

# HUSSMANN®

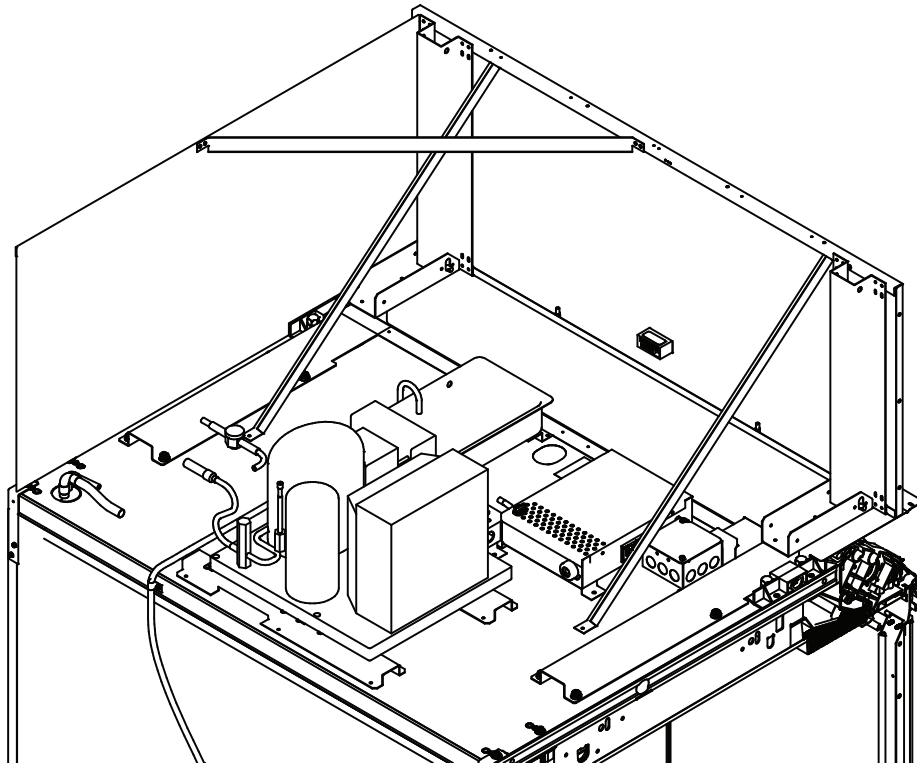
Insight Freedom  
3-PH

## Condensing Units

Technical Data Sheet

P/N 3101467\_C

March 2022



Data sheet-Insight Freedom 3-PH Condensing Units

**R448A**

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.

**Insight Freedom 3-PH**  
**Condensing Units for**  
**Multi-Deck Cases**

**NOTE: Single Point Electrical connection.**

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

**NOTE: Some case options require 5 wire connection (motorized night curtains, condensate pump).**

Application	IDF5SU 8 Foot
Voltage/ 60Hz / 3 Phase	208/230
Maximum Overcurrent Protection Device (MOPD)	20
Minimum Circuit Ampacity (MCA)	15.3
<b>Condensing Unit</b>	
RLA	10.4
LRA	58
R448A Charge (lbs) (condensing unit only)	5.9
Oil Recharge (oz)	19
Heat of Rejection (Btu/hr)	16,685
<b>Refrigerant Connections (inches)</b>	
Liquid Line	$\frac{3}{8}$
Suction Line	$\frac{5}{8}$
<b>Dimensions (inches)</b>	
Height	16.6
Length	24.1
Width	18.3
<b>Shipping Weight (lbs)</b>	114

**NOTE: Special 20A configuration. Electrical values do not include condensate evaporator pan and condensate pump, and allow limited light options.**

