



SUMMARY FAN DATA SHEET

Nuaire, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email:info@nuaire.co.uk

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Whilst the information given on this data sheet is fan specific, it is in summary and reference to the product selection catalogue and installation & maintenance documents is recommended.

This data sheet produced on 05 Sep 2019 12:47 using software version 4.1.2913.0

Project Details

Location: option1

Technical Data

**BPS Thermal Wheel, Connect Control,
LPHW Heater, Chilled Water**

Fan Code: **B812T/LC/CO-L**

Installation Manual Links: **671760**

Supply

Required duty: 0.8 m³/s at 200 Pa

Addition for ancillaries: +5.73 Pa

Actual duty: 1.33 m³/s at 569 Pa

Actual at required flow: 0.8 m³/s at 847 Pa

Extract

Required duty: 0.8 m³/s at 200 Pa

Actual duty: 1.405 m³/s at 617 Pa

Actual at required flow: 0.8 m³/s at 894 Pa

When speed controlled to required duty:

Motor input power: 0.776 kW

Specific Fan Power: 1.0 W/(l/s)

Motor input power: 3.855 kW

Specific Fan Power: 4.8 W/(l/s)

Nominal Fan Speed: 4 pole, 2,180 RPM

Electrical Supply: 3 Phase 50 Hz

Nominal Motor Rating: 3.7 kW

Motor Current (flc): 10.8 A

Motor Current (sc): 10.8 A

Max. operating temp: 60°C

Weight: 970 kg

Starting currents are nominal.

Sound Data

Noise calculated speed controlled to required duty (56.94%)

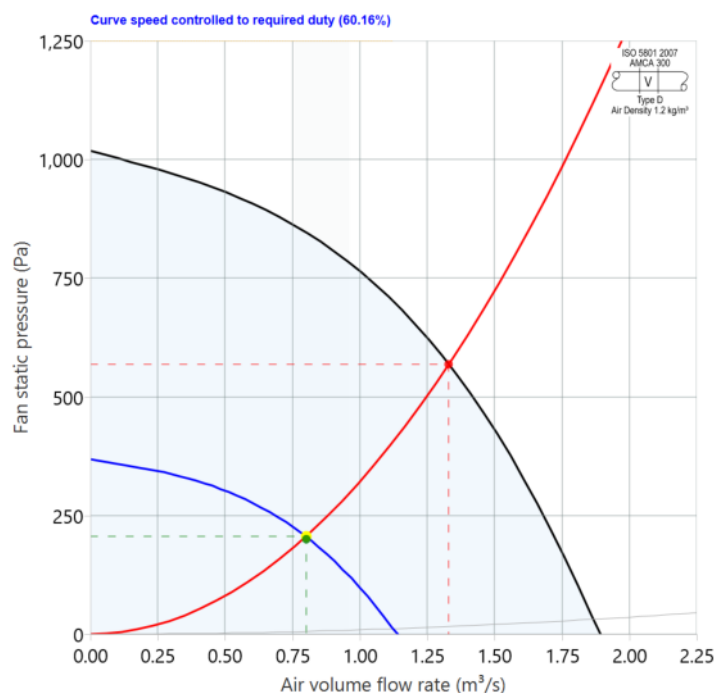
Sound Power Levels re 1 pWatts (Hz):

Hz	63	125	250	500	1k	2k	4k	8k	dBA
Breakout	69	56	65	53	42	34	24	<16	36
Open Intake	65	64	75	68	61	62	57	54	50
Open Supply	69	66	74	72	70	68	62	58	54
Open Extract	65	64	75	68	61	62	57	54	50
Open Discharge	69	66	74	72	70	68	62	58	54
For 100% speed:	+4	+5	+7	+9	+13	+13	+13	+13	

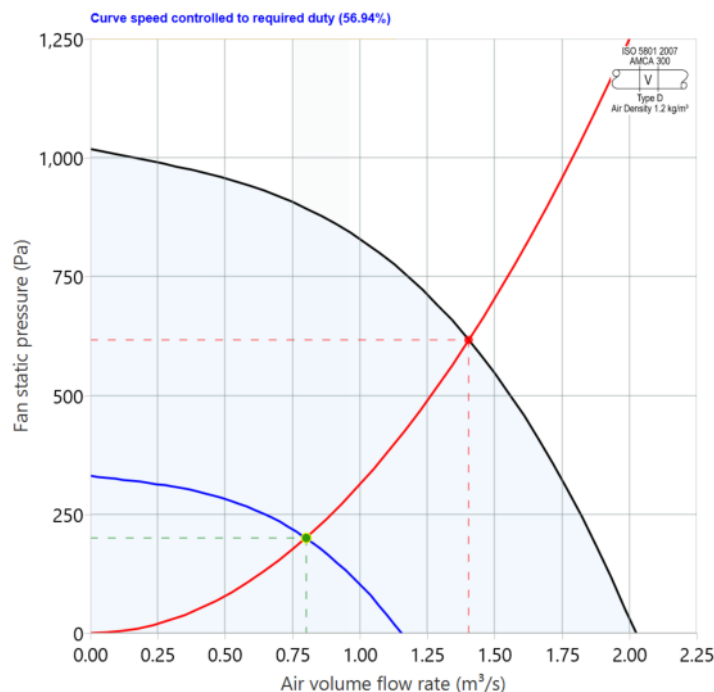
dBA is spherical at 3 metres. For hemi-spherical add 3 dBA.

