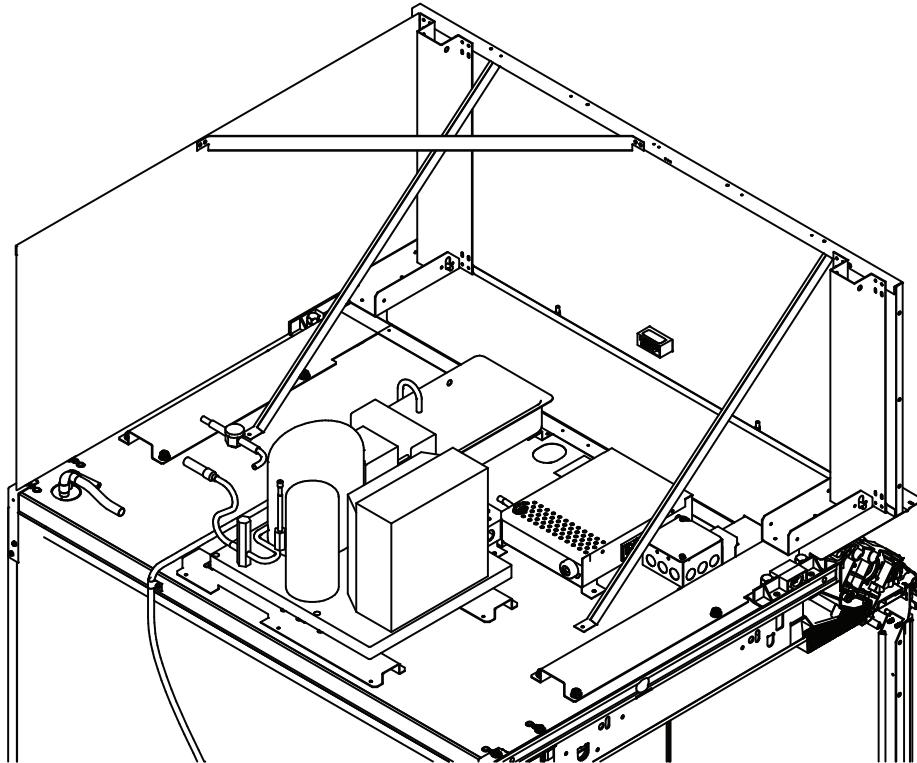


HUSSMANN®

Insight / Excel Freedom Condensing Units

Technical Data Sheet
P/N 3046835_E
December 2018



We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

Data sheet-Insight/Excel Freedom Condensing Units

NOTE: Revision E: updated application data.

R448A

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

**Case wiring must be on a separate circuit. See Insight/
Excel data sheet for case circuit requirements.**

NOTE: All 208V condensing units require 4 wire connections.

Application	IDDF5SU			
	4 Foot	6 Foot	8 Foot	12 Foot
Voltage/ 60Hz / 1 Phase	115	115	115	208/230
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller				
Maximum Overcurrent Protection Device (MOPD)	20	20	20	15
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters (Single Pan/Optional Dual Pan)				
Maximum Overcurrent Protection Device (MOPD)	15	15	15	15
Minimum Circuit Ampacity (MCA)	12.0	13.2	14.1	11.6
Condensing Unit				
RLA	4	4.8	5.5	4
LRA	26	34	30.5	22
Type	---	---	---	---
Condensate Evaporator Pan (Single Pan/Optional Dual Pan)				
Volts	120	120	120	208
Amps	5	5	5	4.8
Wattage	600	600	600	1,000
Wiring Diagram	2A	2A	2A	2B
R448A Charge (lbs)	1.4	1.4	2.4	1.4
Accumulator Capacity (lbs)	---	---	---	---
Oil Recharge (oz)	10	10	10	10
Heat of Rejection (Btu/hr)	1,855	2,542	3,190	4,553
Refrigerant Connections (inches)				
Liquid Line	1/4	1/4	1/4	1/4
Suction Line	3/8	3/8	3/8	3/8
Dimensions (inches)				
Height	10.4	11.9	11.9	11.7
Length	16	16.1	16.1	16.6
Width	14.2	15.1	15.1	13.1
Shipping Weight (lbs)	40	48	49	40

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

NOTE: All 208V condensing units require 4 wire connections.

