# TECHNICAL DATASHEET

## *CleanAIR® Chemical 2F plus*

Powered air purifying respirator




* the picture is illustrational only and may vary depending on additional equipment

### *Description*

The battery-powered air purifying respirator (PAPR), the breathing protective device for increasing comfort and safety when combined with approved headtops.

### *Application*

In default Chemical 2F Plus provides protection against particulates, but is also capable to provide protection against wide range of contaminants when used with combined filters.

DA-020.1_-_510000FDA_-_Chemical_2F_Plus_-_EN

**MALINA - Safety s.r.o.**
Luční 11, 466 01 Jablonec n. Nisou, Czech Republic
Tel.: +420 483 356 600, Email.: export@malina-safety.cz
Web.: www.malina-safety.cz / www.clean-air.cz

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## *Technical specification*

| | | | |
|---|---|---|---|
| Product code | 510000FCA | | |
| Flow rate | Airflow [lpm] | Mode | Filter category |
| | 80 / 120 / 160 | Mask EN 12942 | Particle |
| | 80 / 120 / 160 | | Light combined (class 1) |
| | 80 / 120 / 160 | | Heavy combined (class 2) |
| | 80 / 120 / 160 | | Heavy combined (class 3) |
| | 160 / 185 / 210 / 235 | Hood EN 12941 | Particle |
| | 160 / 185 / 210 | | Light combined (class 1) |
| | 160 | | Heavy combined (class 2) |
| | 160 | | Heavy combined (class 3) |
| Battery | Standard battery | | Heavy Duty battery |
| Voltage | 14,4 V | | 14,4 V |
| Capacity | 3,2 Ah | | 4,9 Ah |
| Charging time | < 3 hours | | < 6 hours |
| Operation time* | < 10 hour* | | < 20 hours* |
| Battery lifespan | up to 500 charging cycles | | up to 500 charging cycles |
| Battery charger | Microprocessor controlled, fully automatic<br>Input: 100 - 240 V (50/60 Hz)<br>Output: 18 V (max. 1 500 mA)<br>Available plugs: EUR, UK and AUS | | |
| Weight | 1 000 g (incl. standard battery, excl. filters) | | |
| Dimensions | 235 mm / 126 mm / 65 mm (with standard battery) | | |
| Noisiness | < 70 dB | | |
| Materials | Unit: high performance polyamide<br>Comfort Belt/Harness: textile part - polyester/nylon/rubber foam<br>plastic part - polyamide | | |
| Motor | Ball-beared brushless motor | | |
| Input / Output (threads) | Filter thread - RD40x1/7" - 2x<br>Airflow output thread - CA40x1/7" - 1x | | |
| Belt - waist size: | Comfort padded belt - up to 1 500 mm | | |
| Standard | EN 12941 | | EN 12942 |
| Protection class / NPF** | TH3 / 500 | | TM3 / 2000 |
| Ingress protection IP64: | When switched ON (without any further requirements) | | |
| IP65: | When switched ON (set of spark arresters and pre-filter holders - 50 01 12) | | |
| IP68: | When switched OFF (with plugged inputs and output - 51 00 46) | | |
| Display | TFT display (262k colours, 160x160 px)<br>(showing actual working mode, airflow, filter condition and battery status) | | |
| Storage conditions | – 10°C to + 55°C, humidity 20 - 95 % Rh | | |
| Operating conditions | 0°C to + 60°C, humidity 20 - 95 % Rh | | |

* with new P3 filters and fully charged battery / ** depends on used headtop

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## *Technical features*

**Warning system** - visual and audible warning for low airflow and low battery charge..

**Flow control system** - maintains level of airflow constant regardless filter clogging or battery charge.

**Automatic closing system** - reduces the risk of unwanted contamination of the unit while the filters are being changed

