ACL52RCRTP

Technical Data
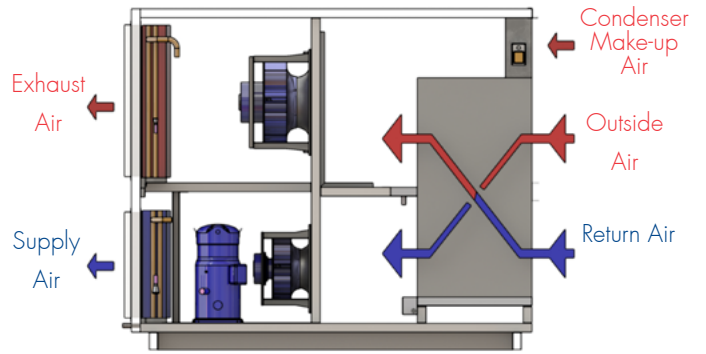
Contact your Air Change representative for a psychrometric unit selection

Airflow

Supply Air	2300l/s (nominal)
Return Air	2300l/s (nominal)
Outside Air	100%
Condenser Make-up Air	1500l/s
Exhaust Air (RA + CMA)	3800l/s (nominal)

Refrigeration

Reverse Cycle	Yes
Cooling Capacity	52kWr (nominal)
Heating Capacity	68kWr (nominal)
Compressor Type	Dual Stage DOL (standard)
	BLDC Inverter (optional)
Refrigerant	R-407C (Single Stage DOL)
	R-410A (BLDC Inverter option)

Air-to-Air Heat Exchanger*

HEX Type	Air-to-Air Counterflow Plate
HEX Media	Enthalpy or Sensible-Only

Fans (Nominal Selection)

	Type	EC Plug
	Total Fans	x2
	Nominal Power	2.5kW (each)
	Fan Diameter	350mm
	Fan Speed (max.)	2970RPM
Supply	Motor Efficiency Class	IE4
	Ingress Protection Class	IP54
	Impeller Construction	Non-metallic Composite
	Speed Control	Integrated Constant Volume Control
		or via External Speed Signal

Fans (Nominal Selection)

	Type	EC Plug
	Total Fans	x2
	Nominal Power	3.6kW (each)
	Fan Diameter	450mm
	Fan Speed (max.)	2260RPM
Exhaust Air	Motor Efficiency Class	IE4
	Ingress Protection Class	IP54
	Impeller Construction	Non-metallic Composite
	Speed Control	Integrated Constant Volume Control
		or via External Speed Signal

Electrical & Controls

Electrical Input	415V / 3 ph / 50Hz
Full Load Amps	Refer to electrical page
Controls	Low Level Interface (standard)
	ClimaSync Control System (optional)

Cabinet

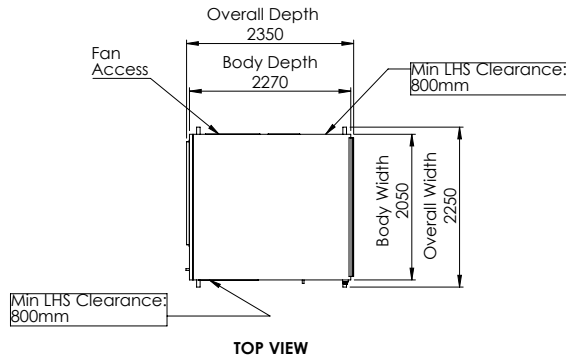|	
Weatherproof	Yes
Panel Construction	50mm PIR Sandwich Panel
	(FM Approved 4880/4881 - Class 1)
Panel Finish	Colorbond "Surfmist"
Panel R-Value	2.63 K.m²/W
Panel Joiner Material	UV Resistant Polymer
Base Frame	Galvanised Steel with Lifting Lugs
Filter Section	Not included
	(filters to be mounted in RA & OA ductwork)

Operating Modes

Energy Recovery	Default
Economy Cycle	HEX Bypass for Free Cooling (optional)
Return Air Bypass	HEX Bypass for Recirculation (optional)

