------|-----------|----------------------------|
| 1/2" | MB312 | 89-3A053-080-12 |
| 3/4" | MB334 | 89-3A053-080-34 |
| 1" | MB31 | 89-3A053-080-1 |
| 1 1/4" | MB3114 | 89-3A053-080-114 |

* Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only



| Protective Cap | Cord Grip with Mesh |
|----------------|---------------------|
| 89-3A126 | see pgs 183-184 |

Order Example

A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-38075 + FH311



Female Receptacle with Angle Adapter
89-34075 + 89-3A027



DECONTACTOR™ – 60A

Switch Rated Plugs & Receptacles

Ratings

- Voltage**
600 VAC
- Switch Ratings (AC)**
Branch Circuit & Motor Circuit Disconnect Switching
- Horsepower Ratings**
 - 120V 1Ø 3 hp
 - 240V 1Ø 7 1/2 hp
 - 208V 3Ø 15 hp
 - 240V 3Ø 15 hp
 - 480V 3Ø 30 hp
 - 600V 3Ø 30 hp
- Short Circuit Rating**
100kA Close & Withstand
Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp rating.
- Environmental Ratings**
IP67
- Temperature Range**
Min -40°F/Max 140°F
See pg 210 for temps below -15°F.
- Wiring Capacity**
Min 8 AWG Max 3 AWG
Aux Contacts - Max 14 AWG
- Listings**
UL, CSA, IEC, CE*
* Contact Customer Service

Receptacle (female)



Don't forget to add installation accessories to your order

Inlet (male)



| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-64167 |
| 125V | 1P+N+G | 89-64075 |
| 125/250V | 2P+N+G | 89-64076 |
| 208V | 2P+G | 89-64162 |
| 208V | 3P+G | 89-64163 |
| 250V | 2P+G | 89-64072 |
| 250V | 3P+G | 89-64073 |
| 277V | 1P+N+G | 89-64045 |
| 277/480V | 3P+N+G | 89-64047 |
| 347/600V | 3P+N+G | 89-64147 |
| 480V | 2P+G | 89-64042 |
| 480V | 3P+G | 89-64043 |
| 600V | 2P+G | 89-64142 |
| 600V | 3P+G | 89-64143 |

| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-68167 |
| 125V | 1P+N+G | 89-68075 |
| 125/250V | 2P+N+G | 89-68076 |
| 208V | 2P+G | 89-68162 |
| 208V | 3P+G | 89-68163 |
| 250V | 2P+G | 89-68072 |
| 250V | 3P+G | 89-68073 |
| 277V | 1P+N+G | 89-68045 |
| 277/480V | 3P+N+G | 89-68047 |
| 347/600V | 3P+N+G | 89-68147 |
| 480V | 2P+G | 89-68042 |
| 480V | 3P+G | 89-68043 |
| 600V | 2P+G | 89-68142 |
| 600V | 3P+G | 89-68143 |

Other voltage configurations are available – contact customer service at 800.433.7642.

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 2 Auxiliary/Pilot Contacts Recept # - 172*

Inlet Options

Suffix

With 2 Auxiliary/Pilot Contacts Inlet # - 172*

* Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity

DB60 Order Example:

To order 2 auxiliary/pilot contacts on an inlet and receptacle add -172 to the part numbers.

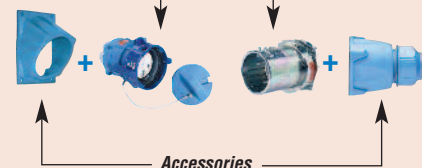
DB60 Metal inlet 3P+G=89-68043-172

DB60 Metal receptacle 3P+G=89-64043-172

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Angle, Handle, etc are interchangeable (see opposite page)

Installation Accessories

Handles



| NPT | Poly Handle | Metal Handle | Cable Range | Poly Handle w/Clamp & Bushing | Nylon Handle |
|--------|-------------|--------------|---------------|-------------------------------|--------------|
| 1/2" | 6PH12 | 6H12 | .51 - 1.38 | — | FH611 |
| 3/4" | 6PH34 | 6H34 | 1.250 - 1.375 | 6PM622 | — |
| 1" | 6PH1 | 6H1 | 1.438 - 1.562 | 6PM625 | — |
| 1 1/4" | 6PH114 | 6H114 | 1.562 - 1.688 | 6PM627 | — |
| 1 1/2" | 6PH112 | 6H112 | 1.688 - 1.812 | 6PM629 | — |

Notes: • For available cord grips, see pgs 183-184.