**Allows immersion disinfection** - with input and output threads plugs on (Sodium hypochloride or Persteril).

**Built-in barometric sensor** – automatic airflow compensation depending on altitude. Works from -500m up to 4500m.

**LED display** - LED display visualises airflow, filter clogging and battery charge.

## *Product sets / variations*

| | |
|---|---|
| 51 00 00FCA* | Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), comfort padded belt, flow indicator |
| 51 00 00FDA* | Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), decontaminable belt, flow indicator |
| 51 00 00LA* | Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), comfort leather belt, flow indicator |

* for ordering variation with UK plug please add „U" at the end of the product code; for AUS plug please add „-AUS" at the end of the product code

## *Spare parts and accessories*

| | |
|---|---|
| 510010 | Battery CA Chemical 2F, Li-Ion (14,4V / 3,2Ah) |
| 510020 | Battery CA Chemical 2F Heavy Duty, Li-Ion (14,4V / 4,9Ah) |
| 710092 | Comfort padded belt |
| 720092 | Comfort leather belt |
| 510011 | Primary Li-Ion battery, non-rechargeable |
| 510015.1 | Power adaptor 230 V / 24 V for the main socket |
| 510015.2 | Power adaptor 12 V -24 V – car power socket |
| 510051 | Decontaminable belt PVC - 2F/3F |
| 510052 | Decontaminable harness PVC - 2F |
| 510148/5 | Protective cover for Chemical 2F - disposable, pck of 5 pcs |
| 520044.1 | Comfort padded harness |
| 710060 | Light flexi hose QuickLOCK™ - CA40x1/7" |
| 710086 | Rubber hose QuickLOCK™ – CA40×1/7" |
| 710062F | Hose cover flameproof |
| 700062C | Hose cover chemical resistant |
| 700060 | Light flexi hose CA40x1/7" - CA40x1/7" - mask compatible only |
| 700086CA | Rubber hose CA40x1/7" - CA40x1/7" - mask compatible only |
| 700086L | Rubber hose CA40x1/7" - CA40x1/7" straight - 900mm - mask compatible only |
| 700086R | Rubber hose CA40x1/7" - CA40x1/7" 90° - mask compatible only |
| 700086RL | Rubber hose CA40x1/7" - CA40x1/7" 90° - longer - mask compatible only |
| 710060L | QuickLOCK Light flexi hose, extended |

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| | |
|---|---|
| 710086L | QuickLOCK Rubber hose, extended |
| 710094 | Comfort harness - backpack |
| 510030EUR | Charger Li-Ion 14,4 V - EURO |
| 510030UK | Charger Li-Ion 14,4 V - UK |
| 510030AUS | Charger Li-Ion 14,4 V - AUS |
| 707051 | Multicharger 2F - 5 slots, without power supply |
| 707051P | Multicharger 2F -5 slots, incl. power supply and AC cords |
| 51 00 46 | Set of plugs (2x external thread, 1x internal thread) for decontamination of unit 2F |
| 52 01 01 | TFT display protective foil |

## *Compatible headtops*

| | | |
|---|---|---|
| 704441 600 | Welding helmet AerTEC™ OptoMAX Air incl. ADF with air distribution, silver | TH3 |
| 704441 601 | Welding helmet AerTEC™ OptoMAX Air incl. ADF with air distribution, black | TH3 |
| 720101 | Short hood CA-1 Lite | TH3 |
| 720201 | Long hood CA-1 Lite | TH3 |
| 720102B | Short protective hood CA-1, blue | TH3 |
| 720102 | Short protective hood CA-1, orange | TH3 |
| 720112 | Short protective hood CA-1+, orange | TH3 |
| 720112B | Short protective hood CA-1+, blue | TH3 |
| 720202B | Long protective hood CA-2, blue | TH3 |
| 720202 | Long protective hood CA-2, orange | TH3 |
| 721002 | Chem-proof protective hood CA-10 | TH3 |
| 721002G | Chem-proof protective hood CA-10, grey | TH3 |
| 721202 | Protective hood CA-12 with garment interface, chemically resistant, yellow | TH3 |
| 721203 | Protective hood CA-12 with garment interface, chemically resistant, grey | TH3 |
| 721204 | Protective hood CA-12 with garment interface, chemically resistant, white | TH3 |
| 721205 | Protective hood CA-12 with garment interface, chemically resistant, CLF, olive | TH3 |
| 720300.01 | Protective face shield UniMask, grey | TH3 |
| 720300.02 | Protective face shield UniMask, blue | TH3 |
| 720300.03 | Protective face shield UniMask, orange | TH3 |
| 720300.04 | Protective face shield UniMask, red | TH3 |
| 720300.08 | Protective face shield UniMask, neoprene | TH3 |
| 703100 | Protective faceshield Omnira air | TH3 |
| 710401Y | Safety helmet CA-4 yellow face seal | TH2 |
| 710403B | Safety helmet CA-4 additonal flip-up visor, earmuffs | TH2 |
| 704000 | Helmet CA - 40 with welding visor | TH3 |
| 704100 | Safety helmet CA-40G grinding shield | TH3 |
| 704203 | Safety helmet CA-40GW grinding + welding shield, V5-8/9-13 AerTEC X110 | TH3 |