* The plate heat exchangers are designed to operate to a maximum 300Pa pressure differential (inlet condition) between primary and secondary air streams.
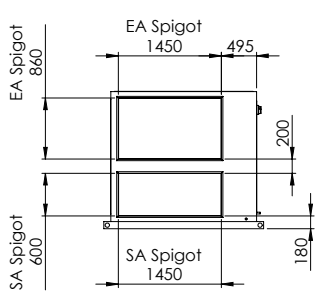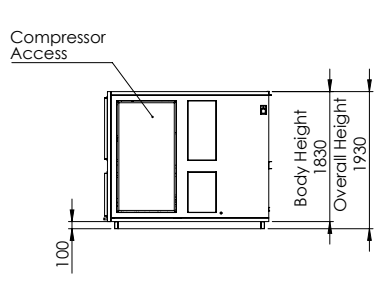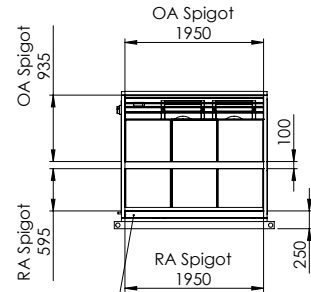
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Dimensions

Standard Configuration*

Unit Weight: approx. 1250kg

Overall Depth 2350
Body Depth 2270
Fan Access
Min LHS Clearance: 800mm
Body Width 2050
Overall Width 2250
Min LHS Clearance: 800mm

TOP VIEW

EA Spigot 860
EA Spigot 1450
495
200
SA Spigot 600
SA Spigot 1450
180

FRONT VIEW

Compressor Access
Body Height 1830
Overall Height 1930
100

SIDE VIEW

OA Spigot 935
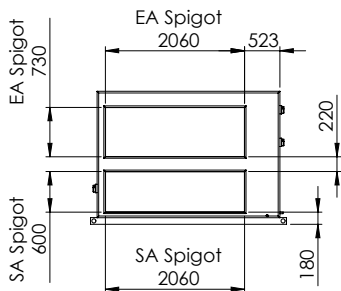OA Spigot 1950
100
RA Spigot 595
RA Spigot 1950
250
Optional Return Air Bypass Damper Location (increases unit height)

BACK VIEW

Economy Cycle Configuration*

Unit Weight: approx. 1500kg

Overall Depth 2460
Body Depth 2276
Fan Access
Min LHS Clearance: 800mm
Body Width 2700
Overall Width 2900
Min RHS Clearance: 800mm

