

From: Ian Broom <ian.broom@impactacoustics.co.uk>

To: 'Sharon Swan' <sharonswan@talktalk.net>

Subject: RE: Noise survey - Sandypoint Convenience Store, Hayling Island

Date: Tue, 19 Jan 2016 18:19

Sharon,

Yes that would be ok.

Thanks

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-----Original Message-----

From: Sharon Swan [<mailto:sharonswan@talktalk.net>]

Sent: 19 January 2016 17:43

To: Ian Broom <ian.broom@impactacoustics.co.uk>

Subject: Re: Noise survey - Sandypoint Convenience Store, Hayling Island

Hi Ian

The one I have in mind runs at 30db at 10m at its noisiest (apparently), so you think this is suitable?

Regards

Sharon

Sent from my iPhone

> On 19 Jan 2016, at 17:15, Ian Broom <ian.broom@impactacoustics.co.uk> wrote:

>

> Sharon,

>

> In accordance with the report the maximum sound power of the units
> should be no more than 60dB(A) Lw. That equates to a level at 1m of
> 49dB(A)

>

> If you want to have the units reassessed upon installation I can issue
> you with a fee proposal?

Condensing units



- * Electronical and mechanical control versions.
- * Multiservice version with VRC system for cooling capacity modulation.

Refrigeration condensing units, featuring centrifugal condensation for indoor installation or low-noise axial condensation for outdoor installation.

Versions with mechanical, electronical or multiservice control with VRC system for cooling capacity modulation.

intarbox

Air-cooled centrifugal condensing units with centrifugal fan for a ducted air outlet, for indoor installation.

- * Tropicalised design for ambient temperature up to 45 °C.
- * Electronical, mechanical and multiservice versions.

Sigilus

Air-cooled low noise condensing units for outdoor installation.

*Due to their triple acoustic insulation, **Sigilus** condensing units are found among the most silent units in the market and, due to their tropicalised design, they can operate under extreme ambient temperature.*

- * Tropicalised design for ambient temperature up to 50 °C.
- * Low-noise condensing units with low-speed fans.
- * Electronical, mechanical and multiservice versions.

Condensing units



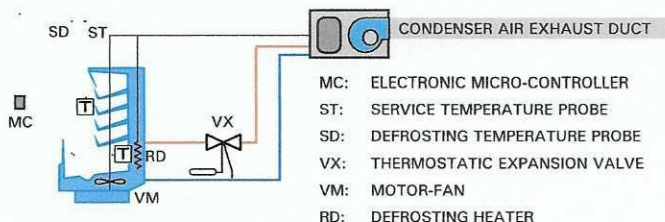
Description

Air-cooled condensing units for positive temperature applications, in low-noise axial or centrifugal construction, mechanical, electronic and cooling capacity modulation versions

Technical features

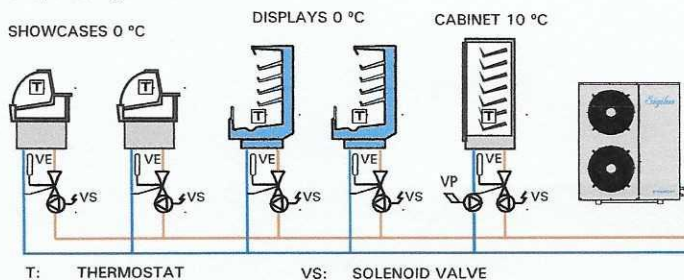
- R-404A or R-134A refrigerant.
- Hermetic reciprocating compressor, mounted on shock absorbers, with discharge muffler (MDF from 1 HP, and MDH series 3 and 4), crankcase heater (series MDF) and internal klixon.
- Condensing coil made in copper pipes and aluminium fins.
- Low-speed axial motor-fan (series MDF).
- Centrifugal motor-fan with available static pressure for a ducted outlet of condenser hot air (series MDH).
- Refrigeration circuit equipped with high and low pressure switches, ceramic dehydratant filter, liquid receiver and sight glass.
- Digital control of condensing temperature (version -N), and on/off control of condensing temperature (version -M).
- Proportional control of condensing temperature through fan speed variator (already included from MDF-NY-2086, MDF-NF-1038 and MDH series 4).
- Full control and power panel, with compressor and motor fan protection.
- Electronic controller for evaporator (version -N).
- Inbuilt oil separator (multiservice version -V).

