

Cabinet Type **Multideck Full Height**

Model Designation **IDA**

File Reference 1218

Document Issue	1	27.07.12	LRC	Original Issue
	2	28-09-12	LRC	Added 218 WAE detail.
	3	30-08-13	LRC	Changed flow rates from Glycol 30% to DTX Glycol 27%

cabinet **TECHNICAL DATA**

Cabinet Technical Data Sheet – IDA

Product Type	Meat 3M0									
Product Temperature	-1 /+4 °C									
Maximum Design Ambient	25°C @ 60% RH									
Case Length [m]	3.75	2.50	1.87	1.7	1.25					
Refrigeration Data										
Nett Environmental Cooling Effect	1.91	0.78	0.96	0.96	0.39					
Refrigerant Charge Per System R1270	650g	430g	650g	650g	470g					
Electrical Data (@ 230V 50Hz)	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
Fans (EC EBM)	42	0.18	28	0.12	21	0.09	21	0.09	14	0.06
Controller	10	0.04	10	0.04	10	0.04	10	0.04	10	0.04
Lights Master LED	66	0.28	44	0.19	32	0.14	27	0.11	22	0.09
Condensing unit	1580	6.9	1226	5.3	790	3.4	790	3.4	613	2.7
Maximum Load – Off Cycle Defrost	1698	7.4	1308	5.7	853	3.7	848	3.6	659	2.8
Engineering Data - Common										
Total Heat Rejection THR [KW]	7.30	5.05	3.64	3.39	2.52					
Plate Heat Exchanger [Kpa] each	1 @ 7.5	1 @ 7.5	1 @ 1.31	1 @ 1.31	1 @ 1.31					
Water inlet temperature	18°C									
Water outlet temperature	24°C									
Drain Outlet	32mm Plastic									
Chilled Water Connections	22mm									
Condensate Volume (3M0 +4 ⁰)	44ltrs (Per Linear Meter Per 24hrs)									
Condensate Volume (3M1 +5 ⁰)	23ltrs (Per Linear Meter Per 24hrs)									
Engineering Data										
THR (Water only) [KW]	6.49	4.23	3.25	2.99	2.12					
THR (Air only) [KW]	0.8	0.8	0.40	0.40	0.40					
DTX Glycol 27% Flow Rate [Kg/S]***	0.2843	0.1858	0.1422	0.1308	0.0929					
Water Flow Rate [Kg/S]****	0.2589	0.1692	0.1295	0.1191	0.0846					

Set-Up Data** O/C Defrost	Meat 3.75 & 2.50	Meat 2.18, 1.87, 1.7 & 1.25
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Cut in Temperature [°C]	4	4
Differential [K]	2	2
Anti Cycle Time [Seconds]	180	180
Lag Comp Delay [Seconds]	180	0
Cabinet Temperature Ratio (%)	40	40
N° Defrosts (per 24hrs)	8	8
Maximum Defrost Time [mins]	45	45
Defrost Termination Temp (air off) [°C]	8	8
Drain Down Time [mins]	1	1
Fans in Defrost	On	On
Integral Control	Basic	Basic

NOTES! * 12/12 Trading Conditions

** Set-up data is for guidance only. Final settings to be determined by commissioning contractor.

*** Flow rate for Glycol based on 27% @ 20°C from ASHRAE = 3.8095 KJ/(KG-K)

**** Flow rate for water @ 20°C (http://www.engineeringtoolbox.com/water-thermal-properties-d_162.html)

Cabinet Technical Data Sheet – IDA WAE

Product Type	Meat 3M0
Product Temperature	-1 /+4 °C
Maximum Design Ambient	25°C @ 60% RH

Case Length [m]	2.18 WAE	1.87 WAE	1.7 WAE
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Refrigeration Data

Nett Environmental Cooling Effect	1.53	0.96	0.96
Refrigerant Charge Per System R1270	880g	650g	650g

Electrical Data (@ 230V 50Hz)	Watts	Amps	Watts	Amps	Watts	Amps
Fans (EC EBM)	28	0.12	21	0.09	21	0.09
Trim Heaters	30	0.13	30	0.13	30	0.13
Controller	10	0.04	10	0.04	10	0.04
Lights Master LED	39	0.17	32	0.14	27	0.12
Condensing unit	839	3.7	790	3.4	790	3.4
Maximum Load – Off Cycle Defrost	946	4.16	883	3.83	878	3.78

