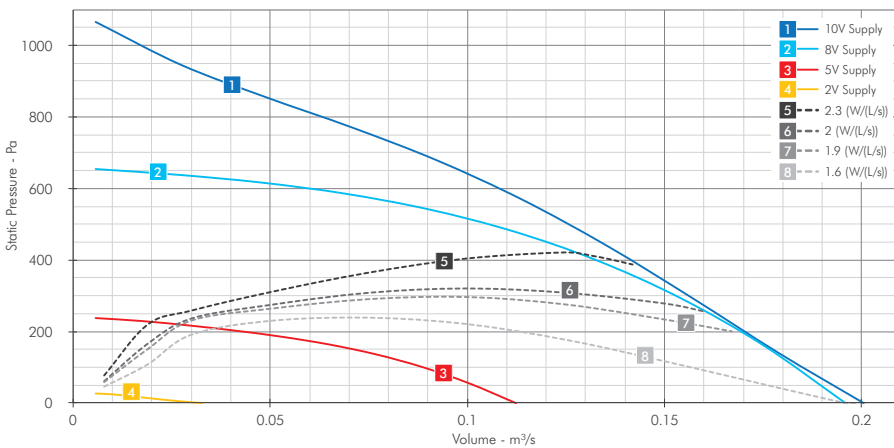


# PREMA180

The PREMA180 unit is optimised for any commercial building services application covering an airflow envelope of 0.008 – 0.188 m<sup>3</sup>/s at 75Pa ESP (low pressure duct systems). Overall unit SFP calculated with ISO ePM<sub>1</sub> 55% (F7) / ISO ePM<sub>10</sub> 55% (M5) filters under clean filter conditions.



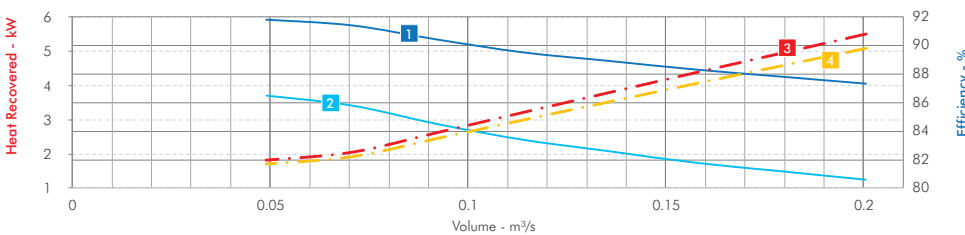
## Airflow Performance Curve



## Key Features

- Heat / Coolth Recovery
- Dual Condensate Tray
- Low energy consumption and quiet EC fans
- Counterflow heat exchanger offering high thermal energy recovery
- 100% motorised bypass damper
- Fine particulate filters fitted as standard
- ErP 2018 compliant
- Demand control options with BMS, CO<sub>2</sub> or constant pressure sensors
- Airflow balancing allows individual fan control and ensures a balanced supply and extract

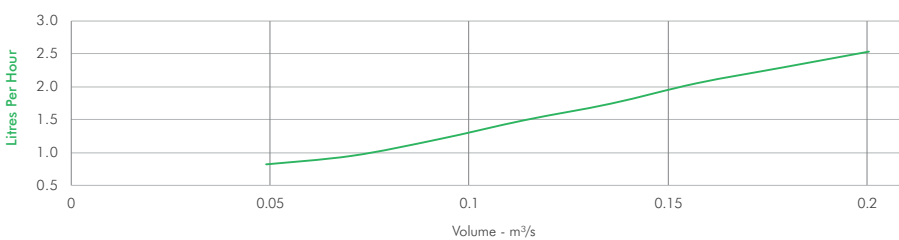
## Heat Exchanger Efficiency & Energy Recovery



