AC Disconnects

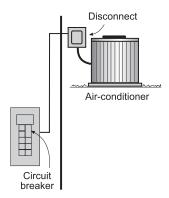


Application Information

Article 440 of the National Electrical Code applies to electric motordriven 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					
Fus b e*	Non-Fus b e or Fus b e					
C rcu t Breaker	Fus b e					
HACR** Non-Fus b e or Fus b e						
*See A r Cond t oner namep ate for correct se ect on.						

**HACR = Heat ng, A r Cond t on ng, Refr gerat on Type C rcu t 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
- NEMA 3R enclosure

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.



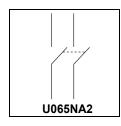
User Safety

• 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



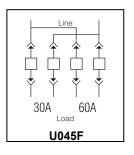


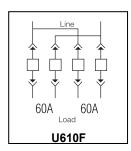
Non-Automatic Disconnect Switch

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

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	АМР	VOLTS	HORSE POWER RAT NG	WIRE RANGE*	CABINET SIZE	NEUTRAL BAR	UNIT WT.	STD. PKG.
Υ	U045F	FR35XFR67	90	120/240	10	Y	9 x 17	NU100B2	13.5	1
Υ	U610F	FR67X2	100	120/240	10	Y	9 x 17	NU100B2	13.5	1

AC with Ground Fault Disconnects

	MODEL NUMBER	PHASE	CIRCUIT PROTECTION		A/C D SCONNECT						
UL				RECEPTACLE TYPE	AMP	VOLTS	HORSE PWR RATING	WIRE RANGE*	CABINET SIZE	UNIT WT.	STD. PKG.
Υ	U065P010	1	Non-Fused	5-15R2GF	60	240	10	D	5 x 7	4 3	6
Υ	U065NA1010	1	Switch Only	5-15R2GF	60	240	10	D	5 x 7	4	6
Υ	U065F010	1	Fused	5-15R2GF	60	240	10	D	6 x 9	6 5	4
Υ	U065PC2	1	Non-Fused	5-20R2	60	240	10	D	5 x 7	4 3	4
Υ	U0653P010	3	Non-Fused	5-20R2GF	60	240	10	D	6 x 14	8 5	4
Υ	U0653F010	3	Fused	5-20R2GF	60	240	7 5-15	D	6 x 14	8 5	4
Υ	U0353F010	3	Fused	5-20R2GF	30	240	7 5-15	D	6 x 14	9 5	4
Υ	U035F010	1	Fused	5-15R2GF	30	240	3	D	5 x 7	8 5	4

^{*} Wire Range Table on page 42

Data subject to change without notice.

AC Disconnects

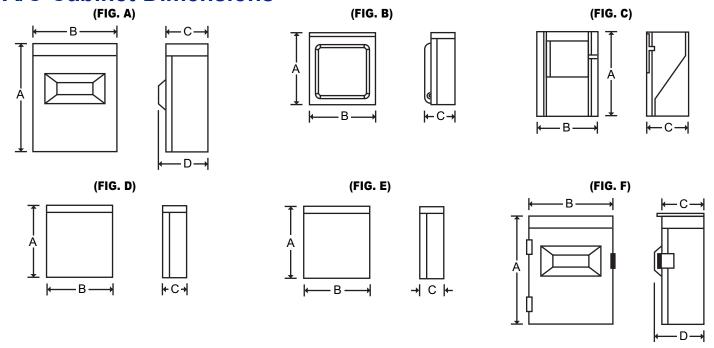
Midwest

A/C Disconnect Technical Data

	REPL	ACEMENT PARTS		CABINET SIZE	ENCLOSURE STYLE		CABINET D	IMENSIONS		KO DETAIL
MODEL Number	COMPLETE	FUSE BLOCK ONLY	PULLER ONLY			HEIGHT	WIDTH	DEPTH	DEPTH	
	BLOCK & PULLER			OILL	UTTE	Α	В	С	D	page 42
P035F	FR39		FR352	6 X 8	FGC	8"	5 3/4"	3 1/8"		FG 1
P065F	FR69		F 682	6 X 8	FGC	8"	5 3/4"	3 1/8"		FG 1
P065NA1				5 X 7	FGF	7 1/4"	5"	2 1/8"	2 3/4"	FG 2
P065P		NF65	NF652	6 X 8	FGF	8"	6"	5 3/4"	2 3/4"	FG 2
P065P1		NF65	NF652	5 X 7	FGF	7"	5"	2 1/8"	2 3/4"	FG 2
U035F010	FR39		FR352	5 X 7	F G B	9 1/8"	7 1/4"	5 3/16"		FG 3
U035F2	FR35R		FR352R	5 X 7	FGA	7"	5"	2 1/8"	2 3/4"	FG 2
U0353F/010	265A6035G27		265A6035G27	6 X 14	F G B	14 3/8"	7 1/4"	5 3/16"		FG 3
U045F	FR35XFR67		FR352 F 682	9 X 17	F G B	17 3/8"	9 3/4"	5 3/16"		FG 4
U0653F/010	265A6036G69		265A6036G69	6 X 14	F G B	14 3/8"	7 1/4"	5 3/16"		FG 3
U0653P	265A6036G73		265A6036G73	6 X 14	F G B	14 3/8"	7 1/4"	5 3/16"		FG 3
U065F010	FR65		F 682	6 X 9	*	9 1/8"	7 1/4"	5 3/16"	*	*
U065F1	FR65		F 682	5 X 9	FGA	9"	5"	2 1/8"	2 3/4"	FG 2
U065NA1				5 X 7	FGF	7"	5"	2 1/8"	2 3/4"	FG 2
U065NA1010				5 X 7	FGF	7"	5"	3 5/8"	5 3/16"	*
U065NA2				7 X 10	FG E	10"	7 1/2"	4"		FG 5
U065P		NF65	NF652	5 X 7	FGA	7 1/4"	5"	2 1/8"	2 3/4"	FG 2
U065P010		NF65	NF652	5 X 7	FGF	7"	5"	3 5/8"	5 3/16"	FG 2
U065PC2		NF65	NF652	5 X 7	FGF	7"	5"	2 1/8"	2 3/4	FG 2
U065PD		NF65	NF652	7 X 10	FGE	10"	7 1/2"	4"		FG 5
U0653P010				6 X 14	F G B	14 3/8"	7 1/4"	5 3/16"		FG3
U220H		F 1		5 X 7	F G B	7 1/8"	5 3/4"	5 3/16"		FG 5
U261F		F 1		6 X 9	F G B	9 1/8"	7 1/4"	5 3/16"		FG 3
U610F	FR67X2		F 682	9 X 17	F G B	17 3/8"	9 3/4"	5 3/16"		FG 4

^{*} Consult Manufacturer.

A/C Cabinet Dimensions



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