Engineering Data - Common

Total Heat Rejection THR [KW]	5.09	4.89	3.65
Plate Heat Exchanger [Kpa] each	1 @ 0.89	1 @ 1.31	1 @ 1.31
Water inlet temperature		18°C	
Water outlet temperature		24°C	
Drain Outlet		32mm Plastic	
Chilled Water Connections		22mm	
Condensate Volume (3M0 +4°)		44ltrs (Per Linear Meter Per 24hrs)	
Condensate Volume (3M1 +5°)		23ltrs (Per Linear Meter Per 24hrs)	

Engineering Data – Core Stores (No Primary Condenser)

THR (Water only) [KW]	4.69	4.49	3.25
THR (Air only) [KW]	0.40	0.40	0.40
Water Flow Rate [Kg/S]	0.1726	0.1787	0.1295
DTX Glycol 27% Flow Rate [Kg/S]	0.1962	0.1422	0.1308

Engineering Data – Convenience Stores (With Primary Condenser)

Set-Up Data** O/C Defrost

Cut in Temperature [°C]	4	4
Differential [K]	2	2
Anti Cycle Time [Seconds]	180	180
Lag Comp Delay [Seconds]	180	0
Cabinet Temperature Ratio (%)	40	40
N° Defrosts (per 24hrs)	8	8
Maximum Defrost Time [mins]	45	45
Defrost Termination Temp (air off) [°C]	8	8
Drain Down Time [mins]	1	1
Fans in Defrost	On	On
Integral Control	Basic	Basic

