CARTER
RETAIL EQUIPMENT LTD

HC – SCA

Self – Contained Air Cooled

Multi Deck Full Height Medium Temperature

TARGET NSF UL

CABINET TECHNICAL DATA

Multi Deck Full Height Medium Temperature

Cabinet Type: Self – Contained Air Cooled

Model Designation: **HC - SCA**

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Document Issue: (01) 9th April 2018 HSB Initial Technical Data

Section 01. Cabinet Technical Data Sheet: HC - SCA

Product Type	**Meat /Dairy**	
Maximum Design Ambient	**75˚F @ 55% RH**	
Case Length	**12' (3660mm)**	**8' (2440mm)**
Refrigeration Data		
Refrigerant Charge per System (R449A)	3005grms 6 lb 10 oz	2000grms 4lb 6oz
No. of Systems per Cabinet	2	2
Total Refrigerant Charge per Cabinet (R449A)	6010grms 13lb 4oz	4000grms 8lb 12oz
Electrical Data (115v 60 Hz) (L1 , Neutral, Ground)	**Amps**	**Amps**
Evaporator Fan Motors 1300 RPM (EC)	0.42	0.28
Condenser Fan Motors 1800 RPM (EC)	0.56	0.42
Lights (LED) : Canopy & Shelves	1.01	0.67
Controller	0.08	0.08
Trim Heaters	N/A	N/A
Condensate Pump (where fitted)	0.08	0.08
Electrical Data (208v 60 Hz) (L1, L2, Neutral, Ground)	**Amps**	**Amps**
Condensing Unit (Compressor LRA)	8.5	8.8
Defrost Heaters	N/A	N/A
Combined Single Point Load (MCA – Ref)	19.1	19.4
MOPD	25	25
Miscellaneous Data		
Total Heat Rejection (THR) (BTU/hr)	27825	21566
Evaporator Case Load (THR) (BTU/hr) (10˚F)	18426	12284
Total Internal Volume Cu.ft	43	28.6
Condensate Volume (US Gallons/ 24hours) *	31	20.6
Drainage Connection	1 9/16" (40mm) Outlet reducing to 1" (25mm) – see plan drawing section 3 for quantity and location	
Electrical Connection	Case Rear Lower, see plan drawing section 3 for location	

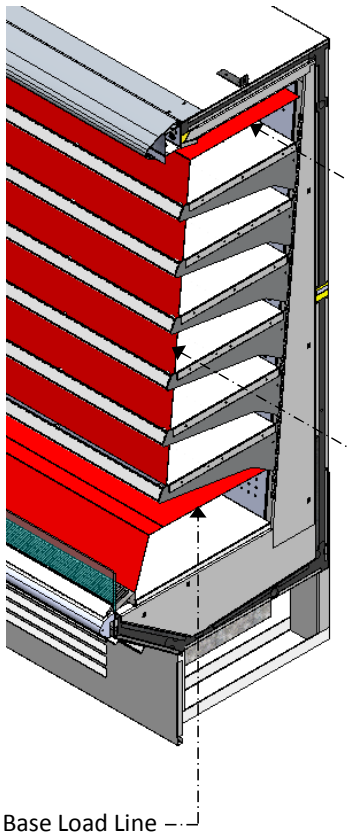
** Actual data under test conditions*

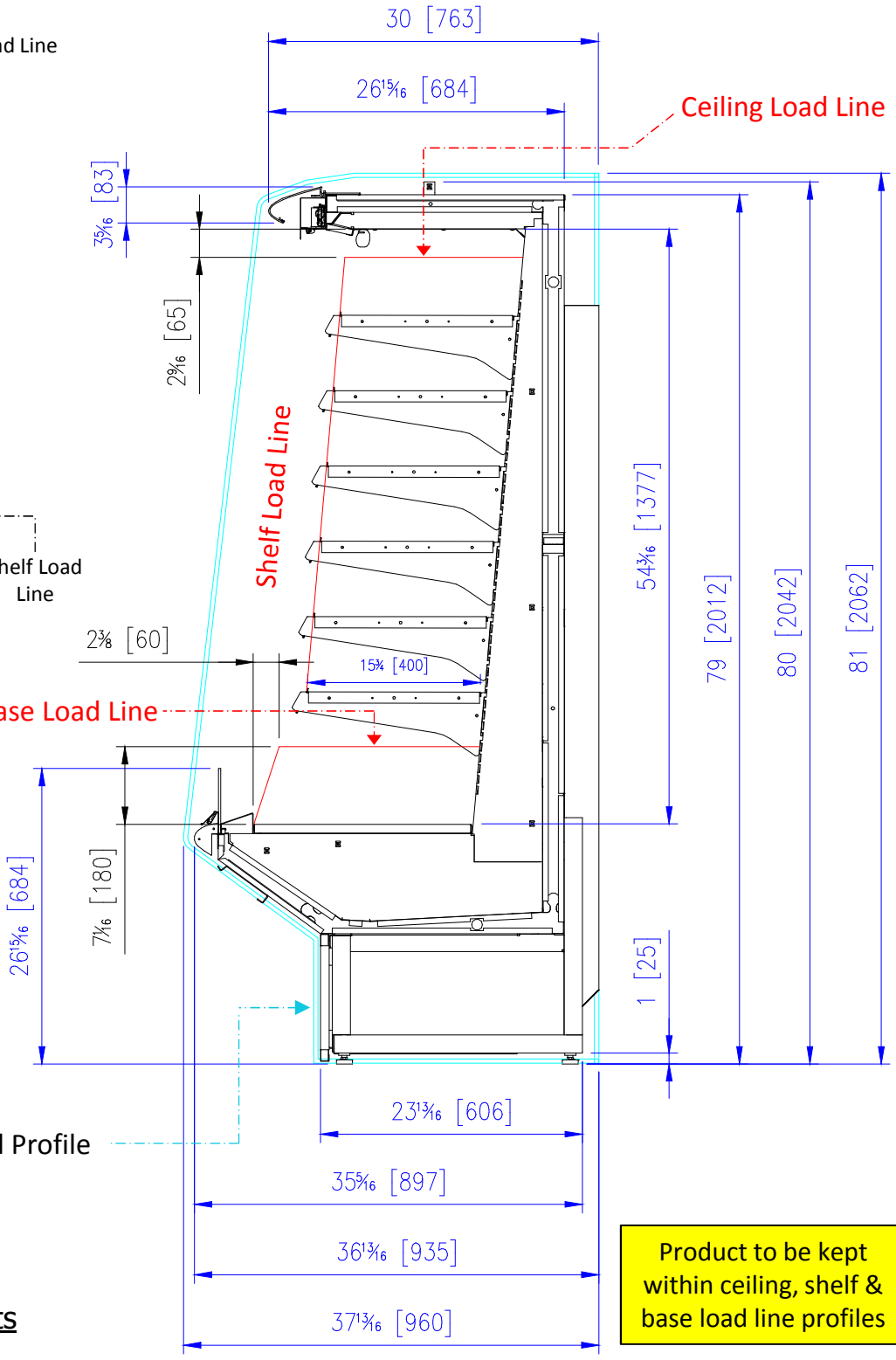
Section 01. Cabinet Technical Data Sheet: HC – SCA