Please note that the noise data stated on this data sheet for the unit and/or silencer is tested in accordance with UK, European and International industry laboratory standards. However onsite conditions may vary and we would recommend that this information is verified by an acoustic specialist in order to ensure its suitability for the intended application.

Performance Chart (supply)



Performance Chart (extract)



Additional Notes

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Selected Ancillaries

1 x B12A/VM-LC	PICV Valve / Actuator Module
1 x 7709956	Chilled Water 3 Port Valve & Actuator
1 x 7709954	LPHW 3 Port Valve & Actuator
1 x ESCO-LCD	Ecosmart Connect touch screen display
1 x B12AT/FL-L	Frost coil LPHW

B12A/VM-LC - PICV Valve / Actuator Module

Size: 450 mm (L) 450 mm (W) 1050 mm (H)

Weight: 44.3 kg

7709956 - Chilled Water 3 Port Valve & Actuator

Size: 0 mm (L) 0 mm (W) 0 mm (H)

Weight: 20.0 kg

7709954 - LPHW 3 Port Valve & Actuator

Size: 0 mm (L) 0 mm (W) 0 mm (H)

Weight: 20.0 kg

B12AT/FL-L - Frost coil LPHW

Resistance at required duty 5.73 Pa @ 0.80 m³/s (Supply)

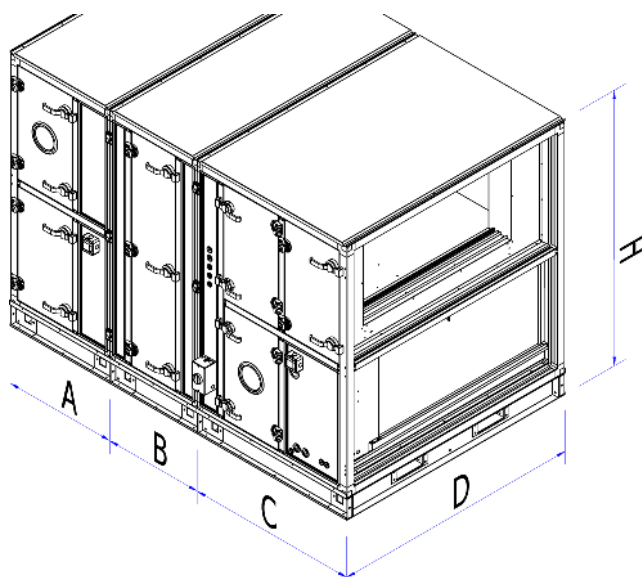
Size: 450 mm (L) 1530 mm (W) 1695 mm (H)

Weight: 160.0 kg

Specification

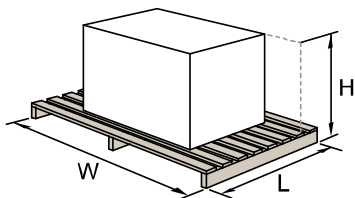
BOXER packaged supply and extract unit. Manufactured from Aluzinc corrosion resistant steel, with 50mm double skinned panels and anodized aluminium frame of a totally thermally-broken design, complying with the following specification in accordance with BS EN 1886: Mechanical strength, D1; Leakage class, L1; Thermal transmittance, T2; Thermal bridging, TB1. A high efficiency heat exchanger is present with automatic power saving bypass. Supply G4 pre-filter and F7 main filters are standard, with M5 filtration of the extract air and pressure drop monitoring for maintenance notification. Performance optimised backward curved impellers and IP54 EC motors shall be used to provide low specific fan powers and stepless speed control without tonal noise generation. Extract fan pressure transducers shall be fitted (Connect & Adapt control only) for constant pressure/flow control and energy monitoring. Internal lighting and inspection portholes shall be present on all fan modules. Hinged access panels are lockable and removable (with a common key for all) allowing full maintenance access from the side. Structural baseframes 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. All modules and ancillaries shall be individual weatherproofed with nanotech hydrophobic roofing, providing unparalleled corrosion resistance and aesthetic longevity. An IP65 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. A LPHW heater battery shall be fitted. A chilled water cooling coil shall be fitted. Selected control option = Connect Control.

