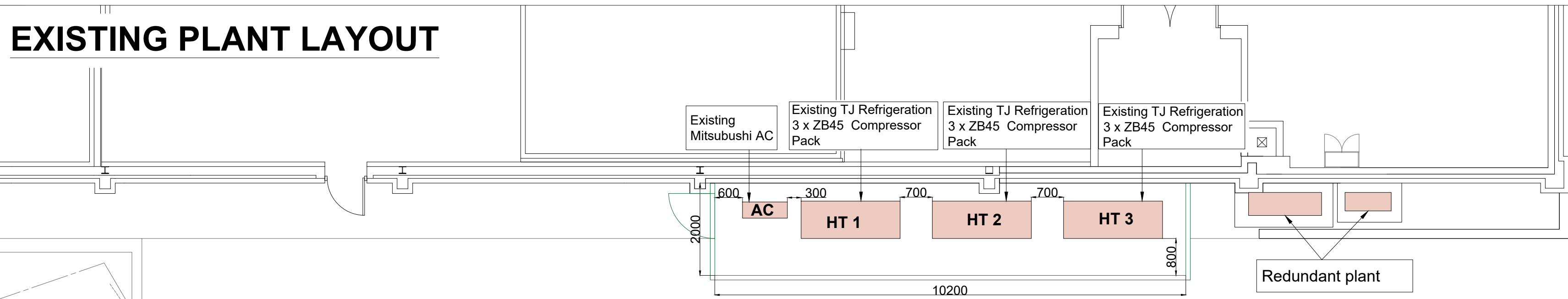
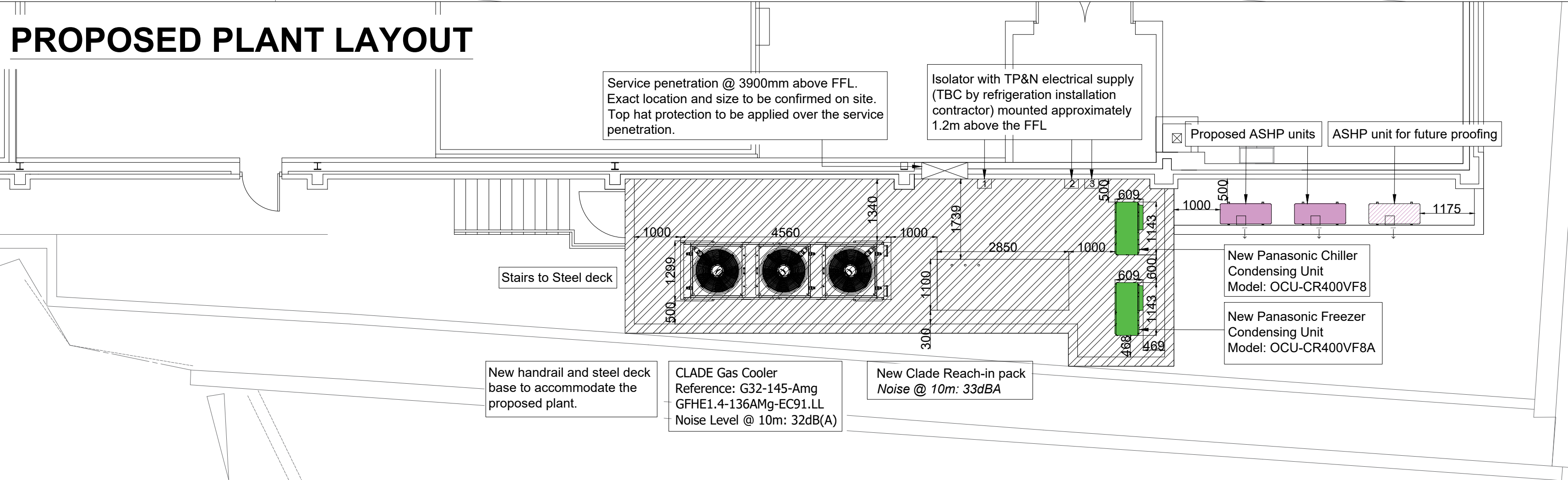


