CARTER
RETAIL EQUIPMENT LTD

Case Type	**Frozen Food Cold Room Integral Condensing Unit**
Model Designation	**QC9**
File Reference	1239

Document Issue

1	10-04-13	LRC	Provisional Issue
2	05-06-13	LRC	Updated Refrigerant charges, Minimum Room Volume and minimum Dimensions of unit to side walls
3	19-08-13	NM	Flow & THR updated for 18/24 fluid
4	19-08-13	NM	Flow rate added for -6°C inlet & 32°C outlet
5	30-08-13	LRC	Flow rate changed for DTX Glycol 27%
6	06-12-13	LRC	Updated flow rate
7	26-02-14	AG	Drawing views updated
8	14-03-14	LRC	Updated Commissioning set points

cabinet **TECHNICAL DATA**

Technical Data Sheet –

Product Type	Frozen Food
Product Temperature	-18 to -21°C
Maximum Design Ambient	ISO 3 25°C and 60% RH

Frozen Food

Refrigeration Data

Refrigeration Duty (per 24hrs) [kW]	3.07	
Minimum Room Volume m3	43.75	
Refrigerant Charge kg R1270 per system	0.35	
Minimum Dimensions between internal evaporators and L/H side walls of cold room.	900mm	For maintenance and removal of defrost heaters

Electrical Data (@ 230V 50Hz)

	Watts	Amps
Condensing Unit	1791	7.79
Fans (MCE)	175	0.76
Solenoid Valve / Controller	10	0.04
Drain Line Heater	40	0.17
Defrost Heaters	2975	12.93
Maximum Load – Normal Running	2013	8.79
Maximum Load – Electrical Defrost	3015	13.10

Engineering Data

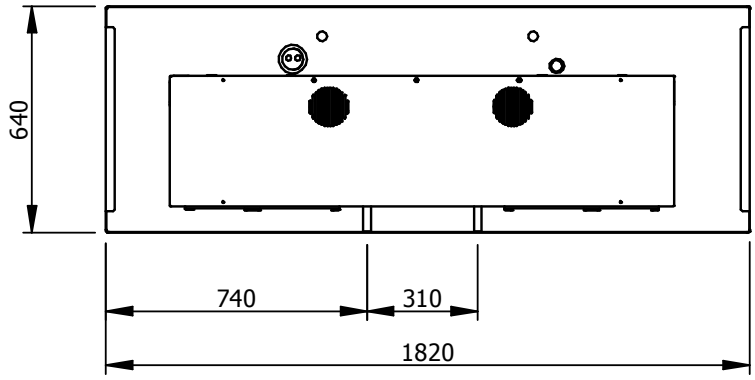
Total Heat of Rejection THR (kW)	4.98	4.98
THR Water only (kW)	4.18	4.18
THR Air only (kW)	0.8	0.8
Plate Heat Exchanger (kpa) each	7.5	7.5
Water Inlet Temperature °C	18	-6
Water Outlet Temperature °C	24	32
Chilled Water Connections mm	22	22
DTX Glycol 27% Flow Rate (kg/s)***	0.1811	0.0286
Water Flow Rate (kg/s)****	0.1649	0.0263
Drain Outlet	¾"	¾"

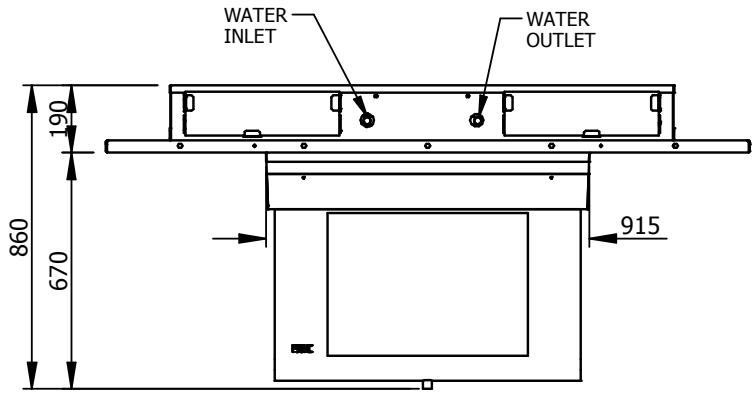
Set-Up Data**

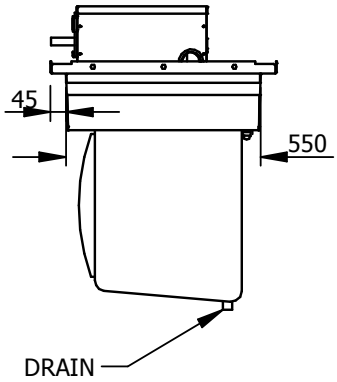
	Frozen Food
Cut in Temperature [°C]	-22
Differential [K]	2
N° Defrosts (per 24hrs)	4
Maximum Defrost Time [mins]	45
Defrost Termination Temp (In Coil) [°C]	12
Drain Down Time [mins]	3
Fans in Defrost	Off
Control Temperature Ratio (%)	50

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 = 3.8095kj/(kg-K)*
*****Flow Rate for Water @ 20°C*

Drawing –







Ref:- DP1239-02