CleanSpace™
wearable protective masks

CLEANSPACE EX POWER UNIT [PAF-0060] DATA SHEET

PRODUCT CODE: PAF-0060

PRODUCT NAME: CleanSpace™ EX Power Unit

Description:	The CleanSpace™ EX Power Unit is an intrinsically safe battery-powered, positive pressure air-purifying respirator. The CleanSpace EX is suitable for use in certain ignitable or potentially explosive atmospheres where there is a risk of explosion. Suitable for particulate and gas applications. The respirator can be used with CleanSpace™ half masks and full face masks. The power unit is compatible with the full range of standard CleanSpace™ particulate (P3) and combined gas filters (A1P3, ABE1P3) and pre-filters. The Full Face Mask is not intrinsically safe approved. Note: Check the site requirements for Intrinsically Safe approvals.

Approvals

Standard	Classification
AS/NZS1716: 2012	PAPR-P3 (provides P2 with half mask)
IEC 60079-0:2011	Ex ia I Ma
IEC 60079-11:2011	Ex ib IIB T4 Gb
EN 60079-0:2012	I M1 Ex ia I Ma
EN 60079-11:2012	II 2 G Ex ib IIB T4 Gb

Features:

- Intrinsically safe
- Light weight and comfortable
- High visibility yellow casing for easy recognition
- AirSensit System™ for mask pressure control and breath responsive airflow
- One-button system and standby and auto-start/stop mode for quick don/doffing
- Easy to use support harness
- Altitude compensated filter blocked detection
- Long operating time: up to 8 hours and quick battery recharging: < 2hours
- Easy and accurate flow capability check
- Compatible with all CleanSpace™ half masks and full face masks
- Compatible with all CleanSpace™ filters: particulate and combined gas filters

Visual/Audible alarms:

- Filter blocked status
- Battery charge level
- Low battery
- Manufacturers minimum design flow: 120L/min

Specifications

- Peak airflow: Up to 220 l/min
- Weight: 540g
- Lithium-ion polymer battery
- Operating time: up to 8 hours
- Battery recharging: less than 2 hours
- Operation temperature range: –10°C to +45°C
- Charging temperature range: 0˚C to 35˚C
- Storage condition: –10°C to +35°C, 30% to 50% RH
- AC Adaptor charger: Input 100 – 240V, 50 to 60Hz, output 14.7Vdc ±5%, 24W

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CLEANSPACE EX POWER UNIT [PAF-0060] DATA SHEET

Suitable Applications for Intrinsically Safe approved sites:	• Underground mining requiring "Very High" equipment protection level (Ma) and level "ia" ignition protection to Methane, where constant risk of presence exists. • Propane and Ethylene gas environment requiring "High" equipment protection Level (Gb) and level "ib" ignition protection, where the presence of such gases is likely to occur (Zone 1).
Suitable Applications (other)	Welding, Woodworking, Manufacturing, Smelting, Construction, Recycling Plants, Emergency Services, Mining, Agriculture, Processing Plants, Grinding.
Limitations	CleanSpace™ is an air filtering, fan assisted positive pressure mask and is designed to be worn in environments where there is sufficient oxygen to breathe safely. Do not use the CleanSpace™ in IDLH atmospheres, to protect against gases/vapours that cannot be filtered, or in Oxygen enriched or deficient atmospheres.

APPROVALS EXPLAINED

CleanSpace EX powered respirator has the several product approvals. Below is an outline of the explanations and recommended applications for the Intrinsically Safe approvals.

