

Classic Works

CEILING VOID ENERGY RECOVERY UNITS



SMALL UNITS WITH
BIG IMPACT

**THE SMALLEST & LIGHTEST
ENERGY RECOVERY VENTILATION
UNITS AVAILABLE ON THE MARKET**

PROVIDING FRESH, CLEAN &
COMFORTABLE AIR



Classic Works

ENERGY RECOVERY VENTILATION

Due to stricter energy use regulations, the design of a successful ventilation system for new build and refurbishment projects is constantly being challenged. M&Y Ventilation Equipment's Classic Works units with high efficiency energy recovery capabilities have been specifically designed and manufactured for effective ceiling void mounted, low pressure ventilation systems. The units always provide fresh, clean and comfortable air, in line with the Ecodesign Directives and strict building regulations.

Installation and maintenance has been made easier, with the everyday challenges of a building services project in mind. A frameless, compact structure has been developed with all units being manufactured in the UK and undergoing vigorous quality checks at every stage.



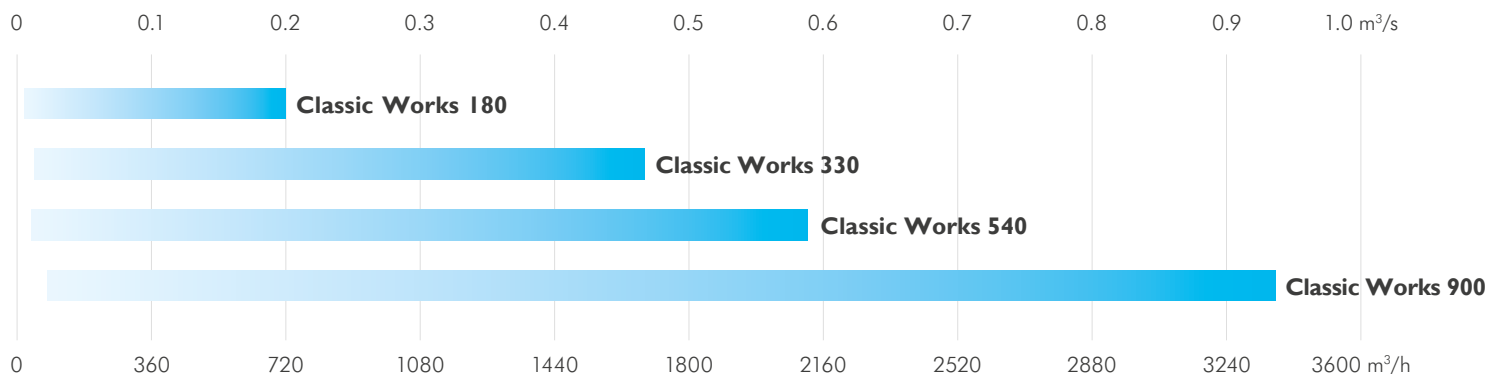
ALL UNITS ARE
MANUFACTURED IN THE UK
FROM START TO FINISH,
UNDERGOING VIGOROUS
QUALITY CHECKS AT
EVERY STAGE

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AVAILABLE IN 4 SIZES

There are 4 sizes available providing an airflow of 0.006 – 0.936 m³/s, suitable for a wide range of markets and applications.



APPLICATIONS

Schools & Offices

Failure to correct poor indoor air quality within an educational or working environment can lead to increased illness and absences, and reduced cognitive function. A Classic Works unit helps to maintain comfortable working temperatures by recovering thermal energy from the already warm air inside the occupied space to raise the temperature of the incoming fresh air. F7 filters are fitted in the unit to remove pollutants and provide pure, clean, fresh air that encourages concentration and productivity.



Restaurants, Hotels & Leisure Centres

In building spaces with a high volume of guests and visitors, maintaining a comfortable and healthy indoor environment without increasing energy bills, can prove to be a challenge. The Classic Works units maintain good indoor air quality and comfortable temperature levels by efficiently transferring thermal energy from the stale air to the incoming fresh air.



KEY BENEFITS

Quiet

Peaceful performance for a comfortable indoor environment.

Lightweight & Slimline

Smallest and lightest energy recovery units available on the market.

Despite their compact size, which helps to reduce building and maintenance costs, the units have a strong, solid construction with reduced environmental footprint and enhanced acoustic performance.

Integrated Demand Control

The standard control system provides effective monitoring and targeting of energy consumption with the possibility of individual room control through integration with Building Management Systems.

Compliance

ErP 2018 ready and fully compliant with Ecodesign Directive 1253/2014.

ErP 2018
ready

Finer Particulate Filters

The F7 supply fine particulate filter improves Indoor Air Quality by always providing filtered, fresh and healthy air.



Efficient Fans & Motors

All units have a free running, high performance backward curved impeller and special three-dimensional blade geometry that provides reduced rotational tone. The EC fans within the units are the most efficient in converting electrical power input into air power, resulting in low energy consumption and significant economic benefits for the end user.

Counterflow Heat Exchanger

Thermal energy exchange is enhanced by the large surface area of the heat exchanger resulting in high efficiency rates of thermal energy recovery. All units are fitted with a 100% face and bypass damper. The bypass damper operates dependent on temperature parameters and values set via an LCD display to offer free heating mode in winter.

Casing Air Leakage Rated at L2

Low risk of mixing filtered with non-filtered air and minimised infiltration of non-handling air inside the AHU.

92%

**RECOVERED
THERMAL
ENERGY**

90%

**REMOVED
PARTICULATES**
(up to 10µm)

70%

**REMOVED
PARTICULATES**
(up to 2.5µm)

PRODUCT DETAIL

Categorisation

In accordance with Ecodesign Directive 1253/2014, this product is a non-residential bidirectional ventilation unit; NRVU-BVU.

Construction

All Classic Works units have a frameless, self-supporting casing construction with double skin galvanised sheet steel, insulated with 25mm mineral wool (60kg/m³). Units have a leakage class rating of L2 (BS EN 1886).

Access to fans and filters can be gained from both sides of the unit through secured panels that require a suitable tool to open. Unit isolator fitted across the range as standard.

Supply and Extract Fan

All units are constructed with a backward curved impeller mounted onto a single phase EC motor for low SFPs and low noise levels. As standard, fans are fully speed controllable via 0-10V signal from the fitted controls package.

Supply Filter

The F7 (ISO ePM1 55%) supply filter that comes as standard with all units is fitted on purpose-built runners with a tight fit for reduced filter bypass leakage. Fully integrated differential pressure switches are also fitted across the filter bank to trigger a signal when filter maintenance is required.

Accessories available include an F9 (ISO ePM1 85%) fine particulate filter, and as a duct mounted accessory, an IAQ molecular gas filter.