**NOTE: Single Point Electrical connection.**

**Insight Freedom 3-PH**  
**Condensing Units for**  
**Multi-Deck Cases**

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

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Application	IDF5NV			
	4 Foot	6 Foot	8 Foot	12 Foot
<b>Single-Point Wiring</b>				
Includes Fans, Lights, Controller and Condensing Unit				
Voltage/ 60Hz / 3 Phase	208	208	208	208
Maximum Overcurrent Protection Device (MOPD)	20	25	25	35
Minimum Circuit Ampacity (MCA)	8.0	15.4	17.3	23.7
<b>Condensate Evaporator Pan</b>				
Volts	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A
Wattage	N/A	N/A	N/A	N/A
<b>Condensing Unit</b>				
RLA	4.8	10.4	13.7	15.2
LRA	37.8	58.0	73.0	93.0
R448A Charge (lbs) (condensing unit only)	5.1	5.9	5.9	5.9
Oil Recharge (oz)	21	19	19	34
Heat of Rejection (Btu/hr)	8,522	12,735	17,302	25,205
<b>Refrigerant Connections (inches)</b>				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$
<b>Dimensions (inches)</b>				
Height	16.5	16.6	18.9	18.9
Weight	24.1	24.1	34.0	34.1
Width	18.3	18.3	25.1	25.1
<b>Shipping Weight (lbs)</b>	110	114	141	154
<b>Condensate Pump</b>				
Volts	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A