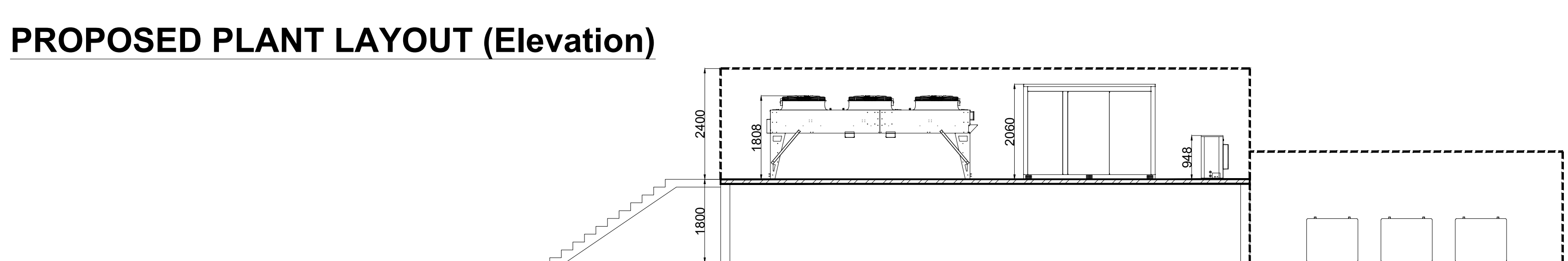
EXISTING PLANT LAYOUT



PROPOSED PLANT LAYOUT



PROPOSED PLANT LAYOUT (Elevation)



Pack Noise Rating

Dorin		75kW-PFE-ULN Reach In Housing (32)										
		Octave Band Frequency (Hz)										
	dB(A)	63	125	250	500	1000	2000	4000	8000			
Noise Source												
CD4 75-7.3M	61	39	39	49	47	60	55	53	47			
CD4 75-7.3M	61	39	39	49	47	60	55	53	47			
CD4 75-7.3M	62	40	40	50	48	61	56	54	48			
CD 2000H	67	45	45	55	53	66	61	59	53			
IA47-A3p Vent Fan Inlet	50	39	42	46	42	43	45	44	34			
IA47-A3p Vent Fan Outlet	50	39	42	46	40	43	45	44	34			
Calculated Internal Sound Pressure Level	71	49	50	58	56	69	64	62	56			
*Correction for Internal Reflection/Frequency	5	5	5	5	5	5	5	5	5			
Total Internal Sound	76	54	55	63	61	74	69	67	61			
Attenuated Sound Pressure @ 1.0m	52	45	46	48	41	54	39	37	31	dB(A)	1pA	@1m
Attenuated Sound Pressure @10m	32	16	17	19	15	25	11	<10	<10	dB(A)	1pA	@10m

Note:

1. Refrigeration Contractor to advise on service penetrations prior to core drill.
2. Exposed Refrigeration service to receive top hat protection by Builder.
3. New cage and concrete base to accommodate the proposed plant.
4. Fire escape routes are to be maintained throughout and must not be obstructed at any time.

Chiller CU

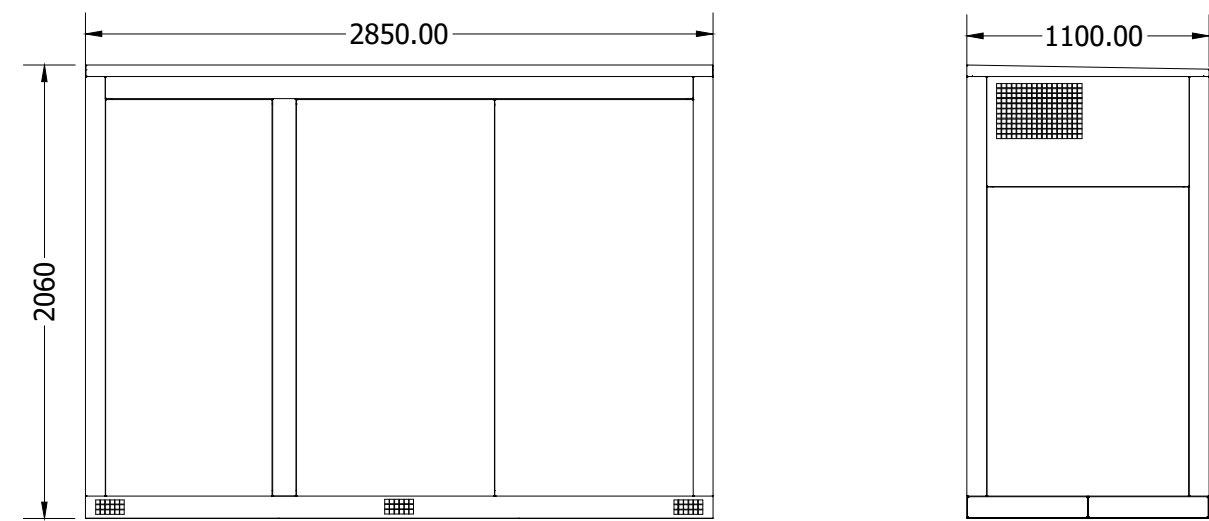
Type (MT: medium temp. LT: low temp.)	MT (7.5kW)		
Standard model	OCU-CR400VFB		
Anti corrosion coating model	OCU-CR400VFB8SL		
Power supply	Voltage	V	380/400 /415
	Phase		Three Phase
	Frequency	Hz	50
Cooling capacity at ET: -10°C AT 32°C	kW		6.90
Cooling capacity at ET: -35°C AT 32°C	kW		—
Evaporator connection			Multiple ①
Evaporation temperature	Min ~ Max	°C	-20 ~ -5
Ambient temperature	Min ~ Max	°C	-15 ~ +43
Refrigerant			R434A
Design pressure liquid line	Mpa		8
Design pressure suction line	Mpa		8
User system external alarm, Digital input, Non-voltage contact			Yes
Liquid tube electromagnetic valve	Vac		380/400 /415
Showcase operation ON/OFF signal, Digital input, Non-voltage contact			Yes
Modbus communication line (RS485)	Ports		2
Compressor type			2-stage rotary
Dimension	H x W x D	mm	948x1143 x609
Net weight		Kg	TBC
Piping connections	Suction pipe	Inch (mm)	1/2 (12,70)
	Liquid pipe	Inch (mm)	3/8 (9,52)
Length of connection piping	m		TBC
	Ambient temperature	°C	32
	Evaporating temperature	°C	-10 -10
Standard performance	Cooling capacity	kW	6,90 6,90
	Power consumption	kW	TBC TBC
	Nominal load ampere	A	TBC TBC
	Sound pressure level	dB(A)	33
PED			II
Air volume	m³/min		TBC
External static pressure	Pa		TBC
Heat recovery port			Yes
Drier filter liquid line, diameter 6,35mm			TBC
Drier filter liquid line, diameter 15,88mm			TBC

