



**BOXER NEPTUNE
PACKAGED AIR
HANDLING UNITS**

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PROUD TO BUILD BRITISH

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We've been pioneers in new air technology since 1966. Our heritage is in the design and manufacturing of fans and ventilation systems. *We put our energy into efficient ventilation so you don't waste yours.*



Pioneering

We lead the way in product innovation with a stream of ground-breaking products over decades.



Trusted

We have a reputation for our build quality. We establish long term relationships and are always transparent with our test data.



Agile

We're one of the UK's leading manufacturers, covering both residential and commercial air quality. We offer innovative advice and provide flexible solutions.



Expert

Our team is made up of over 600 people, 50 of which have over 25 years' experience. We have the skills and knowledge to help find the best solution for our customers.



Attentive

We're expert listeners, rising to any challenge and going the extra mile for our customers. We add value by solving problems. We sell solutions, not fans.



Personal

We work closely with our customers and can provide bespoke solutions to meet their specific project needs. Many of our product ranges were developed this way.

Nuaire becomes the first UK ventilation manufacturer to adopt recycled and renewably produced steel, reducing carbon emissions by over 60%. Magnelis® steel-based ventilation systems are transitioning to Magnelis® XCarb®, a low carbon-emission steel that is both recycled and renewably produced.



For help with selecting a unit, speak to us on **029 2085 8200** or email: enquiries@nuaire.co.uk

ABOUT NUAIRE AIR HANDLING UNITS

We've been at the forefront of Packaged Air Handling Units for over 20 years, designing and manufacturing market-leading ranges.

Our solutions are designed, engineered and tested here in the UK and provide the most efficient, best performing, most compact and easy to select family of Air Handling Units on the market.

From our maximum specification BPS range, to our fully-tailored Boxer Bespoke range, the Boxer family of AHUs covers all major project requirements.



Our AHUs are manufactured in the UK in our state-of-the-art production facilities, then tested in our AMCA-accredited test laboratory to ensure the high quality standards and guaranteed on-site performance that you'd expect from us at Nuaire.

BOXER

BOXER BPS (UP TO 6m³/s)



BOXER NEPTUNE (UP TO 5m³/s)



BOXER BESPOKE (UP TO 11m³/s)



BOXER NEPTUNE VENTILATION

Part of our Boxer Air Handling Unit family, Neptune is a workhorse AHU designed for projects where performance and efficiency are important, but cost is also a key driver. For medium specification projects, Neptune is the solution.

Neptune is a medium specification packaged solution, selectable by catalogue and designed to meet most project requirements. Available with a thermal wheel, the range is available up to a duty of 5m³/s.

For a better ventilation solution, choose Nuaire.

CODING N15H/LX/CO-L

N 07 T / L X / CO - L
 1 2 3 4 5 6 7

1. BOXER Neptune range
 2. Unit size - 07, 12, 17, 22, 32 or 42
 3. Thermal wheel heat exchanger
 4. Heating: L – LPHW
E – Electric heater battery
N – No heater
 5. Cooling: X – DX*
C – Chilled water
N – No cooling
 6. Control type: AT – Ecosmart Adapt (Trend)
CO – Ecosmart Connect
ES – Ecosmart Classic
 7. Handing: L – Left
R – Right
- *Ecosmart Connect & Adapt models only.



PACKAGED SOLUTION

Fully catalogue selectable.



CLASSIFICATION

LEVELS L2, T3, TB3 and D1 as standard.



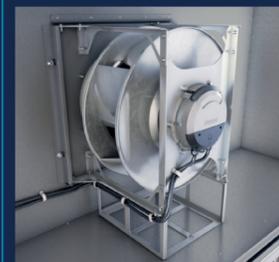
ErP COMPLIANT

Utilises thermal wheel heat exchanger.



HIGH PERFORMANCE

Wide duty range of up to 4.25m³/s.



COMPLETE CONTROL ECOSMART CONTROLS

Boxer Neptune units come with a range of control options to suit all project requirements, no matter how simple, or how complicated.



Ecosmart Adapt (-AT)

Designed to meet all project requirements, Ecosmart Adapt (with Trend) is the standard for control.



Ecosmart Connect (-CO)

Energy-efficient demand-based control providing network connectivity and advanced functionality.



Ecosmart Classic (-ES)

The UK's leading energy-efficient 'plug and play' solution. Demand ventilation at your fingertips.

DUTY FOR VERTICAL UNITS

UNIT PERFORMANCE

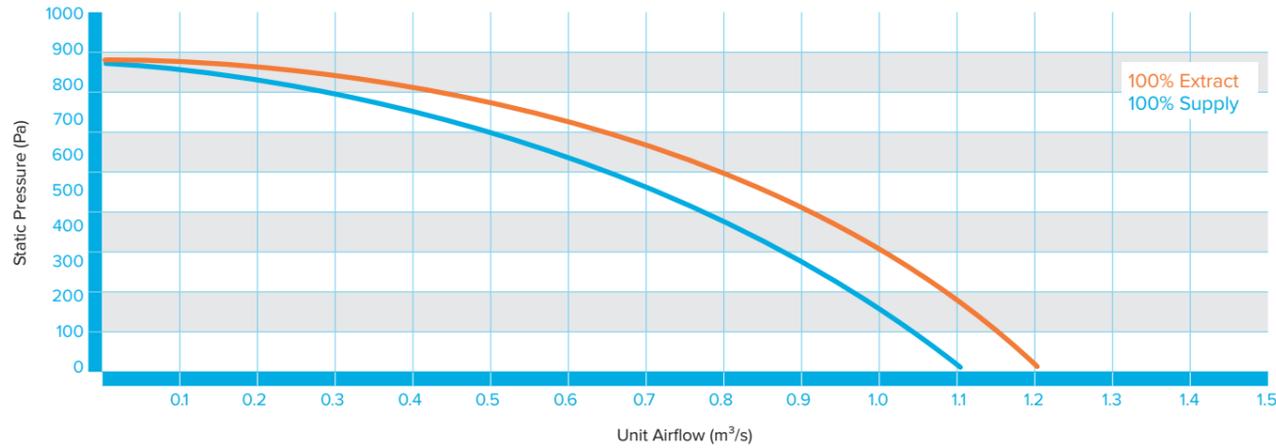


MAXIMUM DUTY COMPLIANT TO ERP

BOXER NEPTUNE VERTICAL UNIT SIZE 07

PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 07 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 07 TECHNICAL INFORMATION

CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N07T/LX/**-#	400 / 3 / 50	8.8	40°C	2580	794	223	299	365	-
N07T/LC/**-#	400 / 3 / 50	8.3	40°C	2580	794	223	299	365	-
N07T/LN/**-#	400 / 3 / 50	8.3	40°C	2580	773	223	299	344	-
N07T/EX/**-#	400 / 3 / 50	8.8 + 17.5*	40°C	2580	910	223	299	348	157
N07T/EC/**-#	400 / 3 / 50	8.3 + 17.5*	40°C	2580	910	223	299	348	157
N07T/EN/**-#	400 / 3 / 50	8.3 + 17.5*	40°C	2580	889	223	299	327	157
N07T/NX/**-#	400 / 3 / 50	8.8	40°C	2580	777	223	299	348	-
N07T/NC/**-#	400 / 3 / 50	8.3	40°C	2580	777	223	299	348	-
N07T/NN/**-#	400 / 3 / 50	8.3	40°C	2580	756	223	299	327	-

*FLC: Includes separate supply for a 12kW heater element.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches. Max operating temperature = 40°C.

DIMENSIONS (mm)

MODEL	A	A*	B	C
Size 07	2700	3150	1330	1492

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



BOXER NEPTUNE VERTICAL UNIT SIZE 07

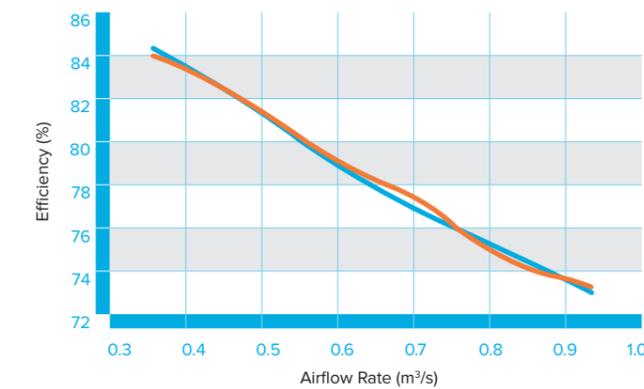
PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 07 NOISE DATA

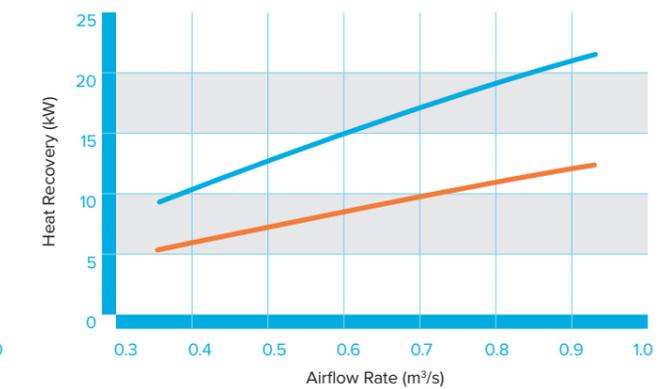
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	68	66	73	75	80	79	76	73	41
Open Intake	65	64	73	72	70	72	70	68	
Open Supply	68	66	73	75	80	79	76	73	
Open Extract	65	64	73	72	70	72	70	68	
Breakout	68	57	63	56	53	45	39	28	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200. dBA-hemispherical free field radiation at a distance of 3m.

