

# Air Conditioning Disconnects

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**Complete Line of Fused, Unfused and Molded Case Switch Type Air Conditioning Disconnects**

## Product Description

An Air Conditioning Disconnect (ACD) is a disconnect located between a load-center (distribution panel) and air conditioner. The Cutler-Hammer® ACD by Eaton Corporation provides an installer or repair personnel with a visible disconnecting means when performing maintenance. ACDs are also known as disconnects, pullouts or air conditioning switches.

Non-fused pullout and molded case switch devices provide personnel with a visible on-off disconnecting means. While fused pullout units also perform this function, they also provide an additional level of protection for the air conditioner.

Fused and non-fused devices are of a pullout design, where the user physically removes or "pulls out" a tab to break the electrical connection. A molded case switch is similar to a light switch where the user "switches" the unit to the indicated ON-OFF position.

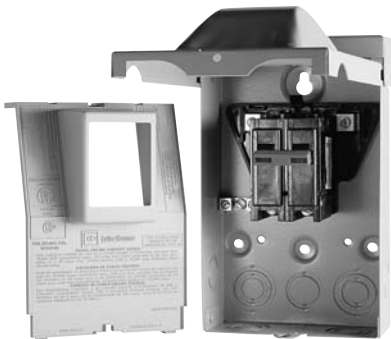
## Application Description

**Note:** Most applications involving water require a ground fault breaker.

The most widely used application is for residential and light commercial air conditioning units. An ACD is installed outdoors, in a visible range from the air conditioner. ACDs are also found in use with heat pumps, swimming pools, spas, whirlpools and pump houses. Metallic enclosures are galvanized steel and are installed in various locations. Non-metallic enclosures are a plastic (polycarbonate) enclosure commonly used in coastal or salt-water areas.

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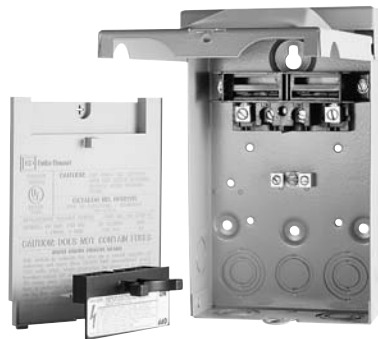
### Molded Case Switch



DPB222R

- Rugged molded case construction in a disconnect switch that looks like a circuit breaker but operates like an ordinary household light switch.
- Plug-in molded case switch eliminates the need for pullout handles.
- No need for replacement pullout handles due to loss or theft.
- Includes non-automatic molded case switch.

### Non-Fused Pullouts



DPU222R

- ON/OFF control provided by a pullout handle.
- Pullout handle can be conveniently stored in the compartment in the OFF position, helping to prevent the handle from being misplaced.
- Protective shield cannot be removed until the pullout handle is removed, disconnecting the power.

### Fused Pullouts



DPF222R

- Fuses are installed behind the protective shield that cannot be removed until the pullout handle is removed, disconnecting the power.
- Horsepower ratings apply when time delay fuses are used. Class H fuse clips are provided. Fuses not included.
- ON/OFF control provided by a pullout handle.
- Pullout handle can be conveniently stored in the compartment in the OFF position, helping to prevent the handle from being misplaced.

**Features, Benefits and Functions**

- Single-phase, 2-wire, 240 Vac and 3-phase, 3-wire, 240 Vac.
  - NEMA® 3R outdoor enclosures offered in metallic and non-metallic versions.
  - Easy-to-remove high strength protective shield for easier wiring and mounting.
  - Easy-to-remove front cover (no screws or fasteners to remove).
  - 1-inch knockouts on the bottom, back and side of unit.
  - Cu rated line and load lugs that are easily accessible.
  - Ample wiring space for mounting with a stud gun (single keyhole, two- or three-point mounting).
  - Fused devices are service entrance rated.
- Note:** Fused non-metallic units require the addition of **GB4NM** ground bar.
- Horsepower rated (10 hp maximum at 240 Vac).
  - Padlockable door provision for safety and reduction of tampering.
  - Metallic enclosures are bottom entry and exit only.
  - Non-metallic enclosures have knockouts and a hub provision for top access.
  - Non-metallic enclosures have a single unit door and protective shield for installer convenience.
  - Non-metallic enclosures are durable and provide excellent resistance to climate changes.