Fan Dimensions



A	B	C	D	H	kg
800	700	1200	1530	1695	970
Length:		Width:		Height:	
2700		1530		1695	

Drawing is for dimensional purposes only. Dimensions in mm

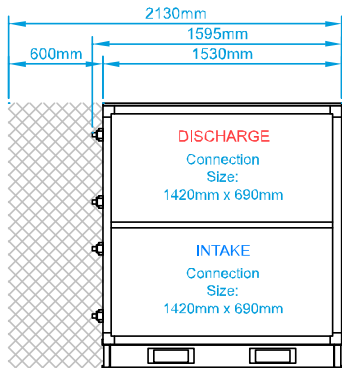


Palletised Section Details			
Pallet No.	Name	Dimensions	Weight
1	Extract Module	950(L) x 2000(W) x 1817(H)	258kg
2	Thermal Wheel	850(L) x 2000(W) x 1817(H)	330kg
3	Supply Module	1350(L) x 2000(W) x 1817(H)	433kg

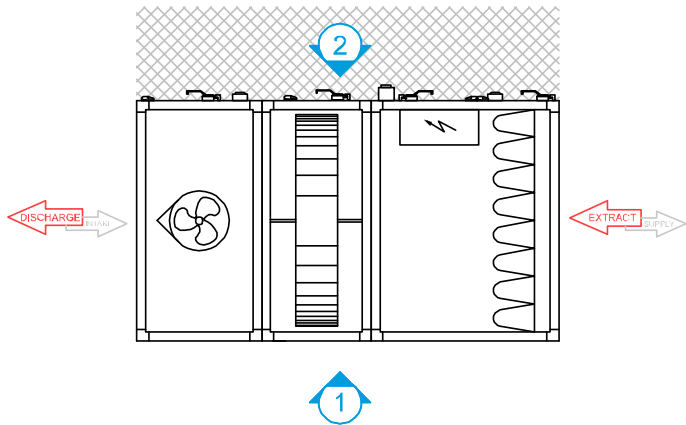


Denotes location of 800mm minimum access clearance for filter removal and general inspection.

VIEW FROM INTAKE END



TOP VIEW



SECTION VIEW FROM 1

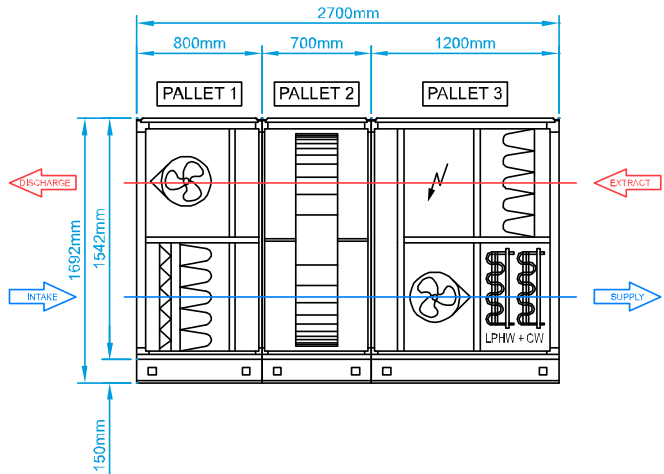


FIG.A - PIPE CONNECTION DETAILS

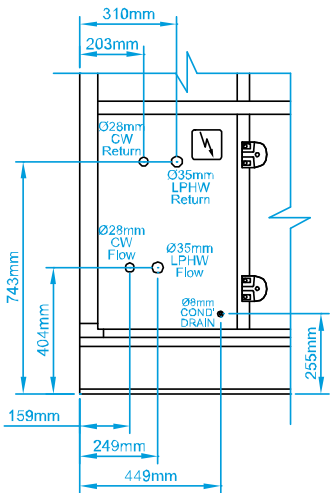
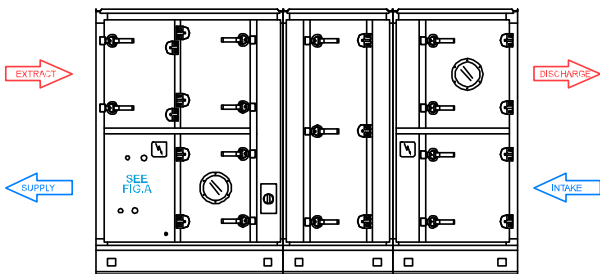