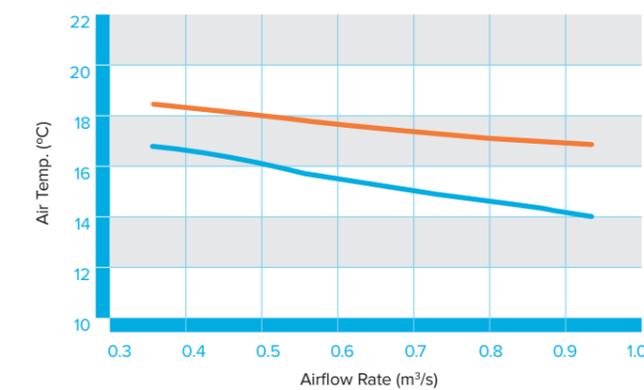
UNIT SIZE 07 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 07 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 07 HEAT EXCHANGER AIR-OFF TEMPERATURES



LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



KEY

N807T @ 6°C Inlet
N807T @ -5°C Inlet

BOXER NEPTUNE VERTICAL UNIT SIZE 07

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 0.75

CODE N07V/L*

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	3/4	0.75	4.0	
			17.0	
		0.56	4.0	
			17.0	
		0.38	4.0	
			17.0	
		0.19	4.0	
			17.0	

CODE N07AV/FL

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	3/4	0.75	-10.0	
			-5.0	
		0.56	-10.0	
			-5.0	
		0.38	-10.0	
			-5.0	
		0.19	-10.0	
			-5.0	

CODE N07V/*C

	COIL INFORMATION		AIR INFORMATION		
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	1	0.75	28.0	50	
			23.0	70	
		0.56	28.0	50	
			23.0	70	
		0.38	28.0	50	
			23.0	70	
		0.19	28.0	50	
			23.0	70	

CODE N07V/*R

	COIL INFORMATION				AIR INFORMATION		
	Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)
REVERSE CYCLE DX COIL	1	5.3	8	45	0.75	10.0	-
						28.0	50
					0.56	10.0	-
						28.0	50
					0.38	10.0	-
						28.0	50
0.19	Outside Coil Capability: Minimum Air Volume = 0.317m ³ /s						

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
21.7	16.1	0.20	7.9	18.7	13.4	0.16	5.8
31.3	13.0	0.16	5.5	28.2	10.2	0.12	3.7
22.8	12.8	0.16	5.3	19.6	10.6	0.13	3.9
32.3	10.4	0.13	3.7	29.0	8.1	0.10	3.0
24.2	9.3	0.11	3.1	20.8	7.7	0.09	3.0
33.4	7.6	0.09	3.0	29.9	5.9	0.07	3.0
27.0	5.3	0.07	3.0	23.1	4.4	0.05	3.0
35.6	4.3	0.05	3.0	31.6	3.4	0.04	3.0

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	12.7	0.16	3.0	4.0	12.7	0.15	3.0
4.0	8.2	0.10	3.0	4.0	8.2	0.10	3.0
4.0	9.5	0.12	3.0	4.0	9.5	0.12	3.0
4.0	6.1	0.08	3.0	4.0	8.8	0.11	3.0
4.0	6.5	0.08	3.0	4.0	6.4	0.08	3.0
4.0	4.2	0.05	3.0	4.0	4.2	0.05	3.0
4.0	3.2	0.04	3.0	4.0	3.2	0.04	3.0
4.0	2.1	0.03	3.0	4.0	2.1	0.03	3.0

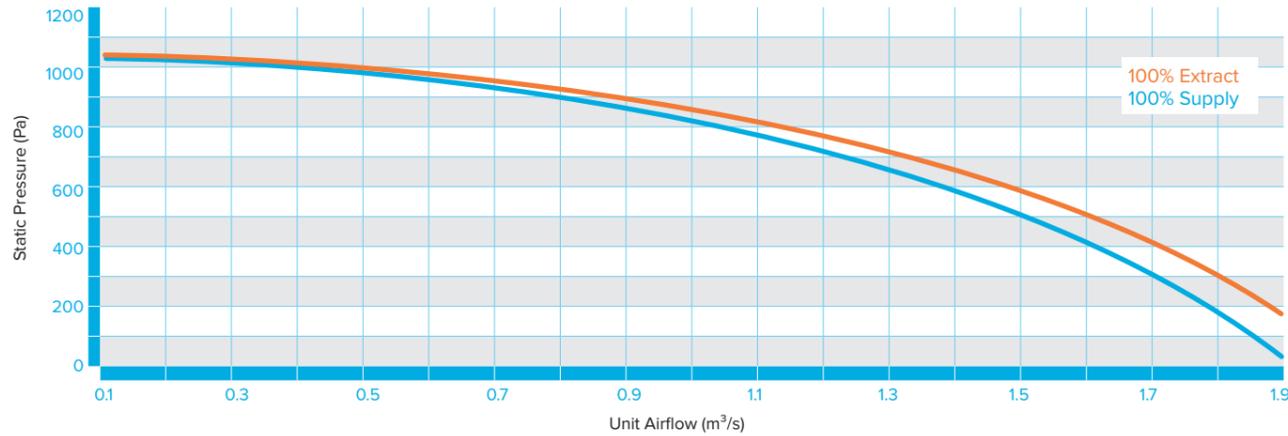
FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
17.2	84	13.7	9.9	0.54	36.4	18.1	83	11.5	9.0	0.39	20.3
15.8	91	11.6	6.6	0.46	27.4	16.8	90	9.4	5.7	0.32	14.2
16.7	85	10.9	7.7	0.43	24.1	17.6	85	9.2	7.0	0.31	13.6
15.4	91	9.2	5.2	0.37	18.0	16.5	90	7.5	4.4	0.25	9.4
17.1	86	6.7	5.0	0.23	7.7	17.1	86	6.7	5.0	0.23	7.7
16.1	91	5.4	3.2	0.18	5.3	16.1	91	5.4	3.2	0.18	5.3
15.1	89	4.3	3.0	0.17	4.8	16.4	88	3.6	2.7	0.12	3.0
14.3	94	3.6	2	0.14	3.5	15.8	93	2.8	1.7	0.10	3.0

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
30.1	-	19.5	-
17.4	86	12.5	9.6
31.7	-	15.7	-
16.9	86	10.2	7.5
33.5	-	11.5	-
16.4	87	7.4	5.4

BOXER NEPTUNE VERTICAL UNIT SIZE 12

PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 12 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 12 TECHNICAL INFORMATION

CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N12T/LX/**-#	400 / 3 / 50	11.3	40°C	2180	945	258	330	433	-
N12T/LC/**-#	400 / 3 / 50	10.8	40°C	2180	945	258	330	433	-
N12T/LN/**-#	400 / 3 / 50	10.8	40°C	2180	915	258	330	403	-
N12T/EX/**-#	400 / 3 / 50	11.3 + 35*	40°C	2180	1073	258	330	408	169
N12T/EC/**-#	400 / 3 / 50	10.8 + 35*	40°C	2180	1073	258	330	408	169
N12T/EN/**-#	400 / 3 / 50	10.8 + 35*	40°C	2180	1043	258	330	378	169
N12T/NX/**-#	400 / 3 / 50	11.3	40°C	2180	920	258	330	408	-
N12T/NC/**-#	400 / 3 / 50	10.8	40°C	2180	920	258	330	408	-
N12T/NN/**-#	400 / 3 / 50	10.8	40°C	2180	890	258	330	378	-

*FLC: Includes separate supply for a 24kW heater element.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches.
Max operating temperature = 40°C.

UNIT SIZE 12 DIMENSIONS (mm)

MODEL	A	A'	B	C
Size 12	2700	3150	1530	1695

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



BOXER NEPTUNE VERTICAL UNIT SIZE 12

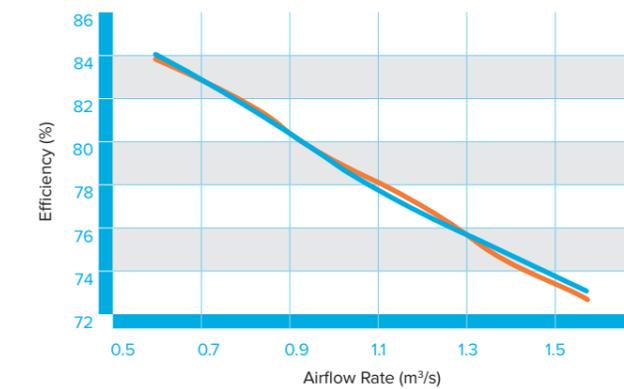
PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 12 NOISE DATA

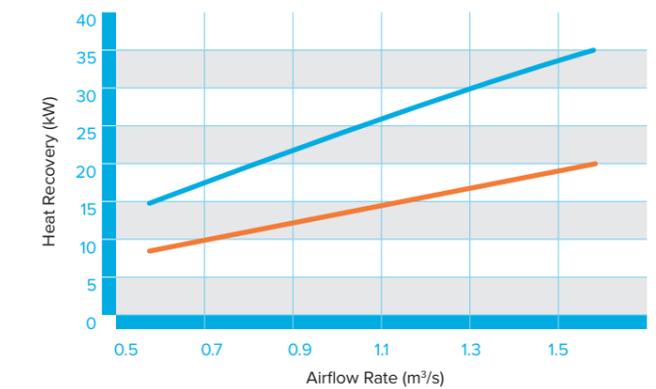
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	73	71	81	81	83	81	75	71	47
Open Intake	69	69	82	77	74	75	70	67	
Open Supply	73	71	81	81	83	81	75	71	
Open Extract	69	69	82	77	74	75	70	67	
Breakout	73	61	72	62	55	47	37	26	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200.
dBA-hemispherical free field radiation at a distance of 3m.

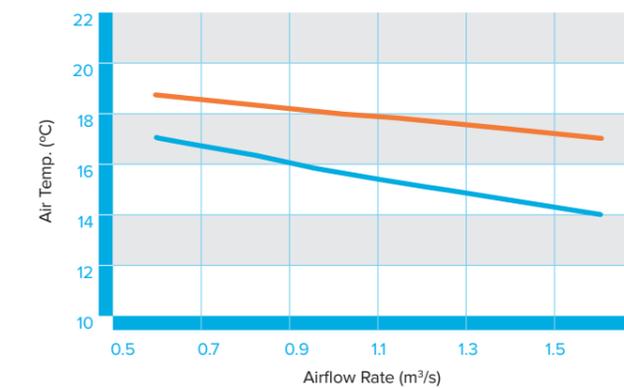
UNIT SIZE 12 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 12 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 12 HEAT EXCHANGER AIR-OFF TEMPERATURES



LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



KEY

N812T @ 6°C Inlet
N812T @ -5°C Inlet

BOXER NEPTUNE VERTICAL UNIT SIZE 12

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 1.25

CODE N12V/L*

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	1	1.25	4.0	
			17.0	
		0.94	4.0	
			17.0	
		0.63	4.0	
			17.0	
		0.31	4.0	
			17.0	

CODE N12AV/FL

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	1	1.25	-10.0	
			-5.0	
		0.94	-10.0	
			-5.0	
		0.63	-10.0	
			-5.0	
		0.31	-10.0	
			-5.0	

CODE N12V/*C

	COIL INFORMATION		AIR INFORMATION		
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	1/14	1.25	28.0	50	
			23.0	70	
		0.94	28.0	50	
			23.0	70	
		0.63	28.0	50	
			23.0	70	
		0.31	28.0	50	
			23.0	70	

CODE N12V/*R

	COIL INFORMATION				AIR INFORMATION						
	Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)				
REVERSE CYCLE DX COIL	1	7.4	8	45	1.25	10.0	-				
						28.0	50				
					0.94	10.0	-				
						28.0	50				
					0.63	10.0	-				
						28.0	50				
					0.31	Outside Coil Capability: Minimum Air Volume = 0.436m ³ /s					