Extract Filter

M5 (ISO ePM10 55%) extract filter fitted as standard onto purpose built runners with a tight fit for reduced filter bypass leakage. Fully integrated differential pressure switches fitted across the filter bank to trigger a signal when filter maintenance is required.

Counterflow Heat Exchanger

All Classic Works units contain a Eurovent certified counterflow heat exchanger that is fitted with a purpose built 100% thermal bypass facility for full compliance with Ecodesign Directives among other benefits:

- Seawater resistant
- Precision machine manufactured
- Achieves up to 92% efficiency of thermal energy recovery (according to standard air conditions EN 308)
- Highly airtight with specialised sealant
- High performance with low pressure drops
- Extremely hygienic due to complete and optimised drainage of condensate

Also available as an accessory is the smallest and quietest specialised condensate drain pump.

Controls

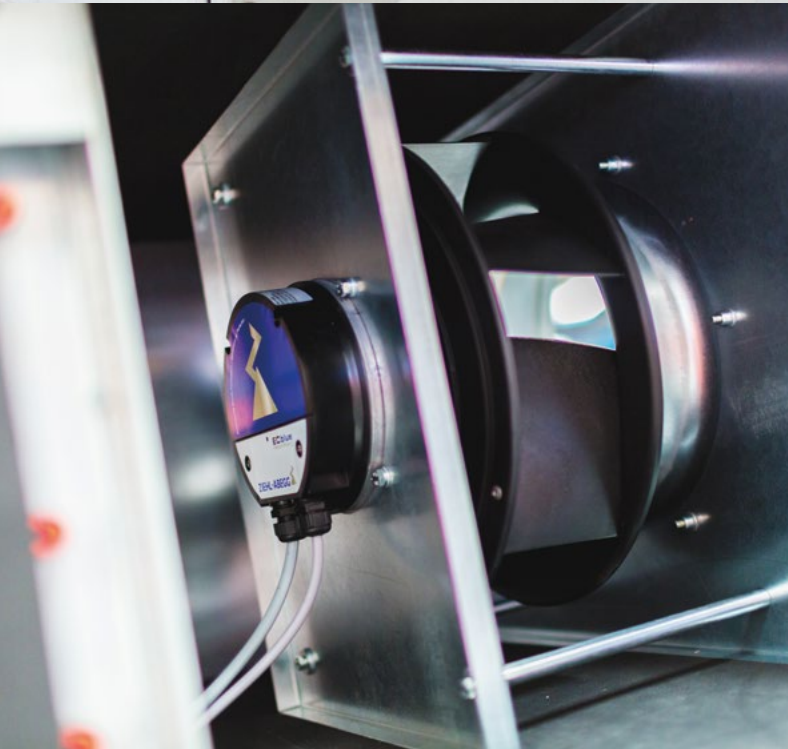
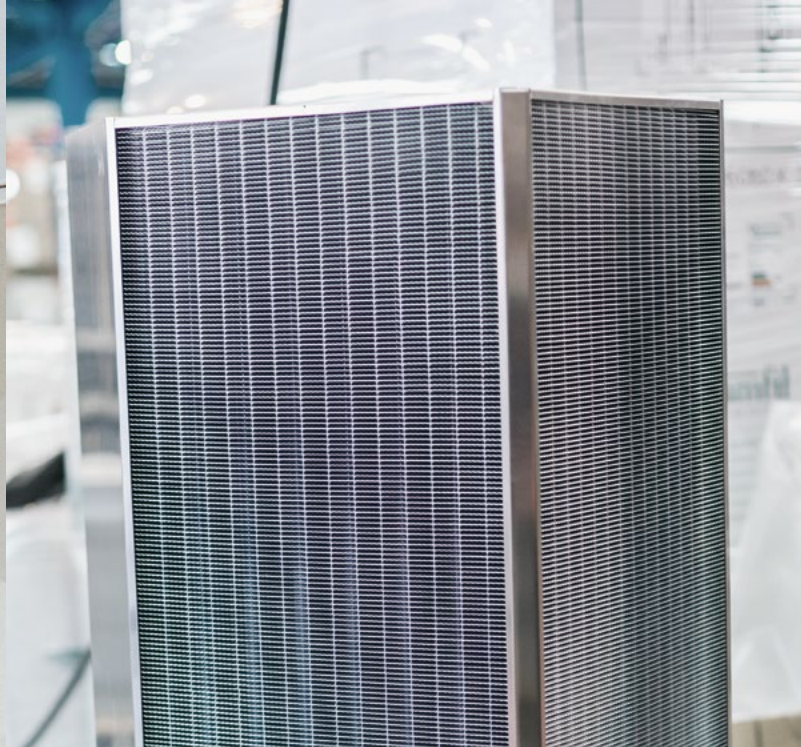
Digital input terminal connections will be available for remote enable (On / Off), fixed speed, boost speed, or night set back via fixed speed input. Digital output terminal connections will be available for an electric heater.

Other control functions:

- Applications for pressure, CO₂, 0-10V, manual
- Fan run status (fan fail)
- Programmable time clock
- Min / Max speed settings
- Extract fan speed offset
- Working hours counter
- Filter status output signal

All parameters adjustable from the LCD display unit (below).



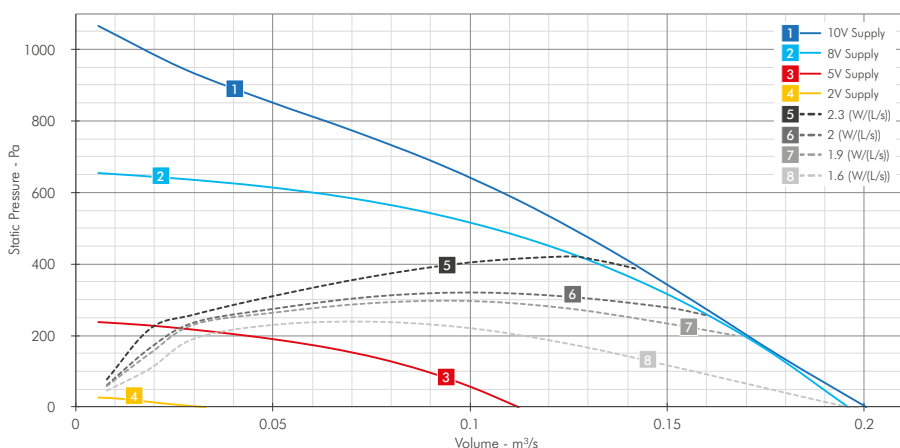


Classic Works 180

The Classic Works 180 unit is optimised for any commercial building services application covering an airflow envelope of 0.008 – 0.188m³/s at 75Pa ESP (low pressure duct systems). Overall unit SFP calculated with F7 / M5 filters under clean filter conditions.