Approval	Standard	Classification
AS/NZS respirator standard	AS/NZS1716: 2012	PAPR-P2 (Half Face), PAPR P3 (when used with a full face mask)
EN / CE respirator standard	EN12942: 1998+A2:2008	TM3
IECEx standards	IEC 60079-0:2011 IEC 60079-11:2011	Ex ia I Ma Ex ib IIB T4 Gb
ATEX / EN Ex standards	EN 60079-0:2012 EN 60079-11:2012	I M1 Ex ia I Ma II 2 G Ex ib IIB T4 Gb
IECEx Quality Assurance	IEC 80079-34:2011	
ATEX Quality Assurance	Annex IV of Directive 94/9/EC (ATEX)	
EMC Standard	CISPR 11: 2010	Group 1 Class B
	EN 61000-6-2	Industrial Limit
ISO Quality Standard	ISO9001	

Suitable Ex Applications

- Underground mining requiring "Very High" equipment protection level (Ma) and level "ia" ignition protection to Methane, where constant risk of presence exists.
- Propane and Ethylene gas environment requiring "High" equipment protection Level (Gb) and level "ib" ignition protection, where the presence of such gases is likely to occur but not constantly present (Zone 1).

IECEx Definitions:

- ignition protection level, ia – for very high protection, ib – for high protection

- Gas Group, I for methane; II for other gases, where IIA for propane, IIB for Ethylene, IIC for hydrogen; III for dust
- Equipment protection level for underground mining, Ma for very high protection, Mb for high protection
- Temperature class, T4 for 135°C, T3 for 200°C
- Equipment protection level for other gases, Ga – very high protection, Gb – high protection

ATEX definitions:

- Equipment Group, I for Underground, II for above ground
- Equipment Category (Protection level), M for underground, M1: Very high protection, M2 for high protection; 1, 2 & 3 for above ground, 1 for very high protection, 2 for high protection, 3 normal protection
- Gas or dust: G for gas, D for dust

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CLEANSPACE™ EX POWER UNIT [PAF-0060] APPROVALS

PRODUCT CODE: **PAF-0060**

PRODUCT NAME: **CleanSpace™ EX Power Unit**

The CleanSpace EX Powered Respirator has the following approvals listed.
Below is an outline of the explanations and recommended applications for the Intrinsically Safe approvals.

Approval	Standard	Classification
AS/NZS Respirator Standard	AS/NZS1716: 2012	PAPR-P2 (Half Face), PAPR P3 (when used with a Full Face Mask)
EN / CE Respirator Standard	EN12942: 1998+A2:2008	TM3
IECEx Standards	IEC 60079-0:2011 IEC 60079-11:2011	Ex ia I Ma Ex ib IIB T4 Gb
ATEX / EN Ex Standards	EN 60079-0:2012 EN 60079-11:2012	Ex I M1 Ex ia I Ma Ex II 2 G Ex ib IIB T4 Gb
IECEx Quality Assurance	IEC 80079-34:2011	
ATEX Quality Assurance	Annex IV of Directive 94/9/EC (ATEX)	
EMC Standard	CISPR 11: 2010	Group 1 Class B
	EN 61000-6-2	Industrial Limit
ISO Quality Standard	ISO9001	

Suitable Ex Applications:

- Underground mining requiring “Very High” equipment protection level (Ma) and level “ia” ignition protection to Methane, where constant risk of presence exists.
- Propane and Ethylene gas environment requiring “High” equipment protection Level (Gb) and level “ib” ignition protection, where the presence of such gases is likely to occur but not constantly present (Zone 1).

IECEx Definitions:

- ignition protection level, ia – for very high protection, ib – for high protection
- Gas Group, I for methane; II for other gases, where IIA for propane, IIB for Ethylene, IIC for hydrogen; III for dust
- Equipment protection level for underground mining, Ma for very high protection, Mb for high protection
- Temperature class, T4 for 135°C, T3 for 200°C
- Equipment protection level for other gases, Ga – very high protection, Gb – high protection

ATEX definitions:

- Equipment Group, I for Underground, II for above ground
- Equipment Category (Protection level), M for underground, M1: Very high protection, M2 for high protection; 1, 2 & 3 for above ground, 1 for very high protection, 2 for high protection, 3 for normal protection
- Gas or dust: G for gas, D for dust

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