Case Length	12'	8'
Fan Speed		
Evaporator: Run State (RPM)	1100	1100
Evaporator: Defrost (RPM)	1100	1100
Condenser: (RPM)	1800	1800
Compressor	Hitachi	Hitachi
Make & model	DS1529X (2 H.P) 2 off	ZS1120X1 (1.5 H.P) 2 off
Start Capacitor Size (per compressor charger box)	60µF / 450V	60µF / 450V
Run Capacitor Size (per compressor charger box)	45µF / 450V	45µF / 450V
Capillary Tube Per Evaporator Inlet Tube		
Diameter (inches)	0.054	0.054
Length (inches)	78, 7/16	148 , 17/32
High Pressure Switch		
Open (PSI)	410	410
Close (PSI)	310	310
Temperature Sensor		
Make & Model	Danfoss PT1000	Danfoss PT1000
Typical Air Flow At Honeycomb		
Air Flow (cfm)	1271	1271

Set – Up Data	Meat	Dairy
Set Point Temperature (F°)	27	31
Differential (F°)	6	6
Evaporating Temperature - Calculated (F°)	22 to 23	24 to 25
Anti – Cycle Time (seconds) (compressor between starts)	240	240
Lag Compressor Delay (seconds)	60	60
No. Defrosts (per 24hrs)	6	6
Maximum Defrost Time (minutes)	45	45
Defrost Termination Temperature (air discharge) (F°)	47	47
Cabinet Off Time After Defrost (mins) (drain down)	1	1
Fans in Defrost	ON	ON

Section 02. Cabinet Side View Drawing HC - SCA





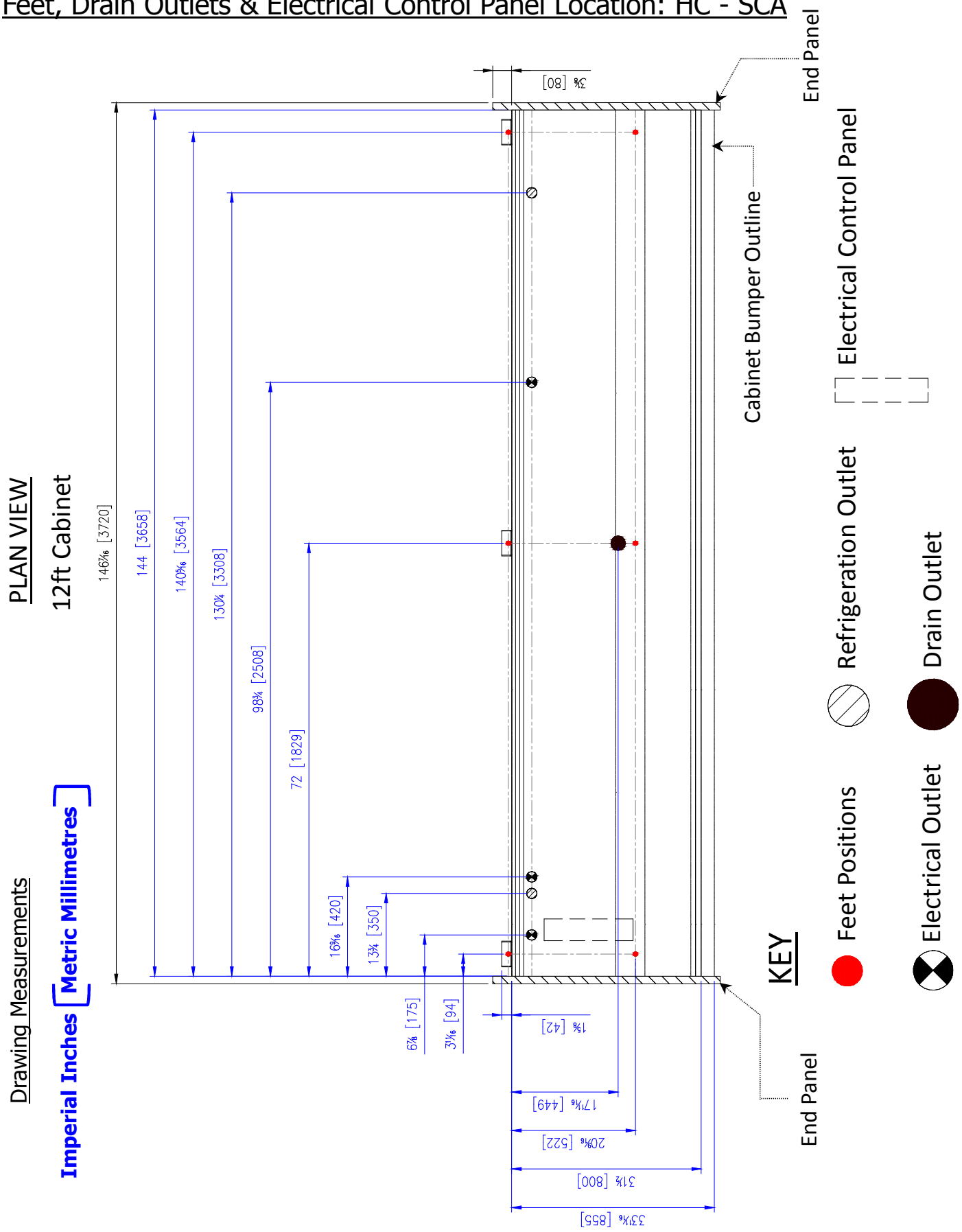
Product to be kept within ceiling, shelf & base load line profiles

Drawing Measurements

Inches [Metric Millimetres

Side View

Section 03. Cabinet Plan View Showing Electrical, Refrigeration, Feet, Drain Outlets & Electrical Control Panel Location: HC - SCA