**NOTE: Special configuration. Electrical values do not include condensate evaporator pan and condensate pump.**

**Insight Freedom 3-PH**  
**Condensing Units for**  
**Multi-Deck Cases**

**NOTE: Single Point Electrical connection.**

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

**NOTE: Some case options require 5 wire connection (motorized night curtains, condensate pump).**

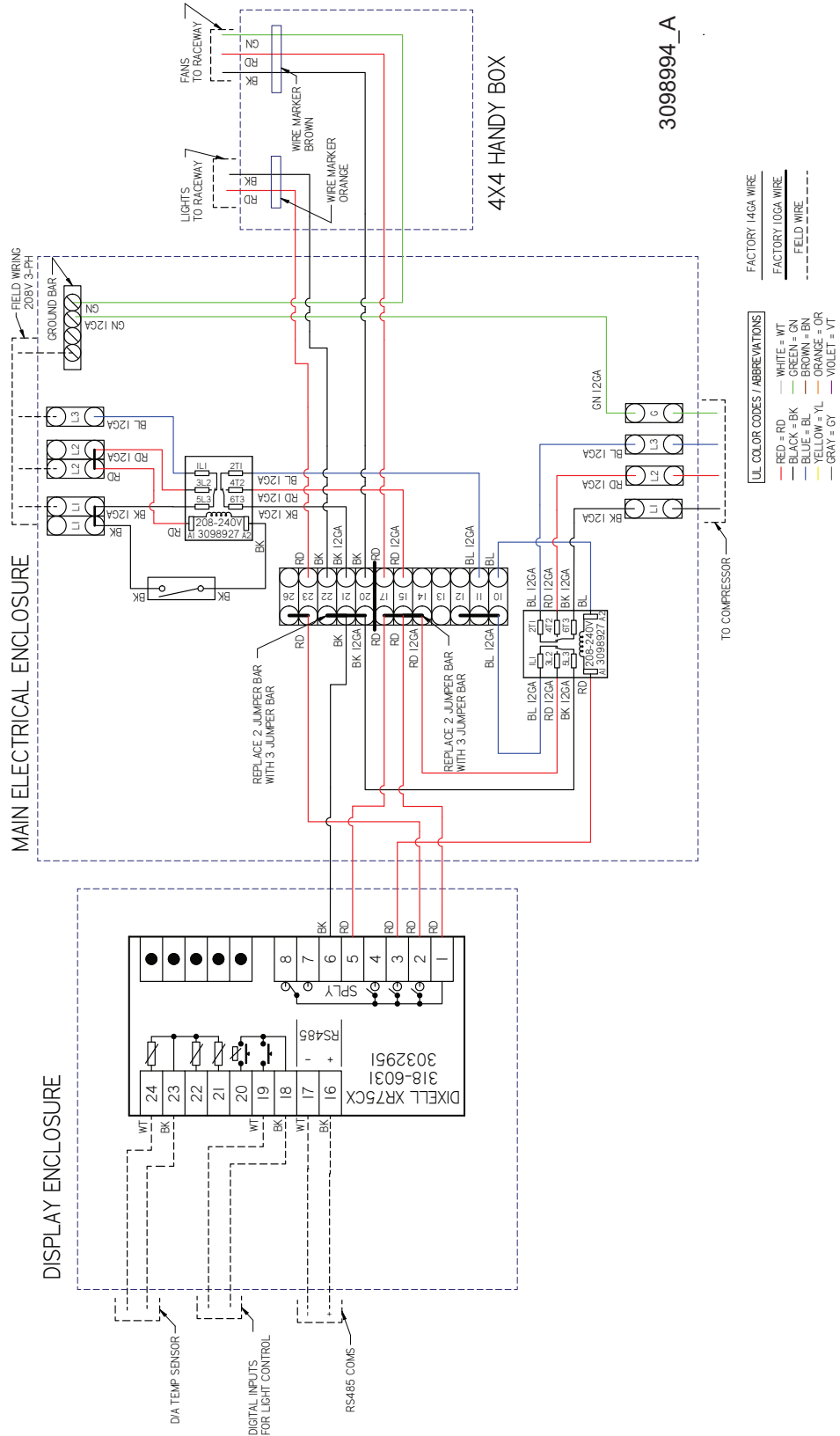
Application	IDF6SU			
	4 Foot	6 Foot	8 Foot	12 Foot
<b>Single-Point Wiring</b>				
Includes Fans, Lights, Controller and Condensing Unit				
Voltage/ 60Hz / 3 Phase	208	208	208	208
Maximum Overcurrent Protection Device (MOPD)	25	20	30	35
Minimum Circuit Ampacity (MCA)	15.1	15.0	21.2	23.8
<b>Condensate Evaporator Pan</b>				
Volts	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A
Wattage	N/A	N/A	N/A	N/A
<b>Condensing Unit</b>				
RLA	10.4	9.7	13.7	15.2
LRA	58.0	58.0	73.0	93.0
R448A Charge (lbs) (condensing unit only)	5.9	5.9	5.9	5.9
Oil Recharge (oz)	19	19	19	34
Heat of Rejection (Btu/hr)	11,165	17,438	22,249	33,146
<b>Refrigerant Connections (inches)</b>				
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$
<b>Dimensions (inches)</b>				
Height	16.6	18.9	18.9	18.9
Weight	24.1	25.0	25.1	34.1
Width	18.3	34.1	34.1	25.1
<b>Shipping Weight (lbs)</b>	114	132	144	154
<b>Condensate Pump</b>				
Volts	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A

