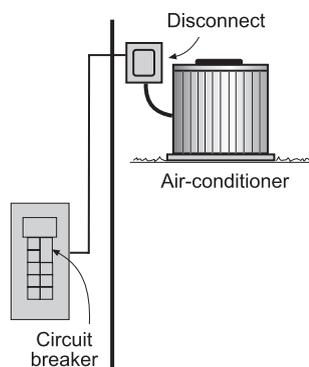


## Application Information

Article 440 of the National Electrical Code applies to electric motor-driven air conditioning and refrigerating equipment, and to the branch circuits and controllers for such equipment. It provides for the special considerations necessary for circuits supplying hermetic refrigerant motor-compressors and for any air conditioning and/or refrigerating equipment that is supplied from an individual branch circuit.

The 2008 National Electric Code requires:

**440.14 Location.** Disconnecting means shall be located within sight from and readily accessible from the air-conditioning or refrigerating equipment. The disconnecting means shall be permitted to be installed on or within the air-conditioning or refrigerating equipment.



## Air Conditioner Disconnect Selection Guide

Existing Branch Circuit Protection	Sight Disconnect Selection
Fusible*	Non-Fusible or Fusible
Circuit Breaker	Fusible
HACR**	Non-Fusible or Fusible
*See Air Conditioner nameplate for correct selection. **HACR = Heating, Air Conditioning, Refrigeration Type Circuit Breaker	

## Features and Benefits

### Flexibility

- 30-60 amperes
- 240 volts A.C.
- 1 Phase and 3 Phase fusible and non-fusible
- Listed by Underwriters Laboratories & cUL
- Horsepower rated
- 10,000 A.I.C.
- New models available with internal GFCI receptacle to address 2002 NEC code change.
- No DC Rating

### Rugged Durability

- Noryl® thermoplastic enclosure is corrosion resistant and extremely durable, giving long maintenance free service

The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or to obscure the equipment nameplates.

Additionally, the 2008 National Electric Code states:

**110.3(b).** Installation and Use. Listed or labeled equipment shall be used or installed in accordance with any instructions included in the listing or labeling.

Thus, when an equipment's label or instruction specifies circuit breaker protection, Article 110.3(b) can be met with a branch circuit breaker in the load center while article 440.14 can most economically be met using a disconnect without overcurrent protection. When an equipment's label or instructions specifies fuse protection, Article 110.3(b) mandates that fuse(s) must be present in the branch circuit. Since most load centers are of the circuit breaker variety, fuses must be installed elsewhere in the branch circuit. The most economical installation involves combining the fuse protection and disconnecting functions into a single device to be installed per Article 440.14. See illustrations.



### User Safety

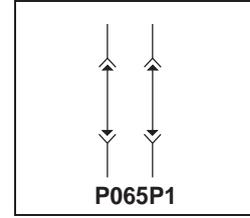
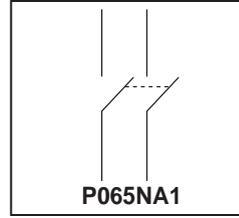
- Door has padlock provisions to prevent unauthorized access

### Installation Ease

- Three-piece construction that opens up mounting and wiring areas, reduces installation time
- Terminals approved for 60°C and 75°C wire, accepts solid 14-8 copper, 12-8 aluminum or stranded 14-3 copper, 12-3 aluminum
- Numerous knockouts reduce installation time
- Straight-in, straight-out wiring saves time and money

## Non Metallic – Non-Fusible Disconnects

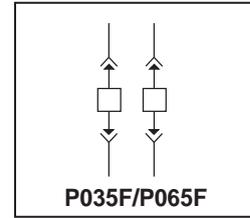
Non-fusible disconnect pullers are removable or reinstallable in the OFF position for user safety during equipment maintenance.



UL	MODEL NUMBER	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
Y	P065P1	NF65	60	240	10	D	5 X 7	2	6
Y	P065NA1	SWITCH ONLY	60	240	10	D	5 X 7	2	6
Y	P065P	NF65	60	240	10	D	6 X 8	2	6

## Non Metallic – Fusible Disconnects

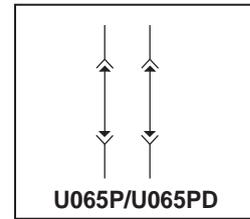
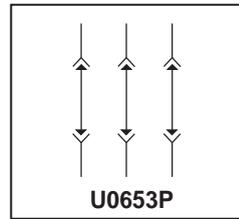
Fusible disconnects are available in 30 and 60 Ampere models. Pullers are removable or reinstallable in the OFF position for user safety during equipment maintenance. The P065F UL listing includes the ability to field replace the 60 Ampere puller with a 30 Ampere puller (FR352) for installation flexibility. Listed for use as service entrance.



