



Social Housing

Titon Ultimate[®] dMEV - Ventilation

Ventilation

is key to a home's and occupant's health

It is estimated that we can spend more than 92% of our time indoors¹ and this can lead to indoor air being more polluted than outdoor air. As a result of this, a large amount of moisture is exposed and condensation being formed.

Condensation can be formed in two ways; from water vapour that is cooled to its dew point. Or, when the air becomes so saturated with water vapour that it can't hold any more moisture. If there is no where for this moisture to go, then it stays trapped inside a home.

Condensation built up can lead to mould, which can cause ill health. Mould can release spores that produce allergens, irritants, and mycotoxins² and exposure to mould spores in the home can exacerbate eczema and asthma.³

Condensation is especially common in winter and if not dealt with quickly, can encourage mould growth, with around 1 in 18 households in the UK reported to have experienced some form of mould.⁴

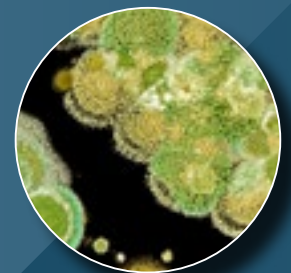
Our everyday activities contribute to moisture within a home. Breathing adds moisture; one sleeping person adds half a pint of water to the air overnight, and at twice that rate when active during the day. To give you some idea of how much moisture can be produced in a day, see example below⁵.



With homes becoming more airtight, it's important to allow them to breathe, to allow air to flow. Landlords and social housing projects need to 'Ventilate when you insulate' to make sure that tenants have no health issues or building damage is caused further down the line.

References:

- <https://road.cc/content/news/217728-brits-spend-92-all-their-time-indoors>
- AXA. What causes condensation and how to stop it. Accessed: November 2021. [<https://www.axa.co.uk/home-insurance/tips-and-guides/what-causes-condensation-and-how-to-stop-it/>].
- Medical News Today. Is mould in your house a problem? What you need to know. Accessed: November 2021. [<https://www.medicalnewstoday.com/articles/288651#mold-and-health>].
- Metro. How to get rid of mould in a rented home. Accessed: November 2021. [<https://metro.co.uk/2021/10/30/how-to-get-rid-of-mould-in-a-rented-home-15513721/>].
- <https://www.solihullcommunityhousing.org.uk/images/stories/fleximedia/condensation-leaflet.pdf>



Titon Ultimate[®] dMEV

Decentralised Mechanical Ventilation



Highly efficient constant flow intermittent extract fan

The new high performing Titon Ultimate[®] dMEV is an ultra quiet low profile fan, which is suitable for retrofit or refurbishment projects. One fan fits all and is ideal for bathrooms, kitchens and utility room applications and incorporates a new unique impeller design.

It's the perfect solution for landlords who want to make sure that mould and condensation are not a constant problem. The Titon Ultimate[®] dMEV is easy to maintain, simple to monitor using its data logging facility and can be commissioned in minutes.

The Titon Ultimate[®] dMEV uses a boost overrun and boost delay timer that is adjustable between 0 - 60 minutes. The unit has optional humidity control, constant flow and data logging.



SAP10

Compliant

Features & Benefits

- One of the quietest solutions and best performing dMEV fan on the market
- PCDB listed for inclusion within SAP (Consp10/ SAP10 compliant)
- Low specific fan power down to 0.11 W/l/s
- Airflow up to 30 l/s (108 m³/h)
- Extremely low running costs
- 3 configurable speed options (Trickle, Boost and High Boost)
- Eligible for Energy Compliance Obligation (ECO) fourth iteration funding
- Constant flow technology
- 4 button & LED display to allow for simple control
- Extract fan designed to run continuously (24/7)
- Integral pressure sensor to maintain constant flow to overcome external back pressures of up to 20Pa
- Unit running time and average RH Data Logging
- Fast straightforward commissioning and set up
- CFC Ceiling Fan Cuff available. Independently tested to BS EN 1364-2: 2018 Fire Resistance Tests for non-load bearing elements – Part 2: Ceilings and additional guidance from BS EN 1366-3: 2009. (Test Report 510322B/R). Up to 60 minutes integrity and insulation
- Ideal for removing condensation which can lead to mould and ill health
- Low profile aesthetic circular design
- Easy clean design
- Quiet running, only 10 dB(A) at 3m, low speed
- Unique high performance impeller and guide vane design
- IPX4 rated (Ceiling mounted TP646 Kit required)*
- Double insulated (requires no earth)
- Designed and manufactured in accordance with EN60335-2-80 Low Voltage Directive and the EMC Directive (Electromagnetic Compatibility)
- Complies with Building Regulations Part F (England and Wales)
- High performance brushless DC motor
- 18 months guarantee (UK only)
- Patent applied
- Exceeds newly proposed stringent 20 Pa back pressure requirement

The Ultimate Choice

* To maintain the IPX4 rating when ceiling mounted, a kit must be used. Please contact Titon for availability of ceiling mounting kits.