Application	IDF5SM/TE			
	4 Foot	6 Foot	8 Foot	12 Foot
Voltage/ 60Hz / 1 Phase	208/230	208/230	208/230	208/230
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller Maximum Overcurrent Protection Device (MOPD)	15	15	15	15
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters (Single Pan/Optional Dual Pan) Maximum Overcurrent Protection Device (MOPD)	15/20	25/30	30/35	50/50
Minimum Circuit Ampacity (MCA)	14.9/20.9	19.9/25.9	25.8/34.8	37.3/49.3
Condensing Unit				
RLA	6	10	12	18
LRA	35.7	40.3	56	75
Type	AC Scroll	AC Scroll	AC Scroll	AC Scroll
Condensate Evaporator Pan (Single Pan/Optional Dual Pan)				
Volts	208	208	208	208
Amps	4.8/9.6	4.8/9.6	7.2/12.0	9.6/14.4
Wattage	1000/2000	1000/2000	1500/2500	2000/3000
Wiring Diagram	2B	2B	2B	2B
R448A Charge (lbs)	5.1	3.4	5.9	5.9
Accumulator Capacity (lbs)	---	---	---	---
Oil Recharge (oz)	21	19	19	19
Heat of Rejection (Btu/hr)	7,183	10,539	13,500	20,289
Refrigerant Connections (inches)				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$
Dimensions (inches)				
Height	16.30	16.6	16.6	19.0
Length	24.1	24.1	24.1	25.0
Width	18.5	18.3	18.3	34.1
Shipping Weight (lbs)	105	110	186	183

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

NOTE: All 208V condensing units require 4 wire connections.

Application	IDF5NM/TE			
	4 ft	6 ft	8 ft	12 ft
Voltage/ 60Hz / 1 Phase	208/230	208/230	208/230	208/230
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller Maximum Overcurrent Protection Device (MOPD)	15	15	15	15
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters (Single Pan/Optional Dual Pan) Maximum Overcurrent Protection Device (MOPD)	15/20	30/35	40/45	60/65
Minimum Circuit Ampacity (MCA)	14.9/20.9	23.2/29.2	31.4/40.4	43.8/55.8
Condensing Unit				
RLA	6	12.6	15.7	23.2
LRA	35.7	55	68	112
Type	AC Scroll	AC Scroll	AC Scroll	AC Scroll
Condensate Evaporator Pan (Single Pan/Optional Dual Pan)				
Volts	208	208	208	208
Amps	4.8/9.6	4.8/9.6	7.2/12.0	9.6/14.4
Wattage	1000/2000	1000/2000	1500/2500	2000/3000
Wiring Diagram	2B	2B	2B	2B
R448A Charge (lbs)	5.1	5.9	5.9	5.9
Accumulator Capacity (lbs)	---	---	---	---
Oil Recharge (oz)	21	19	19	34
Heat of Rejection (Btu/hr)	978	11,520	15,854	23,376
Refrigerant Connections (inches)				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{1}{8}$
Dimensions (inches)				
Height	16.3	16.6	19.0	18.9
Length	24.1	24.1	25.0	34.1
Width	18.5	18.3	34.0	25.0
Shipping Weight (lbs)	105	114	183	120

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

NOTE: All 208V condensing units require 4 wire connections.

Application	IDDF6SV			
	4 ft	6 ft	8 ft	12 ft
Voltage/ 60Hz / 1 Phase	115	115	115	115
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller				
Maximum Overcurrent Protection Device (MOPD)	20	20	15	15
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters (Single Pan/Optional Dual Pan)				
Maximum Overcurrent Protection Device (MOPD)	15	15	20	25
Minimum Circuit Ampacity (MCA)	12.2	14.1	15.9	21.1
Condensing Unit				
RLA	4	5.5	7.2	10.5
LRA	26	30.5	39	54.5
Type	---	---	---	---
Condensate Evaporator Pan (Single Pan/Optional Dual Pan)				
Volts	120	120	120	120
Amps	5	5	5	5
Wattage	600	600	600	600
Wiring Diagram	2A	2A	2A	2A
R448A Charge (lbs)	1.4	2.0	1.4	3.0
Accumulator Capacity (lbs)	---	---	---	---
Oil Recharge (oz)	10	10	10	13
Heat of Rejection (Btu/hr)	2,254	3,350	4,395	6,600
Refrigerant Connections (inches)				
Liquid Line	1/4	1/4	1/4	3/8
Suction Line	3/8	3/8	3/8	1/2
Dimensions (inches)				
Height	11.9	11.9	11.9	13.1
Length	16.1	16.1	16.0	24
Width	15.1	15.1	15.1	16.4
Shipping Weight (lbs)	44	49	46	61

Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

NOTE: All 208V condensing units require 4 wire connections.