*Air Conditioning Disconnect with Whip*



*Type 3R Rainproof Metallic Enclosure Provides Plenty of Knockout Sizes*



*Easily Accessible Neutral*



*Air Conditioning Disconnect with Ground Fault*



*Type 3R Rainproof Non-Metallic Enclosure Provides Durable Strength and Excellent Resistance to Climate Changes*



**Cutler-Hammer Quick-Pro<sup>SM</sup>**

All you need to know to save time and make more money. Specified on certain Cutler-Hammer products, the Quick-Pro symbol allows for immediate recognition of products that are designed for straightforward installation. When you see Quick-Pro, you know you can install quickly — sometimes up to 50% less than the usual installation time — and move onto your next job.



*Pullout Handle Can be Stored in Enclosure in OFF Position*

**Standards and Certifications**

- UL® listed File No. E5239.
- Separate CSA® approved unit.

Contact us for details and part numbers for CSA approved units.

**Product Specifications**

- 10,000 amperes rms symmetrical interrupting rating.
- Horsepower rated.
- Fusible and non-fusible pullout and molded case switch designs.
- 30 and 60 amperes available in fusible.
- 60 amperes available in non-fusible and molded case switch.
- Class H fuse clips provided on fusible pullout design.

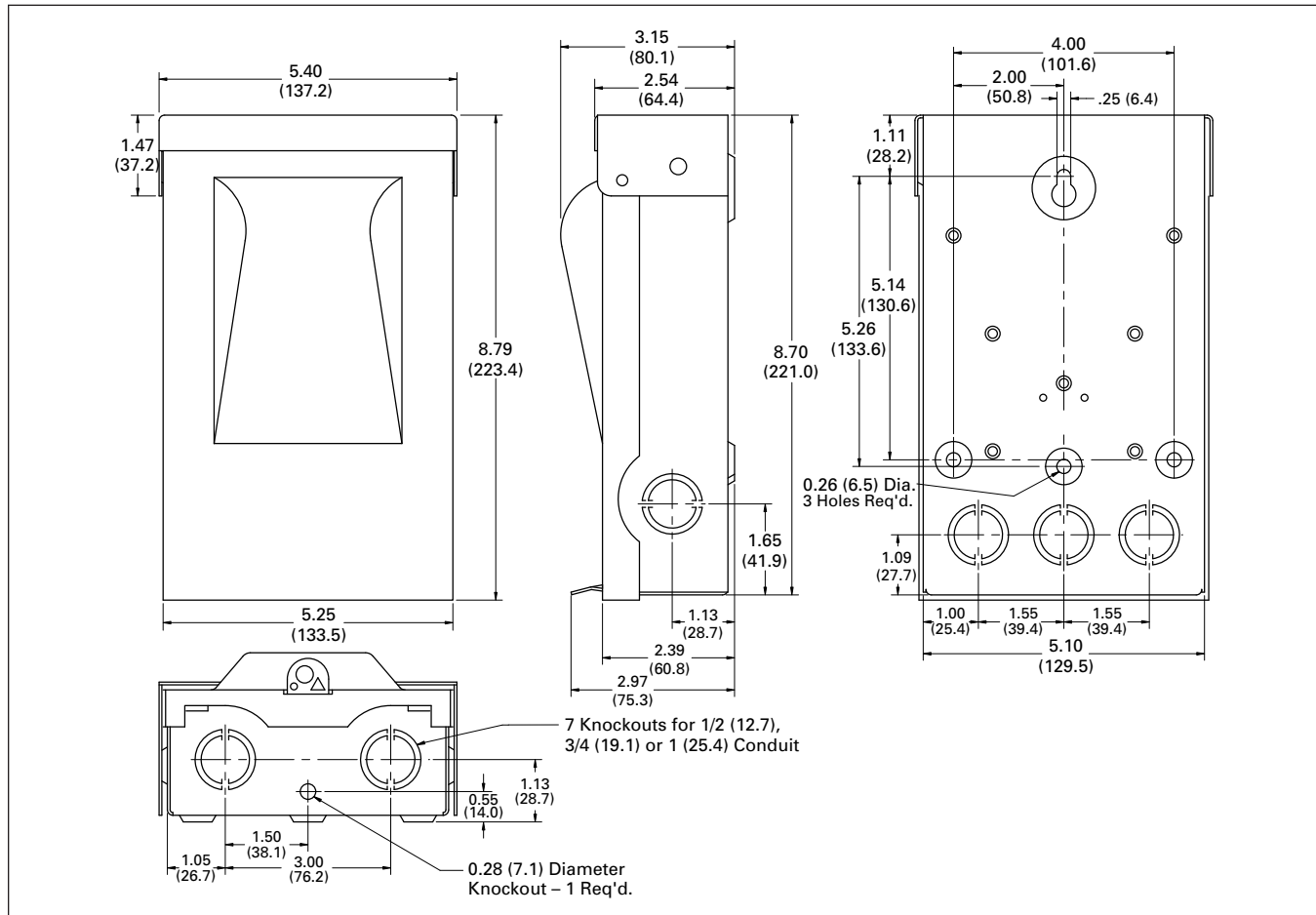
**Technical Data and Specifications**

**Table 7-1. Dimensions and Shipping Carton Information**

Description	Dimensions in Inches (mm)			Carton Quantity	Weight Lbs. (kg)	Catalog Number	Price U.S. \$
	Height	Width	Depth				
<b>Metallic/Galvanized Steel Enclosure</b>							