PLAN VIEW

EA Spigot 730
EA Spigot 2060
523
220
SA Spigot 600
SA Spigot 2060
180

FRONT VIEW

Compressor Access
Body Height 1865
Overall Height 1965
100

SIDE VIEW

OA Spigot 950
703
OA Spigot 1950
100
RA Spigot 595
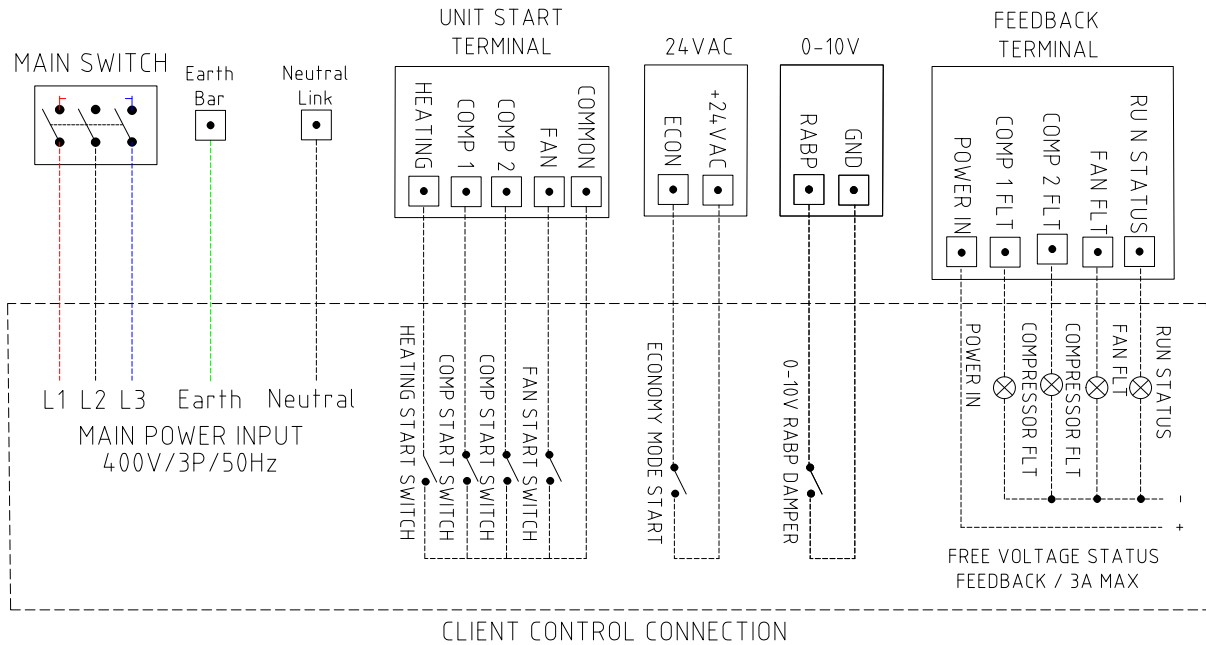RA Spigot 2600
270
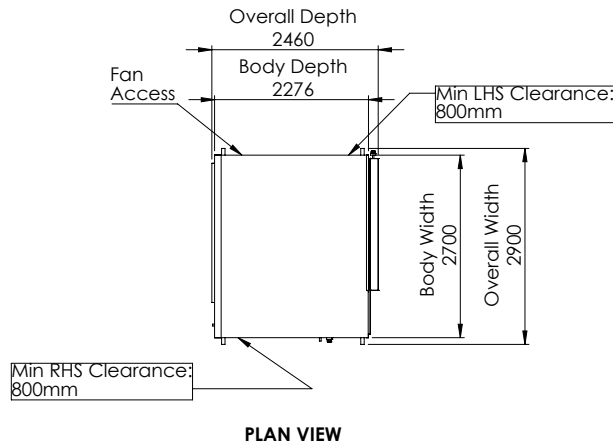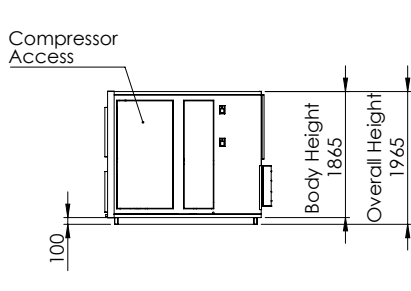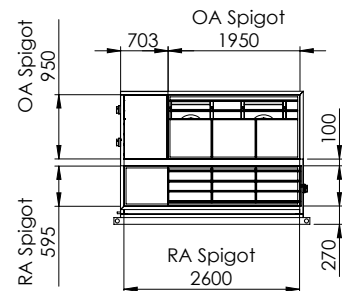
BACK VIEW