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
21.7	26.8	0.33	8.1	18.6	22.1	0.27	5.9
31.2	21.5	0.26	5.6	28.1	16.8	0.20	3.7
23.0	21.7	0.26	5.6	19.7	17.9	0.22	4.1
32.3	17.5	0.21	3.9	29.0	13.6	0.17	3.0
24.6	15.8	0.19	3.3	21.1	13.0	0.16	3.0
33.7	12.7	0.16	3.0	30.0	9.9	0.12	3.0
27.4	8.8	0.11	3.0	23.4	7.3	0.09	3.0
35.9	7.1	0.09	3.0	31.7	5.5	0.07	3.0

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	21.2	0.26	7.5	4.0	21.3	0.26	7.6
4.0	13.7	0.17	3.4	4.0	13.7	0.17	3.5
4.0	16.0	0.20	4.5	4.0	15.9	0.19	4.5
4.0	10.3	0.13	3.0	4.0	10.2	0.12	3.0
4.0	10.7	0.13	3.0	4.0	10.7	0.13	3.0
4.0	6.9	0.08	3.0	4.0	6.9	0.08	3.0
4.0	5.3	0.06	3.0	4.0	5.3	0.06	3.0
4.0	3.4	0.04	3.0	4.0	3.4	0.04	3.0

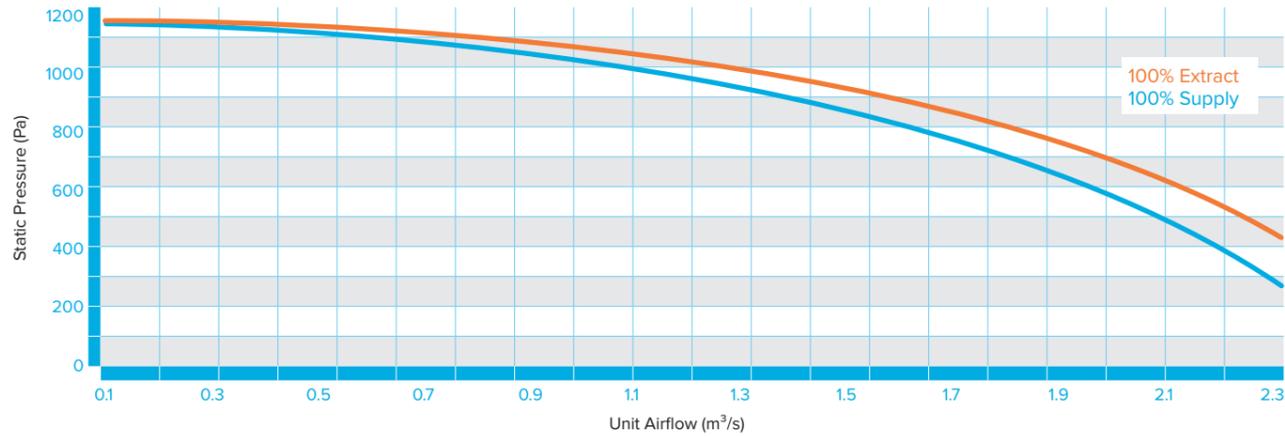
FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
17.3	83	22.8	16.3	0.90	45.3	18.1	82	19.5	14.9	0.66	26.0
15.8	90	19.6	10.9	0.78	34.6	16.7	89	16.1	9.5	0.55	18.7
16.7	84	18.3	12.9	0.73	30.9	17.6	84	15.7	11.8	0.54	17.9
15.4	91	15.7	8.7	0.62	23.5	16.4	90	13.0	7.6	0.44	12.8
16.1	86	13.2	9.1	0.53	17.4	17.1	85	11.4	8.4	0.39	10.2
14.9	92	11.3	6.2	0.45	13.2	16.0	91	9.3	5.4	0.32	7.3
15.1	88	7.2	4.8	0.29	6.1	16.2	88	6.1	4.4	0.21	3.6
14.2	93	6.1	3.3	0.24	4.6	15.5	92	4.9	2.8	0.17	3.0

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
30.1	-	32.4	-
17.2	87	21.1	16.3
31.8	-	26.5	-
16.6	87	17.4	12.9
33.9	-	19.4	-
16.1	88	12.6	9.1

BOXER NEPTUNE VERTICAL UNIT SIZE 17

PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 17 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 17 TECHNICAL INFORMATION

CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N17T/LX/**-#	400 / 3 / 50	14	40°C	2040	1105	270	445	480	-
N17T/LC/**-#	400 / 3 / 50	14	40°C	2040	1140	270	445	515	-
N17T/LN/**-#	400 / 3 / 50	14	40°C	2040	1080	270	445	455	-
N17T/EX/**-#	400 / 3 / 50	14 + 53*	40°C	2040	1220	270	445	455	165
N17T/EC/**-#	400 / 3 / 50	14 + 53*	40°C	2040	1255	270	445	490	165
N17T/EN/**-#	400 / 3 / 50	14 + 53*	40°C	2040	1195	270	445	430	165
N17T/NX/**-#	400 / 3 / 50	14	40°C	2040	1080	270	445	455	-
N17T/NC/**-#	400 / 3 / 50	14	40°C	2040	1115	270	445	490	-
N17T/NN/**-#	400 / 3 / 50	14	40°C	2040	1055	270	445	430	-

*FLC: Includes separate supply for a 36kW heater element.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches.
Max operating temperature = 40°C.

UNIT SIZE 17 DIMENSIONS (mm)

MODEL	A	A'	B	C
Size 17	2700	3150	1750	1900

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



BOXER NEPTUNE VERTICAL UNIT SIZE 17

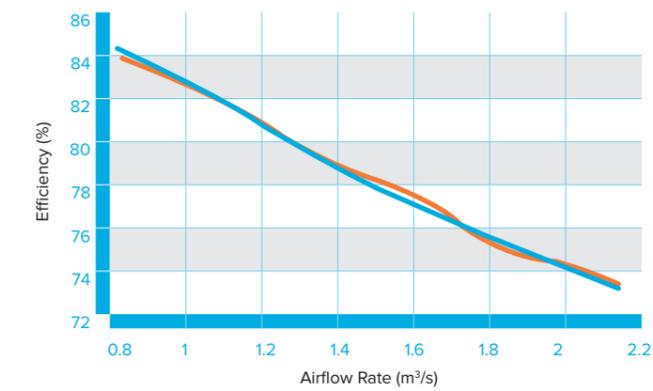
PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 17 NOISE DATA

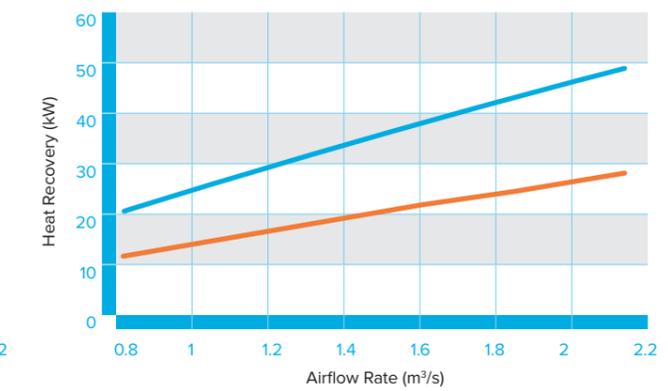
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	73	72	82	86	85	81	77	75	49
Open Intake	61	53	66	57	56	52	39	29	
Open Supply	73	72	82	86	85	81	77	75	
Open Extract	61	53	66	58	56	52	39	29	
Breakout	72	62	71	66	57	46	40	30	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200.
dBA-hemispherical free field radiation at a distance of 3m.

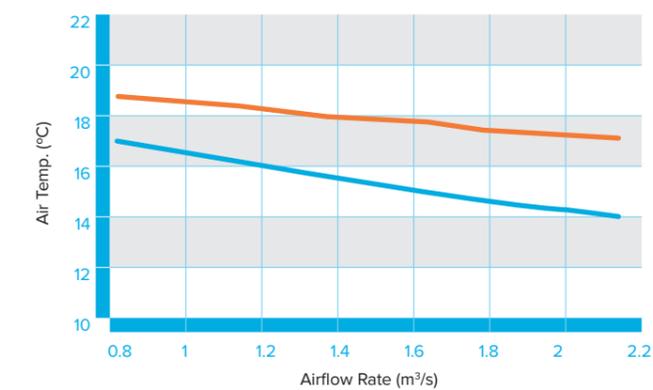
UNIT SIZE 17 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 17 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 17 HEAT EXCHANGER AIR-OFF TEMPERATURES



KEY

N817T @ 6°C Inlet
N817T @ -5°C Inlet

LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



BOXER NEPTUNE VERTICAL UNIT SIZE 17

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 1.75

CODE N17V/L*

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	1	1.75	4.0	
			17.0	
		1.31	4.0	
			17.0	
		0.88	4.0	
			17.0	
		0.44	4.0	
			17.0	

CODE N17AV/FL

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	1	1.75	-10.0	
			-5.0	
		1.31	-10.0	
			-5.0	
		0.88	-10.0	
			-5.0	
		0.44	-10.0	
			-5.0	

CODE N17V/*C

	COIL INFORMATION		AIR INFORMATION		
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	1/1/4	1.75	28.0		
			70		
		1.31	28.0		
			70		
		0.88	28.0		
			70		
		0.44	28.0		
			70		

CODE N17V/*R

	COIL INFORMATION				AIR INFORMATION		
	Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)
REVERSE CYCLE DX COIL	1	9.3	8	45	1.75	10.0	
						28.0	
					1.31	10.0	
						28.0	
					0.88	10.0	
						28.0	
0.44	10.0						
Outside Coil Capability: Minimum Air Volume = 0.551m ³ /s							

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
21.8	37.8	0.46	19.7	18.8	31.4	0.38	14.6
31.4	30.5	0.37	13.6	28.3	24.0	0.29	9.1
23.2	30.5	0.37	13.6	20.0	25.4	0.31	10.1
32.6	24.7	0.30	9.4	29.3	19.5	0.24	6.4
24.9	22.3	0.27	7.9	21.4	18.5	0.23	5.9
33.9	18.1	0.22	5.5	30.3	14.2	0.17	3.8
27.6	12.6	0.15	3.0	23.7	10.5	0.13	3.0
36.2	10.2	0.13	3.0	32.1	8.1	0.10	3.0

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	29.7	0.36	5.8	4.0	29.6	0.36	5.9
4.0	19.0	0.23	3.0	4.0	19.1	0.23	3.0
4.0	22.3	0.27	3.6	4.0	22.2	0.27	3.6
4.0	14.3	0.18	3.0	4.0	14.3	0.17	3.0
4.0	14.9	0.18	3.0	4.0	14.9	0.18	3.0
4.0	9.6	0.12	3.0	4.0	9.6	0.12	3.0
4.0	7.5	0.09	3.0	4.0	7.5	0.09	3.0
4.0	4.8	0.06	3.0	4.0	4.8	0.06	3.0

