

3M™ Powered Air Turbo PF-602E+

Technical datasheet



Description

The 3M™ Powered Air Turbo PF-602E+ is a certified belt-mounted air purifying device that can be combined with an approved headtop or facepiece to form a power-assisted system for respiratory protection against particles and gases and vapours (depending on the filter that is approved and fitted). A range of approved breathing tubes are available depending on which headtop or facepiece is selected.

- Display shows battery status (A) and motor status (P), where P represents how hard the motor is working
- Automatic monitoring feature checks that the unit is operating as designed, warns the user of low battery and compensates for changes in filter resistance (i.e. as the filter loads with particulate)
- Audible and visual alarm
- Factory Calibrated
- Integral NiMH battery
- Suitable for cleaning by showering/water spray (IP65) with filters or decontamination plugs fitted in filter ports & hose or hose port plug fitted.
- Serviceable by Authorised Service Centre

Limitation

The 3M Powered Air Turbo PF-602E+ should not be used in the following conditions:

- In atmospheres containing less than 19.5% oxygen
- Confined spaces (lack of ventilation)
- When the risk is considered to be Immediately Dangerous for Life or Health (IDLH)
- Where the contaminant concentration is above the Occupational Exposure Limit defined for the headtop or facepiece used (see relevant user instructions for the headtop or facepiece)
- Asbestos Removal

Standards and Approvals

The 3M™ Powered Air Turbo PF-602E+ has been tested and approved to the following standards:

- EN 12941:1998 + A2:2008 with approved headtops
- EN 12942:1998 + A2:2008 with approved facepieces

The Certificate and Declaration of Conformity are available at the following website www.3M.com/Respiratory/certs and www.3M.com/Welding/certs

Note: This product also complies with the European EMC Directive 2014/30/EU

Technical Specifications

| | |
|---|--|
| MMDF (manufacturer's minimum design flow rate) | 160 l/min when tested to EN 12941:1998 + A2:2008 and EN 12942:1998 + A2:2008 |
| | <i>The PF-602E+ can be affected by atmospheric air density. Therefore, atmospheric conditions such as air temperature and air pressure can increase or decrease the volumetric airflow provided by the Powered Air Turbo.</i> |
| Battery Specification | 4/3A size NiMH. 8 cells providing 9.6V/4.1Ah 4 hours* |
| Battery Duration | <i>* Battery durations are based on a fresh battery, appropriately charged with new filters being used at room temperature. Battery durations are affected by many factors, for example: Operating temperature; the age of the battery; charge status and filter clogging.</i> |
| Battery charger | Specification: Mains Operated. Primary: 100-240V AC, 50-60Hz 14VA Secondary: 4.8/9.6V DC. Max: 700mA 6.72VA Size: 90×60×38mm |
| Charge time | Approximately 7 hours |
| IP Rating | IP 65 - suitable for cleaning by showering/water spray with filters or decontamination plugs fitted in filter ports & hose or hose port plug fitted. |
| Operating range | -10 to +30°C, < 75% RH |
| Storage Conditions | -10 to +30°C, < 75% RH 5 years from date of manufacture |
| Shelf life* | <i>*The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as a warranty.</i> |
| Materials | Turbo housing – Polyurethane Body Tensioner – Thermoplastic Elastomer |
| Weight | 1.6kg (Powered Air Turbo without filters) |

System Classifications and Protection Factors

| | FF-300 / FF-600 (EN 12942:1998 + A2:2008) | S-655 / S-657/ S-757/ S-855E (EN 12941:1998 + A2:2008) | M-200 / M-300 (EN 12941:1998 + A2:2008) | FH-51 (EN 12941:1998 + A2:2008) |
|----------------|---|---|---|---------------------------------------|
| Classification | TM3 | TH3 | TH2 | TH3 |
| NPF | 2000 | 500 | 50 | 500 |

The 3M™ Half Facepiece Respirators 7500 Series and 3M™ Full Facepiece Respirators 6000 Series are not approved for use with the PF-602E+ Powered Air Turbo.

Note: The Nominal Protection Factor (NPF) is a number derived from the maximum percentage of total inward leakage permitted in relevant European Standards for a given class of respiratory protective device. This may not be the level of respiratory protection that can be realistically expected in the workplace by wearers. Many countries apply Assigned Protection Factors (APFs) for example UK and Germany. Employers may apply a value lower than the NPF/APF if deemed applicable. Please refer to EN 529:2005 and National workplace protection guidance for application of these numbers in the workplace. Please contact 3M for further information.