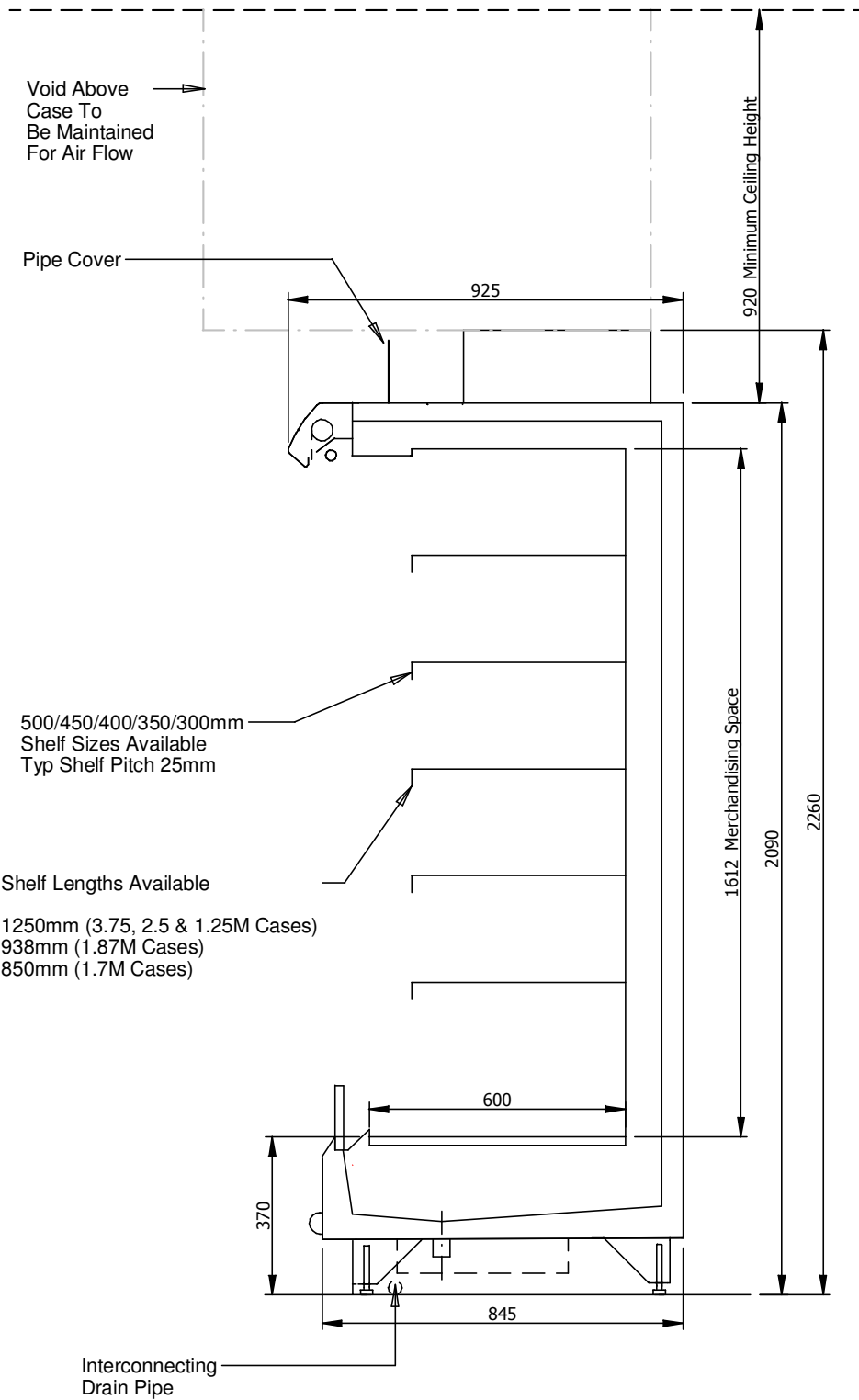
NOTES! * 12/12 Trading Conditions

** Set-up data is for guidance only. Final settings to be determined by commissioning contractor.

*** Flow rate for Glycol based on 27% @ 20°C from ASHRAE = 3.8095 KJ/(KG-K)

**** Flow rate for water @ 20°C (http://www.engineeringtoolbox.com/water-thermal-properties-d_162.html)

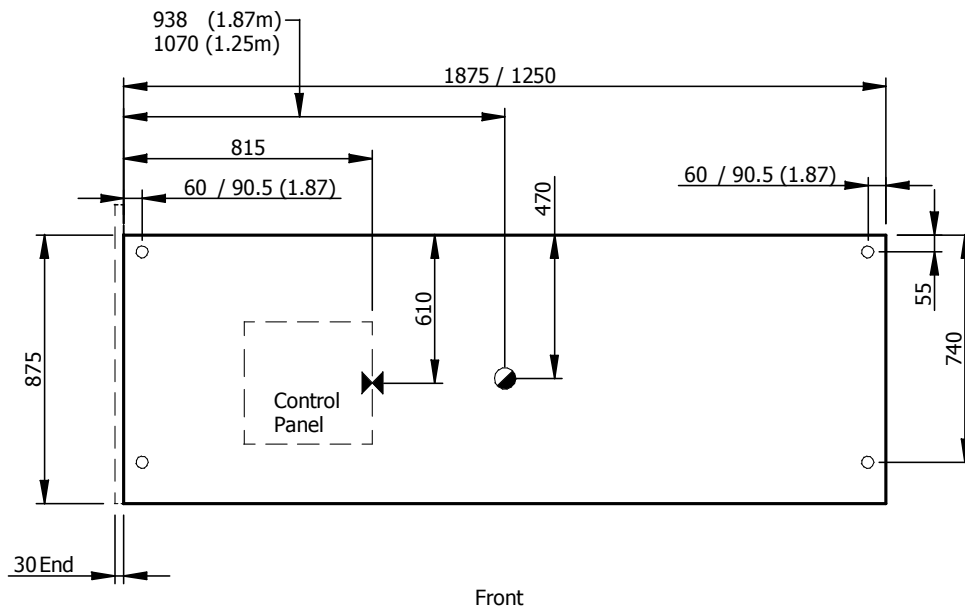