Installation



Multiservice installation

Multi-service condensing units are specifically designed for cooling production centralization of a set of positive or negative temperature evaporating units.



- ❄ **Mechanical version with pump-down control.**
- ❄ **Electronical version with electrical board for the evaporating unit.**
- ❄ **Multiservice version with VRC cooling capacity modulation system.**
- ❄ **Tropicalised design for high ambient temperature.**

Version -N (electronical)

Intarbox condensing units, in their electronic version, feature an advanced XWING electronic controller as standard, to control both, condensing and evaporating units. They feature an inbuilt solenoid valve as an option.

Version -M (electromechanical)

The electromechanical version is designed for on/off operation depending to low suction pressure (pump down),

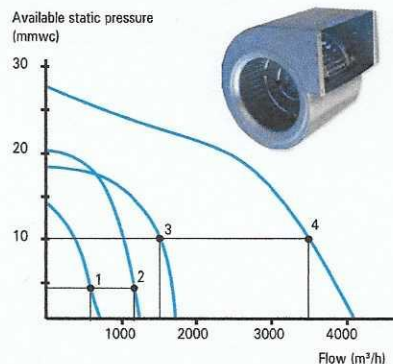
Version -V (multiservice)

The multiservice version of the condensing units feature the VRC system with one only hermetic reciprocating compressor adjusts the refrigerant flow to the demand of the evaporating units, keeping constant the pressure in suction line.

The VRC system is composed by a set of pressure and temperature regulation valves able to progressively change compressor's cooling capacity from 100% to 10% of its nominal capacity, while reducing the absorbed electrical power and protects the compressor as its operation is kept between its safety margins for avoiding reheating risk.

Centrifugal motor-fans

Intarbox condensing units feature centrifugal motor-fans for a ducted outlet of condenser's hot air.