30 A Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	10	27 (12)	DPF221R	
60 A Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	10	27 (12)	DPF222R	
60 A Non-Fused	8.70 (220.9)	5.40 (137.2)	3.15 (80.0)	10	27 (12)	DPU222R	
60 A Molded Case Switch	8.60 (218.4)	5.30 (134.6)	3.74 (95.0)	10	34 (15)	DPB222R	
60 A Non-Fused with 1/2-inch wire harness	14.75 (374.6)	12.50 (317.5)	4.00 (101.6)	1	6 (3)	DPU222R12W ①	
60 A Non-Fused with 3/4-inch wire harness	14.75 (374.6)	12.50 (317.5)	4.00 (101.7)	1	6 (3)	DPU222R34W ①	
60 A Non-Fused with 20 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPU222RGF20 ①	
30 A Fused with 20 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPF221RGF20 ①	
60 A Fused with 20 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPF222RGF20 ①	
60 A Molded Case Switch 3-Phase 240 V	8.60 (218.4)	5.30 (134.6)	3.74 (94.9)	1	4 (2)	DPU362R	
60 A Non-Fused with 15 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPU222RGF15	
30 A Fused with 15 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPF221RGF15	
60 A Fused with 15 A ground fault receptacle	13.00 (330.2)	7.50 (190.5)	4.75 (120.7)	1	8 (4)	DPF222RGF15	
<b>Non-Metallic/Polycarbonate Enclosure</b>							
30 A Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	10	15 (7)	ACD221RNM-A2	
60 A Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	10	15 (7)	ACD222RNM-A2	
60 A Non-Fused	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	10	15 (7)	ACD222URNM-A2	
60 A Molded Case Switch	8.63 (219.0)	5.00 (127.0)	3.50 (88.9)	10	18 (8)	B60NARNM-A2	

① Cutler-Hammer Quick-Pro designated item.