Application	CF5X Medium Temperature			
	4 ft	6 ft	8 ft	12 ft
Voltage/ 60Hz / 1 Phase	208/230	208/230	208/230	208/230
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller				
Maximum Overcurrent Protection Device (MOPD)	20	20	20	20
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters				
Maximum Overcurrent Protection Device (MOPD)	15	30	35	65
Minimum Circuit Ampacity (MCA)	15.0	20.0	22.8	37.8
Condensing Unit				
RLA	6	10	12	23.2
LRA	35.7	40.3	56	112
Type	---	AC Scroll	AC Scroll	AC Scroll
Condensate Evaporator Pan				
Volts	208	208	208	208
Amps	4.8	4.8	4.8	14.4
Wattage	1,000	2,000	2,000	3,000
Wiring Diagram	3B	3B	3A	3A
R448A Charge (lbs)	5.1	3.4	5.9	5.9
Accumulator Capacity (lbs)	---	---	6.11	6.11
Oil Recharge (oz)	21	19	19	34
Heat of Rejection (Btu/hr)	10,067	15,026	20,966	29,743
Refrigerant Connections (inches)				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{1}{8}$
Dimensions (inches)				
Height	16.3	16.6	19.0	18.9
Length	24.1	24.1	25.2	34.1
Width	18.5	18.3	34.1	25.0
Shipping Weight (lbs)	105	110	186	120

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

NOTE: All 208V condensing units require 4 wire connections.

Application	DF5NX Medium Temperature			
	4 ft	6 ft	8 ft	12 ft
Voltage/ 60Hz / 1 Phase	208/230	208/230	208/230	208/230
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller Maximum Overcurrent Protection Device (MOPD)	20	20	20	20
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters Maximum Overcurrent Protection Device (MOPD)	15	30	35	65
Minimum Circuit Ampacity (MCA)	14.9	19.9	22.8	37.8
Condensing Unit				
RLA	6	10	12	23.2
LRA	35.7	40.3	56	112
Type	AC Scroll	AC Scroll	AC Scroll	AC Scroll
Condensate Evaporator Pan				
Volts	208	208	208	208
Amps	4.8	9.6	9.6	14.4
Wattage	1,000	2,000	2,000	3,000
Wiring Diagram	3B	3B	3A	3A
R448A Charge (lbs)	4.0	6.0	8.0	12.0
Accumulator Capacity (lbs)	---	---	6.11	6.11
Oil Recharge (oz)	21	19	19	34
Heat of Rejection (Btu/hr)	9,677	14,443	20,153	28,589
Refrigerant Connections (inches)				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{1}{8}$
Dimensions (inches)				
Height	16.3	16.6	19.0	18.9
Length	24.1	24.1	25.2	34.1
Width	18.5	18.3	34.1	25.0
Shipping Weight (lbs)	105	110	186	120

NOTE: All 208V condensing units require 4 wire connections.

Application	DDF5NX	
	4 ft	6 ft
Voltage/ 60Hz / 1 Phase	115	115
Circuit 1 (120V, 1 Phase) Fans, Lights, Controller Maximum Overcurrent Protection Device (MOPD)	20	20
Circuit 2 (120V or 208V, 1 Phase) Condensing Unit and Condensate Evaporator Pan Heaters (Single Pan/Optional Dual Pan) Maximum Overcurrent Protection Device (MOPD)	15	15
Minimum Circuit Ampacity (MCA)	11	12
Condensing Unit		
RLA	4.0	4.8
LRA	26.0	34.0
Type	---	---
Condensate Evaporator Pan (Single Pan/Optional Dual Pan)		
Volts	120	120
Amps	5.0	5.0
Wattage	1,000	1,000
Wiring Diagram	3C	3C
R448A Charge (lbs)	1.4	1.4
Accumulator Capacity (lbs)	---	---
Oil Recharge (oz)	10	10
Heat of Rejection (Btu/hr)	4,098	7,952
Refrigerant Connections (inches)		
Liquid Line	¼	¼
Suction Line	⅜	⅜
Dimensions (inches)		
Height	10.4	11.9
Length	16.0	16.1
Width	14.2	15.1
Shipping Weight (lbs)	40	48

Case wiring must be on a separate circuit. See Insight/Excel data sheet for case circuit requirements.

