

## MFH 'The Bulldog'® Portable Fan Heaters







EXHEAT Industrial's MFH 'The Bulldog' Portable Fan Heater is the world's first truly portable hazardous area fan

assisted heater. The Bulldog uses a patented design (GB1614657.3) that combines efficiency with simple functionality to provide a portable heating solution for use in hazardous environments where the atmosphere is classified as Zone 1/2 (IIB+H2) or Zone 21/22 (IIC). Certified to the new BS EN ISO 80079-36:2016 and BS EN ISO 80079-37:2016 standards for constructional safety, The Bulldog comes ready to 'plug and play' with the option of fitting a plug, or hard wiring to an isolator unit.

The casing is moulded from a steel reinforced polymer which makes The Bulldog tough and durable. Using adjustable feet, the heater can be angled to allow for flexibility in its positioning and, with its compact design, can be easily stored or transported.

The Bulldog can be used with or without ducting to provide a warm stream of air that can be felt metres away, even in ambient temperatures as low as -40°C and up to +40°C. The heater can optionally be fitted with an additional safety device above and beyond the requirements of the certification.

## **FEATURES**

- Designed for compactness and portability, with a base weight of only 28kg (excluding optional accessories)
- Durable steel reinforced polymer outer casing reduces overall weight, while providing additional EMI shielding
- Can be supplied on a long flying lead to get heat where you need it
- Integrated protection device allows for operation in temperatures as low as -40°C
- Built in thermal protection monitor the heating elements to ensure temperature class is maintained
- Various ducting options available upon request
- Optional lifting rails available

## TYPICAL APPLICATIONS

- Fabric maintenance
- Localised heating
- Offshore containers
- Oil drilling
- Oil refineries
- Paint curing
- Paint stores
- Production platforms
- Spray booths





Certification	ATEX  EX EX II 2 G D Ex h  EX db eb IIB+H2 T3T4 Gb  Ex tb IIIC T200°CT135°C Db IP65  CU TR (EAC)  1Ex db e IIB+H2 T3T4 Gb X  Ex tb IIIC T200°CT135°C Db X	IECEx Ex db eb IIB+H2 T3T4 Gb Ex tb IIIC T200°CT135°C Db IP65						
Dimensions	L475 x W470 x H530mm. Base weight 28kg							
Main Materials	Elements: Finned stainless steel tubular elements	Impeller: PA66 30% glass and steel filled blades and epoxy coated aluminium hub Elements: Finned stainless steel tubular elements Ex d Enclosure: Anodised extruded aluminium Ex e Enclosure: Stainless steel						
Mounting	Mounting options include: Adjustable feet, Castors or Wall / Ceiling Bracket.  Bracketry can be designed to suit the application.							
Rating	Up to 6kW							
Temp Class	Available in T3 and T4 temperature classes							
Voltage	Single-Phase: 110V to 277V Three-Phase: 380V to 690V, 50/60Hz							



## **Hazardous Area Electric Heaters & Controls**

Model	Voltage *	Phase **	Nominal Output (kW)	Air Flow (m³/hr)		Air Temp. Delta (°C/°F)  ***		Max Current (A) ****			
				50Hz	60Hz	50Hz	60Hz				
MFH - T3 Class											
MFH-5.5-220	220		5.5		1260	16.2 / 29.2	13.5 / 24.3	25.6			
MFH-6-230	230		6			17.7 / 31.8	14.7 / 26.5	26.7			
MFH-5.5-240	240	1	5.5			16.2 / 29.2	13.5 / 24.3	23.5			
MFH-6-254	254		6			17.7 / 31.8	14.7 / 26.5	24.2			
MFH-6-277	277		6			17.7 / 31.8	14.7 / 26.5	22.3			
MFH-5.5-380	380		5.5	4050		16.2 / 29.2	13.5 / 24.3	9.0			
MFH-6-400	400	3	6	1050		17.7 / 31.8	14.7 / 26.5	9.3			
MFH-5.5-415	415		5.5			16.2 / 29.2	13.5 / 24.3	8.3			
MFH-6-440	440		6			17.7 / 31.8	14.7 / 26.5	8.5			
MFH-6-480	480		6			17.7 / 31.8	14.7 / 26.5	7.8			
MFH-6-600	600		6			17.7 / 31.8	14.7 / 26.5	6.4			
MFH-6-690	690		6			17.7 / 31.8	14.7 / 26.5	5.6			
MFH – T4 Class											
MFH-2.5-110	110	1	2.5	1050	1260	7.4 / 13.3	6.1 / 11.1	23.3			
MFH-3-120	120		3			8.8 / 15.9	7.4 / 13.3	25.6			
MFH-2.75-220	220		2.75			8.1 / 14.6	6.8 / 12.2	13.1			
MFH-3-230	230		3			8.8 / 15.9	7.4 / 13.3	13.6			
MFH-2.75-240	240		2.75			8.1 / 14.6	6.8 / 12.2	12.1			
MFH-3-254	254		3			8.8 / 15.9	7.4 / 13.3	12.4			
MFH-3-277	277		3			8.8 / 15.9	7.4 / 13.3	11.4			
MFH-2.75-380	380	3	2.75			8.1 / 14.6	6.8 / 12.2	4.8			
MFH-3-400	400		3			8.8 / 15.9	7.4 / 13.3	4.9			
MFH-2.75-415	415		2.75			8.1 / 14.6	6.8 / 12.2	4.4			
MFH-3-440	440		3			8.8 / 15.9	7.4 / 13.3	4.6			
MFH-3-480	480		3			8.8 / 15.9	7.4 / 13.3	4.3			
MFH-3.7-600	600		3.7			10.9 / 19.6	9.1 / 16.4	4.2			
MFH-3.7-690	690		3.7			10.9 / 19.6	9.1 / 16.4	3.7			

Voltage tolerance +0/-10%.

All values based on 25m cable lengths and an acceptable voltage drop of 4% at +40°C ambient.

Minimum SWA multicore cables required: 3Ph 380V-690V heaters require 4mm², 1Ph 220V-277V T4 heaters require 4mm², 110V-120V T4 & 220V-277V T3 heaters require 6mm², 110V-120V T3 heaters require 10mm².

ΔT (Delta T) refers to the air temperature difference at the inlet and outlet. For example, if the ambient is +6°C and the  $\Delta T$  (temperature rise) is 15°C, then the outlet will be +21°C.

The maximum current includes the maximum motor inrush.