FIG.B - SIDE PANELS - VIEW FROM 2



You can download this CAD drawing from <http://www.nuaire.info/CAD/b12tlc-l.dwg>

Please Note: This drawing details the factory-standard unit ONLY (unless silencers are shown too). The total length or footprint may differ from that shown depending on the additional ancillaries offered on the quote or if the unit code ends in -QA*****

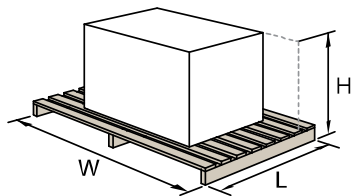
Please DO NOT sign this drawing to confirm handings.
Please request the official handing drawings from Nuaire.

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Do NOT scale from this drawing.



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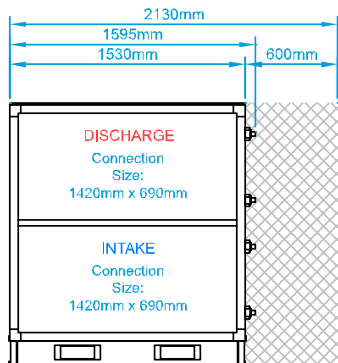


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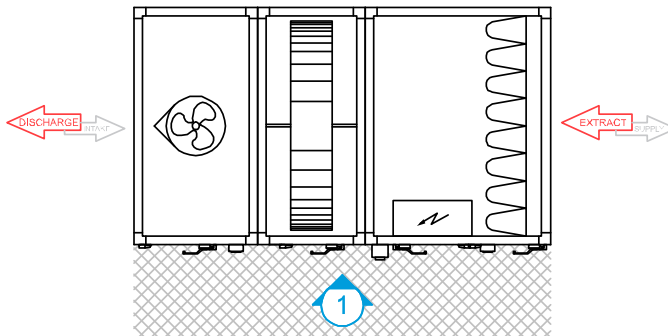


Denotes location of 600mm minimum access clearance for filter removal and general inspection.

VIEW FROM INTAKE END



TOP VIEW



SECTION VIEW FROM ①

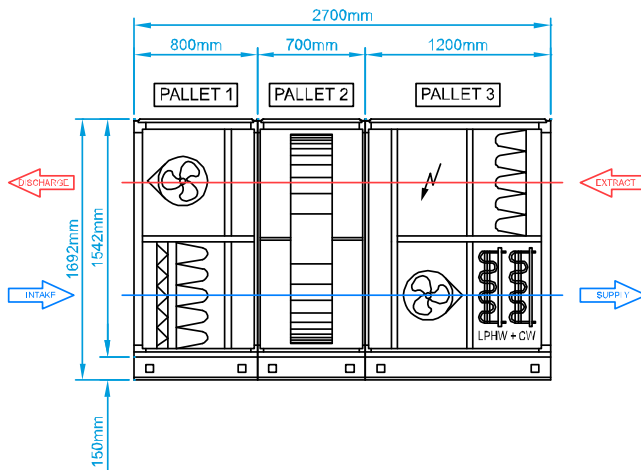


FIG.A - PIPE CONNECTION DETAILS

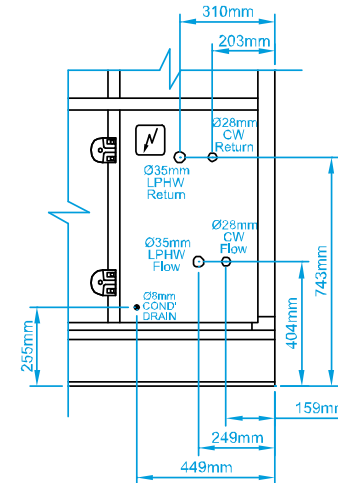
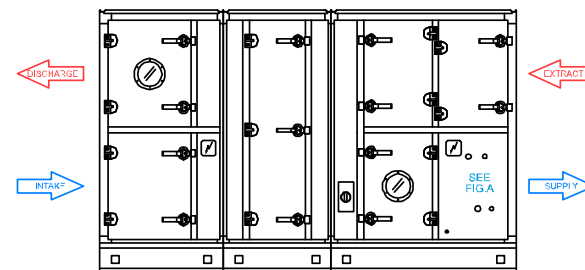


FIG.B - SIDE PANELS - VIEW FROM ①



You can download this CAD drawing from <http://www.nuaire.info/CAD/b12tlc-r.dwg>

Please Note: This drawing details the factory-standard unit ONLY (unless silencers are shown too). The total length or footprint may differ from that shown depending on the additional ancillaries offered on the quote or if the unit code ends in -QA*****

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