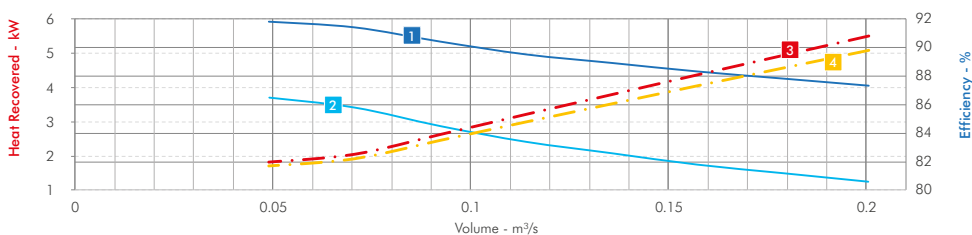
Airflow Performance Curve



Key Features

- **Low energy consumption** and quiet EC fans
- Counterflow heat exchanger offering **high thermal energy recovery**
- **100% motorised** bypass damper
- **F7 / M5** fine particulate filters fitted as standard
- **ErP 2018** compliant
- **Demand control options** with BMS, CO₂ or constant pressure sensors
- **Airflow balancing** allows individual fan control and ensures a balanced supply and extract

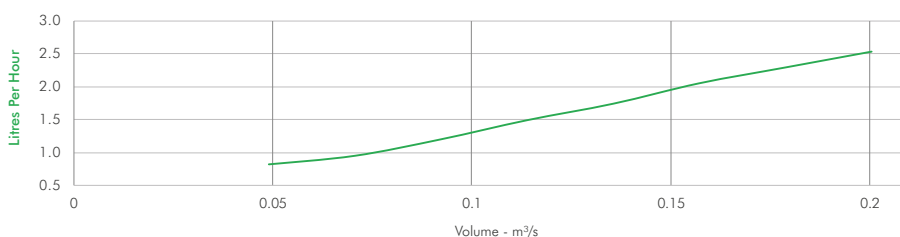
Heat Exchanger Efficiency & Energy Recovery



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 m³/s @ Static Pressure Pa												Input kW	Peak Amps
			0	25	50	75	100	150	200	250	300	350	400	500		
10V	3849	m³/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	m³/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	m³/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	m³/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/m³. Air Performance: ISO 5801:2007.

Refer to M&Y Ventilation Equipment Ltd 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 dBW @ 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

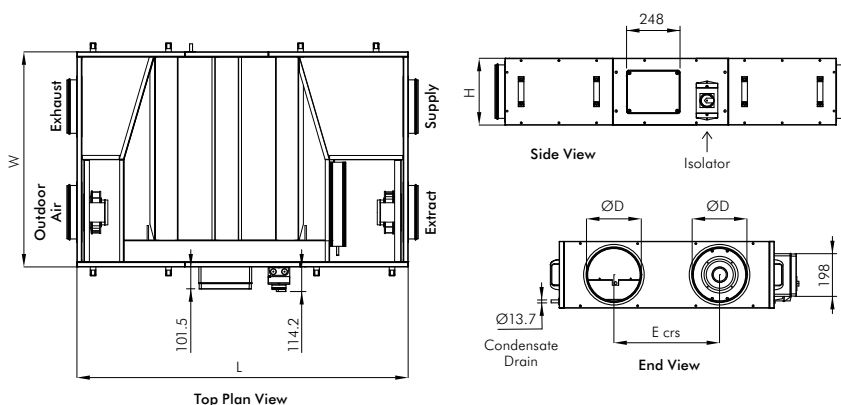
Unit Size	L	W	H*	D	E	Weight kg
Classic Works 180	1537	997	308	250	490	125

All dimensions are expressed in mm.

*Overall height includes unit mounted condensate drain tray.

Ordering Stock Codes

Product Stock Code	Product Description
7835824-180	Classic Works 180
7835824-180CP	Classic Works 180 Constant Pressure Control

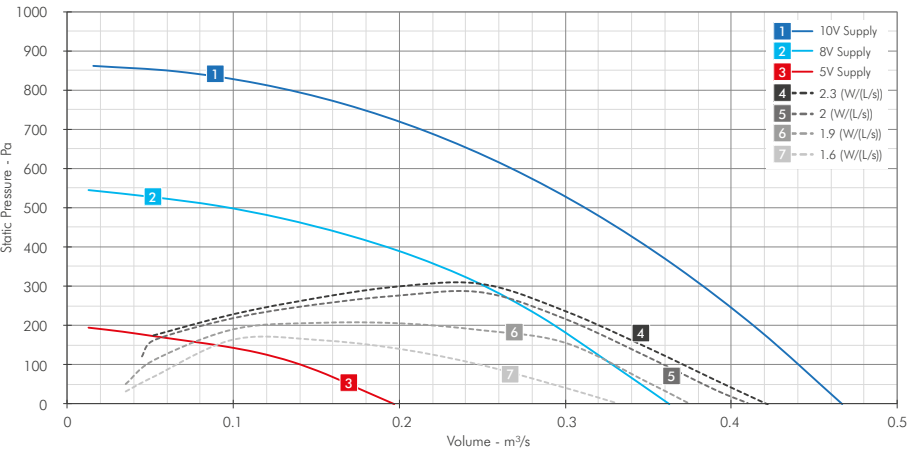


Classic Works 330



The CLASSIC 330 unit is optimised for any commercial building services application covering an airflow envelope of 0.156 – 0.383m³/s at 75Pa ESP (low pressure duct systems). Overall unit SFP calculated with F7 / M5 filters under clean filter conditions.