UL	MODEL NUMBER	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
Y	P035F	FR39	30	240	3	D	6 X 8	2	6
Y	P065F	FR69	60	240	10	D	6 X 8	2	6

## Metallic – Non-Fusible Disconnects - Single & Three Phase

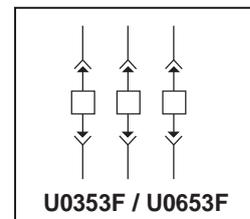
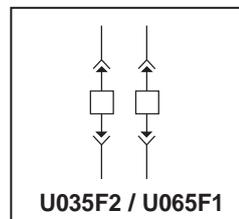
Non-fusible disconnect pullers are removable or reinstallable in the OFF position for user safety during equipment maintenance.



UL	MODEL NUMBER	PHASE	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
Y	U065P	1	NF65	60	240	10	D	5 X 7	3	6
Y	U0653P	3	NF653	60	240	7.5-15	D	6 X 14	8.5	4
Y	U065PD	1	NF65	60	240	10	D	7 X 10	7	1

## Metallic – Fusible Disconnects - Single & Three Phase

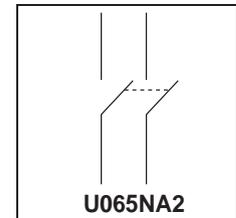
Fusible disconnects are available in 30 and 60 Ampere models. Pullers are removable or reinstallable in the OFF position for user safety during equipment maintenance. Listed for use as service entrance.



UL	MODEL NUMBER	PHASE	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
Y	U035F2	1	FR35R	30	240	3	D	5 X 7	2.5	6
Y	U065F1	1	FR65	60	240	10	D	5 X 9	3.5	6
Y	U0353F	3	265A603527	30	240	3-7.5	D	6 X 14	8.5	4
Y	U0653F	3	-----	60	240	7.5-15	D	6 X 14	8.5	4

= Accepts Class H Fuses (Fuses Not Included)

\* Wire Range Table on page 42



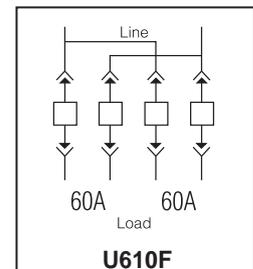
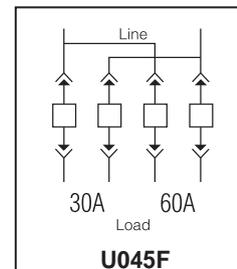
## Non-Automatic Disconnect Switch

UL	MODEL NUMBER	PHASE	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE	CABINET SIZE	UNIT WT.	STD. PKG
Y	U065NA1	1	SWITCH ONLY	60	240	10	D	5 x 7	2.5	6
Y	U065NA2	1	SWITCH ONLY	60	240	10	D	7 x 10	6.5	6

AC Disconnects

## Heat Pump – Fusible Disconnects

Multiple disconnect devices are offered for heat pump applications that require individual disconnects for the heating and cooling cycles. All pullers are removable or reinstallable in the OFF position for user safety during equipment maintenance. Their UL listing includes the ability to field replace the 60 Ampere puller in the left fuse block with a 30 Ampere puller (FR352) for installation flexibility but prohibits the interchangeability of pullers between fuse blocks to insure the proper fuse/puller combination is always reinstalled into the proper fuse block.