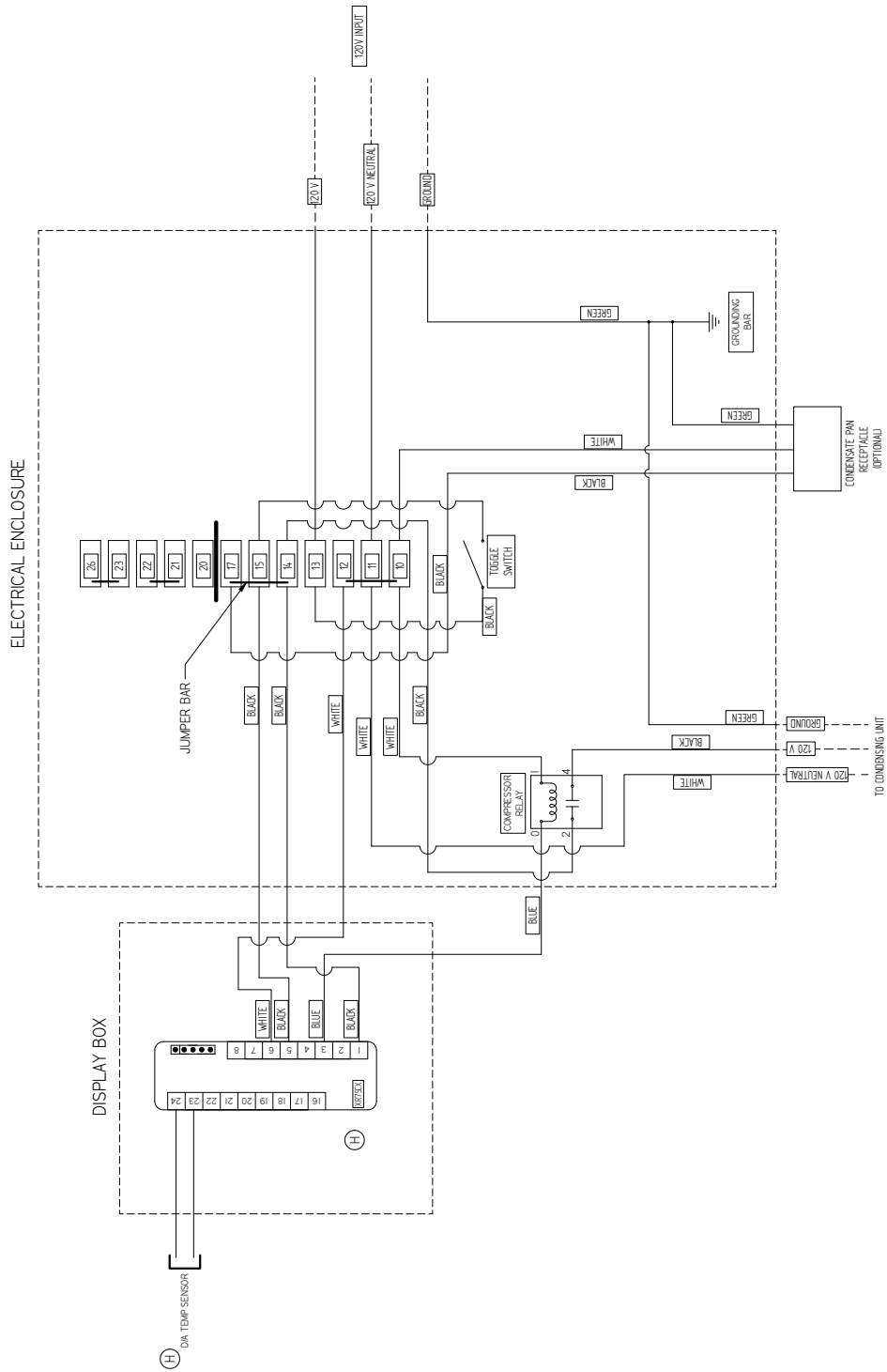
**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