**NOTE: Special configuration. Electrical values do not include condensate evaporator pan and condensate pump.**

<b>CASE</b>	<b>SIZE</b>	<b>KIT</b>	<b>COPELAND NUMBER (ID)</b>
IDF5SU	8 Feet	VJ70	FFAP-017Z-TFC-072
IDF5NV	4 Feet	XN71	FFAM-008Z-TFC-079
	6 Feet	XN70	FFAP-017Z-TFC-079
	8 Feet	XN69	FFAP-022Z-TFC-079
	12 Feet	XN68	FFAP-032Z-TFC-079
IDF6SU	4 Feet	ZX69	FFAP-017Z-TFC-079
	6 Feet	ZX68	FFAP-020Z-TFC-079
	8 Feet	AAB28	FFAP-030Z-TFC-079
	12 Feet	ZX66	FFAP-032Z-TFC-079

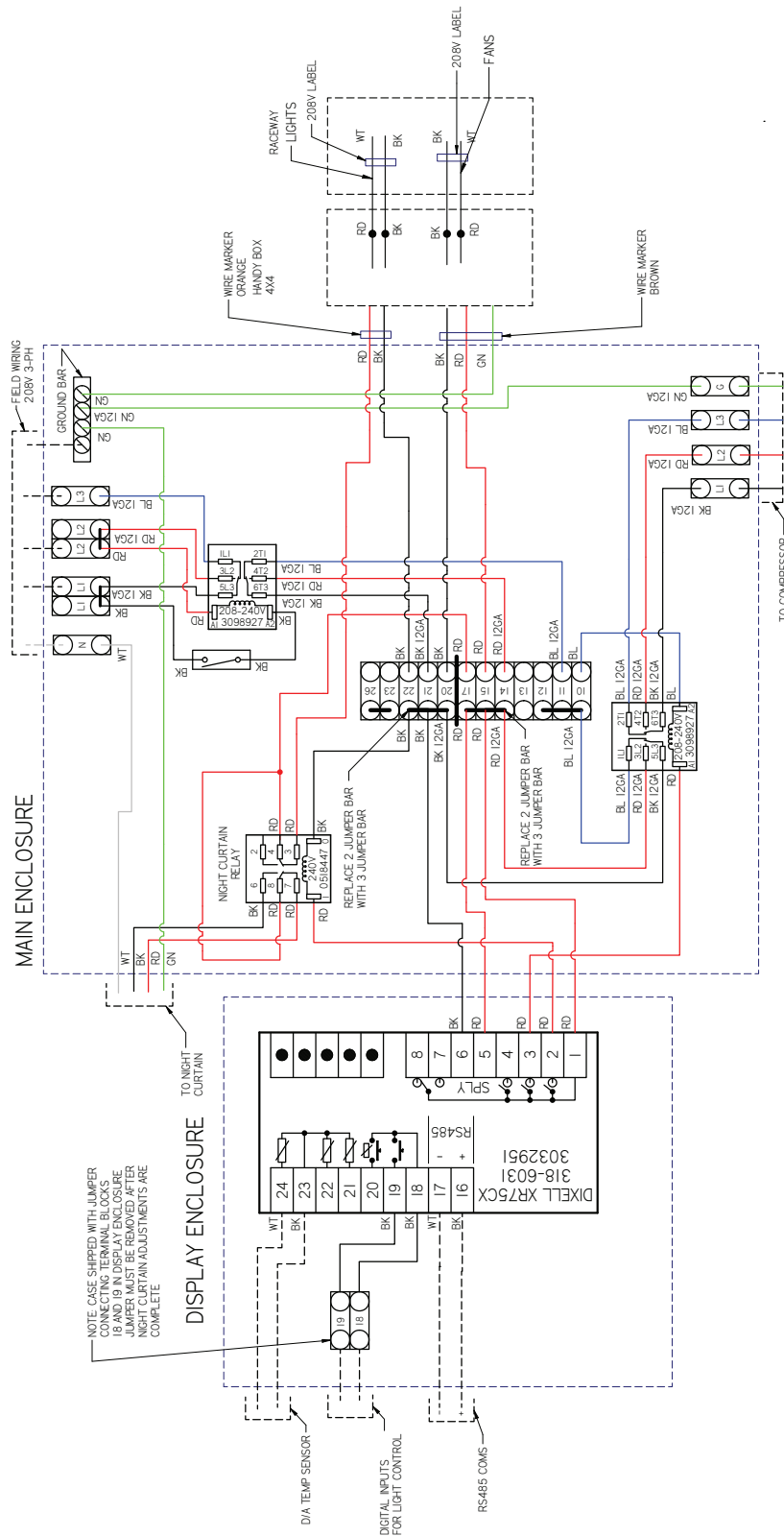
**Insight Freedom 3-PH**  
 Condensing Units for  
 Multi-Deck Cases