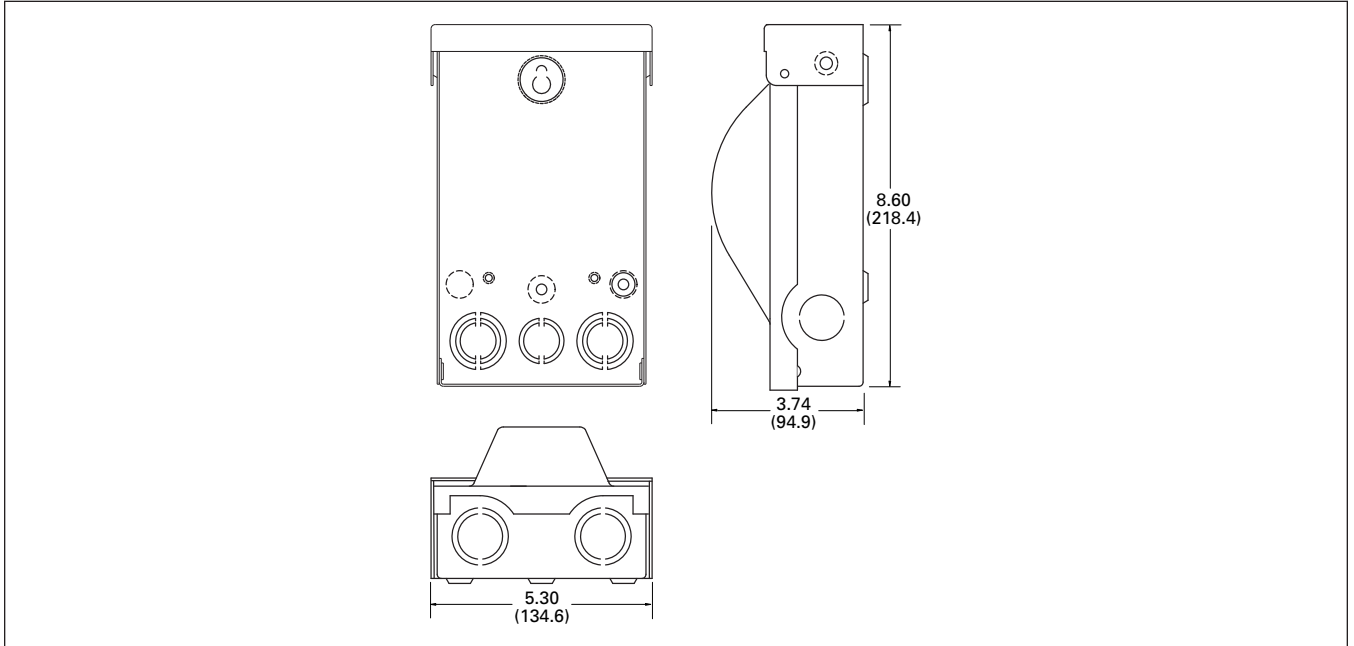
**Note:** Refer to **Page 7-7** for prices.