Low-noise axial condensing units for 1 or 2 services

Series / Model		Compressor		Cooling capacity EN13215 ⁽¹⁾ (W)	Service length (m)			Nominal absorbed power (kW)	Max. absorb. Intensity (A)	Fan Ø mm	Flow (m³/h)	Connection pipes Liq - Gas	Max. pipe length ⁽²⁾ (m)	Weight (kg)	Sound pressure level dB(A) ⁽⁴⁾	Price Version MY / MF (€)	Price Version NY / NF (€)
		HP	Power supply		Showcase		Mural										
					Tev -10 °C	Total											
R-134A	MDF-NY-0 010	3/8	230V - I	610	0,5-1,0	0,5	-	0,29	3,9	Ø 200	350	1/4"-3/8"	14	46	20	1 357	1 492
	MDF-NY-0 015	1/2	230V - I	778	0,8-1,2	0,5	-	0,36	4,9	Ø 200	350	1/4"-3/8"	14	49	20	1 448	1 593
	MDF-NY-1 015	1/2	230V - I	923	1,0-1,5	0,7	-	0,39	5,3	Ø 360	1700	1/4"-1/2"	20	57	20	1 530	1 683
	MDF-NY-1 026	3/4	230V - I	1381	1,8-2,4	1,0	-	0,63	9,0	Ø 360	1700	1/4"-1/2"	22	65	22	1 631	1 794
	MDF-NY-1 033	1	230V - I	1796	2,8-3,2	1,2	1,0	0,74	9,2	Ø 360	1700	1/4"-5/8"	25	67	22	1 855	2 041
	MDF-NY-1 053	1 1/2	230V - I ⁽⁵⁾	2436	3,5-4,4	2,0	1,0-1,5	1,22	11,8	Ø 360	1700	1/4"-3/4"	30	77	27	2 200	2 420
	MDF-NY-1 074	2	230V - I ⁽⁵⁾	3486	5,5-6,5	2,5	1,5-2,0	1,54	15,8	Ø 360	1700	1/4"-3/4"	30	79	28	2 770	3 048
	MDF-NY-2 086	4	400V - III	4326	6,5-8,0	3,0	2,0-2,5	1,88	12,6	Ø 450	3700	3/8"-7/8"	30	96	39	3 110	3 421
	MDF-NY-2 108	5	400V - III	5003	7,0-9,0	3,5	2,5-3,0	2,13	15,6	Ø 450	3700	3/8"-7/8"	30	98	37	3 294	3 623
	MDF-NY-2 136	6 1/2	400V - III	6752	10,0-12,0	5,0	3,5-4,0	2,87	19,6	Ø 450	3700	3/8"-1 1/8"	30	101	36	3 778	4 156
	MDF-NY-3 171	8	400V - III	7786	12,0-14,0	6,0	4,0-5,0	3,57	22,6	Ø 450	4000	3/8"-1 1/8"	30	140	40	5 006	4 551
	MDF-NY-3 215	10	400V - III	9833	16,0-18,0	8,0	5,0-6,0	4,12	28,3	2x Ø 450	6500	1/2"-1 1/8"	30	147	39	5 581	5 074
MDF-NY-3 271	13	400V - III	13503	23,0-25,0	12,0	7,5-8,5	5,79	37,3	2x Ø 450	6500	1/2"-1 3/8"	30	152	39	6 207	5 643	
R-404A	MDF-NF-0 008	1/3	230V - I	675	0,8-1,2	0,5	-	0,37	5,1	Ø 200	350	1/4"-3/8"	15	47	20	1 330	1 463
	MDF-NF-0 010	3/8	230V - I	804	1,2-1,7	0,7	-	0,47	4,8	Ø 200	350	1/4"-3/8"	15	49	21	1 420	1 562
	MDF-NF-0 012	1/2	230V - I	945	1,4-2,1	0,8	-	0,56	5,6	Ø 200	350	1/4"-3/8"	20	50	20	1 500	1 650
	MDF-NF-1 014	1/2	230V - I	1243	1,8-2,3	1,0	-	0,71	5,1	Ø 360	1700	1/4"-1/2"	20	59	20	1 599	1 759
	MDF-NF-1 016	5/8	230V - I	1449	2,0-2,5	1,0	-	0,76	5,6	Ø 360	1700	1/4"-1/2"	25	67	23	1 728	1 901
	MDF-NF-1 018	3/4	230V - I	1751	2,5-3,0	1,2	1,0	0,92	6,7	Ø 360	1700	1/4"-1/2"	25	68	24	1 819	2 001
	MDF-NF-1 024	1	230V - I	2063	2,7-3,5	1,5	1,0-1,5	1,06	8,5	Ø 360	1700	3/8"-5/8"	30	82	24	1 992	2 191
	MDF-NF-1 026	1 1/4	230V - I ⁽⁵⁾	2394	3,0-4,0	1,5	1,3-1,8	1,26	9,2	Ø 360	1700	3/8"-5/8"	30	83	27	2 037	2 241
	MDF-NF-1 034	1 1/2	230V - I ⁽⁵⁾	2774	4,0-5,0	2,0	1,5-2,0	1,69	12,4	Ø 360	1700	3/8"-5/8"	30	83	29	2 107	2 318
	MDF-NF-1 038	1 3/4	400V - III	3211	5,0-6,0	2,5	2,0-2,5	1,60	4,6	Ø 450	3200	3/8"-5/8"	30	82	30	2 565	2 822
	MDF-NF-2 048	2	400V - III	4084	6,0-7,5	3,0	2,5-3,0	2,09	6,3	Ø 450	3600	3/8"-3/4"	30	84	30	2 880	3 168
	MDF-NF-2 054	2 1/4	400V - III	4732	7,0-9,0	3,5	3,0-3,5	2,29	6,8	Ø 450	3600	3/8"-3/4"	30	85	30	3 050	3 355
	MDF-NF-2 060	3	400V - III	5512	8,5-10,0	4,0	3,5-4,0	2,70	7,8	Ø 450	3600	3/8"-3/4"	30	88	29	3 328	3 661
	MDF-NF-2 068	3 1/2	400V - III	6148	10,0-12,0	5,0	4,0-5,0	3,10	9,2	Ø 450	3600	1/2"-3/4"	30	88	29	3 498	3 848