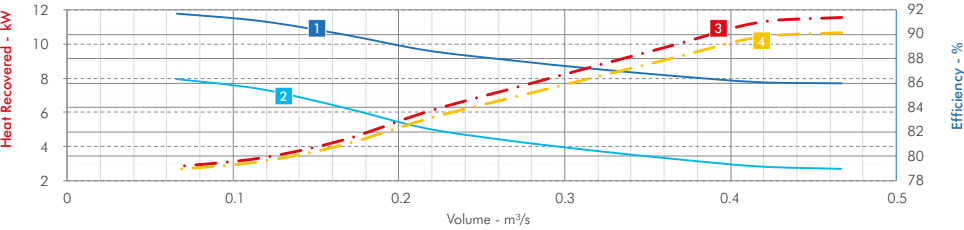
Airflow Performance Curve



Key Features

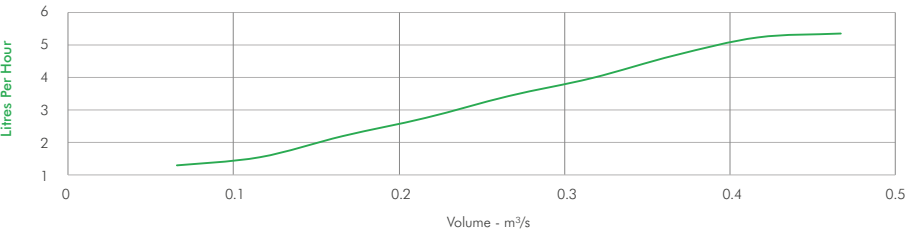
- **Low energy consumption** and quiet EC fans
- Counterflow heat exchanger offering **high thermal recovery**
- **100% motorised** bypass damper
- **F7 / M5** fine particulate filters fitted as standard
- **ErP 2018** compliant
- **Demand control options** with BMS, CO₂ or constant pressure sensors
- **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 m³/s @ Static Pressure Pa												Input kW	Peak Amps
			0	25	50	75	100	150	200	250	300	350	400	500		
10V	3082	m³ / s	0.467	0.460	0.454	0.447	0.441	0.427	0.413	0.398	0.383	0.367	0.349	0.312	1.103	4.82
		W / (L/s)	2.35	2.39	2.42	2.45	2.49	2.56	2.64	2.72	2.81	2.91	3.03	3.30		
8V	2446	m³ / s	0.362	0.353	0.344	0.336	0.328	0.311	0.293	0.273	0.251	0.224	0.191	0.095	0.590	2.62
		W / (L/s)	1.63	1.67	1.71	1.75	1.79	1.87	1.96	2.07	2.20	2.40	2.69	4.44		
5V	1454	m³ / s	0.197	0.183	0.170	0.156	0.140	0.089	-	-	-	-	-	-	0.151	0.7
		W / (L/s)	0.77	0.82	0.87	0.93	1.01	1.42	-	-	-	-	-	-		

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/m³. Air Performance: ISO 5801:2007.

Refer to M&Y Ventilation equipment Ltd 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 dBA @ Octave Band Hz									dBA @ 3m
			63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total dB	
10V	3082	Intake (T21)	79	74	75	73	68	65	65	61	82	54
		Supply (T22)	74	64	56	60	58	50	39	30	75	41
		Extract (T11)	81	77	77	73	67	66	67	62	84	55
		Exhaust (T12)	75	69	57	54	51	48	44	40	76	38
		Break Out	70	67	65	55	47	45	42	35	73	39
8V	2446	Intake (T21)	74	70	75	66	61	59	59	54	79	49
		Supply (T22)	68	59	57	51	52	45	33	28	69	35
		Extract (T11)	77	73	75	67	62	60	61	56	80	50
		Exhaust (T12)	71	66	54	48	46	42	35	32	72	34
		Break Out	65	62	66	45	40	39	36	29	69	37
5V	1454	Intake (T21)	66	69	60	53	49	46	44	39	71	37
		Supply (T22)	59	54	41	38	40	33	25	24	60	24
		Extract (T11)	67	70	60	54	51	47	46	40	72	38
		Exhaust (T12)	61	55	45	34	33	30	25	24	62	23
		Break Out	55	57	50	38	28	26	22	19	60	24

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

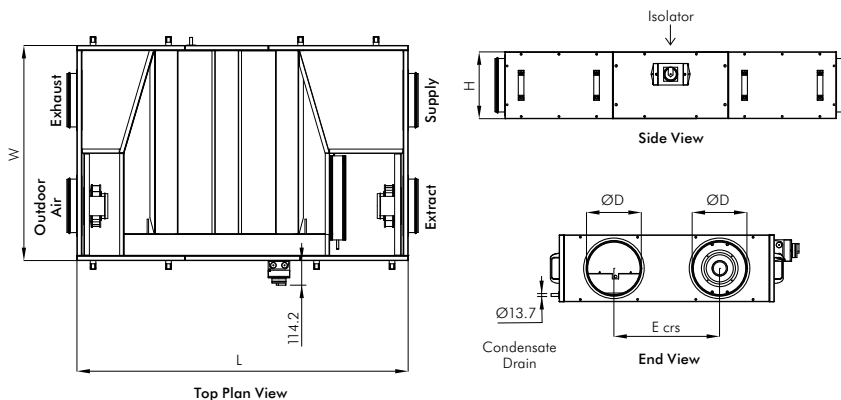
Unit Size	L	W	H*	D	E	Weight kg
Classic Works330	1914	1286	363	315	610	194

All dimensions are expressed in mm.

*Overall height includes unit mounted condensate drain tray.

Ordering Stock Codes

Product Stock Code	Product Description
7835824-330	Classic Works Size 330
7835824-330CP	Classic Works Constant Pressure Control

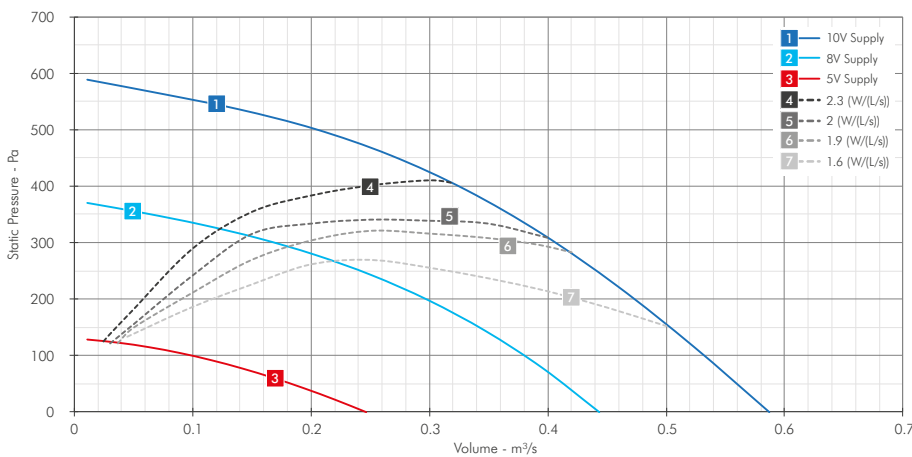


Classic Works 540

The Classic 540 unit is optimised for any commercial building services application covering an airflow envelope of 0.145 – 0.546 m³/s at 75 Pa ESP (low pressure duct systems). Overall unit SFP calculated with F7 / M5 filters under clean filter conditions.