Section Drawing – IDA



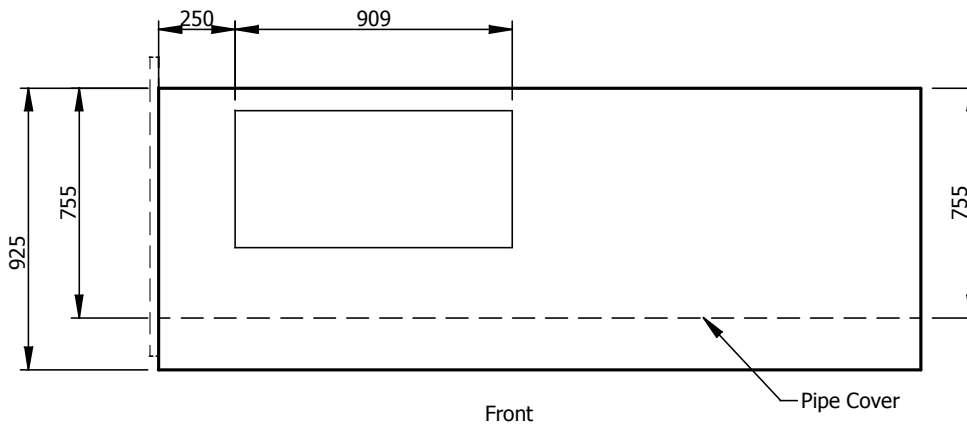
Ref:- DS1140

Plan Drawing – IDA 1.87 & 1.25M

- KEY
- Feet Positions
 - Refrig. Outlets
 - ⊗ Refrig Pipe Tails
 - ⊙ Drain Outlets
 - ⊗ Mains Supply



Plan of Base

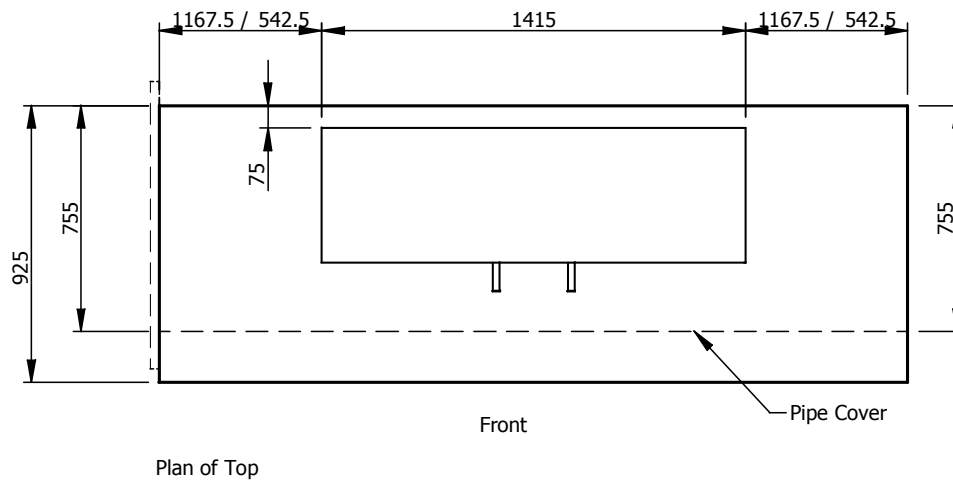
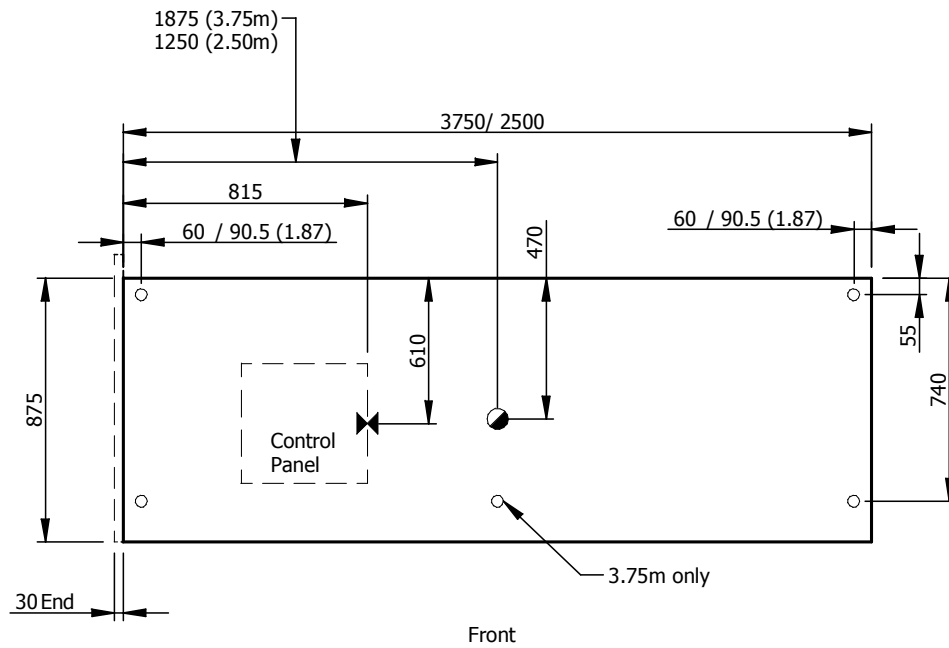