Product Range

| Part number | Description |
|--------------|--|
| PF-602E+ | 3M™ Powered Air Turbo Unit PF-602E+, 3M™ Battery PF-630 and 3M™ Airflow Indicator PF-972 |
| PF-619E+ | 3M™ Powered Air Turbo Starter Kit PF-619E+ including 3M™ Powered Air Respirator, PF-602E+, 3M™ Airflow Indicator PF-972, 3M™ Battery PF-630, 3M™ Battery Charger PF-641E, 3M™ Versaflo™ Length Adjusting Breathing Tube BT-30, 2 x 3M™ Particulate Filter PF10 P3 R D DT-1135E, 2 x 3M™ Pre-filters & Holders SS-6601 and 3M™ Comfort Belt SS-626 |
| PF-600E+ LIK | The 3M™ Powered Air Turbo Light Industry Ready Kit PF-600E+ LIK including 3M™ Powered Air Respirator, PF-602E+, 3M™ Airflow Indicator PF-972, 3M™ Battery PF-630, 3M™ Versaflo™ Faceshield M-206, 2x 3M™ Particulate Filter PF10 P3 R D DT-1135E, 2x 3M™ Pre-filters & Holders SS-6601, 3M™ Battery Charger PF-641E, 3M™ Comfort Belt SS-626 and 3M™ Versaflo™ Length Adjusting Breathing Tube BT-30 |

Breathing Tubes approved with 3M™ Powered Air Turbo PF-602E+

| Part number | Description |
|-------------|---|
| BT-20S/L | Lightweight Breathing Tube (Short/Medium or Medium/Long) for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops |
| BT-30 | Length-adjusting Breathing Tube for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops |
| BT-40 | Heavy-Duty Breathing Tube for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops |
| BT-54 | Breathing Tube for use with FF-300 & FF-600 Series Full Face Respirators |

*Requires FH-934 Adaptor when used with FH-51 Headtop

3M™ DT-Series™ filter options approved with 3M™ Powered Air Turbo PF-602E+

| Colour code | Part number | Description | Protection | For use against |
|-------------|-------------|--|------------------|---|
| | DT-1135E | 3M™ Particulate Filter PF10 P3 R D DT-1135E | P R SL | Solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-1235E | 3M™ Particulate Filter PFR10 P3 R D DT-1235E (reduced opening) | P R SL | Solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4031E | 3M™ Combination Filter CF22 A2P3 R D DT-4031E | A1P R SL | Organic gases and vapours, e.g. solvents with a boiling point above 65°C, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4032E | 3M™ Combination Filter CF22 B2P3 R D DT-4032E | B2P R SL | Inorganic gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4035E | 3M™ Combination Filter Cartridge CF22 A2B2P3 R D DT-4035E | A1B2P R SL | Organic, inorganic gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4036E | 3M™ Combination Filter CF22 A2B2E1P3 R D DT-4036E | A1B2E1P R SL | Organic, inorganic and acid gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4045E | 3M™ Combination Filter CF32 A2B2E2K2P3 R D DT-4045E | A1B2E2K2P R SL | Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |
| | DT-4046E | 3M™ Combination Filter CF32 A2B2E2K2HgP3 R D DT-4046E | A1B2E2K2HgP R SL | Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, mercury and mercury compounds, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms. |

A1 gas classification on relevant DT-Series filter. Hg filters only approved with TH3 and TM3 systems. DT-4031E, DT-4032E, DT-4035E, DT-4045E, DT-4036E and DT-4046E are not approved for use with the 3M™ Powered Air Turbo PF-602E+ connected to 3M™ Full Facepiece Reusable Respirator FF-600 Series.

Accessories for 3M™ Powered Air Turbo PF-602E+

| Part number | Description |
|-------------|-----------------------------|
| PF-972 | Airflow Indicator |
| PF-641E | Battery Charger |
| SS-6600 | Pre-filters |
| SS-6601 | Pre-filter holder |
| PF-651 | Disposable protective cover |
| PF-654 | Shower Plugs |
| SS-625 | Standard belt |
| SS-626 | Comfort Belt |
| SS-629 | Harness |

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 environment. 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. Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to respiratory contaminants. 3M offers advice on the selection of products, and training in the correct fitting and usage.

For more information on 3M products and services please contact 3M.

Personal Safety Division

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