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| | | |
|---|---|---|
| 703001 | Welding helmet CleanAIR® Verus air, incl. ADF S60+ | TH3 |
| 703201 | Welding helmet CleanAIR Omnira COMBI air, incl. ADF S60F | TH3 |
| 700500 | Half mask CA-5 Eurmask DIN | TM2 |
| 710600 | Full face mask GX02, size (S, M, L) | TM3 |
| 720600 | Full face mask CF02, size (M, L) | TM3 |
| 740600.05 | Full face mask CM-6, 6-point | TM3 |
| 740600.15 | Full face mask CM-6M, 6-point, fluid intake | TM3 |

## *Compatible filters*

| Product code: | Product name | P-white | A-brown | AX-brown | B-grey | E-yellow | K-green | Hg-red | Ozone (10 ppm) | EN 14387 | EN 143 | EN 12941 | EN 12942 | EN 148-1 (RD40x1/7") | Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Combined filters, thread RD40*1/7" | | | | | | | | | | | | | | | |
| 500357 | A1P3 | ✓ | ✓ | | | | | | | | | ✓ | ✓ | ✓ | - |
| 500157 | A2P3 | ✓ | ✓ | | | | | | | ✓ | | ✓ | ✓ | ✓ | - |
| 500557 | A3AXP3 | ✓ | ✓ | ✓ | | | | | | | | ✓ | ✓ | | - |
| 500162 | B2P3 | ✓ | | | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | - |
| 500160 | K2P3 | ✓ | | | | | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | - |
| 500167 | A2B2P3 | ✓ | ✓ | | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | - |
| 500164 | A2B2E2P3 | ✓ | ✓ | | ✓ | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | - |
| 500364 | A1B1E1P3 | ✓ | ✓ | | ✓ | ✓ | | | | | | ✓ | ✓ | ✓ | - |
| 500168 | A2B2E2K2P3 | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | - |
| 500165X | NBC - A2B2E2K2P3 | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | NBC filter |
| 500166 | A2B2E2K2HgP3 | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | max. 50 hours |
| 500257 | A2P - ZERO | ✓ | ✓ | | | | | | | ✓ | | ✓ | ✓ | ✓ | two-thread filter |
| 500266 | A2B2E2K2HgP - ZERO | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | two-thread filter |
| 500268 | A2B2E2K2P - ZERO | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | two-thread filter |
| Particle filters, thread RD40*1/7" | | | | | | | | | | | | | | | |
| 500048 | P3 | ✓ | | | | | | | | | ✓ | ✓ | ✓ | ✓ | - |
| 500249 | ZERO | ✓ | | | | | | | | | ✓ | ✓ | ✓ | ✓ | two-thread filter |
| 504048 | P3 lite | ✓ | | | | | | | | | ✓ | ✓ | ✓ | ✓ | - |
| 504249 | ZERO lite | ✓ | | | | | | | | | ✓ | ✓ | ✓ | ✓ | two-thread filter |

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