Necessary accessories		
Tube connector adaptor for vacuum and service	SPK-TU125	TBC
Suction filter, diameter 19,05mm (outer diameter welding)	S-008T	TBC

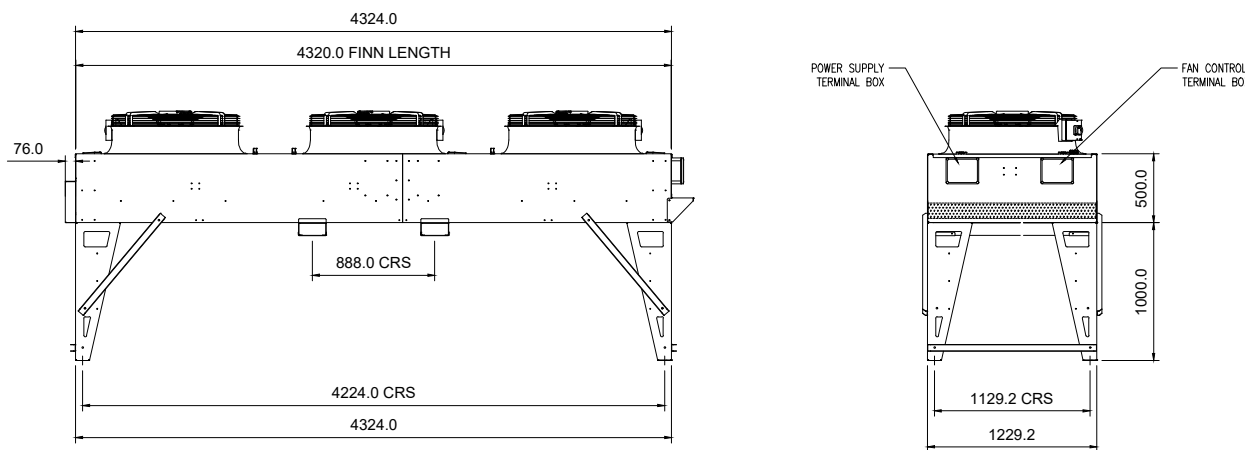
Freezer CU

Code			OCU-CR400V/FA8, OCU-CR400V/FA8SL	
Rated Output			3 kW	
Rated Electricity (Primary)			50 Hz 380 V 1400 V 1415 V 3N ~ ±10 %	
Refrigerant			R/44	
Ambient Temperature			-20 ℃ ~ +45 ℃	
Evaporating Temperature			-45 ℃ ~ -5 ℃	
Compressor	Oil	Type	Daphne Hermetic PZ-6BS	
		Charge Volume	0.6 L	
	Compression System		2-stage compression rotary + Injection	
Exchanger	Crankcase Heater		20 W	
	Type		Aluminum pre-coated fin tube	
	Fan Motor Rated Output		142 W	
	External static pressure		50 Pa	
	Fan Diameter		Φ490 mm	
Heat	Fan Air Flow	50 Hz	3,540 m³/h (full speed operation)	
	Air Mass Flow Control		Rotational speed control in 0 % ~ 100 % by DC inverter	
Capacity Control		System	Inverter Control 50% to 100% (40 °S to 80 °S 1Hz	
Protections	High Pressure Switch (MOP)	CUT OUT	12.0 MPa	
		CUT IN	8.0 MPa	
		Compressor Over Current	16 A off in 1 sec (INV4-MF-EN PCB)	
		Compressor Discharge Gas Temperature	118 ℃ OFF / 75 ℃ ON (CR2-EN PCB)	
		Power Supply reverse phase (open phase)	Available	
	Fuse		INV4-MF-EN PCB (AC400V 20Ax3, AC250V 10Ax1, AC250V 5Ax1, AC250V 2Ax1)	
Internal Mechanical Parts	Gas Cooler		Aluminum pre-coated fin tube	
	Intermediate Cooler		7.57 L	
	Maximum gas load in the installation with this unit		8.0 kg	
	Oil Separator		1.2 L (0.55 L of oil are precharged.)	
Connection Piping		Suction Line	Φ12.7 mm (Outer diameter welding)	
		Liquid Line	Φ9.52 mm (Outer diameter welding)	
Outer Dimension		H×W×D	948 mm × 1,142 mm × 586 mm	
Outer Dimension (with package)		H×W×D	1,074 mm × 1,215 mm × 730 mm	
Net Weight [kg]			136	
Package Weight [kg]			173	
Exterior Color			Harmony White (Munsell 5Y-6.4/0.5)	
Filter (Suction line must be commissioned)			Included with the unit (reference: S-003T)	
Filter (Liquid line must be commissioned)			Included with the unit (reference: D-152T)	
Standard Performance	Ambient Temperature		32 ℃	
	Evaporating Temperature		-10 ℃	-35 ℃
	Compressor Rotational Speed		80 sps (Hz)	80sp1 (Hz)
	Cooling Capacity		7.77/7.77/7.77 kW	3.8/3.8/3.8 kW