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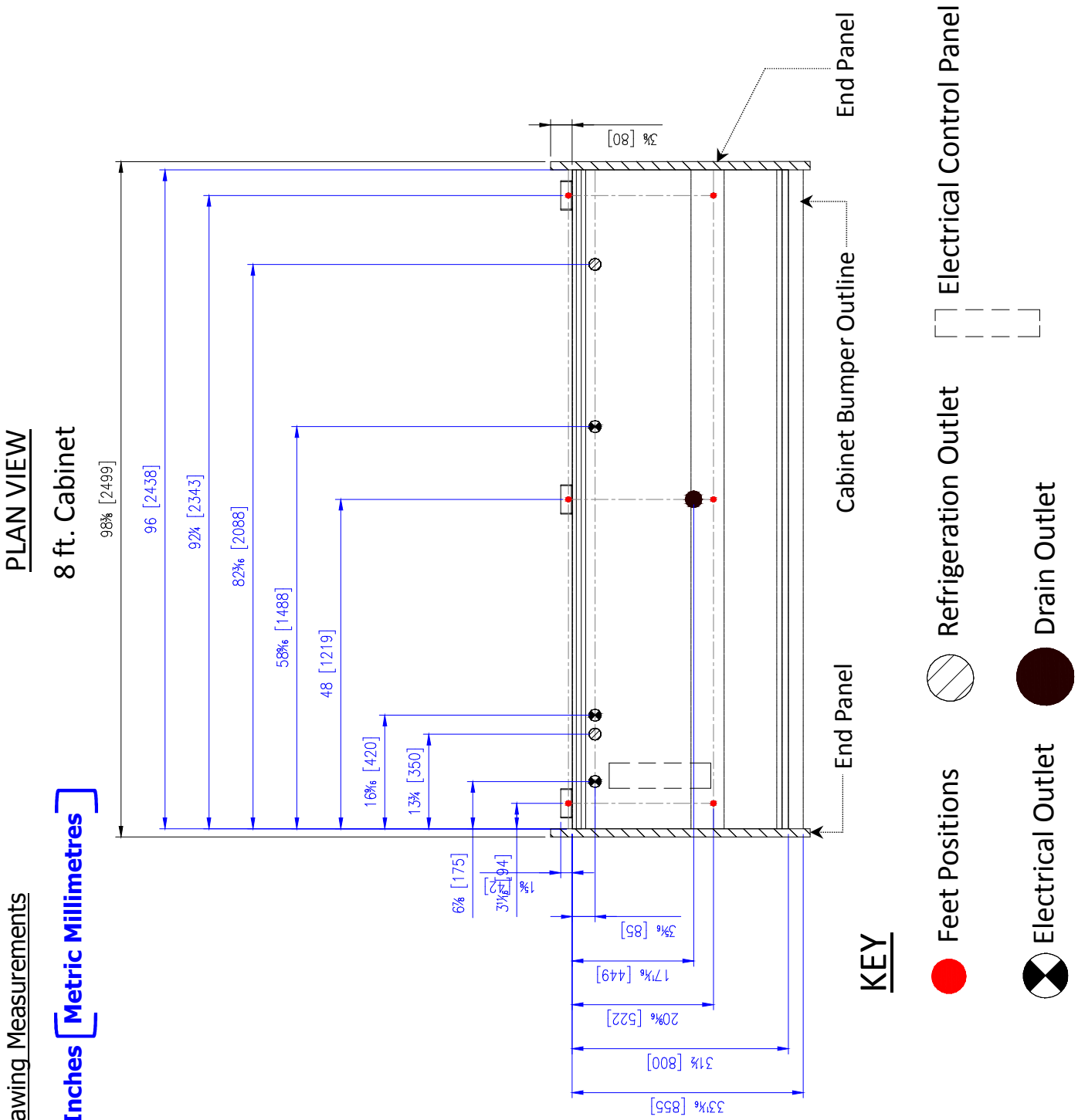
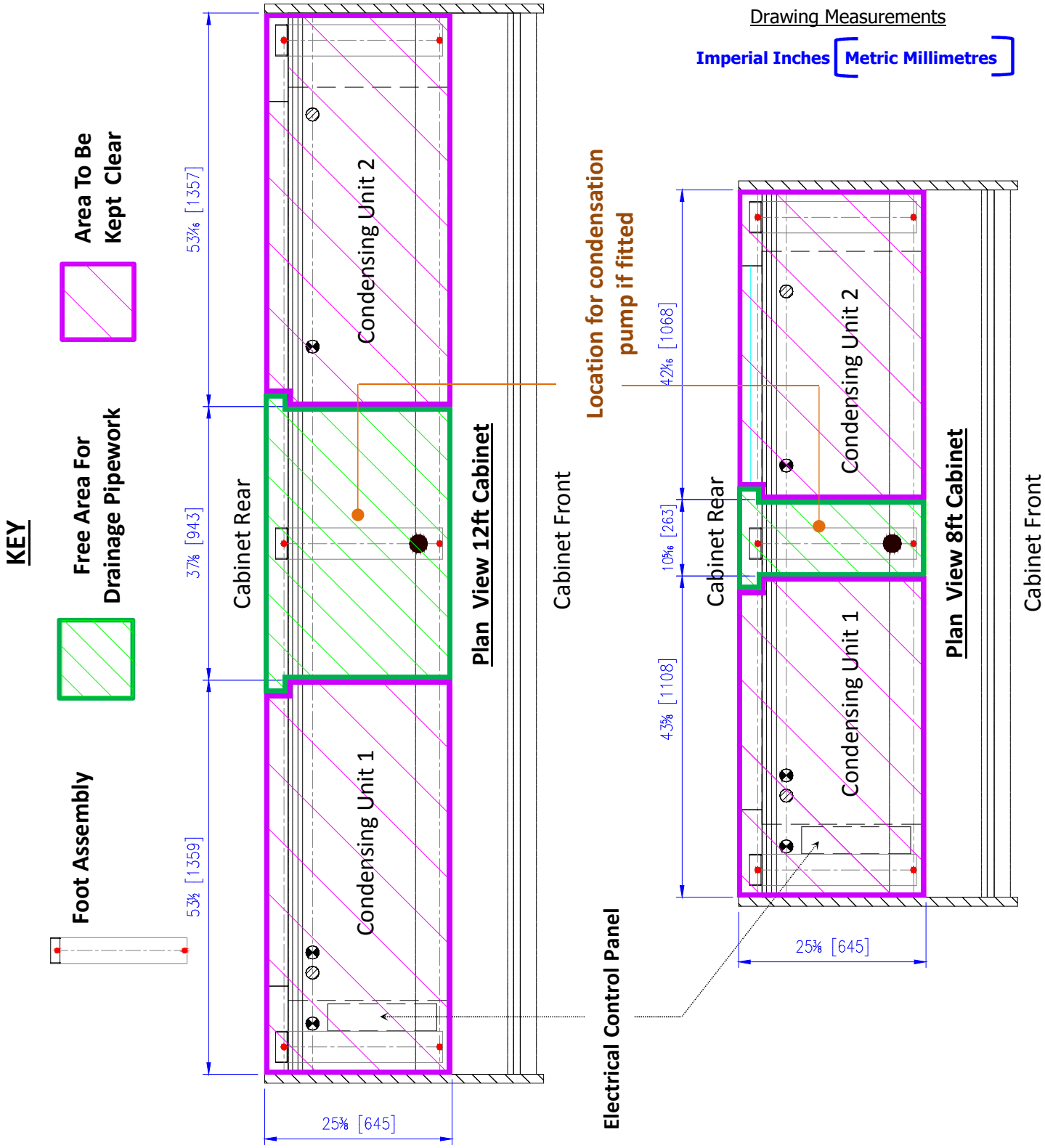
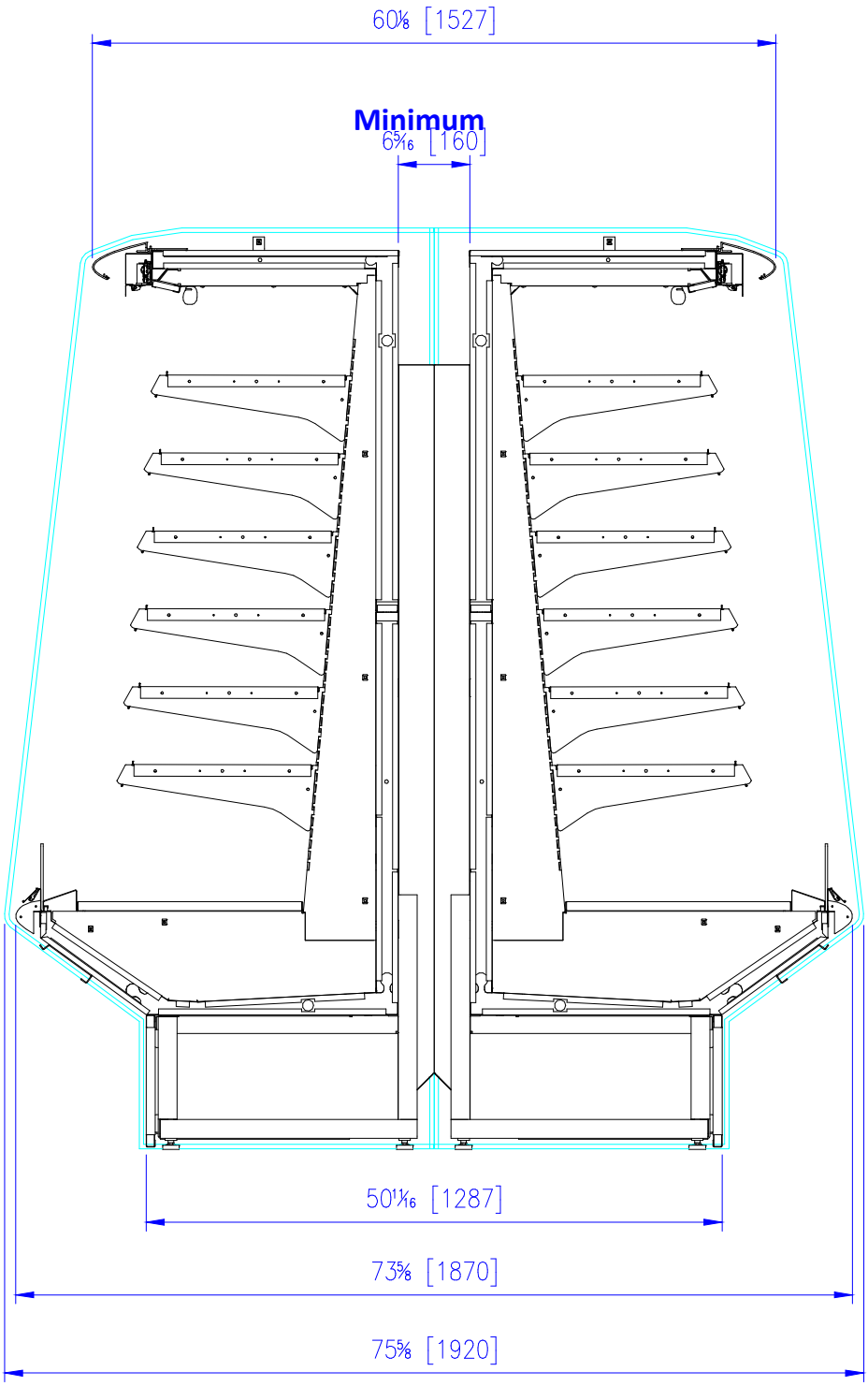