Case	Size	Kit	Copeland Number (ID)	Tecumseh Alt.	Alt. Kit
IDDF5SU	4 Feet	TH64	M6EM-0020-IAA-028		
	6 Feet	TH65	M6EM-H026-IAA-028		
	8 Feet	TH66	M6EM-H032-CAA-212	AKA9430ZAADJ	TZ94
	12 Feet	TH70	M6ZM-0038-IAV-078	AKA944ZZNADJ	TZ95
IDF5SM/TE	4 Feet	TH74	FFAM-008Z-CFV-072		
	6 Feet	TH59	FFAP-015Z-CFV-072		
	8 Feet	TH73	FFAP-017Z-CFV-072		
	12 Feet	TH63	FFAP-030Z-CFV-072		
IDF5NM/TE	4 Feet	TH72	FFAM-008Z-CFV-072		
	6 Feet	TH60	FFAP-017Z-CFV-072		
	8 Feet	TH62	FFAP-022Z-CFV-072		
	12 Feet	TH61	FFAP-032Z-CFV-072		
IDDF6SV	4 Feet	TH67	M6EM-H022-IAA-028		
	6 Feet	TH68	M6EM-H032-CAA-212		
	8 Feet	TH71	M6EM-H040-IAA-212		
	12 Feet	TH69	M6KP-0064-CAA-072		
CF5X	4 Feet	SD200	FFAM-008Z-CFV-072		
	6 Feet	SD210	FFAP-015Z-CFV-072		
	8 Feet	SD220	FFAP-020Z-CFV-072		
	12 Feet	SD230	FFAP-032Z-CFV-072		
DF5NX	4 Feet	SD200	FFAM-008Z-CFV-072		
	6 Feet	SD210	FFAP-015Z-CFV-072		
	8 Feet	SD220	FFAP-020Z-CFV-072		
	12 Feet	SD230	FFAP-032Z-CFV-072		
DDF5NX	4 Feet	SD250	M6EM-0020-IAA-028		
	6 Feet	SD260	M6EM-H026-IAA-02		

Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases

Insight Wiring Diagram
Circuit 2A

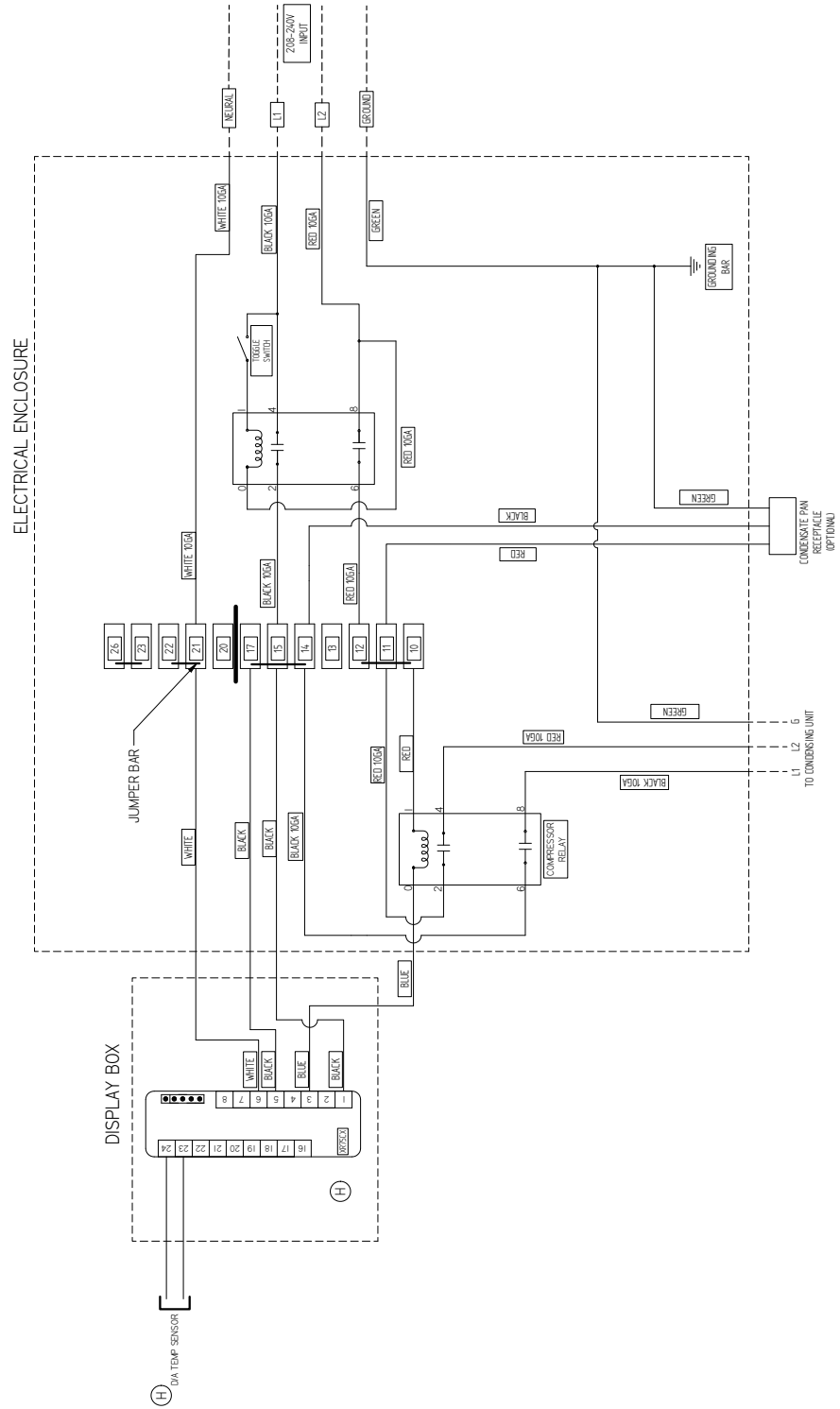
CIRCUIT #2A
 APPLIES TO 115VAC-60HZ-1PH CONDENSING UNITS

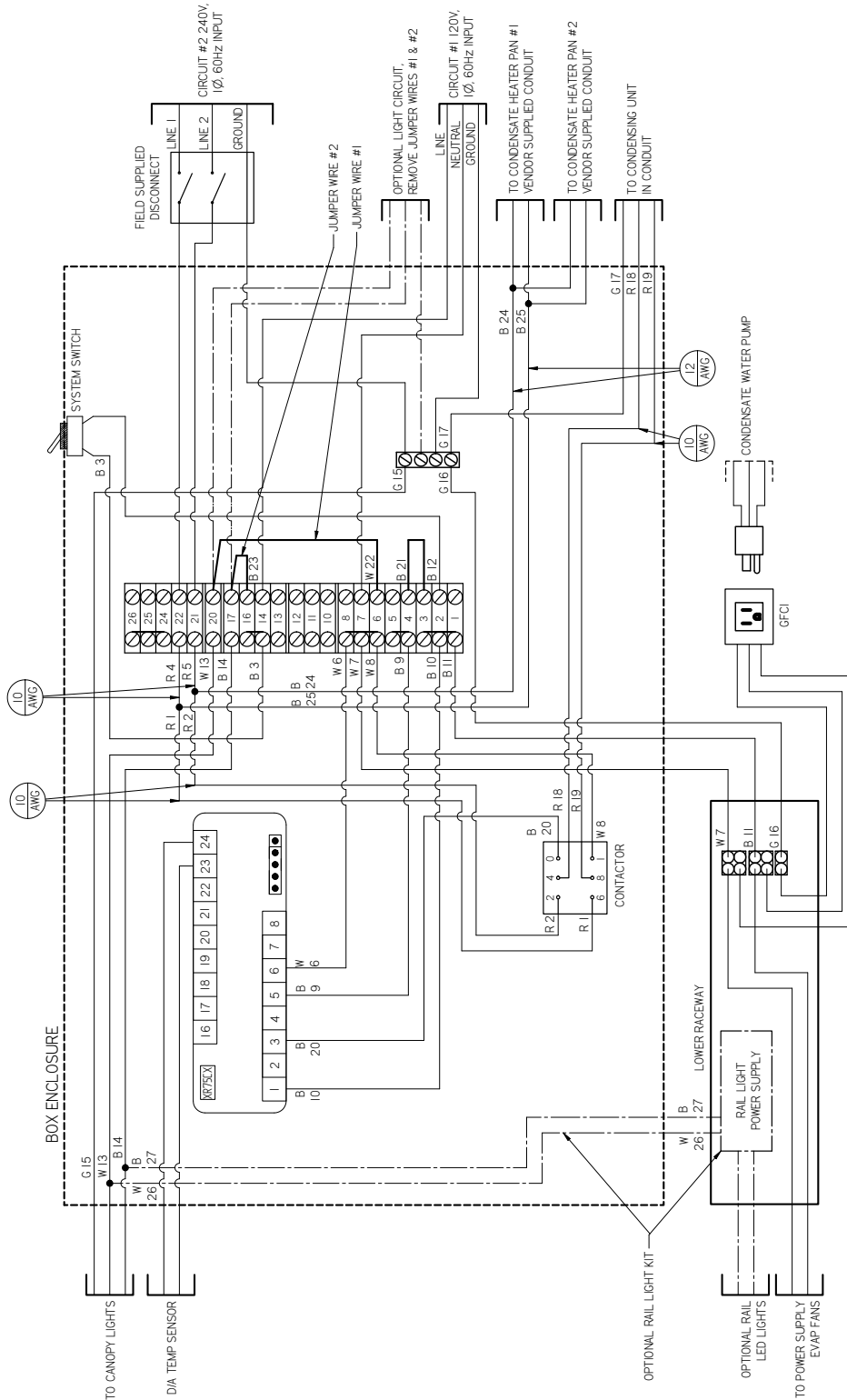