Angles



| Metal 30° Angle | Metal 70° Angle | Metal Angle+ Oversized 30° | Metal Straight Adapter | Metal Lateral Angle 30° |
|-----------------|-----------------|----------------------------|------------------------|-------------------------|
| MA6 | 89-6A027 | MA660 | MS6 | MAB6 |

+ Mounts on oversize box only. Order with MB10 box. See page 62.

Junction Boxes



91.0 in³+

| NPT | Metal Box | Metal Box with Metal Angle |
|--------|-----------|----------------------------|
| 1" | MB61 | 89-6A053-080-1 |
| 1 1/4" | MB6114 | 89-6A053-080-114 |
| 1 1/2" | MB6112 | 89-6A053-080-112 |
| 2" | MB62 | 89-6A053-080-2 |

+ Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only



| Protective Cap | Cord Grip with Mesh |
|----------------|---------------------|
| 89-6A126 | see pgs 183-184 |

NPT Guidelines

| Cable Range | NPT |
|--------------|--------|
| .062 - .5 | 1/2" |
| .187 - .75 | 3/4" |
| .437 - 1.10 | 1" |
| .750 - 1.375 | 1 1/4" |
| .890 - 1.650 | 1 1/2" |

NPT sizes are determined by the cable diameter and third party cord grip.

Order Example

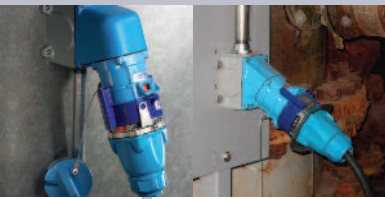
A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-68043 + FH611



Female Receptacle with Angle Adapter
89-64043 + 89-6A027



DECONTACTOR™ – 100A

Switch Rated Plugs & Receptacles

Ratings

- Voltage**
600 VAC
- Switch Ratings (AC)**
Branch Circuit & Motor Circuit Disconnect Switching
- Horsepower Ratings**

| | | |
|------|----|----------|
| 120V | 1Ø | 7 1/2 hp |
| 240V | 1Ø | 10 hp |
| 208V | 3Ø | 30 hp |
| 240V | 3Ø | 30 hp |
| 480V | 3Ø | 60 hp |
| 600V | 3Ø | 60 hp |
- Short Circuit Rating**
100kA Close & Withstand
Testing was performed with 250A RK1 fuses, so the 100kA rating applies up to 60 hp @ 600, 40 hp @ 480V and 20 hp @ 240V and 208V.
- Environmental Ratings**
IP67
- Temperature Range**
Min -40°F/Max 140°F
See pg 210 for temps below -15°F.
- Wiring Capacity**
Min 1/0" AWG Max 2/0 AWG
Aux Contacts - Max 14 AWG
* Smaller conductors can be retained in the terminal, but may result in a temperature rise greater than the 30° max allowed in UL & CSA standards.
- Listings**
UL, CSA, IEC, CE*
* Contact Customer Service

Receptacle (female)



Don't forget to add installation accessories to your order

Inlet (male)



| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-94167 |
| 125V | 1P+N+G | 89-94075 |
| 125/250V | 2P+N+G | 89-94076 |
| 208V | 2P+G | 89-94162 |
| 208V | 3P+G | 89-94163 |
| 250V | 2P+G | 89-94072 |
| 250V | 3P+G | 89-94073 |
| 277V | 1P+N+G | 89-94045 |
| 277/480V | 3P+N+G | 89-94047 |
| 347/600V | 3P+N+G | 89-94147 |
| 480V | 2P+G | 89-94042 |
| 480V | 3P+G | 89-94043 |
| 600V | 2P+G | 89-94142 |
| 600V | 3P+G | 89-94143 |

| Voltage | Polarity | Part # Metal |
|----------|----------|--------------|
| 120/208V | 3P+N+G | 89-98167 |
| 125V | 1P+N+G | 89-98075 |
| 125/250V | 2P+N+G | 89-98076 |
| 208V | 2P+G | 89-98162 |
| 208V | 3P+G | 89-98163 |
| 250V | 2P+G | 89-98072 |
| 250V | 3P+G | 89-98073 |
| 277V | 1P+N+G | 89-98045 |
| 277/480V | 3P+N+G | 89-98047 |
| 347/600V | 3P+N+G | 89-98147 |
| 480V | 2P+G | 89-98042 |
| 480V | 3P+G | 89-98043 |
| 600V | 2P+G | 89-98142 |
| 600V | 3P+G | 89-98143 |

Other voltage configurations are available – contact customer service at 800.433.7642.