Section 04. Cabinet Plan View Showing 'Free Area' For Drainage Pipework: HC - SCA



Section 05. Cabinet Side View Showing Cabinet Back To Back Island HC - SCA



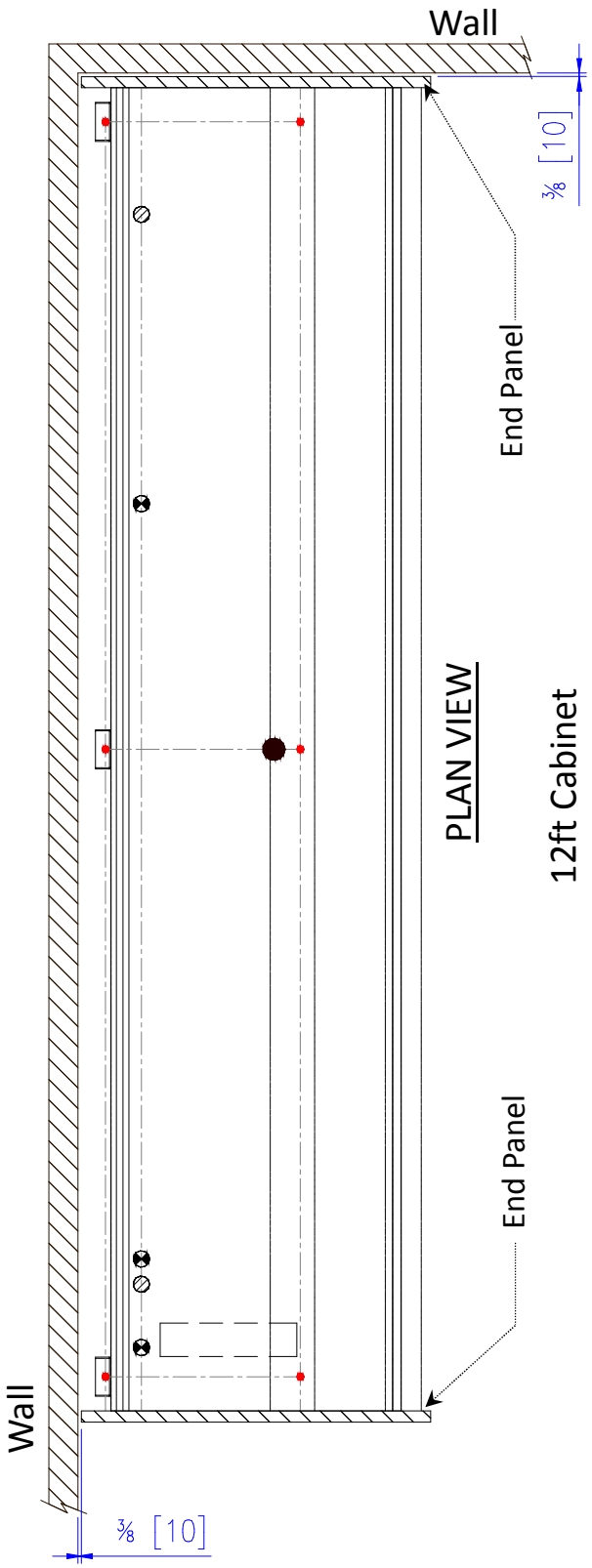
Back to Back Island

Side View

Drawing Measurements

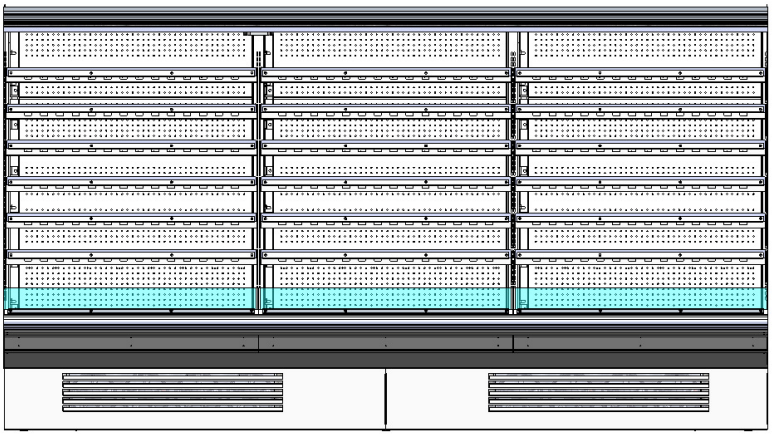
Inches [Metric Millimetres]