UL	MODEL NUMBER	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	NEUTRAL BAR	UNIT WT.	STD. PKG.
Y	U045F	FR35XFR67	90	120/240	10	Y	9 x 17	NU100B2	13.5	1
Y	U610F	FR67X2	100	120/240	10	Y	9 x 17	NU100B2	13.5	1

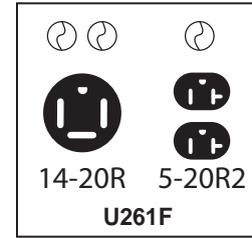
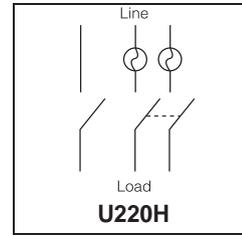
## AC with Ground Fault Disconnects

UL	MODEL NUMBER	PHASE	CIRCUIT PROTECTION	RECEPTACLE TYPE	A/C DISCONNECT			WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
					AMP	VOLTS	HORSE PWR RATING				
Y	U065P010	1	Non-Fused	5-15R2GFI	60	240	10	D	5 x 7	4.3	6
Y	U065NA1010	1	Switch Only	5-15R2GFI	60	240	10	D	5 x 7	4	6
Y	U065F010	1	Fused	5-15R2GFI	60	240	10	D	6 x 9	6.5	4
Y	U065PC2	1	Non-Fused	5-20R2	60	240	10	D	5 x 7	4.3	4
Y	U0653P010	3	Non-Fused	5-20R2GFI	60	240	10	D	6 x 14	8.5	4
Y	U0653F010	3	Fused	5-20R2GFI	60	240	7.5-15	D	6 x 14	8.5	4
Y	U0353F010	3	Fused	5-20R2GFI	30	240	7.5-15	D	6 x 14	9.5	4
Y	U035F010	1	Fused	5-15R2GFI	30	240	3	D	6 x 9	8.5	4

\* Wire Range Table on page 42

## Evaporative Cooler – Fusible Disconnects

Evaporative cooler applications not only require fusing but switching or receptacle functions depending on equipment type and local codes. Two models are offered to meet these varied evaporative cooler applications.



UL	MODEL NUMBER	RECEPTACLES	CIRCUIT PROTECTION	AMP	VOLTS	HORSE POWER RATING	WIRE RANGE*	CABINET SIZE	NEUTRAL BAR	UNIT WT.	STD. PKG.
Y	U220H	DPST, SPST SWITCH	(2) FH1	20	120/240	---	AR	5 x 7	---	4.5	4
Y	U261F	14-20R 5-20R2	(3) FH1	40	120/240	---	E	6 x 9	---	6	4

\* Wire Range Table on page 42

= Edison Plug Fuse Base (Fuses Not Included)

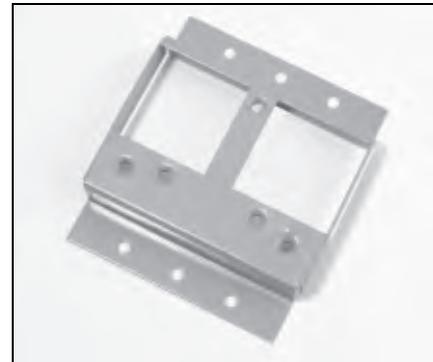
= Accepts Class H Fuses (Fuses Not Included)

## Exterior Mounting Bracket

Exterior Mounting Bracket for AC & AC/GFI Disconnects in aluminum, vinyl siding, and stucco applications.

**MODEL NUMBER**  
STC1

**DESCRIPTION**  
Exterior Mounting Bracket for AC & AC/GFI Disconnects in aluminum, vinyl siding, and stucco applications. Sold in multiples of six only.