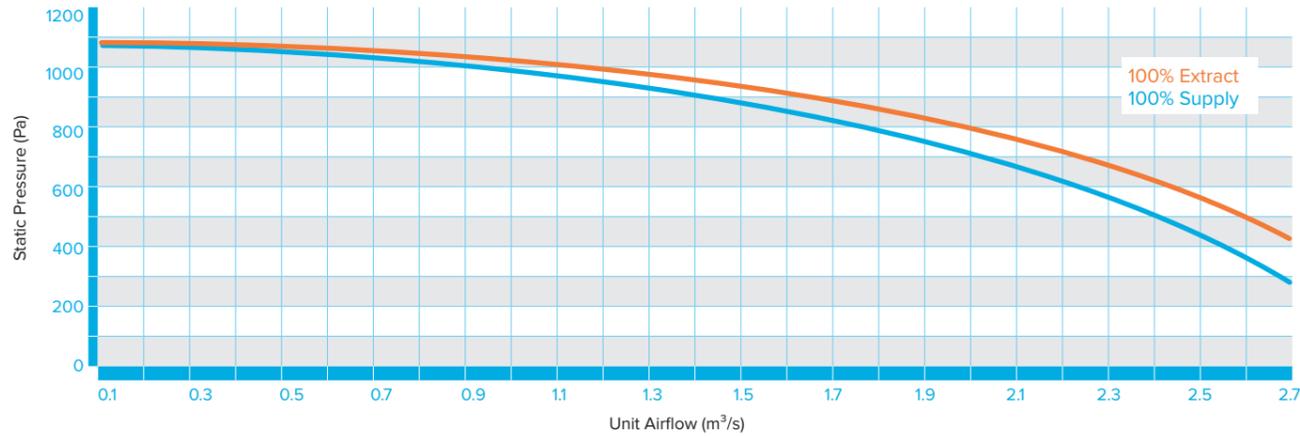
FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
16.9	85	32.6	23.5	1.29	24.9	17.9	84	27.4	21.4	0.93	14.2
15.7	91	27.6	15.6	1.10	18.8	16.7	90	22.1	13.3	0.75	9.9
16.3	86	26.2	18.5	1.04	17.1	17.4	86	22.0	16.9	0.75	9.9
15.2	92	22.1	12.3	0.88	12.9	16.4	91	17.7	10.5	0.60	6.9
15.7	88	18.9	13.1	0.75	9.9	16.8	87	15.9	11.9	0.54	5.8
14.8	93	15.8	8.8	0.63	7.4	16.0	92	12.5	7.4	0.43	4.0
14.9	90	10.2	7.0	0.41	3.7	16.3	89	8.3	6.2	0.28	3.0
14.3	94	8.4	4.7	0.34	3.0	16.4	93	5.6	3.5	0.19	3.0

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
29.3	-	43.5	-
17.5	86	28.5	22.3
31.2	-	35.7	-
16.9	87	23.5	17.7
33.3	-	26.4	-
16.3	88	17.1	12.5

BOXER NEPTUNE VERTICAL UNIT SIZE 22

PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 22 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 22 TECHNICAL INFORMATION

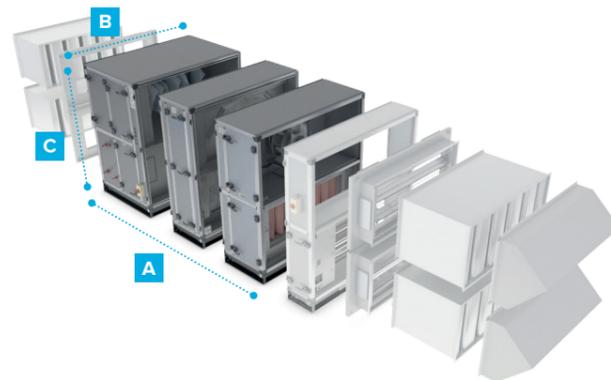
CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N22T/LX/**-#	400 / 3 / 50	14.5	40°C	1780	1363	318	533	598	-
N22T/LC/**-#	400 / 3 / 50	10	40°C	1780	1366	318	533	601	-
N22T/LN/**-#	400 / 3 / 50	10	40°C	1780	1298	318	533	533	-
N22T/EX/**-#	400 / 3 / 50	14.5 + 52.5*	40°C	1780	1510	318	533	550	222
N22T/EC/**-#	400 / 3 / 50	10 + 52.5*	40°C	1780	1513	318	533	553	222
N22T/EN/**-#	400 / 3 / 50	10 + 52.5*	40°C	1780	1445	318	533	485	222
N22T/NX/**-#	400 / 3 / 50	14.5	40°C	1780	1315	318	533	550	-
N22T/NC/**-#	400 / 3 / 50	14	40°C	1780	1318	318	533	553	-
N22T/NN/**-#	400 / 3 / 50	14	40°C	1780	1250	318	533	485	-

*FLC: Includes separate supply for a 36kW heater element.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches. Max operating temperature = 40°C.

UNIT SIZE 22 DIMENSIONS (mm)

MODEL	A	A*	B	C
Size 22	2800	3250	2030	2195

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



BOXER NEPTUNE VERTICAL UNIT SIZE 22

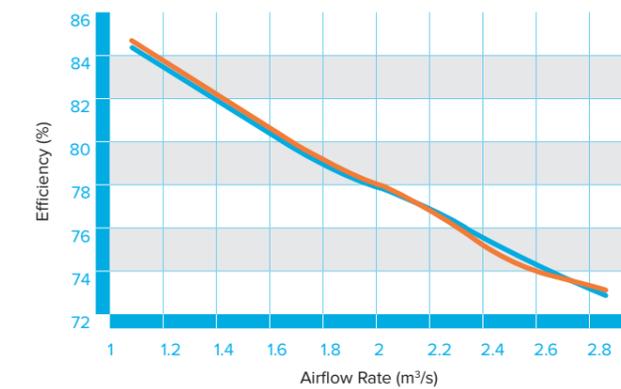
PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 22 NOISE DATA

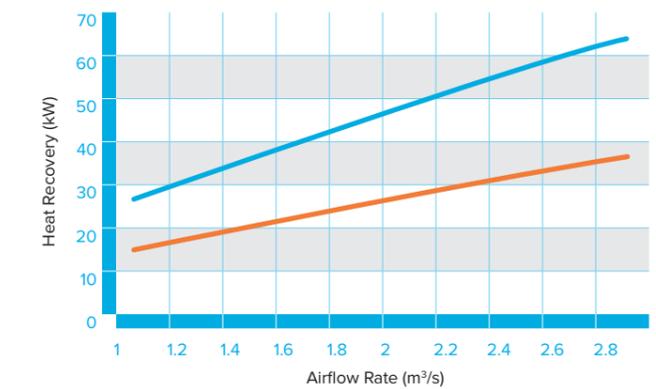
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	73	76	81	83	84	81	77	74	48
Open Intake	67	69	78	71	69	68	64	62	
Open Supply	73	76	81	83	84	81	77	74	
Open Extract	67	69	78	71	69	68	64	62	
Breakout	73	66	72	63	57	48	40	29	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200. dBA-hemispherical free field radiation at a distance of 3m.

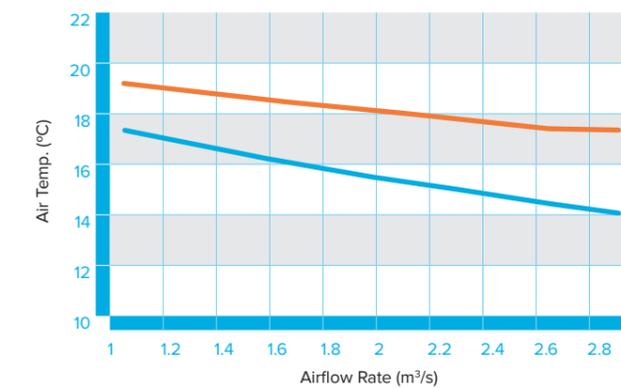
UNIT SIZE 22 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 22 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 22 HEAT EXCHANGER AIR-OFF TEMPERATURES



N822T @ 6°C Inlet
N822T @ -5°C Inlet

LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



BOXER NEPTUNE VERTICAL UNIT SIZE 22

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 2.25

CODE N22V/L*

COIL INFORMATION		AIR INFORMATION	
Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	1	2.25	4.0
			17.0
		1.69	4.0
			17.0
		1.13	4.0
			17.0
0.56	4.0		
	17.0		

CODE N22AV/FL

COIL INFORMATION		AIR INFORMATION	
Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	1	2.25	-10.0
			-5.0
		1.69	-10.0
			-5.0
		1.13	-10.0
			-5.0
0.56	-10.0		
	-5.0		

CODE N22V/*C

COIL INFORMATION		AIR INFORMATION		
Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	1/1/2	2.25	28.0	50
			23.0	70
		1.69	28.0	50
			23.0	70
		1.13	28.0	50
			23.0	70
0.56	28.0	50		
	23.0	70		

CODE N22V/*R

COIL INFORMATION				AIR INFORMATION			
Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
REVERSE CYCLE DX COIL	2	13.9	8	45	2.25	10.0	-
						28.0	50
					1.69	10.0	-
						28.0	50
					1.13	10.0	-
						28.0	50
0.56	Outside Coil Capability: Minimum Air Volume = 0.839m ³ /s						

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
22.5	50.3	0.61	20.5	19.4	41.9	0.51	15.3
31.9	40.7	0.50	14.3	28.8	32.1	0.39	9.7
23.8	40.5	0.49	14.2	20.5	33.7	0.41	10.6
33.0	32.8	0.40	10.0	29.6	25.9	0.32	6.8
25.4	29.3	0.36	8.2	21.8	24.4	0.30	6.2
34.4	23.8	0.29	5.8	30.7	18.8	0.23	4.0
28.2	16.4	0.20	3.2	24.2	13.7	0.17	3.0
36.7	13.4	0.16	3.0	32.5	17.0	0.13	3.0

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	38.1	0.47	12.9	4.0	38.2	0.46	13.2
4.0	24.5	0.30	6.0	4.0	24.6	0.30	6.2
4.0	28.7	0.35	7.9	4.0	28.7	0.35	8.0
4.0	18.5	0.23	3.7	4.0	18.5	0.23	3.8
4.0	19.1	0.23	4.0	4.0	19.2	0.23	4.1
4.0	12.4	0.15	3.0	4.0	12.4	0.15	3.0
4.0	9.5	0.12	3.0	4.0	9.5	0.12	3.0
4.0	6.1	0.08	3.0	4.0	6.1	0.07	3.0