Section 06. Cabinet Plan View Showing Cabinet Layout Into Corner HC - SCA

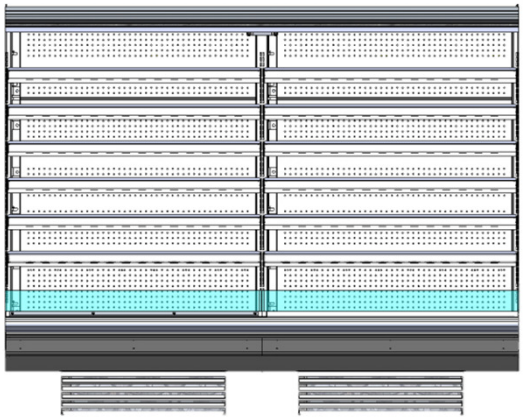


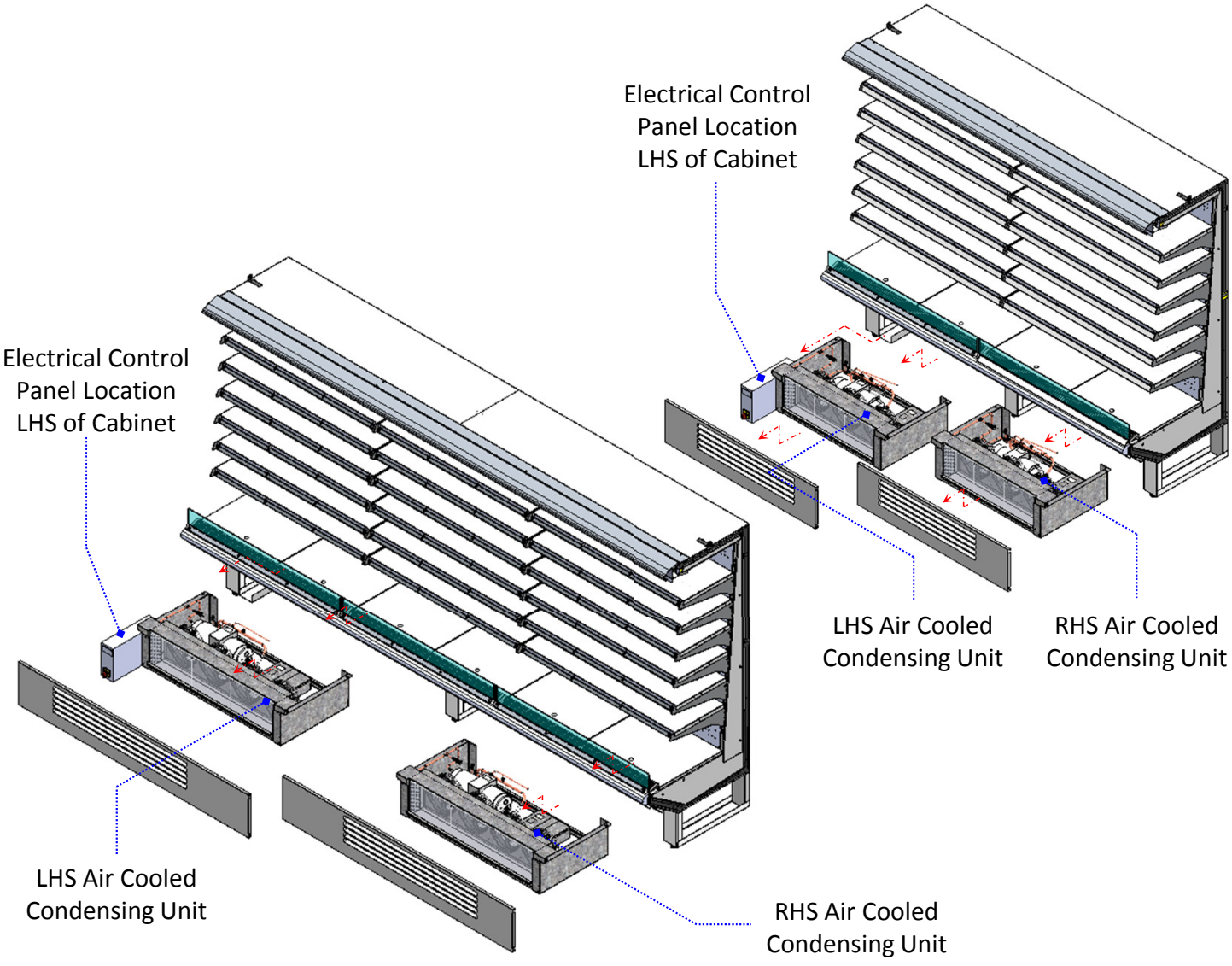
Section 07. Cabinet Plan View Showing Condensing Unit & Electrical Control Panel Location HC - SCA