* Dimensions and weight are subject to change, depending on project requirements (incl. compressor option). Refer to project certified drawings for finalised details.
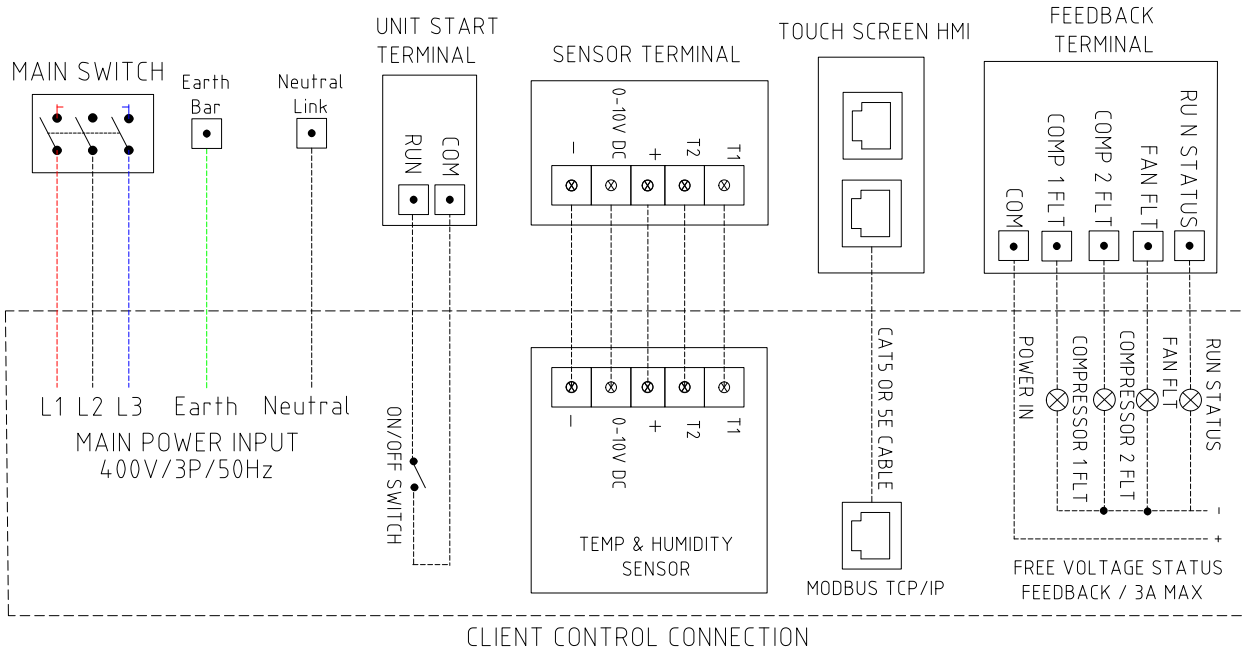
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Electrical

Wiring Diagram (Standard Low Level Control Interface)*

CLIENT CONTROL CONNECTION

Wiring Diagram (Optional ClimaSync Control System)*

CLIENT CONTROL CONNECTION

Electrical Input

Indicative Electrical Input details†

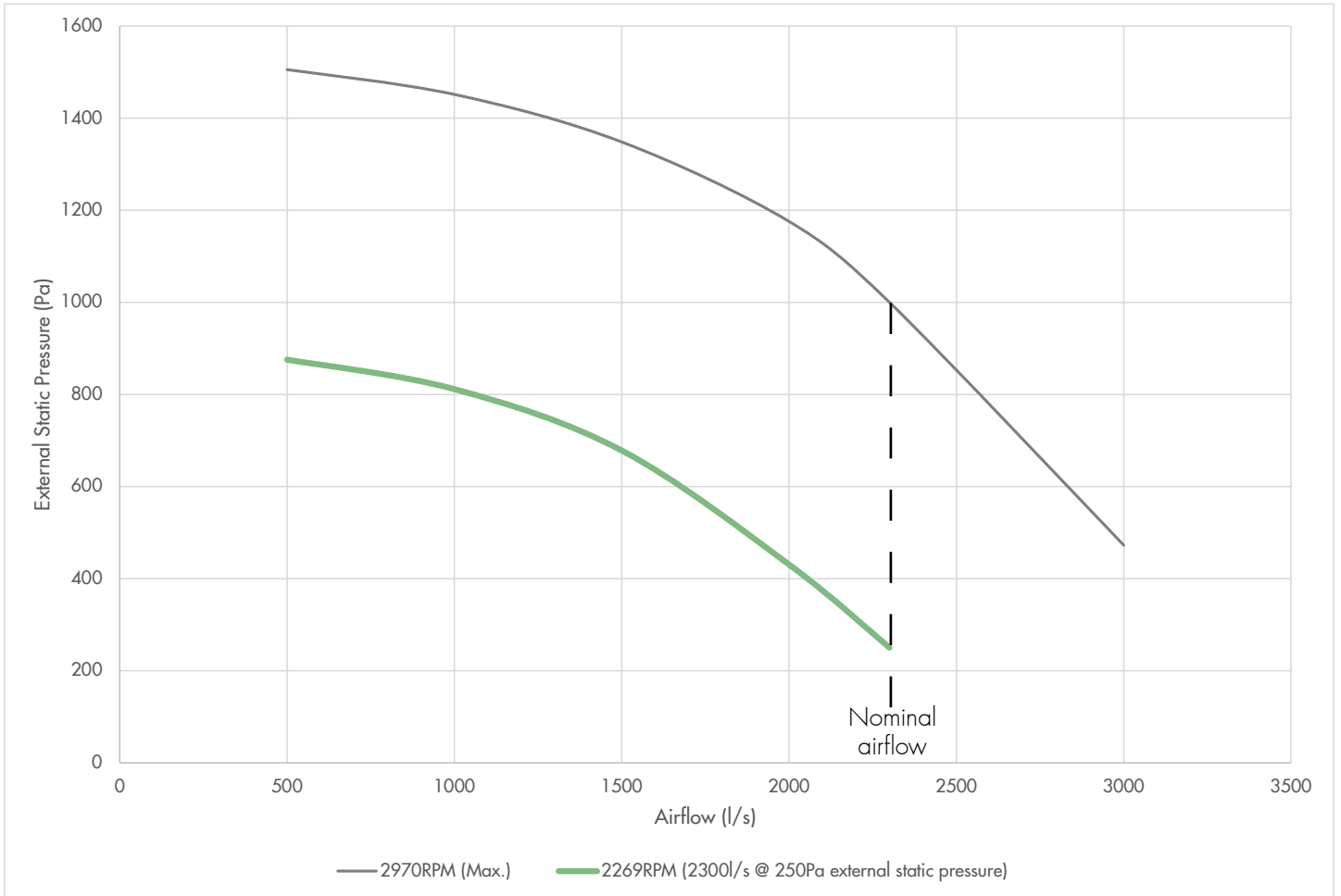|	DOL Compressor (standard)	BLDC Inverter Compressor (optional)
Voltage / Phases / Frequency	415V / 3ph / 50Hz	415V / 3ph / 50Hz
Full Load Amps	51A	73A