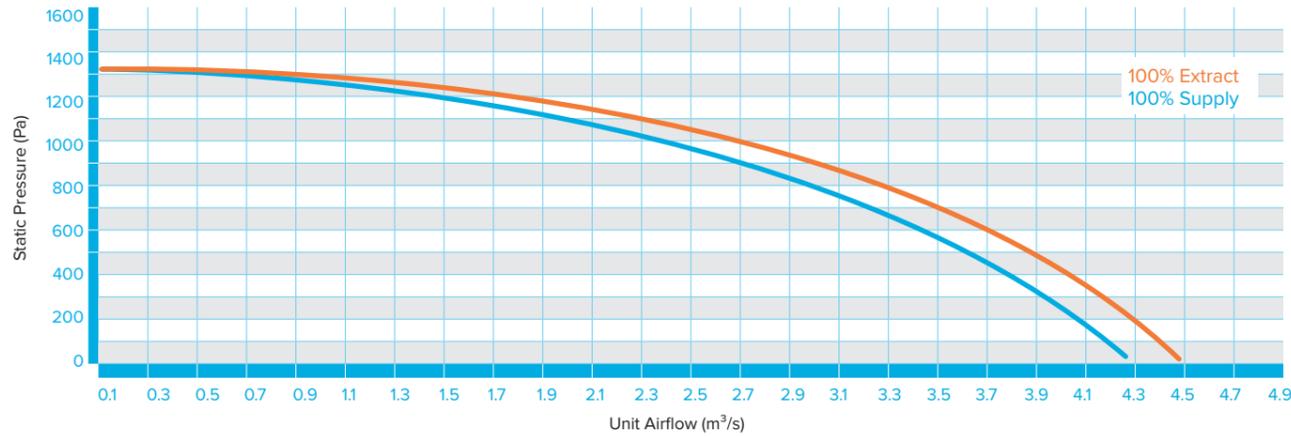
FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
17.2	83	41.4	29.5	1.64	34.6	18.1	83	35.3	27.1	1.20	20.1
15.7	90	35.5	19.8	1.41	26.5	16.7	89	29.1	17.2	0.99	14.5
16.6	85	33.2	23.3	1.32	23.6	17.6	84	28.4	21.4	0.97	13.9
15.3	91	28.3	15.7	1.13	18.1	16.4	90	23.3	13.6	0.79	9.9
16.0	86	23.8	16.4	0.95	13.4	17.0	85	20.4	15.0	0.69	8.0
14.9	92	20.2	11.1	0.80	10.2	16.0	91	16.6	9.6	0.57	5.7
15.1	89	13.0	8.8	0.52	4.9	16.3	88	11.0	8.0	0.37	3.0
14.2	94	10.9	5.9	0.43	3.7	16.5	92	7.2	4.4	0.24	3.0

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
30.3	-	58.9	-
17.1	87	39.3	29.8
32.0	-	47.9	-
16.5	88	31.8	23.5
34.1	-	35.0	-
16.0	89	22.6	16.4

BOXER NEPTUNE VERTICAL UNIT SIZE 32

PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 32 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 32 TECHNICAL INFORMATION

CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N32T/LX/**-#	400 / 3 / 50	19.5	40°C	1750	1908	519	690	792	-
N32T/LC/**-#	400 / 3 / 50	19	40°C	1750	1899	519	690	783	-
N32T/LN/**-#	400 / 3 / 50	19	40°C	1750	1826	519	690	710	-
N32T/EX/**-#	400 / 3 / 50	19.5 + 35 + 52.5*	40°C	1750	2234	519	690	750	392
N32T/EC/**-#	400 / 3 / 50	19. + 35 + 52.5*	40°C	1750	2225	519	690	741	392
N32T/EN/**-#	400 / 3 / 50	19 + 35 + 52.5*	40°C	1750	2152	519	690	668	392
N32T/NX/**-#	400 / 3 / 50	19.5	40°C	1750	1866	519	690	750	-
N32T/NC/**-#	400 / 3 / 50	19	40°C	1750	1857	519	690	741	-
N32T/NN/**-#	400 / 3 / 50	19	40°C	1750	1784	519	690	668	-

*FLC: Includes separate supply for a 24kW and 36kW heater elements.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches.
Max operating temperature = 40°C.

UNIT SIZE 32 DIMENSIONS (mm)

MODEL	A	A*	B	C
Size 32	3100	3650	2330	2498

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



BOXER NEPTUNE VERTICAL UNIT SIZE 32

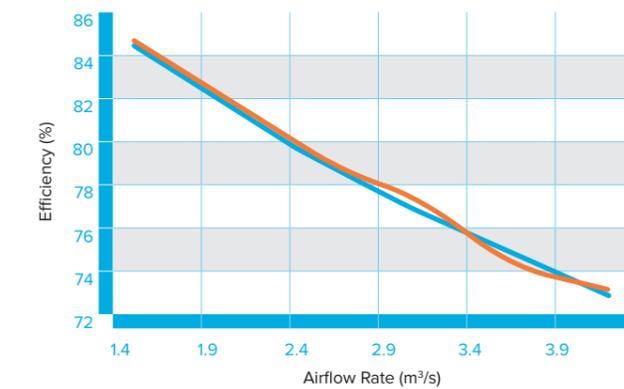
PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 32 NOISE DATA

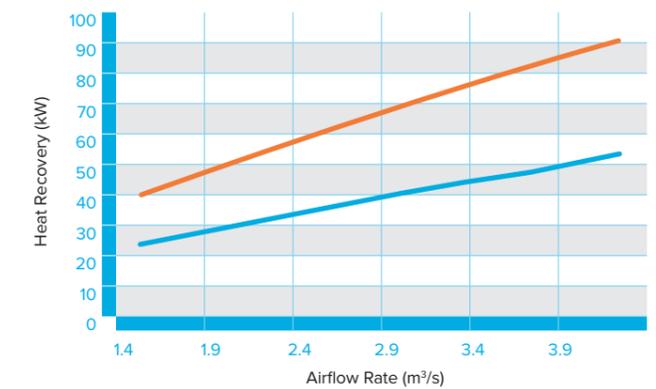
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	75	78	89	86	90	86	82	80	32
Open Intake	72	73	83	78	79	80	78	78	
Open Supply	75	78	89	86	90	86	82	80	
Open Extract	72	73	83	78	79	80	78	78	
Breakout	75	67	77	66	63	52	45	36	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200.
dBA-hemispherical free field radiation at a distance of 3m.

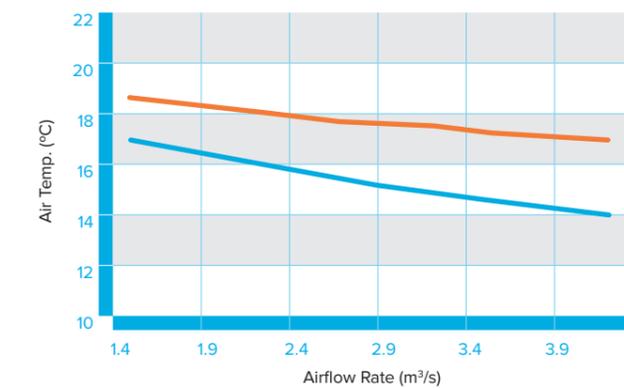
UNIT SIZE 32 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 32 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 32 HEAT EXCHANGER AIR-OFF TEMPERATURES



KEY

N832T @ 6°C Inlet
N832T @ -5°C Inlet

LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



BOXER NEPTUNE VERTICAL UNIT SIZE 32

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 3.25

CODE N32V/L*

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	1/4	3.25	4.0	
			17.0	
		2.44	4.0	
			17.0	
		1.63	4.0	
			17.0	
		0.81	4.0	
			17.0	

CODE N32AV/FL

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	1/4	3.25	-10.0	
			-5.0	
		2.44	-10.0	
			-5.0	
		1.63	-10.0	
			-5.0	
		0.81	-10.0	
			-5.0	

CODE N32V/*C

	COIL INFORMATION		AIR INFORMATION		
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	2	3.25	28.0	50	
			23.0	70	
		2.44	28.0	50	
			23.0	70	
		1.63	28.0	50	
			23.0	70	
		0.81	28.0	50	
			23.0	70	

CODE N32V/*R

	COIL INFORMATION				AIR INFORMATION		
	Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)
REVERSE CYCLE DX COIL	2	19.2	8	45	3.25	10.0	-
						28.0	50
					2.44	10.0	-
						28.0	50
					1.63	10.0	-
						28.0	50
0.81	Outside Coil Capability: Minimum Air Volume = 1.18m ³ /s						

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
22.2	71.8	0.88	17.8	19.2	59.7	0.73	13.3
31.7	58.0	0.71	12.5	28.6	45.7	0.56	8.5
23.6	57.9	0.71	12.4	20.3	48.1	0.59	9.3
32.9	46.9	0.57	8.8	29.5	36.9	0.45	6.1
25.2	41.9	0.51	7.3	21.6	34.9	0.42	5.5
34.2	34.0	0.42	5.2	30.6	26.8	0.33	3.6
28.0	23.6	0.29	3.0	24.0	19.6	0.24	3.0
36.5	19.1	0.23	3.0	32.3	15.1	0.18	3.0

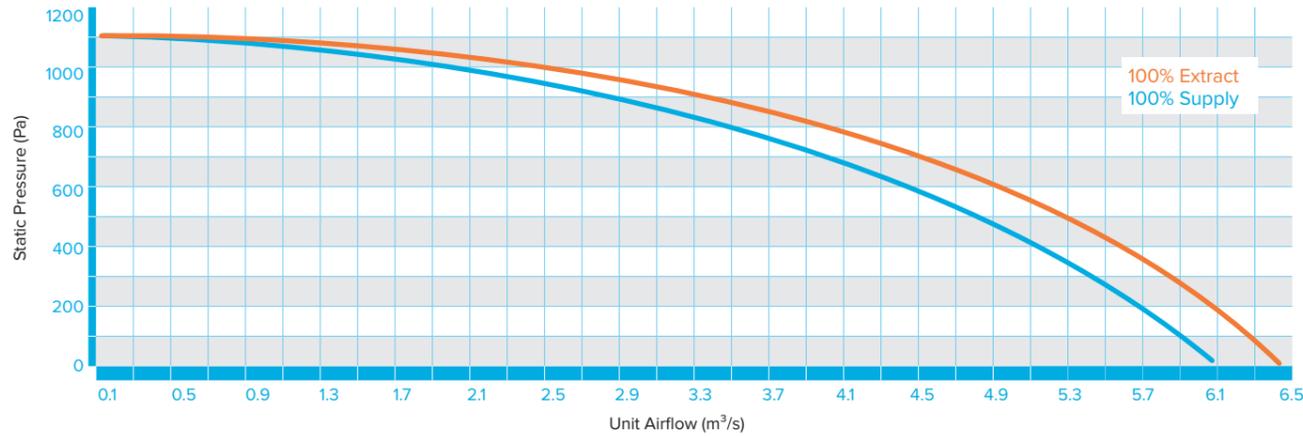
FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	55.3	0.68	4.6	4.0	55.3	0.67	4.7
4.0	35.5	0.43	3.0	4.0	35.3	0.43	3.0
4.0	41.4	0.51	3.0	4.0	41.3	0.50	3.0
4.0	26.6	0.33	3.0	4.0	26.6	0.32	3.0
4.0	27.7	0.34	3.0	4.0	27.7	0.34	3.0
4.0	17.7	0.22	3.0	4.0	17.8	0.216	3.0
4.0	13.7	0.17	3.0	4.0	13.8	0.17	3.0
4.0	8.8	0.11	3.0	4.0	8.8	0.11	3.0

FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
17.1	83	60.8	43.0	2.42	52.8	18.0	82	52.3	39.5	1.78	30.9
15.6	90	52.3	29.0	2.08	40.7	16.6	89	43.5	25.4	1.48	22.4
16.5	84	48.8	33.9	1.94	35.9	17.5	84	42.1	31.2	1.43	21.2
15.2	91	41.9	23.0	1.66	27.6	16.2	90	34.9	20.1	1.19	15.4
15.9	86	35.0	23.9	1.39	20.3	16.9	85	30.3	22.0	1.03	12.1
14.7	92	29.9	16.3	1.19	15.5	15.8	91	24.9	14.2	0.85	8.7
14.9	88	19.2	12.8	0.76	7.3	16.0	88	16.6	11.8	0.57	4.4
14.0	94	16.3	8.8	0.65	5.6	15.3	93	13.4	7.6	0.46	3.1

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
30.0	-	83.8	-
17.1	86	56.2	42.8
31.7	-	68.2	-
16.6	87	45.2	33.6
33.8	-	50.0	-
16.2	89	31.8	23.3

BOXER NEPTUNE VERTICAL UNIT SIZE 42 PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 42 THERMAL WHEEL UNIT PERFORMANCE



UNIT SIZE 42 TECHNICAL INFORMATION

CODE	VOLTAGE / PHASE / FREQUENCY	FLC (A)	MAX OPERATING TEMPERATURE	FAN SPEED (rpm)	UNIT WEIGHT (kg)	PACKAGED WEIGHT (kg)			
						INTAKE EXHAUST MODULE	THERMAL WHEEL MODULE	SUPPLY EXHAUST MODULE	ELECTRIC HEATER MODULE
N42T/LX/**-#	400 / 3 / 50	27	40°C	1780	2385	652	853	973	-
N42T/LC/**-#	400 / 3 / 50	22.5	40°C	1780	2385	652	853	983	-
N42T/LN/**-#	400 / 3 / 50	22.5	40°C	1780	2295	652	853	883	-
N42T/EX/**-#	400 / 3 / 50	27 + 52.5 + 52.5*	40°C	1780	2731	652	853	913	430
N42T/EC/**-#	400 / 3 / 50	22.5 + 52.5 + 52.5*	40°C	1780	2741	652	853	923	430
N42T/EN/**-#	400 / 3 / 50	22.5 + 52.5 + 52.5*	40°C	1780	2641	652	853	823	430
N42T/NX/**-#	400 / 3 / 50	27	40°C	1780	2325	652	853	913	-
N42T/NC/**-#	400 / 3 / 50	22.5	40°C	1780	2335	652	853	923	-
N42T/NN/**-#	400 / 3 / 50	22.5	40°C	1780	2235	652	853	823	-

*FLC: Includes separate supply for two 36W heater elements.
Please note: all weights displayed are estimated weights and are subject to change. Dimensions are case width and do not include for handles/terminals and switches. Max operating temperature = 40°C.

UNIT SIZE 42 DIMENSIONS (mm)

MODEL	A	A'	B	C
Size 42	3100	3650	2730	2898

*Electric Heater included.
Dimension 'A' is for LPHW or No heating.



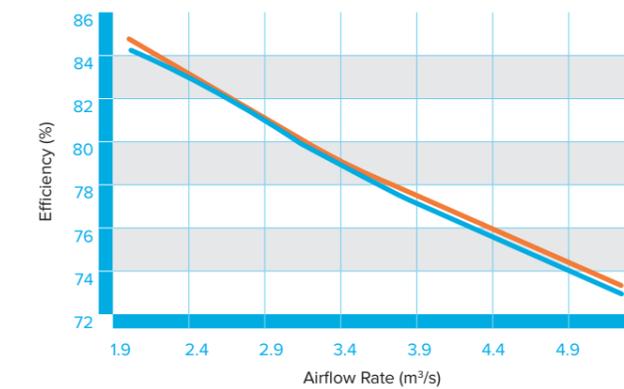
BOXER NEPTUNE VERTICAL UNIT SIZE 42 PERFORMANCE & TECHNICAL INFORMATION

UNIT SIZE 42 NOISE DATA

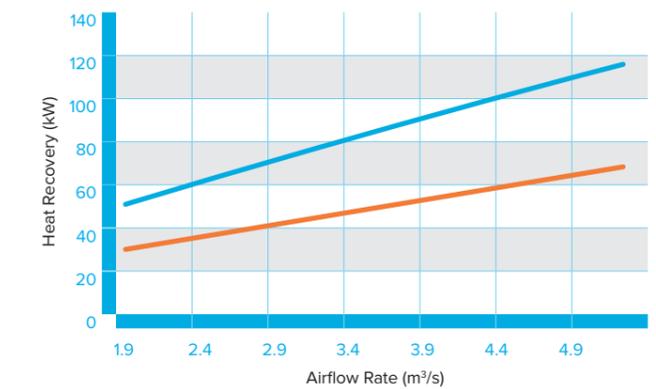
TYPE	SOUND POWER LEVELS dB								dB(A) @3M
	63	125	250	500	1K	2K	4K	8K	
Open Discharge	76	79	84	86	87	84	80	77	51
Open Intake	72	75	85	80	78	78	75	73	
Open Supply	76	79	84	86	87	84	80	77	
Open Extract	72	75	85	80	78	78	75	73	
Breakout	76	69	75	66	60	51	43	32	

For speed controlled figures, please refer to Nuair Fan Selection Programme at www.nuair.co.uk, alternatively call Nuair on 029 2085 8200. dBA-hemispherical free field radiation at a distance of 3m.

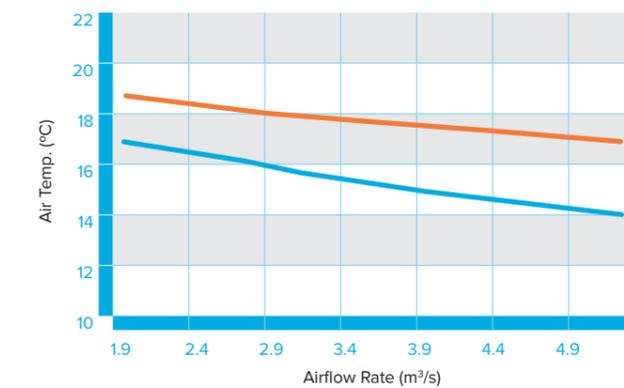
UNIT SIZE 42 HEAT EXCHANGER EFFICIENCY



UNIT SIZE 42 HEAT EXCHANGER HEAT RECOVERY POWER



UNIT SIZE 42 HEAT EXCHANGER AIR-OFF TEMPERATURES



LEFT HANDED UNIT (-L)



RIGHT HANDED UNIT (-R)



KEY

N842T @ 6°C Inlet
N842T @ -5°C Inlet

BOXER NEPTUNE VERTICAL UNIT SIZE 42

COIL TECHNICAL INFORMATION - DESIGN AIRFLOW RATE (m³/s) 3.25

CODE N42V/L*

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW MAIN COIL	1/4	4.25	4.0	
			17.0	
		3.19	4.0	
			17.0	
		2.13	4.0	
			17.0	
		1.06	4.0	
			17.0	

CODE N42AV/FL

	COIL INFORMATION		AIR INFORMATION	
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	
LPHW FROST COIL	1/4	4.25	-10.0	
			-5.0	
		3.19	-10.0	
			-5.0	
		2.13	-10.0	
			-5.0	
		1.06	-10.0	
			-5.0	

CODE N42V/*C

	COIL INFORMATION		AIR INFORMATION		
	Connection Size (")	Airflow rate (l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)	
CHW COIL	2	4.25	28.0	50	
			23.0	70	
		3.19	28.0	50	
			23.0	70	
		2.13	28.0	50	
			23.0	70	
		1.06	28.0	50	
			23.0	70	

CODE N42V/*R

	COIL INFORMATION				AIR INFORMATION		
	Coil Stages	Internal Coil Volume (l)	Evaporating Temperature (°C)	Condensing Temperature (°C)	Airflow rate(l/s)	Air Temperature Before Coil (°C)	Air Humidity Before Coil (%RH)
REVERSE CYCLE DX COIL	3	26.4	8	45	4.25	10.0	-
						28.0	50
					3.19	10.0	-
						28.0	50
					2.13	10.0	-
						28.0	50
1.06	Outside Coil Capability: Minimum Air Volume = 1.654m ³ /s						

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
21.9	92.4	1.13	9.2	18.7	75.9	0.92	7.0
31.4	73.9	0.90	6.7	28.1	57.1	0.69	4.8
23.2	74.1	0.90	6.8	19.8	60.9	0.74	5.2
32.4	59.4	0.73	5.0	28.9	45.9	0.56	3.6
24.7	53.5	0.65	4.4	21.0	43.9	0.53	3.4
33.6	42.9	0.52	3.3	29.8	33.1	0.40	3.0
27.5	30.2	0.37	3.0	23.2	24.7	0.30	3.0
35.8	24.2	0.30	3.0	31.3	18.4	0.22	3.0

FLOW / RETURN TEMPERATURES (°C)							
80 / 60				70 / 50			
Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Total Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
4.0	72.0	0.88	6.3	4.0	72.0	0.88	6.3
4.0	46.3	0.57	3.2	4.0	46.3	0.56	3.3
4.0	54.1	0.66	4.1	4.0	54.2	0.66	4.1
4.0	35.0	0.43	3.0	4.0	35.0	0.43	3.0
4.0	36.1	0.44	3.0	4.0	36.1	0.44	3.0
4.0	23.1	0.28	3.0	4.0	23.1	0.28	3.0
4.0	18.0	0.22	3.0	4.0	18.0	0.22	3.0
4.0	11.5	0.14	3.0	4.0	11.5	0.14	3.0