**208V 3-PH**  
 Wiring Diagram  
 (Case, controller &  
 condensing unit)



# 208V 3-PH Wiring Diagram (Case, controller, condensing unit & motorized night curtains)

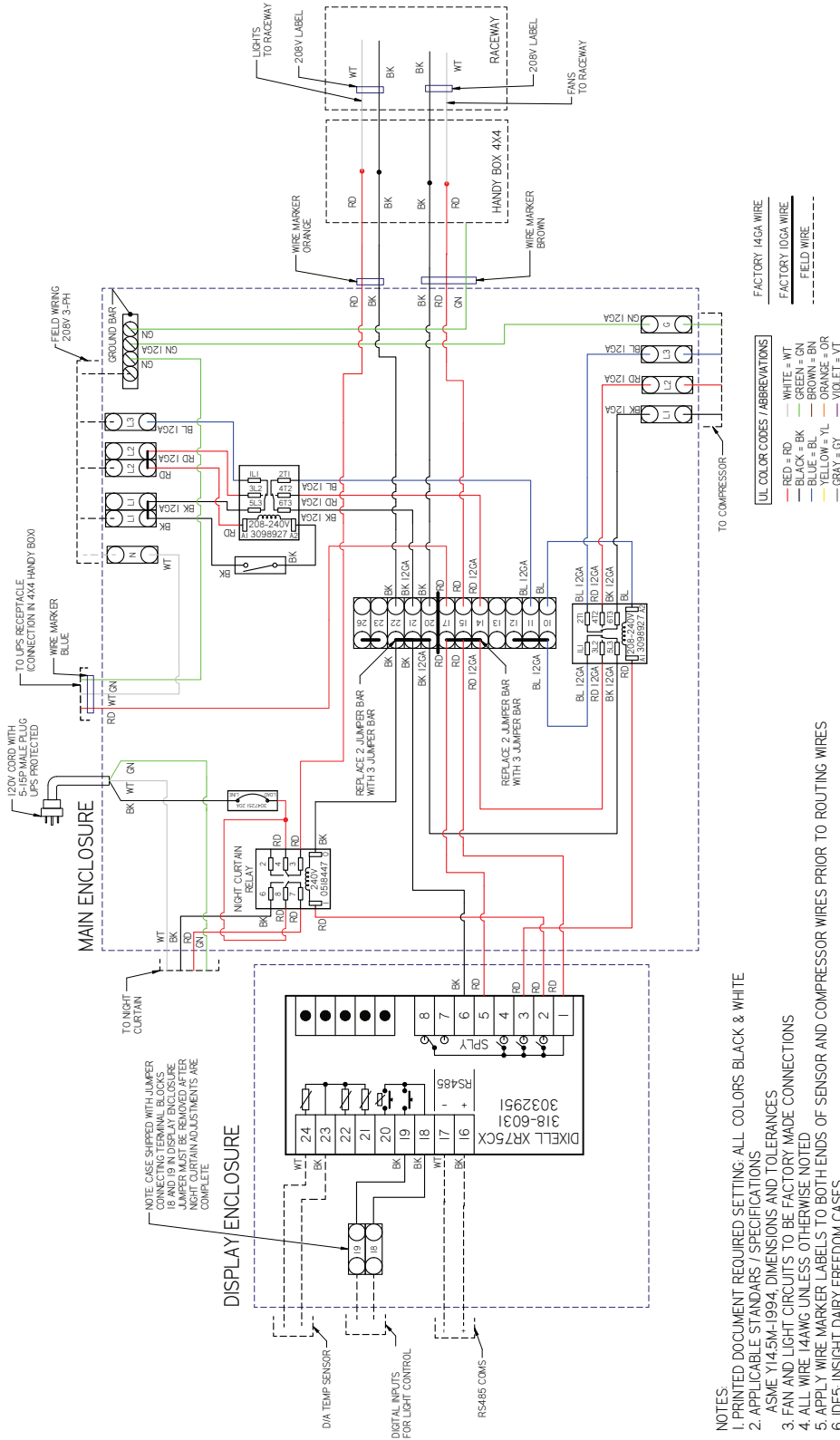
# Insight Freedom 3-PH Condensing Units for Multi-Deck Cases



- NOTES:**
1. PRINTED DOCUMENT REQUIRED SETTING: ALL COLORS BLACK & WHITE
  2. APPLICABLE STANDARDS / SPECIFICATIONS  
ASME Y14.5M-1994, DIMENSIONS AND TOLERANCES
  3. FAN AND LIGHT CIRCUITS TO BE FACTORY MADE CONNECTIONS
  4. ALL WIRE 14AWG UNLESS OTHERWISE NOTED
  5. APPLY WIRE MARKER LABELS TO BOTH ENDS OF SENSOR AND COMPRESSOR WIRES PRIOR TO ROUTING WIRES

**Insight Freedom 3-PH**  
 Condensing Units for  
 Multi-Deck Cases

**208V 3-PH**  
**Wiring Diagram**  
 (Case, controller,  
 condensing unit, motorized  
 night curtains & UPS)







Scan the QR code with your mobile device to access additional product information or order parts.

Parts may also be ordered at:

**parts.hussmann.com**

**Call toll free: 1.855.487.7778**

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## Revision History

Revision A: July 2019: Original Issue.

Revision B: September 2020: Added condensing unit information for IDF5NV.

Revision C: March 2022: Added condensing unit information for IDF6SU, added wiring diagrams and updated performance data.