Front View
12ft Cabinet

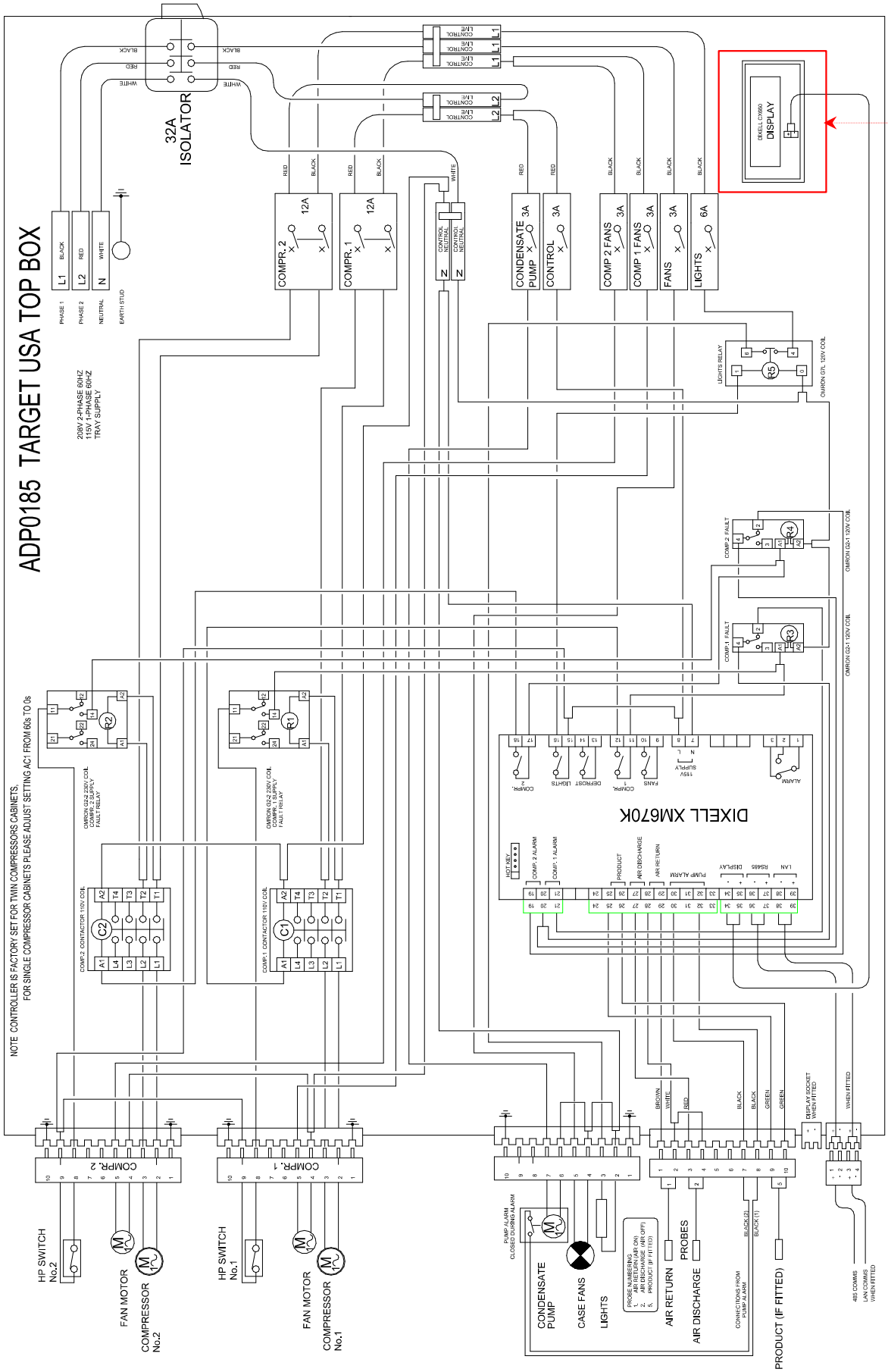


Front View
8ft Cabinet





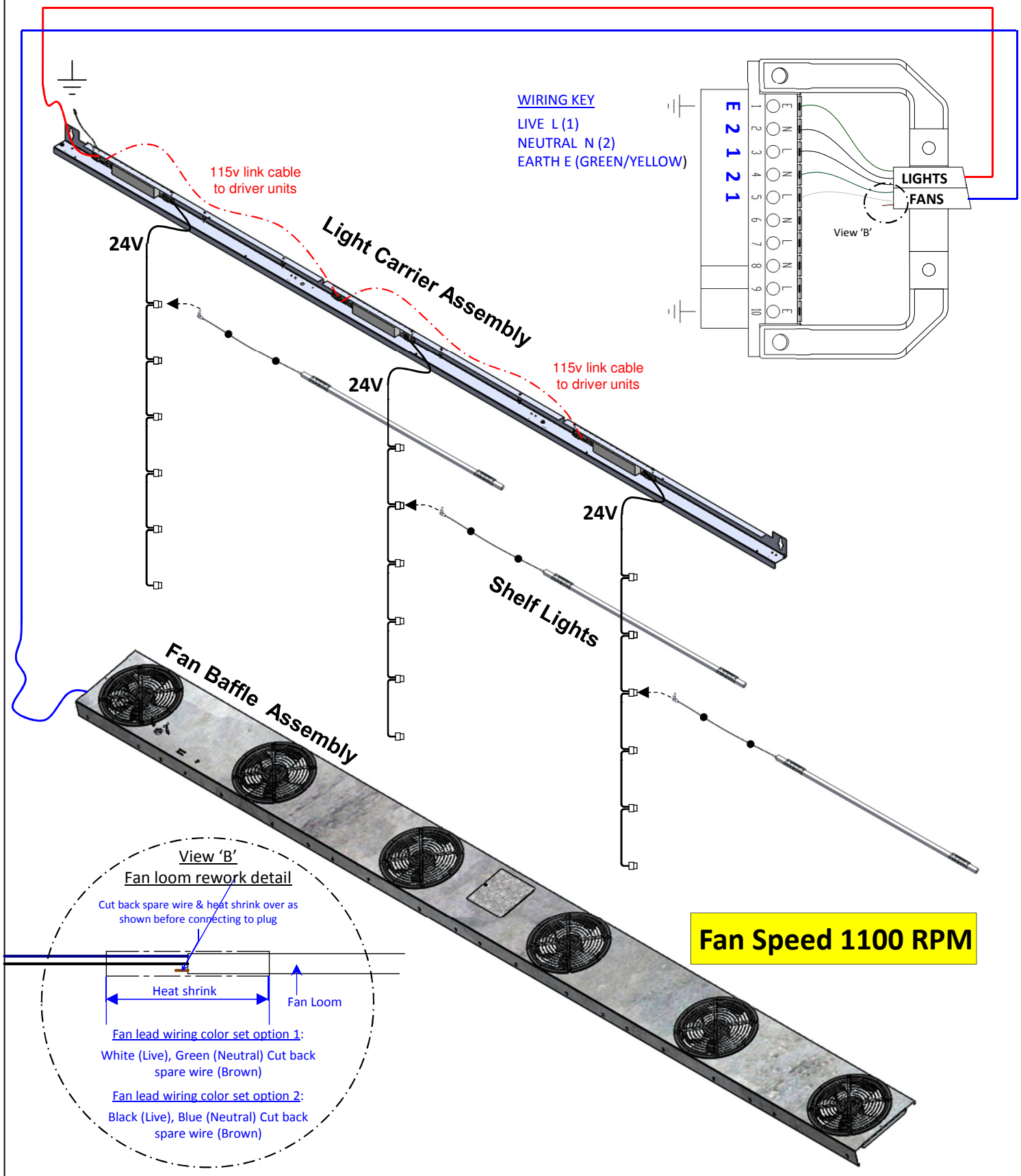
Section 08. Electrical Schematic For Control Panel HC - SCA



Display Unit Fitted to Electrical Control Panel Front

Section 09. Electrical Wiring Cabinet Loom HC - SCA

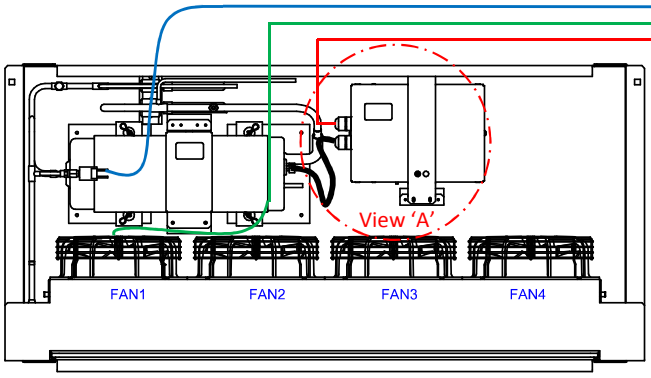
Typical Setup



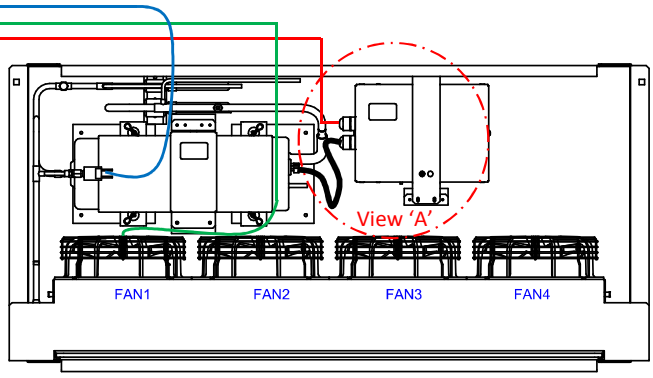
Section 10. Electrical Wiring LHS & RHS Condensing Loom: HC - SCA