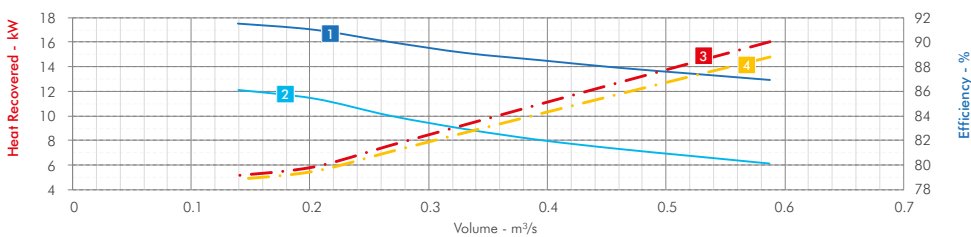
Airflow Performance Curve



Key Features

- **Low energy consumption** and quiet EC fans
- Counterflow heat exchanger offering **high thermal recovery**
- **100% motorised** bypass damper
- **F7 / M5** fine particulate filters fitted as standard
- **ErP 2018** compliant
- **Demand control options** with BMS, CO₂ or constant pressure sensors
- **Airflow balancing** allows individual fan control and ensures a balanced supply and extract

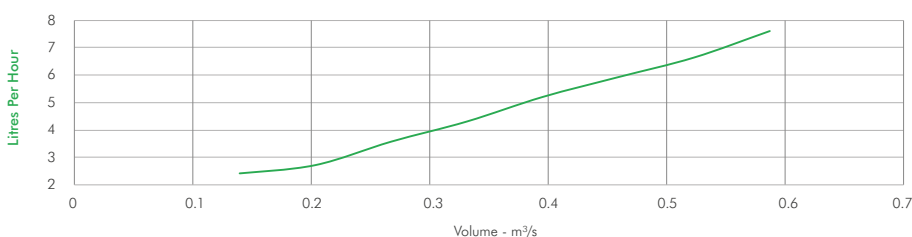
Heat Exchanger Efficiency & Energy Recovery



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 m³/s @ Static Pressure Pa												Input kW	Peak Amps
			0	25	50	75	100	150	200	250	300	350	400	500		
10V	2016	m³ / s	0.587	0.573	0.560	0.546	0.532	0.503	0.473	0.441	0.407	0.368	0.325	0.206	0.804	3.55
		W / (L/s)	1.37	1.40	1.43	1.46	1.50	1.58	1.68	1.78	1.90	2.04	2.19	2.82		
8V	1599	m³ / s	0.443	0.428	0.413	0.397	0.380	0.342	0.297	0.241	0.168	0.064	-	-	0.417	1.85
		W / (L/s)	0.94	0.97	1.01	1.04	1.09	1.19	1.33	1.52	1.90	3.69	-	-		
5V	955	m³ / s	0.246	0.216	0.183	0.145	0.098	-	-	-	-	-	-	-	0.109	0.55
		W / (L/s)	0.44	0.50	0.57	0.68	0.89	-	-	-	-	-	-	-		

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/m³. Air Performance: ISO 5801:2007.

Refer to M&Y Ventilation Equipment Ltd 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 dBA @ Octave Band Hz									dBA @ 3m
			63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total dB	
10V	2016	Intake (T21)	77	76	76	69	62	57	55	51	81	51
		Supply (T22)	71	62	55	56	49	40	29	25	72	36
		Extract (T11)	79	79	77	71	63	58	56	51	84	52
		Exhaust (T12)	74	65	52	51	47	37	29	26	75	34
		Break Out	67	63	66	52	37	32	32	22	70	38
8V	1599	Intake (T21)	72	75	67	63	55	51	48	46	77	44
		Supply (T22)	66	57	49	46	43	34	26	23	67	28
		Extract (T11)	74	76	68	64	56	52	49	46	79	45
		Exhaust (T12)	67	61	47	44	41	32	26	24	68	28
		Break Out	63	61	58	43	31	27	24	19	66	31
5V	955	Intake (T21)	70	66	56	49	43	36	34	29	72	33
		Supply (T22)	58	52	37	33	30	24	22	20	59	19
		Extract (T11)	71	67	57	49	43	36	33	30	73	34
		Exhaust (T12)	59	53	34	30	28	23	21	19	60	19
		Break Out	55	50	47	29	19	15	16	16	57	20

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

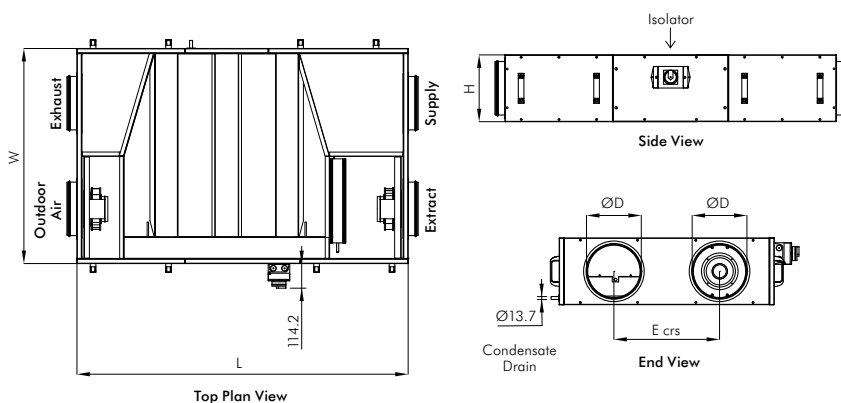
Unit Size	L	W	H*	D	E	Weight kg
Classic 540	2066	1496	474	355	750	241

All dimensions are expressed in mm.

*Overall height includes unit mounted condensate drain tray.

Ordering Stock Codes

Product Stock Code	Product Description
7835824-540	Classic Size 540
7835824-540CP	Classic Size 540 Constant Pressure Control

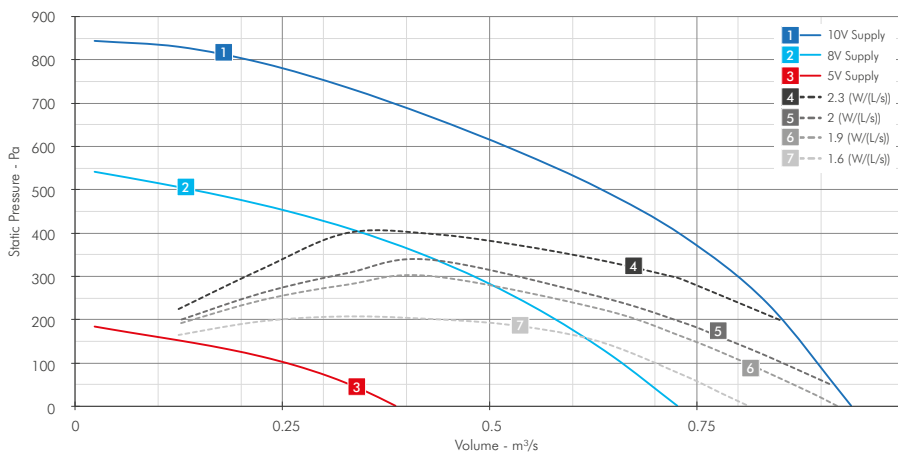


Classic Works 900

The Classic 900 unit is optimised for any commercial building services application covering an airflow envelope of 0.296 – 0.909m³/s at 75Pa ESP (low pressure duct systems). Overall unit SFP calculated with F7 / M5 filters under clean filter conditions.