* Connection details are subject to change, depending on project requirements. Refer to project certified electrical diagrams for finalised details.

† Unit FLA is subject to change, depending on project requirements. Refer to project certified electrical diagrams for finalised details.

AIR CHANGE

ACL52RCRTP

Airflow & Noise

Supply Air Fan Curve*

Legend:
- 2970RPM (Max.)
- 2269RPM (2300l/s @ 250Pa external static pressure)

Chart axes: External Static Pressure (Pa) from 0 to 1600 vs Airflow (l/s) from 0 to 3500. Nominal airflow marked with dashed line at approximately 2300 l/s.

* Fan curve makes allowance for internal pressure drop of unit. This pressure drop is subject to change, depending on project requirements. Supply air fan selection options are available.

Supply Air Fan Acoustics (Sound Power)†

2300l/s @ 250Pa External Static Pressure									
Inlet									
Frequency (Hz)	sum	63	125	250	500	1000	2000	4000	8000
A-weighted (dB)	78	44	52	72	73	70	71	68	67
Non A-weighted (dB)	83	70	67	81	76	70	70	67	69
Outlet									
Frequency (Hz)	sum	63	125	250	500	1000	2000	4000	8000
A-weighted (dB)	84	45	55	72	74	80	78	74	71
Non A-weighted (dB)	86	70	70	81	77	80	77	73	72

† Noise data considers supply air fans only, without attenuation by the cabinet. Filter drop to be factored into the 250Pa external static pressure allowance.