Main Options



Auxiliary/Pilot Contacts

Receptacle Options

Suffix

With 4 Auxiliary/Pilot Contacts Recept # - 174**

Inlet Options

Suffix

With 4 Auxiliary/Pilot Contacts Inlet # - 174**

* DB100 devices with auxiliary/pilot contacts are not UL/CSA listed

** Auxiliary/Pilot Contacts are not available on DB devices with 1P+N+G, 2P+N+G or 3P+N+G polarity

DB100 Order Example:

To order 4 auxiliary/pilot contacts on an inlet and receptacle add -174 to the part numbers.

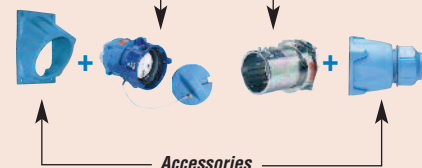
DB100 Metal inlet 3P+G=89-98043-174

DB100 Metal receptacle 3P+G=89-94043-174

Appropriate accessory part numbers must also be included on the order.

How to Order

Receptacle and Inlet (see above)



Accessories

Angle, Handle, etc are interchangeable (see opposite page)

See pgs 187-196 for detailed information on these options

Installation Accessories

Handles



IP 66/67

| NPT | Poly Handle | Metal Handle |
|--------|-------------|--------------|
| 3/4" | 9PH34 | 9H34 |
| 1" | 9PH1 | 9H1 |
| 1 1/4" | 9PH114 | 9H114 |
| 1 1/2" | 9PH112 | 9H112 |
| 2" | 9PH2 | 9H2 |

| Cable Range | Santoprene™ Handle | Poly Handle w/Clamp & Bushing |
|---------------|--------------------|-------------------------------|
| .70 - 1.00 | 65-9A013-D25 | – |
| 1.00 - 1.375 | 65-9A013-D35 | – |
| 1.250 - 1.375 | – | 9PM622 |
| 1.375 - 1.750 | 65-9A013-D45 | – |
| 1.438 - 1.562 | – | 9PM625 |
| 1.562 - 1.688 | – | 9PM627 |
| 1.688 - 1.812 | – | 9PM629 |

Notes: • For available cord grips, see pgs 183-184.

Angles



| Metal 30° Angle | Metal 70° Angle | Metal Angle ⁺ Oversized 30° | Metal Straight Adapter |
|-----------------|-----------------|--|------------------------|
| MA10 | 89-9A027 | MA110 | MS10 |

⁺ Mounts on oversize box only. Order with MB220 box. See page 48.

NPT Guidelines

| Cable Range | NPT |
|---------------|--------|
| .187 - .75 | 3/4" |
| .437 - 1.10 | 1" |
| .750 - 1.375 | 1 1/4" |
| .890 - 1.650 | 1 1/2" |
| 1.125 - 2.438 | 2" |

NPT sizes are determined by the cable diameter and third party cord grip.

Junction Boxes



175.0 in³⁺

| NPT | Metal Box | Metal Box with Metal Angle |
|--------|-----------|----------------------------|
| 1 1/4" | MB10114 | 89-9A053-080-114 |
| 1 1/2" | MB10112 | 89-9A053-080-112 |
| 2" | MB102 | 89-9A053-080-2 |

⁺ Interior volume with receptacle installed.

Miscellaneous Accessories



For Male Devices Only



| Protective Cap | Cord Grip with Mesh |
|----------------|---------------------|
| 89-9A126 | see pgs 183-184 |

Order Example

A typical order should include an inlet part number, a receptacle part number **AND** the matching handles, angles or other required accessories.



Male Inlet with Handle (Plug)
89-98043 + 9PM622



Female Receptacle with Angle Adapter
89-94043 + 89-9A027