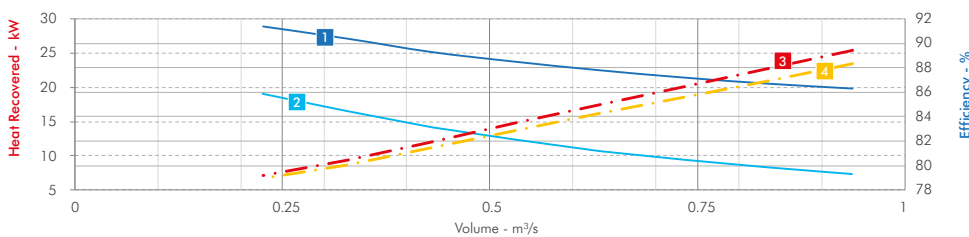
Airflow Performance Curve



Key Features

- **Low energy consumption** and quiet EC fans
- Counterflow heat exchanger offering **high thermal recovery**
- **100% motorised** bypass damper
- **F7 / M5** fine particulate filters fitted as standard
- **ErP 2018** compliant
- **Demand control options** with BMS, CO₂ or constant pressure sensors
- **Airflow balancing** allows individual fan control and ensures a balanced supply and extract

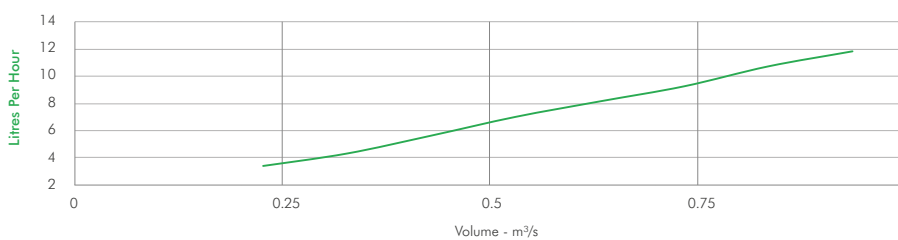
Heat Exchanger Efficiency & Energy Recovery



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 m³/s @ Static Pressure Pa												Input kW	Peak Amps
			0	25	50	75	100	150	200	250	300	350	400	500		
10V	2199	m³ / s	0.936	0.928	0.919	0.909	0.899	0.878	0.854	0.828	0.799	0.766	0.728	0.636	1.815	7.97
		W / (L/s)	1.86	1.89	1.93	1.96	1.99	2.05	2.12	2.19	2.26	2.35	2.44	2.67		
8V	1805	m³ / s	0.726	0.710	0.694	0.677	0.659	0.621	0.579	0.533	0.480	0.420	0.347	0.141	0.950	4.25
		W / (L/s)	1.28	1.32	1.36	1.39	1.44	1.53	1.63	1.74	1.87	2.02	2.26	4.15		
5V	1200	m³ / s	0.386	0.360	0.331	0.296	0.254	0.131	-	-	-	-	-	-	0.236	1.13
		W / (L/s)	0.61	0.65	0.71	0.77	0.87	1.39	-	-	-	-	-	-		

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/m³. Air Performance: ISO 5801:2007.

Refer to M&Y Ventilation Equipment Ltd 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 dBW @ Octave Band Hz									dBA @ 3m
			63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total dB	
10V	2199	Intake (T21)	80	81	80	72	67	68	63	62	86	56
		Supply (T22)	73	68	61	57	59	54	35	31	75	42
		Extract (T11)	81	82	80	73	68	69	64	63	86	56
		Exhaust (T12)	74	69	59	56	55	53	39	37	75	40
		Break Out	72	68	71	52	43	41	37	28	75	42
8V	1805	Intake (T21)	76	78	72	65	60	60	56	54	81	49
		Supply (T22)	68	62	53	49	50	44	31	29	69	34
		Extract (T11)	78	79	73	67	61	61	57	54	82	50
		Exhaust (T12)	69	64	52	49	48	42	33	32	70	33
		Break Out	66	64	62	46	37	33	30	25	69	34
5V	1200	Intake (T21)	69	69	57	51	45	46	45	36	72	36
		Supply (T22)	58	54	40	36	35	31	27	26	60	22
		Extract (T11)	71	70	59	53	46	47	43	37	74	37
		Exhaust (T12)	61	54	40	35	34	34	29	27	62	22
		Break Out	56	57	53	32	24	19	20	18	60	25

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

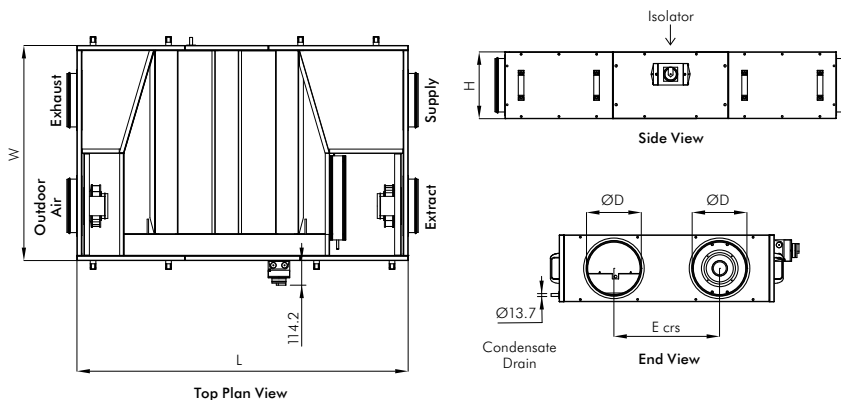
Unit Size	L	W	H*	D	E	Weight kg
Classic 900	2206	1496	624	500	750	330

All dimensions are expressed in mm.

*Overall height includes unit mounted condensate drain tray.

Ordering Stock Codes

Product Stock Code	Product Description
7835824-900	Classic Size 900
7835824-900CP	Classic Size 900 Constant Pressure Control



ACCESSORIES

CO₂ Sensor

Highly accurate CO₂ measurement by means of infrared light, gives a direct indication of the indoor air quality and occupancy levels. A 0-10V signal will prompt the ventilation unit to adjust the ventilation rates to bring CO₂ levels below the critical set-point and thus automatically improve indoor air quality whilst enhancing energy efficiency.