Low-noise axial multiservice condensing units

Series / Model		Compressor		Cooling capacity EN13215 ⁽¹⁾ (W)	Service length (m)			Nominal absorbed power (kW)	Max. absorb. Intensity (A)	Fan Ø mm	Flow (m³/h)	Connection pipes Liq - Gas	Max. pipe length ⁽²⁾ (m)	Weight (kg)	Sound pressure level dB(A) ⁽⁴⁾	Price Version VY / VF (€)
		HP	Power supply		Showcase		Mural									
					Tev -10 °C	Total										
R-134A	MDF-VY-2 086	4	400V - III	4326	6,5-8,0	1,0	2,0-2,5	1,88	12,6	Ø 450	3700	3/8"-7/8"	30	96	39	4 957
	MDF-VY-2 108	5	400V - III	5003	7,0-9,0	1,0	2,5-3,0	2,13	15,6	Ø 450	3700	3/8"-7/8"	30	98	37	5 486
	MDF-VY-2 136	6 1/2	400V - III	6752	10,0-12,0	1,5	3,5-4,0	2,87	19,6	Ø 450	3700	3/8"-1 1/8"	30	101	36	6 059
	MDF-VY-3 171	8	400V - III	7786	12,0-14,0	2,0	4,0-5,0	3,57	22,6	Ø 450	4000	3/8"-1 1/8"	30	140	40	6 995
	MDF-VY-3 215	10	400V - III	9833	16,0-18,0	2,0	5,0-6,0	4,12	28,3	2x Ø 450	6500	1/2"-1 1/8"	30	147	39	7 491
	MDF-VY-3 271	13	400V - III	13503	23,0-25,0	2,5	7,5-8,5	5,79	37,3	2x Ø 450	6500	1/2"-1 3/8"	30	152	39	8 141
R-404A	MDF-VF-1 038	1 3/4	400V - III	3211	5,0-6,0	1,0	2,0-2,5	1,60	4,6	Ø 450	3200	3/8"-5/8"	30	80	30	4 072
	MDF-VF-2 048	2	400V - III	4084	6,0-7,5	1,0	2,5-3,0	2,09	6,3	Ø 450	3600	3/8"-3/4"	30	80	30	4 386
	MDF-VF-2 054	2 1/4	400V - III	4732	7,0-9,0	1,0	3,0-3,5	2,29	6,8	Ø 450	3600	3/8"-3/4"	30	82	30	4 590
	MDF-VF-2 060	3	400V - III	5512	8,5-10,0	1,5	3,5-4,0	2,70	7,8	Ø 450	3600	3/8"-3/4"	30	88	29	5 080
	MDF-VF-2 068	3 1/2	400V - III	6148	10,0-12,0	1,5	4,0-5,0	3,10	9,2	Ø 450	3600	1/2"-3/4"	30	88	29	5 610
	MDF-VF-3 086	4	400V - III	7197	12,0-16,0	2,0	4,5-6,0	3,37	9,6	Ø 450	4000	1/2"-7/8"	30	115	39	6 477
	MDF-VF-3 108	5	400V - III	9434	16,0-20,0	2,0	5,5-7,5	4,50	13,0	2x Ø 450	6500	1/2"-7/8"	30	120	37	6 936
	MDF-VF-4 136	6 1/2	400V - III	11944	20,0-24,0	2,5	7,0-9,0	5,99	16,4	2x Ø 450	7000	1/2"-1 1/8"	30	135	36	7 538

As an option

- Change to 400 V-III-50 Hz power supply. ⁽⁵⁾ + 8 %
- Inbuilt oil separator (already included for version -V). + 590 €
- Inbuilt solenoid valve (versions -N and -M). + 145 €
- Anticorrosion coil coating. + 8 %
- Coil protection grille. + 90 €
- Proportional control of condensing temperature through fan speed variator (models up to 1074 with R134A, and models up to 1034 with R404A). + 250 €

⁽¹⁾ Conditions based on UNE-EN 13215 regulation: 32 °C ambient temperature, evaporating temperature -10 °C (PT), suction temperature 20 °C and subcooling 3K.

⁽²⁾ Minimal service length is the minimal length of a service the condensing unit can operate with (version -V). The maximum number of services for versions -N and -M is two, of a similar capacity.

⁽³⁾ Consult for pipe length over 30 m.

⁽⁴⁾ SPL: Sound pressure level shown in dB(A) on open field at 10 m. from the source.

⁽⁵⁾ Units available in 400V-III-50Hz power supply.

Every service needs to have thermostatic expansion valve and solenoid valve controlled by a thermostat.