AIR CHANGE

ACL52RCRTP

Airflow & Noise

Exhaust Air Fan Curve (incl. Condenser Make-up Air)*
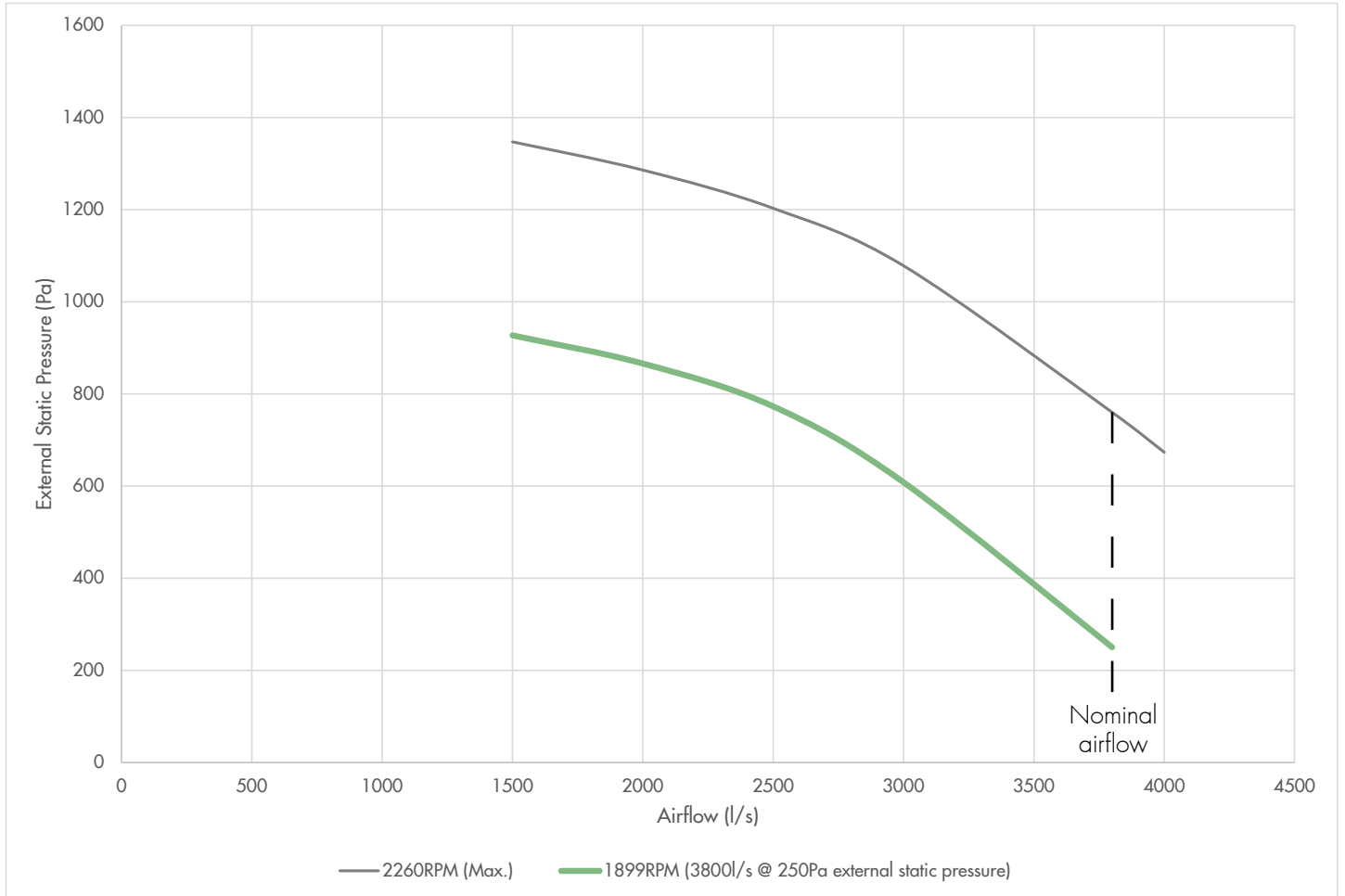
Nominal airflow

——— 2260RPM (Max.)   ——— 1899RPM (3800l/s @ 250Pa external static pressure)

* Fan curve makes allowance for internal pressure drop of unit. This pressure drop is subject to change, depending on project requirements. Exhaust air fan selection options are available.

Exhaust Air Fan Acoustics (Sound Power)†

3800l/s @ 250Pa External Static Pressure								
Inlet								
Frequency (Hz)	sum	63	125	250	500	1000	2000	4000	8000
A-weighted (dB)	83	53	63	75	78	76	74	69	69
Non A-weighted (dB)	88	79	78	84	82	76	73	68	70
Outlet								
Frequency (Hz)	sum	63	125	250	500	1000	2000	4000	8000
A-weighted (dB)	90	53	66	78	82	86	84	80	75
Non A-weighted (dB)	93	79	81	87	86	86	83	79	76

† Noise data considers exhaust air fans only, without attenuation by the cabinet. Filter drop to be factored into the 250Pa external static pressure allowance.