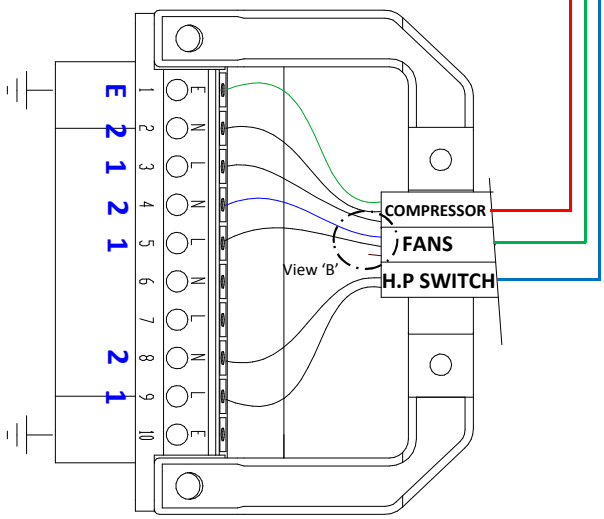
Typical Setup

Condensing Unit 1: Plan View

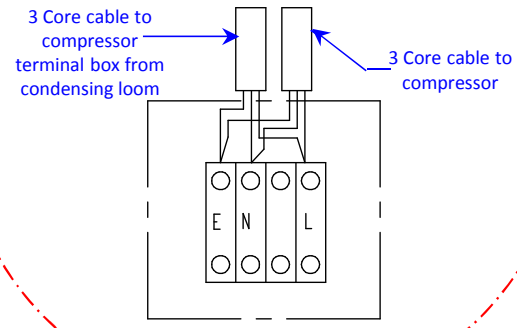


Condensing Unit 2: Plan View

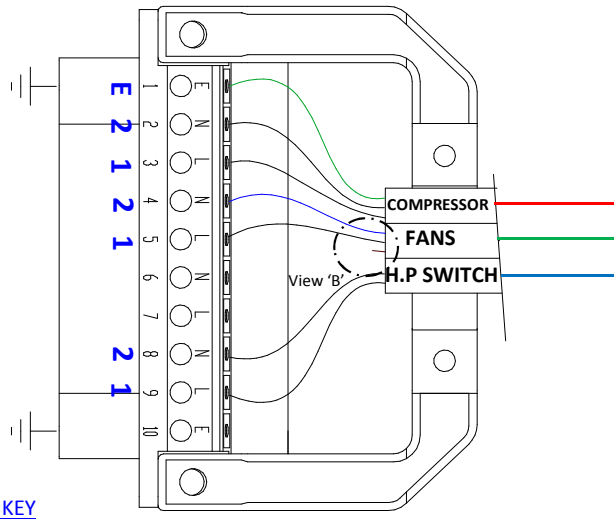




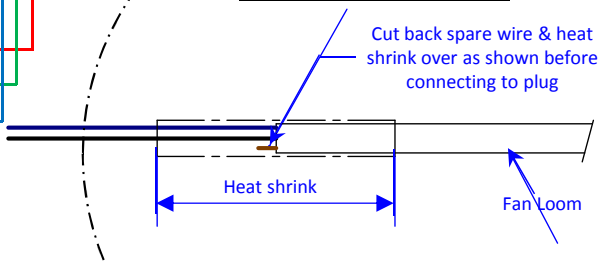
View 'A'
Compressor Wiring Detail
(for ref only)



Wiring in compressor terminal box



View 'B'
Fan loom rework detail



Fan lead wiring color :

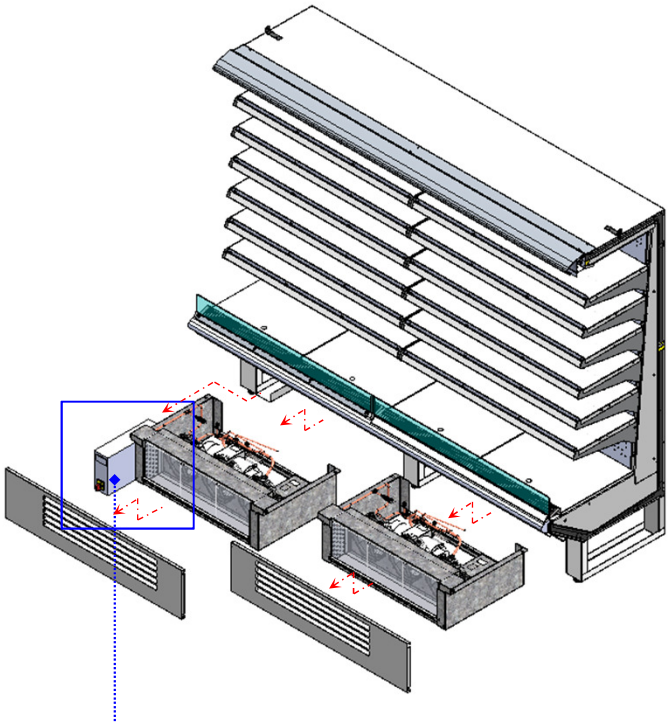
Black (Live), Blue (Neutral) Cut back spare wire (Brown)

WIRING KEY

LIVE L (1)
NEUTRAL N (2)
EARTH E (GREEN/YELLOW)