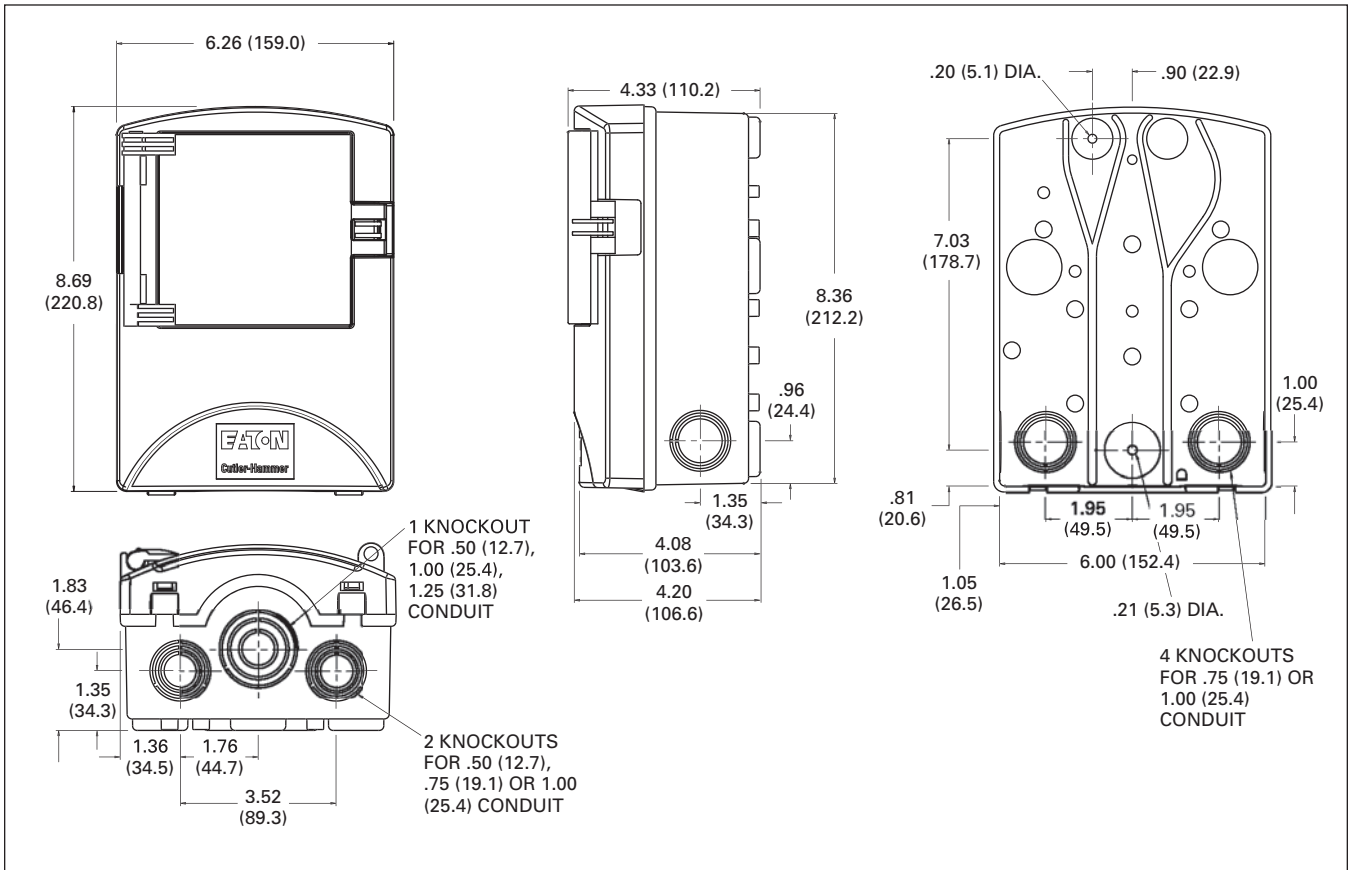
**Figure 7-1. DPF221R, DPF222R, DPU222R, DPU222R12W and DPU222R34W**