Dry performance based on EN 308

Wet performance based on -5°C supply 95% RH, +21°C extract 50% RH

## Condensate Rate



Condensate

Wet Performance based on -5°C supply 95% RH, +21°C extract 50% RH

## Performance Data

Control Voltage	Speed r/min	Airflow SFP	Airflow m <sup>3</sup> /s @ Static Pressure Pa												Input kW	Peak Amps
			0	25	50	75	100	150	200	250	300	350	400	500		
10V	3849	m <sup>3</sup> /s	0.200	0.196	0.192	0.188	0.184	0.177	0.170	0.163	0.156	0.149	0.141	0.125	0.330	2.6
		W / (L/s)	1.61	1.65	1.69	1.74	1.77	1.85	1.92	2.01	2.10	2.19	2.30	2.58		
8V	3750	m <sup>3</sup> /s	0.195	0.192	0.189	0.186	0.183	0.176	0.169	0.161	0.152	0.143	0.132	0.105	0.323	2.56
		W / (L/s)	1.58	1.62	1.67	1.71	1.75	1.83	1.90	1.98	2.05	2.13	2.23	2.56		
5V	2255	m <sup>3</sup> /s	0.112	0.107	0.101	0.095	0.088	0.070	0.042	-	-	-	-	-	0.073	0.61
		W / (L/s)	0.62	0.67	0.71	0.75	0.80	0.92	1.34	-	-	-	-	-		
2V	734	m <sup>3</sup> /s	0.032	0.009	-	-	-	-	-	-	-	-	-	-	0.009	0.1
		W / (L/s)	0.27	0.78	-	-	-	-	-	-	-	-	-	-		

Specific Fan Power figures (W / (L/s)) are total for both fans running under clean filter conditions (ref. the building regulations).

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>. Air Performance: ISO 5801:2007.

Refer to Air Design Ecodesign document for data in accordance with ErP 1253/2014 of the European Parliament. Product category is NRVU:BVU. Measurement category used to determine energy efficiency: D.

A variable speed drive is integrated within the fan.

Peak Amps @ 230V / 1PH / 50Hz.

## Sound Data

Control Voltage	Speed r/min	Location	Sound Power Level dB @ Octave Band Hz									dBA @ 3m
			63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total dB	
10V	3849	Intake (T21)	73	69	69	68	66	65	64	61	77	52
		Supply (T22)	66	60	50	54	52	49	37	28	67	36
		Extract (T11)	80	71	70	67	64	62	60	59	81	50
		Exhaust (T12)	67	62	50	41	47	42	31	29	68	31
		Break Out	62	61	57	51	43	41	39	35	65	33
8V	3750	Intake (T21)	74	69	69	68	65	63	62	60	77	51
		Supply (T22)	65	59	50	55	50	47	35	28	67	35
		Extract (T11)	80	71	70	66	64	62	60	58	81	49
		Exhaust (T12)	66	61	49	40	46	41	31	30	67	30
		Break Out	61	61	57	51	44	41	39	35	65	33
5V	2255	Intake (T21)	62	61	63	56	52	50	48	43	67	39
		Supply (T22)	53	50	42	40	38	34	25	23	55	22
		Extract (T11)	63	63	63	54	52	50	47	47	68	39
		Exhaust (T12)	55	51	39	29	34	29	23	22	57	19
		Break Out	50	51	48	40	31	28	25	27	55	22

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only. Tests and preparation of the sound data have been carried out in accordance with BS 848-2:1985 (ducted) and **independently tested** to ISO 3741:2010 (breakout).

The Sound Power Level Spectra are in dB re-1pW.

## Dimensional Data

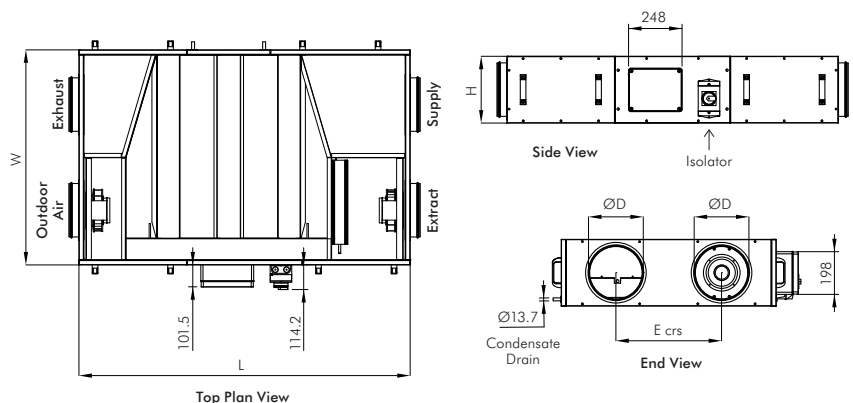
Unit Size	L	W	H*	D	E	Weight kg
PREMA180	1537	997	308	250	490	125

All dimensions are expressed in mm.

\*Overall height includes unit mounted condensate drain tray.

## Ordering Stock Codes

Product Stock Code	Product Description
7835824-180	PREMA Size 180
7835824-180CP	PREMA Size 180 Constant Pressure Control



T +44 (0)1384 275800 | F +44 (0)1384 275810

E SALES@AIR-DESIGN.COM | W AIR-DESIGN.COM