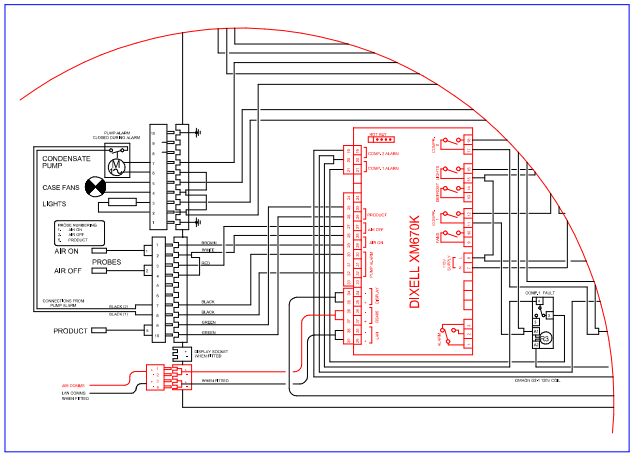
Fan Speed 1800 RPM

Section 11. E2 Monitoring Panel Connection To Electrical Control Panel: HC - SCA

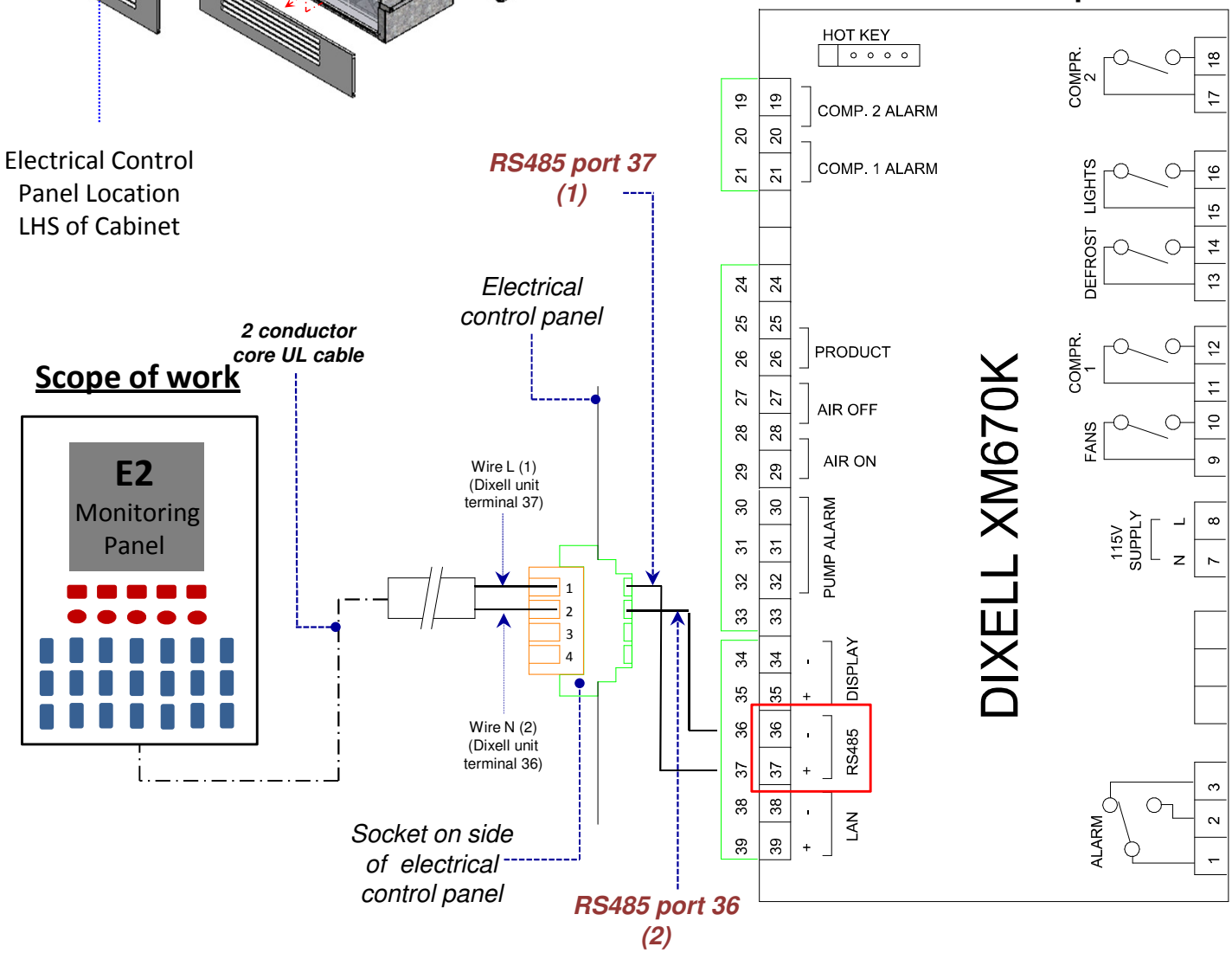


Electrical Control Panel Location LHS of Cabinet

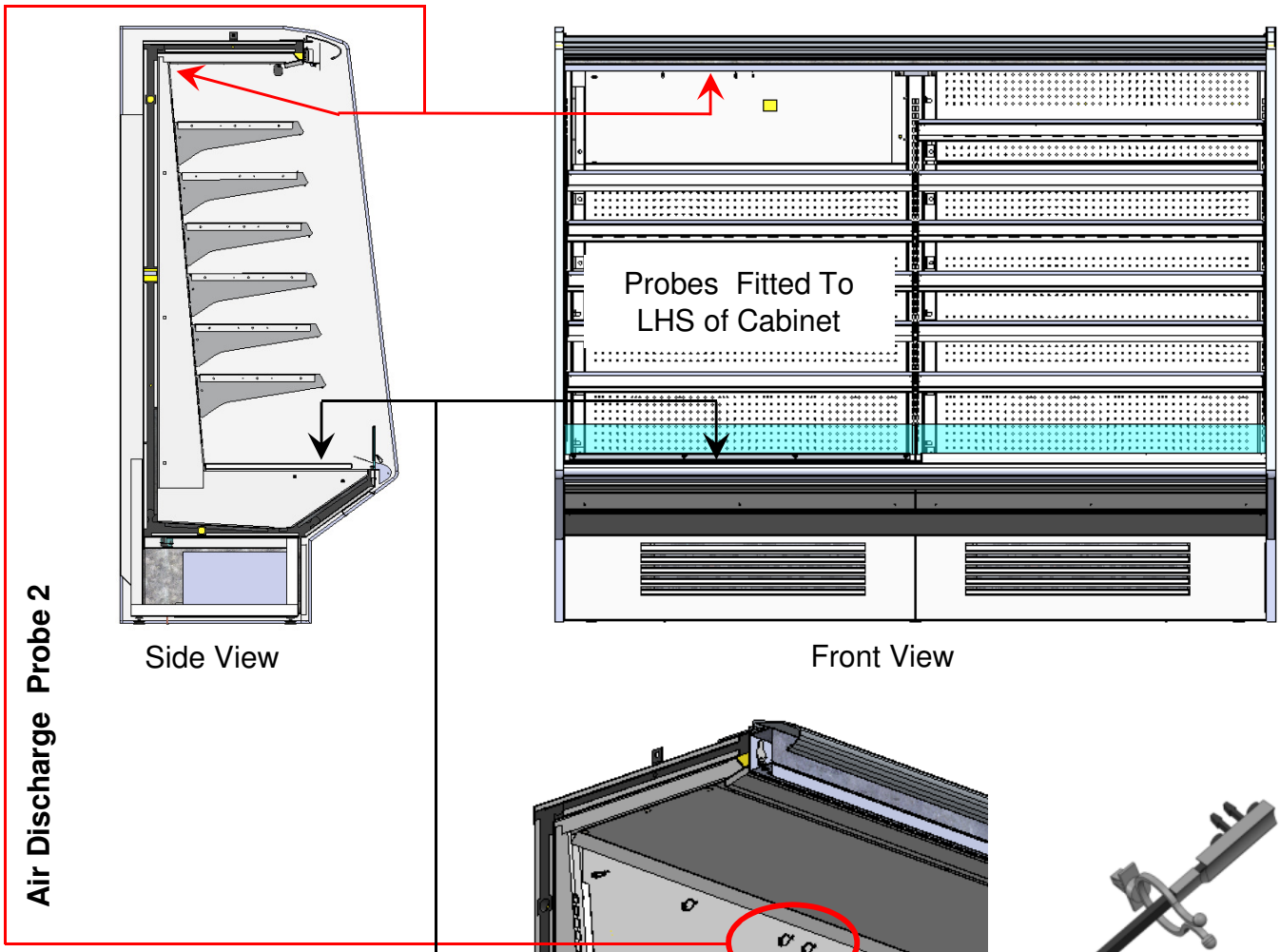
Electrical control panel schematic



Plan view of Dixell unit inside electrical control panel



Section 12. Temperature Air 'Return' & 'Discharge' Probe Locations HC - SCA



Air Discharge Probe 2

Air Return Probe 1