February 2007

**Dimensions in Inches (mm)**



**Figure 7-2. DPB222R and DPU362R**



**Figure 7-3. ACD221RNM-A2, ACD222RNM-A2, ACD222URNM-A2 and B60NARNM-A2**

## Dimensions in Inches (mm)

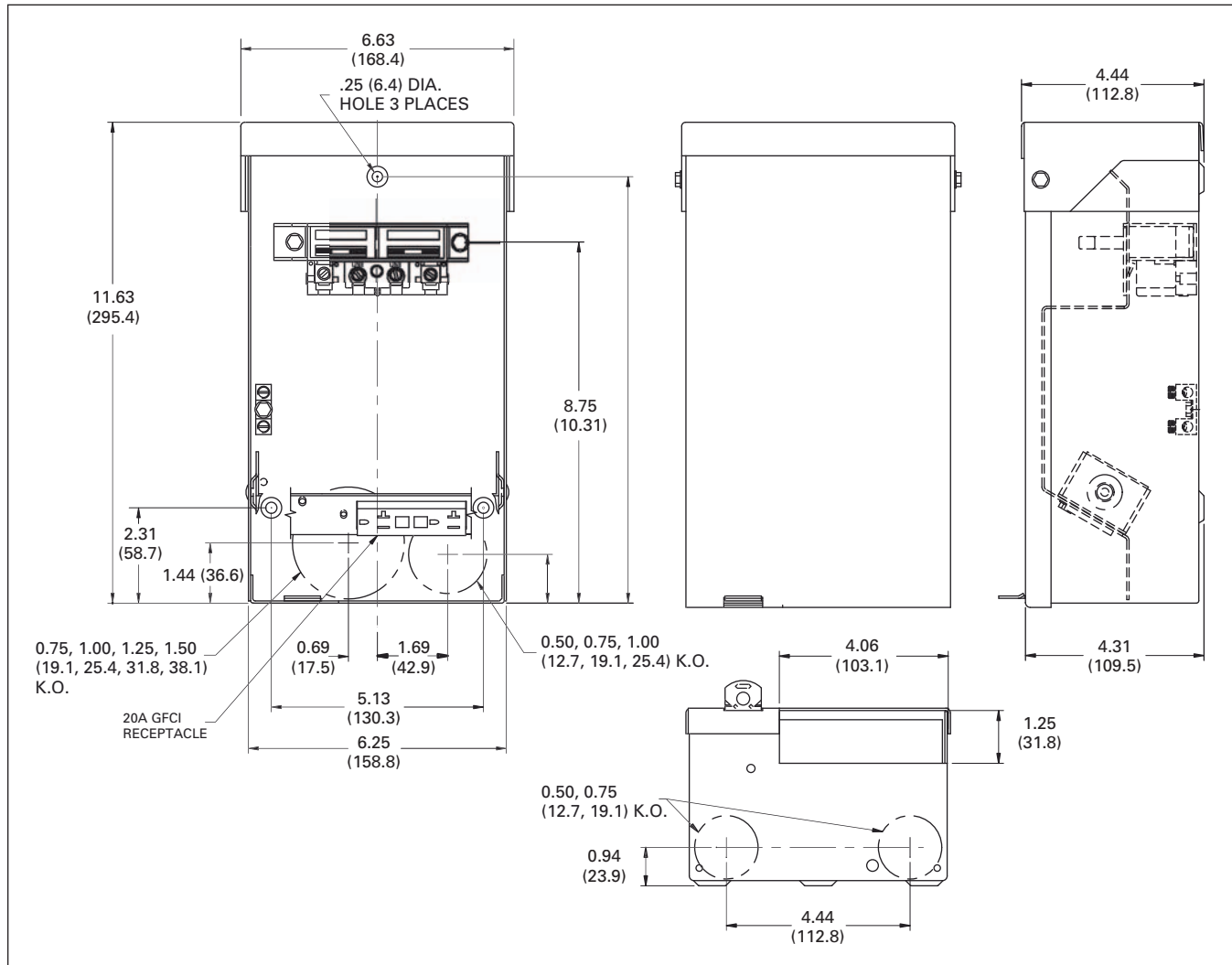


Figure 7-4. DPU222RGF20, DPF221RGF20, DPF222RGF20, DPU222RGF15, DPF221RGF15 and DPF222RGF15

**Product Selection**

**Table 7-2. Molded Case Switch**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
<b>Galvanized Steel</b>					
60	—	10	#14 – 3	DPB222R	
<b>Non-Metallic</b>					
60	—	10	#14 – 2	B60NARNM-A2	

**Table 7-3. Non-Fused Pullouts**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
<b>Galvanized Steel</b>					
60	3	10	#14 – 3	DPU222R ①	
<b>Non-Metallic</b>					
60	3	10	#14 – 2	ACD222URNM-A2 ①	

① For replacement pullout head, order part number 96-3258-4.

**Table 7-4. Fused Pullouts**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
<b>Galvanized Steel</b>					
30 ②	1-1/2	3	#14 – 3	DPF221R ③	
60 ②	3	10	#14 – 3	DPF222R ③	
<b>Non-Metallic</b>					
30 ④	1-1/2	3	#14 – 2	ACD221RNM-A2 ③	
60 ④	3	10	#14 – 2	ACD222RNM-A2 ③	

② To obtain a Service Entrance Rating, the addition of a DPF is required.