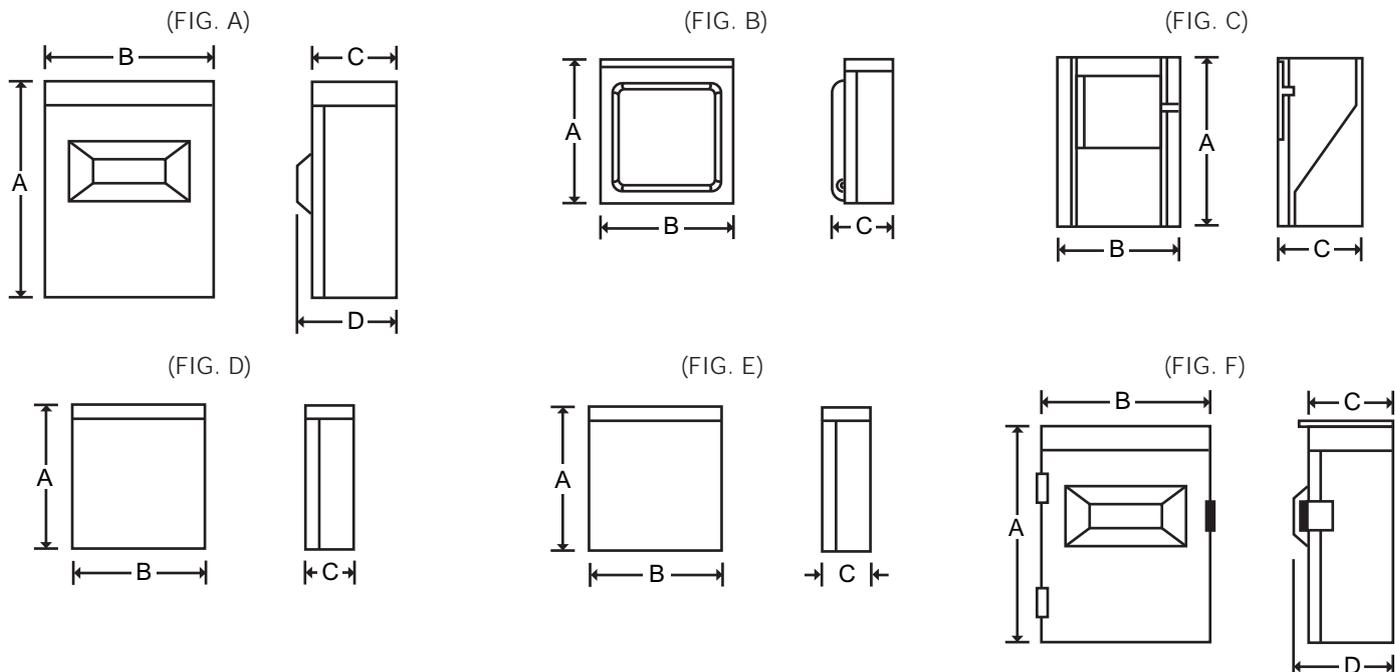
**STC1**

## A/C Disconnect Technical Data

MODEL NUMBER	REPLACEMENT PARTS			CABINET SIZE	ENCLOSURE STYLE	CABINET DIMENSIONS				KO DETAIL page 42
	COMPLETE BLOCK & PULLER	FUSE BLOCK ONLY	PULLER ONLY			HEIGHT A	WIDTH B	DEPTH C	DEPTH D	
P035F	FR39	—	FR352	6 X 8	FIG. C	8"	5-3/4"	3-1/8"	—	FIG. 1
P065F	FR69	—	FH682	6 X 8	FIG. C	8"	5-3/4"	3-1/8"	—	FIG. 1
P065NA1	—	—	—	5 X 7	FIG. F	7-1/4"	5"	2-1/8"	2-3/4"	FIG. 2
P065P	—	NF65	NF652	6 X 8	FIG. F	8"	6"	5-3/4"	2-3/4"	FIG. 2
P065P1	—	NF65	NF652	5 X 7	FIG. F	7"	5"	2-1/8"	2-3/4"	FIG. 2
U035F010	FR39	—	FR352	6 X 9	FIG. B	9-1/8"	7-1/4"	5-3/16"	—	FIG. 3
U035F2	FR35R	—	FR352R	5 X 7	FIG. A	7"	5"	2-1/8"	2-3/4"	FIG. 2
U0353F/010	265A6035G27	—	265A6035G28	6 X 14	FIG. B	14-3/8"	7-1/4"	5-3/16"	—	FIG. 3
U045F	FR35XFR67	—	FR352 FH682	9 X 17	FIG. B	17-3/8"	9-3/4"	5-3/16"	—	FIG. 4
U0653F/010	265A6036G69	—	265A6036G71	6 X 14	FIG. B	14-3/8"	7-1/4"	5-3/16"	—	FIG. 3
U0653P	265A6036G73	—	265A6036G72	6 X 14	FIG. B	14-3/8"	7-1/4"	5-3/16"	—	FIG. 3
U065F010	FR65	—	FH682	6 X 9	*	9-1/8"	7-1/4"	5-3/16"	*	*
U065F1	FR65	—	FH682	5 X 9	FIG. A	9"	5"	2-1/8"	2-3/4"	FIG. 2
U065NA1	—	—	—	5 X 7	FIG. F	7"	5"	2-1/8"	2-3/4"	FIG. 2
U065NA1010	—	—	—	5 X 7	FIG. F	7"	5"	2-1/8"	2-3/4"	*
U065NA2	—	—	—	7 X 10	FIG. E	10"	7-1/2"	4"	—	FIG. 5
U065P	—	NF65	NF652	5 X 7	FIG. A	7-1/4"	5"	2-1/8"	2-3/4"	FIG. 2
U065P010	—	NF65	NF652	5 X 7	FIG. F	7"	5"	2-1/8"	2-3/4"	FIG. 2
U065PC2	—	NF65	NF652	5 X 7	FIG. F	7"	5"	2-1/8"	2-3/4"	FIG. 2
U065PD	—	NF65	—	7 X 10	FIG. E	10"	7-1/2"	4"	—	FIG. 5
U0653P010	—	—	—	6 X 14	FIG. B	14-3/8"	7-1/4"	5-3/16"	—	FIG. 3
U220H	—	FH1	—	5 X 7	FIG. B	7-1/8"	5-3/4"	5-3/16"	—	FIG. 5
U261F	—	FH1	—	6 X 9	FIG. B	9-1/8"	7-1/4"	5-3/16"	—	FIG. 3
U610F	FR67X2	—	FH682	9 X 17	FIG. B	17-3/8"	9-3/4"	5-3/16"	—	FIG. 4

