

3M™ Phantom Vision™ Powered Air Respirator

Technical datasheet



Product description

3M™ Phantom Vision™ Powered Air Respirator features a brushless motor and fan unit inside a full facemask. An external connection on the mask provides power to the motor via spring contacts and a cable to a rechargeable Lithium-ion battery mounted on a waist belt. A single approved particulate filter is fitted directly to the facepiece.

Battery and operation

The battery is enclosed in a round case with ergonomically designed grip areas. The battery is attached to the power belt and rotated from 'standby' to 'power on' position to start the motor, drawing air through the filter and providing filtered air to the wearer. Starting with a fully charged battery, 3M™ Phantom Vision™ Powered Air Respirator provides a minimum of 160 litres per minute for a minimum of 8 hours.

Air management

The air management system directs air onto the inside of the visor to help prevent misting. Air enters the breathing zone through the inhale valves of the inner half mask. Exhaled air is restricted to inside the half mask and exhausts to atmosphere through the exhale valve.

Decontamination and cleaning

In its fully assembled configuration, all external parts are resistant to water and dust ingress and the user can enter a decontamination shower wearing 3M™ Phantom Vision™ Powered Air Respirator.

Assembly and disassembly

The battery rotates to disconnect from the power belt. The filter and power cable unscrew from the mask. A spring clip detaches the motor unit and half mask from the facepiece. The half mask is easily removed from the motor unit. The system is straightforward to re-assemble by reversing the procedure.

Maintenance

Routine replacements are restricted to valves and seals on an annual basis. The design facilitates straightforward pre-use and regular inspection procedures and 3M™ Phantom Vision™ Powered Air Respirator can be re-certified for performance on a regular basis by approved and audited 3M™ Scott™ Service Centres. All major component modules are replaceable when necessary.



Technical specifications

Approvals	EN 12942 TM3 CE 2797
Manufacturer's Minimum Design Flow Rate (MMDf)	160 l/min
Approved filter type	Particulate filter PF251/2
Flow adjustment	Automatic electronic sensing
Battery type	Lithium-ion (Li-ion) rechargeable
Charger	LED charge status indicators
Operating time	Minimum 8 hours between recharges
Motor	Brushless
Mask sizes	3 sizes: medium/large, medium and small
Faceseal	Replaceable
Assigned protection factor (APF)	40
Weights	Mask and motor: approx. 680g. Battery and belt: approx. 860g
Operating temperature range	-10°C to +50°C, <95% relative humidity (RH)
Packaging	Supplied in a protective sturdy carry case

Materials

Faceseal	Silicone
Inner half mask	Clear TPE
Visor	Hard coat polycarbonate
Power belt	Wipe clean coated polyester and thermo-formed padding
Battery case	ABS

Filters approved for use with Phantom Vision™

PF251/2	Type P R SL	Filter is reusable. Solid and liquid particulates (dusts, fibres, mists, fumes, bacteria and virus)
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Important notice

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product, it is recommended to complete some trials to validate the performance of the product within its expected application.

All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environments. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the 3M product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures).

Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

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