FLOW / RETURN TEMPERATURES (°C)											
6 / 12						7 / 14					
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)	Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Cooling Output (kW)	Sensible Cooling Output (kW)	Water Flowrate (l/s)	Water Pressure Drop (kPa)
17.2	83	77.3	55.5	3.07	50.9	18.1	83	65.6	50.9	2.24	29.4
15.8	90	66.1	37.1	2.62	39.0	16.8	89	54.0	32.1	1.84	21.1
16.7	85	61.9	43.7	2.46	34.8	17.6	84	52.7	40.1	1.80	20.3
15.4	91	52.7	29.4	2.10	26.6	16.4	90	43.2	25.4	1.47	14.6
16.1	86	44.4	30.8	1.76	19.8	17.1	86	37.9	28.2	1.29	11.8
14.9	92	37.7	20.8	1.50	15.1	16.0	91	30.9	18.0	1.05	8.4
15.1	89	24.5	16.6	0.97	7.4	16.2	88	20.9	15.1	0.71	4.5
14.2	94	20.6	11.3	0.82	5.7	15.5	92	16.6	9.6	0.57	3.2

REFRIGERANT			
R410a			
Air Temperature After Coil (°C)	Air Humidity After Coil (%RH)	Total Output (kW)	Sensible Output (kW)
30.5	-	112.5	-
17.1	86	73.3	55.9
32.1	-	90.9	-
16.8	87	57.7	43.4
34.0	-	65.9	-
16.5	89	39.6	29.8

BOXER NEPTUNE ANCILLARY DETAILS & DIMENSIONS

ANCILLARY	PART NUMBER	DIMENSIONS (mm) & WEIGHT (kg)				Z FACTOR
		WIDTH	HEIGHT	LENGTH	WEIGHT	
 Roof Terminal	N07AT/RT	1416	682	515	22	48.97
	N12AT/RT	1416	682	515	29	15.36
	N17AT/RT	1640	800	600	34	2.94
	N22AT/RT	1915	936	650	45	2.77
	N32AT/RT	2210	1081	725	62	1.51
	N42AT/RT	2610	1280	820	77	0.78
 Inlet/Outlet Damper	N07AT/D	1416	682	215	18	22.44
	N12AT/D	1416	682	215	24	7.04
	N17AT/D	1640	800	210	40	1.96
	N22AT/D	1915	936	220	43	1.58
	N32AT/D	2210	1081	220	63	0.85
	N42AT/D	2610	1280	220	98	0.28
 Roof Terminal & Inlet/Outlet Damper	N07AT/RTD-R	1416	682	515	30	71.42
	N12AT/RTD-R	1416	682	515	40	15.36
	N17AT/RTD-R	1750	1900	600	150	4.9
	N22AT/RTD-R	2030	2195	600	190	2.77
	N32AT/RTD-R	2210	1081	725	94	2.55
	N42AT/RTD-R	2610	1280	820	140	0.78
	N07AT/RTD-L	1416	682	515	30	71.42
	N12AT/RTD-L	1416	682	515	40	15.36
	N17AT/RTD-L	1750	1900	600	150	4.9
	N22AT/RTD-L	2030	2195	600	190	2.77
	N32AT/RTD-L	2210	1081	725	94	2.55
	N42AT/RTD-L	2610	1280	820	140	0.78

BOXER NEPTUNE ATTENUATOR DETAILS & DIMENSIONS



Single Attenuator

Flange for Single Attenuators
(one required per attenuator)

ANCILLARY	DESCRIPTION	PART NUMBER	DIMENSIONS (mm) & WEIGHT (kg)				Vol (m ³ /s)	PL (Pa)	Attenuator Insertion Loss (dBA)							
			WIDTH (A)	HEIGHT (B)	LENGTH (C)	WEIGHT			63	125	250	500	1k	2k	4k	8k
Single 900mm Attenuator	Neptune size 07 attenuator 900mm length.	N07A/V-900	950	400	900	59	0.50	23	6	9	16	32	46	32	21	16
	Neptune size 12 attenuator 900mm length.	N12A/V-900	1100	500	900	71	0.80	22	6	9	18	36	38	29	21	17
	Neptune size 17 attenuator 900mm length.	N17A/V-900	1300	600	900	93	1.60	39	6	9	18	36	40	32	22	19
	Neptune size 22 attenuator 900mm length.	N22A/V-900	1600	750	900	134	1.90	33	6	9	19	38	43	35	24	20
	Neptune size 32 attenuator 900mm length.	N32A/V-900	1900	850	900	159	3.00	39	6	10	19	38	41	33	23	19
	Neptune size 42 attenuator 900mm length.	N42A/V-900	2300	1050	900	217	3.80	28	6	10	19	38	41	33	23	19
Single 1200mm Attenuator	Neptune size 07 attenuator 1200mm length.	N07A/V-1200	950	400	1200	75	0.50	24	3	5	11	22	21	14	11	8
	Neptune size 12 attenuator 1200mm length.	N12A/V-1200	1100	500	1200	90	0.80	24	8	11	22	44	48	38	25	19
	Neptune size 17 attenuator 1200mm length.	N17A/V-1200	1300	600	1200	118	1.60	42	7	11	22	43	50	42	27	22
	Neptune size 22 attenuator 1200mm length.	N22A/V-1200	1600	750	1200	169	1.90	35	8	12	23	45	53	45	29	24
	Neptune size 32 attenuator 1200mm length.	N32A/V-1200	1900	850	1200	200	3.00	42	8	12	23	46	52	42	27	22
	Neptune size 42 attenuator 1200mm length.	N42A/V-1200	2300	1050	1200	273	3.80	30	8	12	23	46	52	42	27	22

Single attenuators to be used with attenuator flange, one per attenuator.

BOXER NEPTUNE ATTENUATOR DETAILS & DIMENSIONS

ANCILLARY	PART NUMBER	DIMENSIONS (mm) & WEIGHT (kg)				INFORMATION
		WIDTH (A)	HEIGHT (B)	LENGTH (C)	WEIGHT	
Flange for Single Attenuators	N07AT/F	1212	582	204	53	Accommodates 950 x 400mm internal 30mm Mez.
	N12AT/F	1412	682	204	53	Accommodates 1100 x 500mm internal 30mm Mez.
	N17AT/F	1632	792	204	53	Accommodates 1300 x 600mm internal 30mm Mez.
	N22AT/F	1912	932	204	53	Accommodates 1600 x 750mm internal 30mm Mez.
	N32AT/F	2212	1082	204	53	Accommodates 1900 x 850mm internal 30mm Mez.
	N42AT/F	2612	1282	204	53	Accommodates 2300 x 1050mm internal 30mm Mez.

BOXER NEPTUNE FROST COIL DETAILS & DIMENSIONS



Frost Coil (Electric)

Frost Coil (LPHW)

ANCILLARY	COIL RATING	PART NUMBER	DIMENSIONS (mm) & WEIGHT (kg)				Z FACTOR
			WIDTH	HEIGHT	LENGTH	WEIGHT	
Frost Coil (Electric) - Right Handed	12kW	N07AT/FE-R	1330	1492	450	130	12.24
	24kW	N12AT/FE-R	1530	1695	450	153	3.84
	36kW	N17AT/FE-R	1750	1900	450	160	0.816
	36kW	N22AT/FE-R	2030	1495	450	195	0.79
	60kW	N32AT/FE-R	2330	2498	550	368	1.23
	72kW	N42AT/FE-R	2730	2898	550	415	0.28
Frost Coil (Electric) - Left Handed	12kW	N07AT/FE-L	1330	1492	450	130	12.24
	24kW	N12AT/FE-L	1530	1695	450	153	3.84
	36kW	N17AT/FE-L	1750	1900	450	160	0.816
	36kW	N22AT/FE-L	2030	1495	450	195	0.79
	60kW	N32AT/FE-L	2330	2498	550	368	1.23
	72kW	N42AT/FE-L	2730	2898	550	415	0.28
Frost Coil (LPHW) - Right Handed	-	N07AT/FL-R	1330	1492	450	139	28.57
	-	N12AT/FL-R	1530	1695	450	160	8.96
	-	N17AT/FL-R	1750	1900	450	160	2.122
	-	N22AT/FL-R	2030	1495	450	195	2.17
	-	N32AT/FL-R	2330	2498	550	297	1.704
	-	N42AT/FL-R	2730	2898	550	355	0.78
Frost Coil (LPHW) - Left Handed	-	N07AT/FL-L	1330	1492	450	139	28.57
	-	N12AT/FL-L	1530	1695	450	160	8.96
	-	N17AT/FL-L	1750	1900	450	160	2.122
	-	N22AT/FL-L	2030	1495	450	195	2.17
	-	N32AT/FL-L	2330	2498	550	297	1.704
	-	N42AT/FL-L	2730	2898	550	355	0.78

Some ancillaries require a separate power supply. Please contact Nuair for technical information.

ECOSMART CONTROL PLATFORM IT'S SO SMART IT'S SIMPLE



SENSORS & ENABLERS

All Ecosmart Classic Systems must include at least one enabler.
(N.B. when used, BMS control and time clocks take over all other enablers).



ES-PIR2 (Enabler)
Detects movement and activates system. Incorporates a system status LED, overrun timer and timer adjustment sensors.



ES-THERMOSTAT2 (Enabler)
Activates the system when the temperature is above set point. Incorporates two system status LEDs. (Green = OK, Red = Failure) and temperature set point level adjustment.



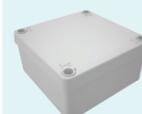
ES-AVI2 (Enabler)
When fan failure occurs the AVI will flash a warning. Supplied with pre-plugged 10m length of communication cable.



ES-HUMIDISTAT2 (Enabler)
Activates the system when the RH level is above set point. Incorporates two system status LEDs. (Green = OK, Red = Failure) and RH set point level adjustment.



ES-CO2RM (Sensor)
ES-CO2RMPP (Sensor)
Surface mounted room carbon dioxide (CO₂) sensors incorporate a temperature sensor. RM = SELV option, RMPP complete with SELV AC powers supply.



ES-HTCSIG (Enabler)
Signal conditioning circuit for humidity, temperature and CO₂ sensors.



ES-TEMP2 TEMPERATURE (Sensor)
Modulates fan speed based on room temperature. Incorporates two system status LEDs. (Green = OK, Red = Failure) and temp. set point level adjustment.



ES-RH2 RELATIVE HUMIDITY (Sensor)
Modulate fan speed based on RH level. Incorporates two system status LEDs. (Green = OK, Red = Failure) and RH set point level adjustment.



ES-CI SEMI-AUTOMATIC USER CONTROL
Fan, heating & cooling selected by external volt free switch, speed selected by 0-10V signal.



ES-JB JUNCTION BOX
Designed to be compatible with Ecosmart System this unit is supplied with a pre-plugged 10 metre length of communications cable and has 8 further ports.