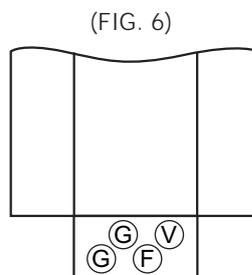
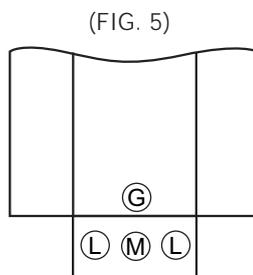
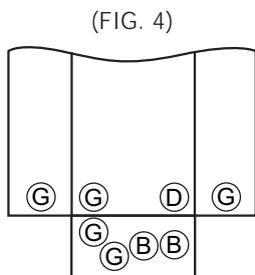
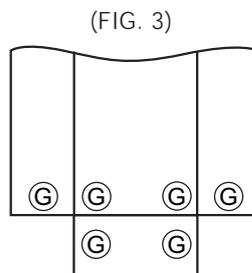
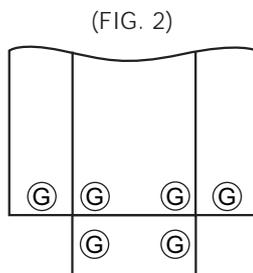
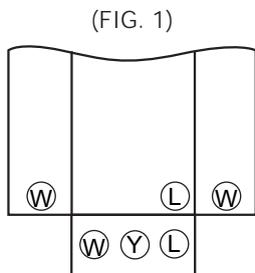
\* Consult Manufacturer.

## A/C Cabinet Dimensions



## Knockout Configurations

AC Disconnects



- B= 1", 1-1/4", 1-1/2"
- D= 3/4", 1", 1-1/4"
- F= 1/2"
- G= 1/2", 3/4", 1"
- L= 1/2", 3/4"
- M= 1/2", 3/4", 1", 1-1/4"
- N= 1/2", 3/4", 1", 1-1/4", 1-1/2"
- V= 3/4", 1", 1-1/4", 1-1/2"
- W= 3/4", 1"
- Y= 1", 1-1/4"

## A/C Wire Range Tables

**TABLE D**

Connector	Copper		Aluminum	
	Solid	Strand	Solid	Strand
Line	14-8	14-3	12-8	12-3
Load	14-8	14-3	12-8	12-3
Neutral	----	----	----	----
Equip. Grnd.	12-8	12-2	12-8	12-2

**TABLE Y**

Connector	Copper		Aluminum	
	Solid	Strand	Solid	Strand
Line	14-8	14-1/0	12-8	12-1/0
Load	14-8	14-2	12-10	12-2
Neutral	14-8	14-1/0	12-8	12-1/0

**TABLE E**

Connector	Copper		Aluminum	
	Solid	Strand	Solid	Strand
Line	14-10	14-10	----	----
Load	14-10	14-10	----	----
Neutral	14-10	14-10	----	----
Equip. Grnd.	12-8	12-2		

**TABLE AR**

Connector	Copper		Aluminum	
	Solid	Strand	Solid	Strand
Line	14-10	14-10	----	----
Load	14-10	14-10	----	----
Neutral	----	----	----	----
Equip. Grnd.	12-8	12-2	----	----

# Notes