③ For replacement pullout head, order part number 96-3258-4.

④ To obtain a Service Entrance Rating, the addition of GB4NM (Ground Bar Kit) is required.

**Table 7-8. ACD with Factory-Installed Whip — Non-Fused Pullout**

Whip Diameter	Hot Wire Size	Ground Wire Size	Flexible Conduit Length	Non-Metallic Fittings	Catalog Number	Price U.S. \$
1/2 Inch	#10	#10	6 ft. (1.8 m)	1 – 90°, 1 – Straight	DPU222R12W	
3/4 Inch	#8	#10	6 ft. (1.8 m)	1 – 90°, 1 – Straight	DPU222R34W	

**Table 7-5. ACD with 20 Ampere Ground Fault Receptacle**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
<b>Non-Fused Pullouts</b>					
60	3	10	#14 – 3	DPU222RGF20	
<b>Fused Pullouts</b>					
30	3	10	#14 – 3	DPF221RGF20	
60	3	10	#14 – 3	DPF222RGF20	
<b>GFCI Receptacle ⑤</b>					
20	—	—	#12	—	—

⑤ Included in above.

**Table 7-6. ACD with 15 Ampere Ground Fault Receptacle**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
<b>Non-Fused Pullout</b>					
60	3	10	#14 – 3	DPU222RGF15	
<b>Fused Pullouts</b>					
30	3	10	#14 – 3	DPF221RGF15	
60	3	10	#14 – 3	DPF222RGF15	
<b>GFCI Receptacle ⑥</b>					
15	—	—	#14	—	—

⑥ Included in above.

**Table 7-7. Three-Phase Non-Fused ACD**

Main Ampere Rating	Maximum hp Rating		Wire Size Range Cu/Al 60°C or 75°C	Catalog Number	Price U.S. \$
	120 V	240 V			
60	10	15	#14 – 3	DPU362R	

## Cross-Reference

Table 7-9. Cross-Reference

Description	Catalog Number						
	Cutler-Hammer	Square D®	GE®	Siemens® (Murray®)	Milbank	Thomas & Betts®	Midwest
<b>Metallic/Galvanized Steel Enclosure</b>							
30 A Fused	DPF221R	FP221R	TF30R	WF2030	U3803	ACM221	U035F2
60 A Fused	DPF222R	FP222R	TF60R	WF2060	U3806	ACM222	U065F1
60 A Non-Fused	DPU222R	UFP222R	TFN60R	WN2060	U3800	ACM222NF	U065P010
60 A Non-Fused Compact Design	DPU222R	—	—	WNFC2060	—	ACPO222NF	—
60 A Molded Case Switch	DPB222R	QO200TR	TNA60R1	WNAS2060	—	ACM2620NA	U065NA1
60 A Non-Fused with GF Receptacle	DPU222RGF	UFP222RGFI	TFN60RGFR	WN2060GFCI	U3822-20GR	—	U065P010
30 A Fused with GF Receptacle	DPF221RGF	—	—	WF2030GFCI	—	—	U035F010
60 A Fused with GF Receptacle	DPF222RGF	—	—	WF2060GFCI	—	—	U065F010
60 A Non-Fused with 1/2-inch Wire Harness	DPU222R12W	—	—	—	—	—	—
60 A Non-Fused with 3/4-inch Wire Harness	DPU222R34W	—	—	—	—	—	—
60 A 3-Phase 600 V Molded Case Switch	DPU362R	—	—	—	—	—	U0653F
<b>Non-Metallic/Polycarbonate Enclosure</b>							
30 A Fused	ACD221RNM-A2	FP221RNM	TPF30R	WF2030PL	—	ACP221	P035F
60 A Fused	ACD222RNM-A2	FP222RNM	TPF60R	WF2060PL	—	ACP222	P065F
60 A Non-Fused	ACD222URNM-A2	UFP222RNM	TPN60R1	WN2060PL	—	ACP222NF	P065P1
60 A Molded Case Switch	B60NARNM-A2	QO200TRNM	TPNA60R1	—	—	ACP260NA	P065NA1

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