	Power consumption		4.5/4.5/4.5 kW	3.8/3.8/3.8 kW
	Electric current		7.2/6.9/6.7 A	6.2/5.9/5.7 A
	Starting current		Inverter	Inverter
	Power factor		94 / 94 / 94 %	92.92 / 92 %
	Sound Pressure Level			36.1 dB(A)

CLADE Reach-in Pack Housing (75kW)
Noise Level @10m: 32 dBA



CLADE Gas Cooler- G32-145-Amg
GFHE1.4-136AMg-EC91.LL
Noise Level @ 10m: 32dB(A)



Weight (dry approx.): 735kg

Gas cooler data

Reference:	G32-145-Amg
Model:	GFHE 1.4-136Amg-EC99.1L
GAS COOLER	
Coil Code:	1 x CO-48-6-2.31-4320
Performance Sub-Critical	
Capacity	118.8 kW
Ambient	10 °C, 50 %RH
Condensing Temp.	20 °C
TD	10 K
Performance Supercritical	
Capacity	144.3 kW
Ambient	40°C
Gas Pressure	100 Bar
Gas Inlet	100°C
Gas Outlet	42°C
Volume flow Inlet	15 m3/hr
Volume flow Outlet	5 m3/hr
Mass Flow	2908 kg/hr
Pressure drop	140 kPa
DUMP COIL	
Coil Code:	N/A
Capacity	
Ambient	
Evaporating Temp	
TD	
AIR PERFORMANCE:	
Volume flow humid	7.3m3/s, (26410m3/hr)
Height over sea level	0 m
Pressure	1013.25 hPa
Number of Fans	3
External Resistance	0 Pa
Supply	400v 3ph 50/60hz
Fan Type	EC - 910 mm diameter
Speed Design / Maximum	395 / 640 rpm
Total Power Input	484.5 W
Energy Rating	A
Full Load Current / Motor	1.1 A
Sound Power Level	63.8 dBA
Mean Sound Pressure @ 10m	32 dBA
PHYSICAL:	
Tube material	Copper - Plain
No Rows	6
Fin Material	Alum Mag
Fin Spacing	2.31 mm / 11 fpi
Surface	682.6 m2
Internal Volume	53.1 dm3
No Section / Coils	1 coil in 1 section
No Circuits	24
Connection Size	1 x 35 / 35
Unit Dimensions Width	1250 mm
Height + Fan	1175 mm
Length over headers	4620 mm
Weight (dry approx.):	735 kg

Plant Key:

-  Existing - to remain in situ
-  Existing - to be relocated
-  Existing - to be removed for refurb
-  Existing - to be removed for scrap
-  Temporary equipment

Builders Work Key:

-  Existing - to remain in situ
-  Existing - to be removed
-  Temporary
-  New
-  New concrete base

PROPOSED PLANT LAYOUT

Job No.	Originator	Zone	Level	Type	Role
79-Exxxx	WAVE	XX	00	DR	R
System Classification		Drawing No.	Suitability	Revision	
En_60_60_00		-0001	A5	P00	
Drawn	Checked	Date	Scale	Size	
NK	NA	18-01-2024	1:75	A1	



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