Description

Titon Ultimate® dMEV constant flow decentralised mechanical extract ventilation fan.

Product Codes

- TP640** – Basic version
- TP640H** – Humidity Control
- TP640HD** – Humidity Control with Data Logging

Standards

Designed and manufactured in accordance with EN60335-2-80 (Low Voltage Directive) and the EMC Directive (Electromagnetic Compatibility).
Air performance measured according to ISO 5801 at 230V 50Hz, air density 1,2 Kg/m³.
CE and UKCA marked.

Specification

Dimensions:

Ø195mm with 45mm projection

Weight: 0.5Kg

Finish: Gloss White

Materials: ABS, PCB's, LED display & brushless motor.

Controls: Onboard 4 button controls with 4 digit LED display

Guarantee period: 18 months (UK only)

Electrical: 220-240 V ~ 50/60Hz

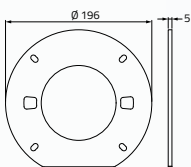
Installation: Install in accordance with regulatory requirements, such as the Ventilation: Approved Document F and the Residential Ventilation Association recommendations.

Maintenance: Service, clean, replace subject to local environment - see product manual.

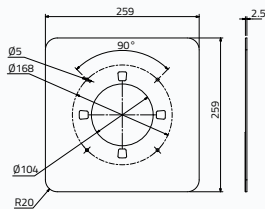
Accessories

- TP645/BR** - Telescopic Wall Kit (Brown)
- TP645/BE** - Telescopic Wall Kit (Beige)
- TP645/TC** - Telescopic Wall Kit (Terracotta)
- TP645/WH** - Telescopic Wall Kit (White)
- TP646** - IPx4 Ceiling Kit
- TP647** - Decorative Wall Plate
- CFC100** - CFC Ceiling Fan Cuff
- QSS310** - Quelstop Acrylic Sealant

Ceiling IPX4 Kit*
(TP646)



Decorative Wall Plate
(TP647)



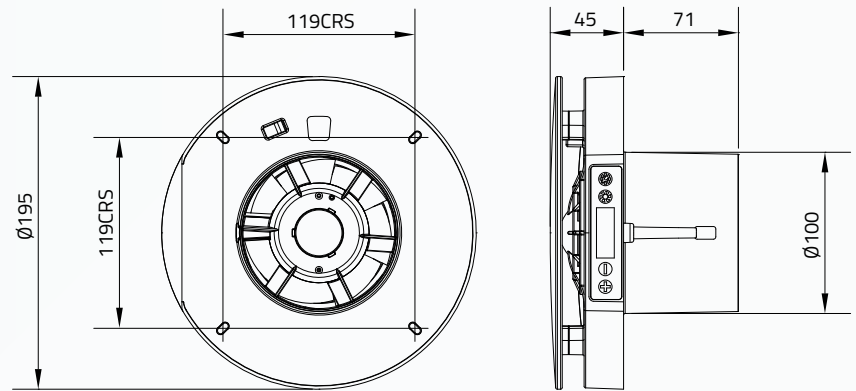
* To be used with Window Kits TP203 & TP204

Dimensions in mm

Ducting Kits

Our ducting kits are recommended to maintain flow rates and are available in Ø100mm and 110x54mm rectangular. Kits contain; 3m duct, bends, grille and accessories. Calculated resistance rates are also included in ducting kit literature.

Drawing & Dimensions



CRS - Fixing Holes

Dimensions (excluding ports) in mm

Performance

The results detailed below have been determined from independent laboratory testing performed in accordance with the latest SAP10 dMEV (Consp10) test standard introduced on 15th June 2022. Tests were performed with rigid ducting.

Fan Speed Setting	I/s	Ducted in Room					Through Wall	
		Kitchen		Wet Room			Kitchen	Wet Room
Fan Speed Setting	I/s	13	16	5	8	11	13	8
SFP	w/l/s	0.15	0.16	0.21	0.15	0.15	0.11	0.14
Volume reduction with 20Pa back pressure	%	1	2	6	5	2	1	1
Max volume reduction allowed	%	30	30	30	30	30	30	30
Power	W	1.89	2.52	1.07	1.23	1.60	1.47	1.13
Noise Level	dBA @ 3m	28**		19**			26	15

Figures taken from the BRE Test Results.

**Using 100mm diameter round duct and tested in accordance with SAP PCDB method V2.0:2013.

Nominal Fan Performance