**Insight Wiring Diagram
Circuit 2B**

**Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases**

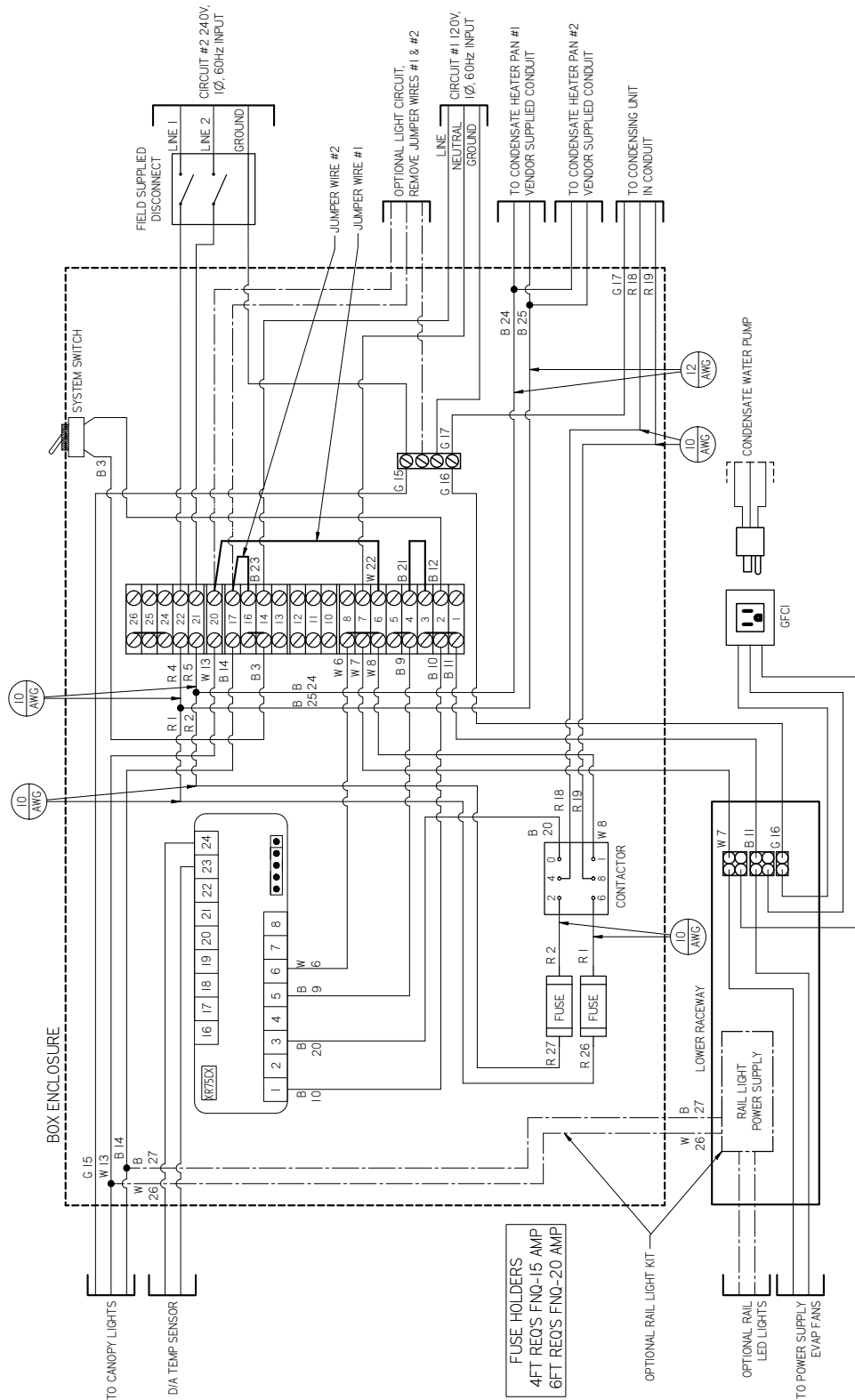
CIRCUIT #2B
APPLIES TO 208-240V/AC-60HZ-1PH CONDENSING UNITS





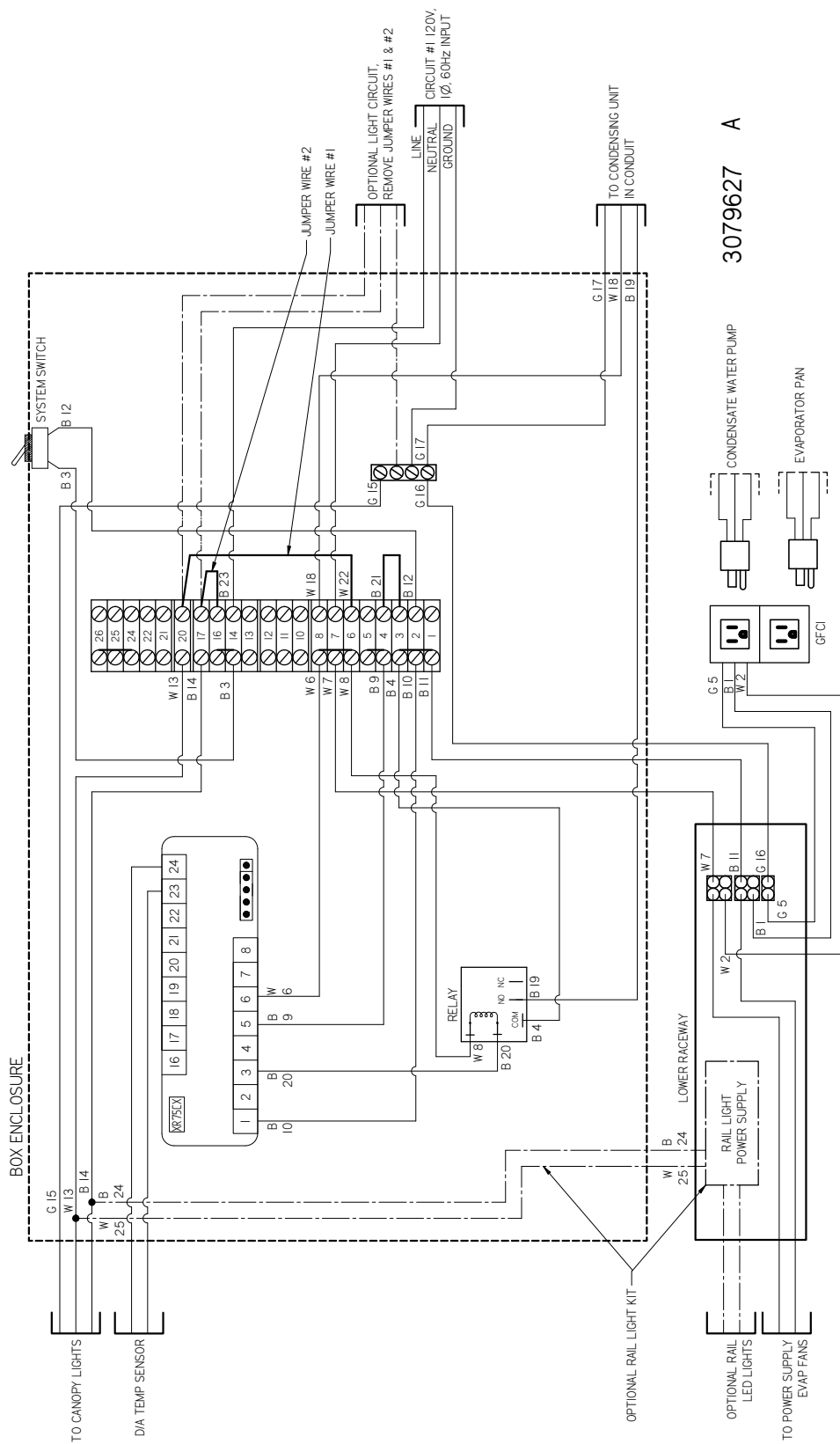
Excel Wiring Diagram Circuit 3B

Insight/Excel Freedom Condensing Units for Multi-Deck Cases



Insight/Excel Freedom
Condensing Units for
Multi-Deck Cases

Excel Wiring Diagram
Circuit 3C



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