The CO₂ sensor has integrated auto-calibration, so manual recalibration is not required during the lifetime of the sensor.

Ventilation systems set-up to automatically adjust the ventilation rates of the occupied space will require this sensor fitted within the room.

Unit Size	CO ₂ Sensor
180	149-DCV-CO2
330	
540	
900	



Constant Pressure Sensor

The differential pressure sensor has 3 selectable ranges; 0-100Pa, 0-300Pa and 0-500Pa depending on the HVAC application, whilst maintaining high accuracy of the sensor when measuring lower pressures. Pressure is measured via movement of a ceramic beam connected to a diaphragm. It's the unique properties of the ceramic element that ensures that the transmitter has excellent long-term stability.

A 0-10V signal prompts the ventilation unit to control constant pressure depending on the measured differential pressure.

Ventilation systems set-up for constant pressure control will require this sensor fitted near the duct work.

Unit Size	Constant Pressure Sensor
180	149-DCV-DPT150
330	
540	
900	



Duct Mounted Silencers

There are two options for silencers, listed below:

Flanged Silencers

Circular attenuators are suitable for most dry HVAC and industrial applications and are available in two lengths; nominally one or two times the inner diameter of the attenuator. Constructed from galvanised sheet steel, with a peripheral, out of air stream acoustic lining, they produce nominal increases in air flow pressure drop over plain duct. The end connections are end ring flanges with threaded inserts, normally for bolting to ducting or fan flanges.

Unit Size	Flanged Silencers	
	1DENP	2DENP
180	068-0250-1DENP	068-0250-2DENP
330	068-0315-1DENP	068-0315-2DENP
540	068-0350-1DENP	068-0350-2DENP
900	068-0500-1DENP	068-0500-2DENP



Spigotted Silencers

This range of lightweight circular attenuators are constructed from galvanised sheet steel, with a peripheral, out of air stream acoustic lining. The range produces nominal increases in air flow pressure drop over plain duct. The end connections are with spun end caps designed for easy connection to a fan or ductwork. This range of silencers is available in four lengths: nominally JF1 – 300mm, JF2 – 600mm, JF3 – 900mm and JF4 – 1200mm.

Unit Size	Spigotted Silencers			
	300mm	600mm	900mm	1200mm
180	068-0250-JF1	068-0250-JF2	068-0250-JF3	068-0250-JF4
330	068-0315-JF1	068-0315-JF2	068-0315-JF3	068-0315-JF4
540	068-0355-JF1	068-0355-JF2	068-0355-JF3	068-0355-JF4
900	068-0500-JF1	068-0500-JF2	068-0500-JF3	068-0500-JF4



F9 (ISO ePM1 85%) Supply Filters

The F9 supply filter is an optional, compact, highly efficient, pleated fine filter designed to remove high levels of very small airborne particulates. Classified as ISO ePM1 85% (against the new filter classification standard BS EN ISO 16890), it is 85% efficient in arresting particles as small as $1\mu\text{m}$. The filters have a large surface area, long operating life and a manufacturer suggested economical change point at 250Pa.

Unit Size	F9 (ISO ePM1 85% Class) Supply Filters
180	783-SF-180-F9
330	783-SF-330-F9
540	783-SF-540-F9
900	783-SF-900-F9



IAQ Molecular Gas Filter

For heavily polluted areas, this is the perfect solution to remove harmful gases such as NO_2 , SO_2 , O_3 and VOCs, to create a cleaner and healthier indoor air quality.

This optional duct mounted molecular gas filter is suitable for horizontal or vertical duct mounting.

Unit Size	IAQ Molecular Gas Filter
180	783-SF-180-IAQ
330	783-SF-330-IAQ
540	783-SF-540-IAQ
900	783-SF-900-IAQ



Condensate Drain Pump

Powered by ASPEN Pumps, the standalone optional plug & play, intelligent condensation removal Micro-V i4 pump is the quietest in the market (19dB(A) @ 1m) with capacity up to 14.5L/hr max. Included is a small multi orientation sensor with visual pump status diagnostics and no breather tube.

Unit Size	Condensate Drain Pump
180	783-CDP
330	
540	
900	



Ceiling Void Mounting Kit

The Ceiling Void Mounting Kit (CVMK) is comprised of 3 appropriately sized 2.5mm thick, galvanised mild steel supporting Unistrut channels with neoprene isolation pads and 6 unit stops.

Unit Size	Ceiling Void Mounting Kit
180	783-MK-180
330	783-MK-330
540	783-MK-540
900	783-MK-900



Replacement Filters

Unit Size	Spare Supply Filter Set
180	783-SF-180-F7
330	783-SF-330-F7
540	783-SF-540-F7
900	783-SF-900-F7