ES-CO2 (Sensor)
Duct mounted sensor to modulate fan speed based on CO₂ levels. Connect to fan directly. Pre-wired with 2m cable (not adjustable).



SWITCHED LIVE (by others)
Any mains voltage signal connected to the switched live terminal (S/L) in the unit. This affects the connected fan only.



ROOM MODULES



ESCO-TPL
Ecosmart Connect Room Module - Temperature and PIR.



ESCO-THS
Ecosmart Connect Room Module - Temperature and Humidity.



ESCO-TDPL
Ecosmart Connect Room Module - Temperature, Display and PIR.



ESCO-TDHL
Ecosmart Connect Room Module - Temperature, Display and Humidity. (Displays either temperature or humidity).



ESCO-TDHS
Ecosmart Connect Room Module - Temperature, Display and Humidity. (Humidity is not displayed).



EESCO-LCD/LCD2 The ESC-LCD/LCD2 is a user friendly operator interface featuring BACnet® communication and a colourful, graphic display with touch-screen interface. It is powered by 12-24VAC/VDC.



ESCO-TDS
Ecosmart Connect Room Module - Temperature and Display.



ESCO-TS
Ecosmart Connect Room Module - Temperature.



ESCO-CL
Ecosmart Connect Room Module - CO₂.



ESCO-TDFS
Ecosmart Connect Room Module - Temperature, Display and Fan Speed Override.



ESCO-THPL
Ecosmart Connect Room Module - Temperature, Humidity and PIR.



ESCO-IPN The BACnet IP to MS/TP Router exchanges information between networks and allows the controller to communicate on an IP network. One router is required for each MS/TP network.



SENSORS



THERMISTOR TEMPERATURE SENSORS



CODE:
TB/T1/S – For duct or immersion use. Short 150mm.
TB/T1/L – For duct use only. Long 400mm.

Low cost thermistor sensors comprising insertion, clamp-on, and outside air versions. The insertion sensor may be used for duct or immersion purposes. It has a 6mm diameter brass probe which is suitable for retrofit immersion applications and will fit most existing pockets (universal fitting kit option).

FEATURES

- Low cost
- High quality thermistors
- Brass probes
- M20 conduit entry with M16 cable gland
- IP67 housing
- Quarter turn quick release lid
- Easy to wire
- Universal kit option for retrofit of immersion sensors
- Adjustable insertion depth flange option for duct sensors

DUCT HUMIDITY & TEMPERATURE SENSORS



CODE:
HT/D – Duct and thermistor sensor (+/-3%).

Duct mounted relative humidity and temperature sensors for HVAC applications. The certified 2% high accuracy (±2%) and standard 3% versions offer excellent linearity and stability over a wide humidity range (10 to 90 %RH).

FEATURES

- Pre-calibrated for ease of commissioning
- IP65
- Operates over 10 to 100 %RH non-condensing
- ± 3% accuracy versions
- 2 part connectors for ease of installation
- Humidity sensor element protected by replaceable filter
- Capacitive humidity sensing element provides excellent long term stability
- Adjustable depth duct mounting flange option

CO₂ SENSORS



CODE:
CO₂/T/D – Duct sensor.
CO₂/T/S – Space carbon dioxide concentration and temperature sensor.

The CO₂ duct and space sensors monitor the carbon dioxide concentration and temperature of the air. The space sensors have additional options of humidity monitoring and a 4 digit display. The display will show the measured values in succession. The duct sensor has a quick-release lid to facilitate installation.

FEATURES

- Low cost, high quality thermistor temperature sensor
- Humidity monitoring option for space sensor
- Optional digital display for space sensor
- IP67 housing (duct sensor)
- Quarter turn quick release lid (duct sensor)
- Two part terminals to facilitate wiring
- 24 Vac/dc supply
- Adjustable depth duct mounting flange option



ES-LCD/LCD2 (Enabler) Touchscreen user control in white incorporating time clock facility. This can control the function of the fan by manual setting or using a set of timed programs.



ES-UCF Manual 'on' and 'off' system user/speed control. Incorporates two system status LEDs (Green = OK, Red = Failure).



IQVIEW4 Touchscreen display. (6x4 inch). FPK/Plate – Mounting plate. IQVIEW4/SM BOX – Surface mount box for wall or panel. **Transformer for IQVIEW4 included. ACC/24V - 230/24 VAC, 36 VA**



IQVIEW8 Touchscreen display. (10x6 inch). IQVIEW8/SM BOX – Surface mount box for flat surfaces. **Transformer for IQVIEW8 included. ACC/24V - 230/24 VAC, 36 VA**



SDU Display RD/SDU-IQ2COMMSCABLE/3m – RJ11 plug to RJ11 plug cable (3m) for SDU.

BOXER NEPTUNE CONSULTANT SPECIFICATION

OPERATION

The packaged supply and extract unit shall be manufactured from Magnelis®* corrosion resistant steel, with 50mm double skinned panels and anodized aluminium frame. All external fittings and fixings shall be stainless steel, aluminium or non-metallic. All panels and frames will be of a totally thermally broken design, complying with the following specification in accordance with BS EN 1886: Mechanical strength, D1; Leakage class, L2; Thermal transmittance, T3; Thermal bridging, TB3. Panels and frames will be sealed without the use of silicon, mastic or other liquid gasket.

The unit shall include the following items: -

Thermal Wheel HX:

An ERP compliant heat exchanger with automatic bypass, complete with a condensate tray (where cooling is fitted) included. An F7 (ePM1 60%) main supply filter shall be fitted with an M5 Coarse 90% filter bank present on the extract side. Rails for an additional supply G4 Coarse 65% panel filter shall be present with pressure drop monitoring for maintenance notification included.

Performance optimised backward curved impellers and IP54 EC motors shall be used to provide low specific fan powers and step less speed control without tonal noise generation. Fan pressure transducers shall be fitted (ES Connect only) for constant pressure/ flow control and energy monitoring.

All hinged access panels shall be lockable and removable (with a common key for all) allowing full maintenance access from the side. The unit has left (and right option) hand arrangement in direction of supply air flow.

- A LPHW heater battery shall be fitted (on LPHW units).
- An electric heater module shall be present (on Electric heater units), complete with power controller to allow output modulation from the unit control.
- A fail-safe auto-reset safety device shall be present.
- A chilled water cooling coil shall be fitted (on chilled water units).

A reverse cycle DX coil shall be fitted (on 'X' units), with 5 psi oxygen free nitrogen (OFN) holding charge.

Structural base frames shall be fitted, powder coated with covered forklift slots and 50mm square lifting bar holes for site manoeuvrability. Three axis alignment clamps shall be fitted externally.

An IP66/67 lockable isolator shall be present for power connection on main and electric heater modules. Sealing grommets will be present for control cable access to the unit internals without the need for drilling on site. Module electrical interconnection shall be made using pre-fitted plug and socket arrangements.

Modules shall be provided with identification labelling to aid assembly and QR coded badges to simplify document retrieval via portable devices.

Autodesk REVIT files shall be provided for Building Information Modelling and all units shall be based on performance testing carried out within an AMCA certified test laboratory.

*This range is offered with Magnelis® panelling as standard which provides an industrial finish, enabling enhanced corrosion resistance. Paint finishes are available for aesthetically critical applications.

CODING N15H/LX/CO-L

N 07 T / L X / CO - L
 1 2 3 4 5 6 7

1. BOXER Neptune range
2. Unit size - 07, 12, 17, 22, 32 or 42
3. Thermal wheel heat exchanger
4. Heating: L – LPHW
E – Electric heater battery
N – No heater
5. Cooling: X – DX*
C – Chilled water
N – No cooling
6. Control type: AT – Ecosmart Adapt (Trend)
CO – Ecosmart Connect
ES – Ecosmart Classic
7. Handing: L – Left
R – Right

*Ecosmart Connect & Adapt models only.

BOXER NEPTUNE CONSULTANT SPECIFICATION

ECOSMART CLASSIC OPTION - DEMAND CONTROLLED VENTILATION

Provides the facility for energy saving via an intelligent stand-alone AHU function with local diagnostic status indication, or allows convenient integration with the client BMS with a minimal co-ordination requirement.

The factory fitted Ecosmart Classic control includes:

Integral infinitely variable speed / duty control for the supply and extract fans, with independent minimum, maximum and offset adjustment for accurate commissioning. The control assembly is mounted internally. The control features a run on timer and "background" ventilation function, and is provided with unit status indication, run and fail relays and interface connections for Ecosmart Classic sensors/enablers and system dampers.

The heat exchanger bypass is automatically operated according to temperature and a pre-defined strategy.

***The heating output (LPHW or electric) is automatically regulated to control the Air - Off condition.

The Ecosmart control module can additionally be connected to provide the following integrated BMS interfaces.

- 0 - 10 volt inputs enable the following functions:

Switch the unit ON/OFF. Variable speed / duty control, Switch from low speed to high speed, Enable heating/cooling.

- 2 No. Volt free contacts give fan run and failure unit status indication.

Units fitted with Ecosmart Classic control have a 5 year warranty.

ECOSMART CONNECT OPTION - ENHANCED DEMAND CONTROLLED VENTILATION

A comprehensive unit control specification - The control assembly is mounted internally, factory fitted and tested to provide guaranteed operation from a single supplier – one who will take responsibility.

The unit integrated Ecosmart Connect system provides the facility for operational efficiency and energy saving by allowing a comprehensive range of unitary control functions and / or full BMS integration (by others) via standard BACnet (MS/TP). The system incorporates a web access enabled controller, and is augmented by application specific unit interface and diagnostic circuits.

Controller software is optimised and pre-configured, and each unit / control assembly is fully functionally tested at works (Refer to technical documentation for full controller functional specification).

Units fitted with Ecosmart Connect have a 5 year warranty.

ECOSMART ADAPT WITH TREND OPTION - ENHANCED DEMAND CONTROLLED VENTILATION

A comprehensive unit control specification - The control assembly is mounted internally, factory fitted and tested to provide guaranteed operation from a single supplier – one who will take responsibility. The unit integrated Ecosmart Adapt system provides the facility for operational efficiency and energy saving by allowing a comprehensive range of unitary control functions and / or full BMS integration (by others) via standard BACnet IP configuration.

The system incorporates a web access enabled Trend IQ4E with 8DO expansion module controller, and is augmented by application specific unit interface and diagnostic circuits. Controller software is optimised and preconfigured, and each unit / control assembly is fully functionally tested at works (refer to technical documentation for full controller functional specification).

Units fitted with Ecosmart Adapt have a 5 year warranty (refer to 'Description of Control' for further details). The unit shall be manufactured by Nuair.

Note: Constant Pressure Control is standard on both Ecosmart Connect & Adapt Control options.

For No Control option please refer to our Bespoke AHU range.



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