Plan of Top

Ref DP1140-2

Plan Drawing – IDA 3.75 & 2.5M

- KEY
- Feet Positions
 - Refrig. Outlets
 - ✕ Refrig Pipe Tails
 - ◐ Drain Outlets
 - ✕ Mains Supply

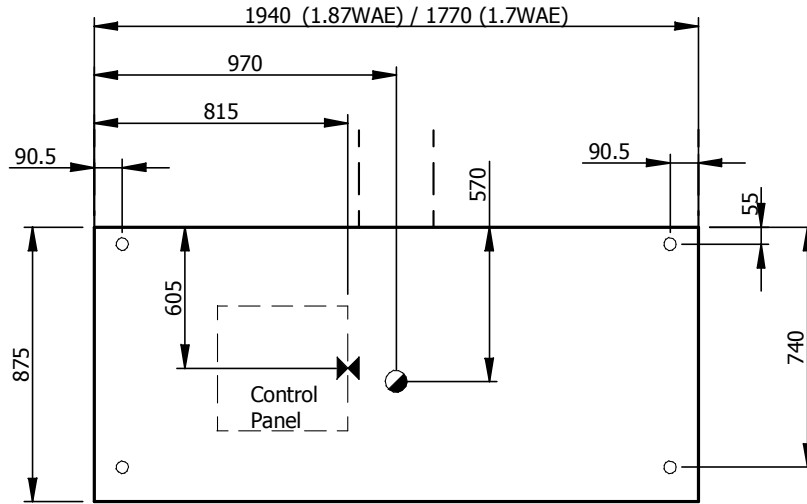


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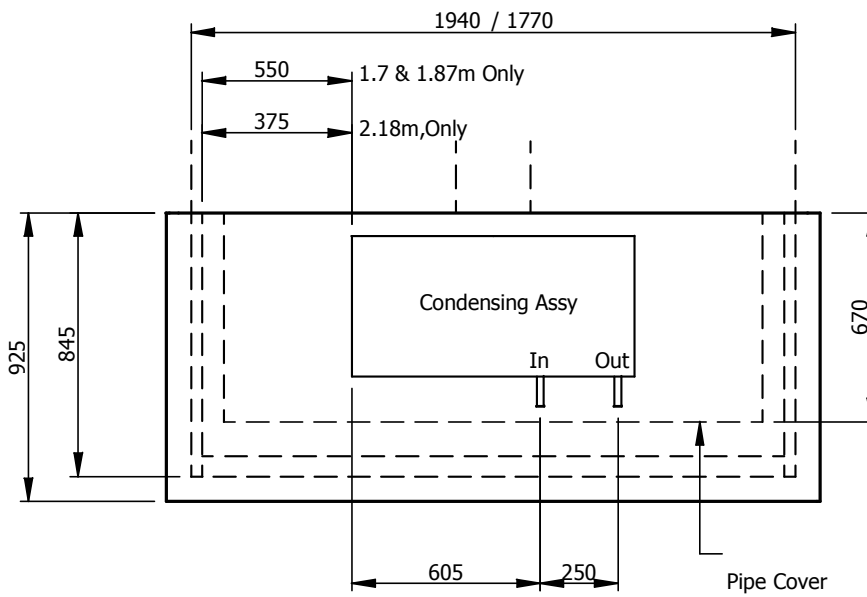
Plan Drawing – IDA WAE

KEY

- Feet Positions
- Refrig. Outlets
- ⊗ Refrig. Pipe Tails
- ⊙ Drain Outlets
- ⊗ Elect. Outlets
- ⊗ Mains Supply



Plan of Base Front



Plan of Top Front

Ref:- DW1140