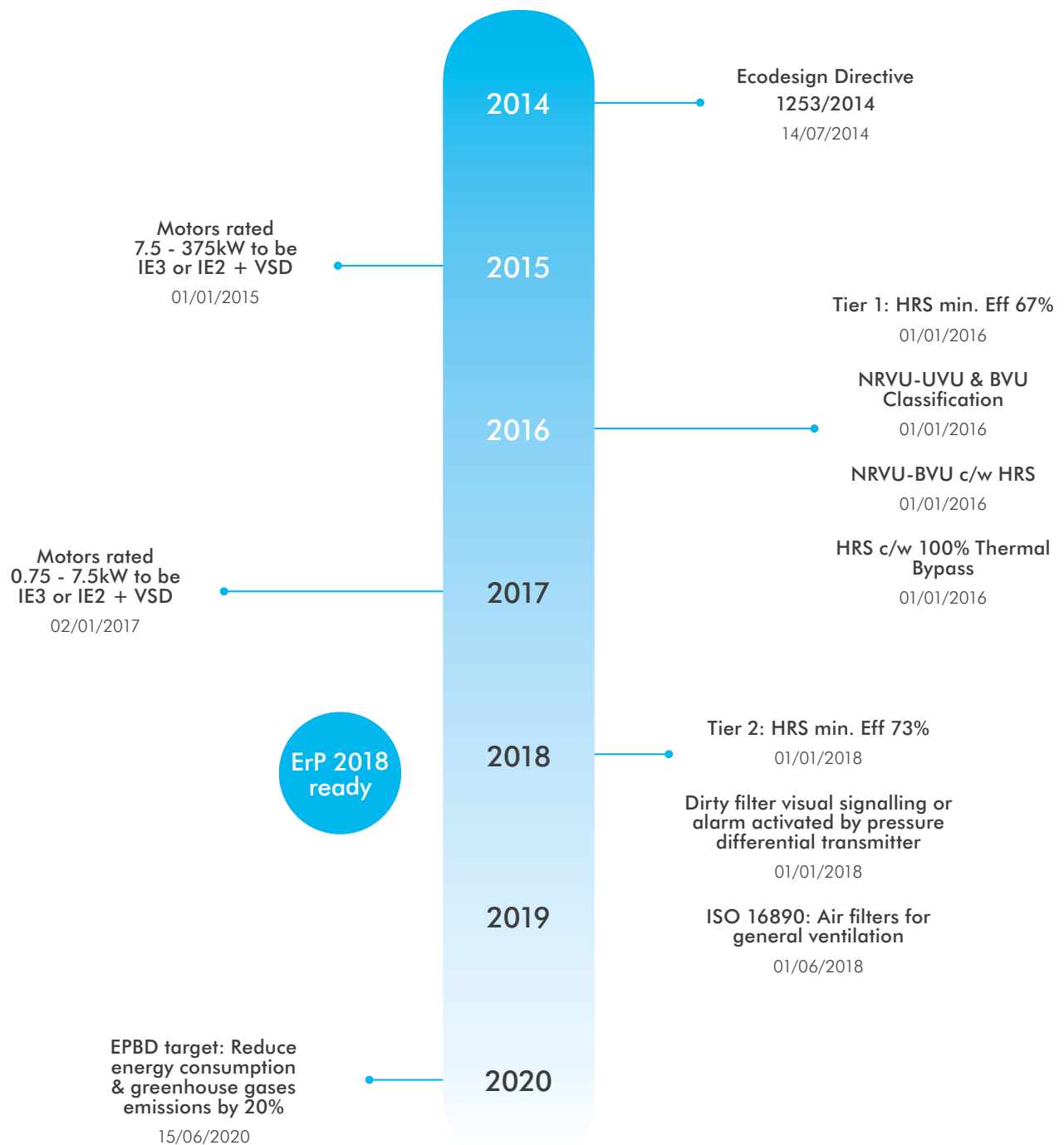


Unit Size	Spare Extract Filter Set
180	783-EF-180-M5
330	783-EF-330-M5
540	783-EF-540-M5
900	783-EF-900-M5



LEGISLATION

The timeline below sets out the legislative changes responsible for the innovative design of the units.



TESTING

CLASSIC WORKS units have undergone a combination of in-house and independent testing throughout the design and manufacture process to ensure optimum performance and remove differentiation between units.

ALL UNITS ARE THOROUGHLY TESTED BEFORE LEAVING THE FACTORY AS WELL AS BEING INDEPENDENTLY SOUND TESTED IN THE UK

Classic units have been independently tested for sound performance to BS EN ISO 3741:2010 (breakout), as well as undergoing in-house testing to the following standards:

- Sound performance BS 848-2:1985 (ducted)
- Air performance ISO 5801:2007
- Casing air leakage requirements and classification BS EN 1886:2007

Prior to despatch, every single CLASSIC unit undergoes a fan run test, full controls functionality test and casing air leakage test to BS EN 1886:2007, to guarantee that every unit meets the L2 casing air leakage class.



CONSULTANT SPECIFICATION

M&Y Ventilation Equipment Ltd's CLASSIC units are part of the AirWrap product platform of standard energy recovery

Casing

The casing shall be self-supporting and constructed from double skin galvanised sheet steel panels insulated with 25mm mineral wool (60kg/m³). The unit shall be leakage rated in accordance with BS EN 1886:2007 to class L2.

Access shall be provided on both sides for filter replacement and motor access. Panels shall be fitted with black nylon handles and secured with fasteners that require unfastening via a tool.

Units shall incorporate a pre-fitted IP66 isolator complete with non-removable cover in off position and lockable by three padlocks to prevent unit switch on.

Motors

The supply and extract motors shall have high efficiency energy saving electronically commutated (EC) external rotor motors with integrated EC controller and active temperature management fitted as standard. The motors contain high-grade deep-groove ball bearings with lifetime lubrication. Thermal motor protection shall be by means of motor integrated electronics. All motors are suitable for use in ambient air conditions up to +60°C.

Impellers

Units shall incorporate high efficiency impellers with low acoustic emissions due to special three-dimensional blade geometry and directly driven by the motor to provide a smooth airflow through the unit.

Heat Exchanger

The Heat Exchanger shall be seawater resistant aluminium counterflow with adhesive diffusion to ensure optimal sealing and shall be certified to Eurovent and AHRI. The unit shall have a thermal efficiency of up to 92% and fitted with purpose built thermal bypass facility. Bypass damper shall operate dependent on temperature parameters and values set via LCD display to offer free cooling mode in summer and free heating mode in winter.

Filters

Supply Filter shall be high efficiency ultra-compact F7 (ISO ePM1 55%) grade fitted on purpose built runners for reduced filter bypass leakage as standard. Filter media shall be Wet-laid glass fibre paper within a water-resistant frame. F9 (ISO ePM1 85%) grade filters shall be available as an option.

Extract filter shall be high efficiency ultra-compact M5 (ISO ePM10 55%) grade fitted on purpose built runners for reduced filter bypass leakage as standard. Filter media shall be Wet-laid glass fibre paper within a water-resistant frame.

Connections shall be provided for filter monitoring with signalling or an alarm in the control system which shall be activated if the filter pressure drop exceeds the maximum allowable final pressure drop.

Quality Management

Units are to be designed and manufactured with procedures as defined in BS EN ISO 9001:2008. All energy recovery units are to be tested to Air Performance: ISO 5801:2007, Sound Performance: BS 848-2:1985 (ducted) and BS EN ISO 3741:2010 (breakout).

Controls

Control shall be provided as standard for applications with CO₂ control via separate sensor. Units for constant pressure application shall be provided with pressure sensor. Manual operation shall be provided by supplied LCD display unit which shall allow adjustment of application parameters, operation of system automatically / manually and display of error messaging. Integrated programmable 7-day timesclock with four on / off functions per day shall be adjustable from the LCD display unit. Airflow balancing allows individual fan control and ensures a balanced supply and extract.

Digital input terminal connections shall be available for remote enable, fixed speed for boost speed, or set back speed. Digital output terminal connections shall be available for an electric heater. The function of the heater shall be dependent on heating type, temperature parameters and temperature values adjustable from LCD display unit, and the unit running without fault.

The energy recovery units shall incorporate a working hours counter and service menu accessible from LCD display unit.

Alternative controls available as an option for enhanced building management systems protocols and connectivity through optimised control and TREND.

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