AIRTECHNOLOGY / AMETEK®

HEATERS & FAN HEATERS



WHEN
EXCEPTIONAL PERFORMANCE
MATTERS

OVERVIEW

AMETEK Airtechnology has an extensive portfolio of Heater and Fan Heater designs for the Aerospace industry. We have solutions covering a spectrum of applications and platforms, including fixed and rotary-wing aircraft for both Commercial and Military roles. Our heaters are duct-type heaters ranging in heater output from 150W to 6kW and typically provide supplementary heating as part of the aircraft's Environmental Control System.

We also supply axial and mixed-flow fans, which we combine with our heaters to provide stand-alone heating (outside of the ECS) for applications such as Windscreen defog, cabin heating, pilot footwarming and remote bay heating such as externally mounted electronics pods. The application drives the design and technology we use in our heaters, and we pride ourselves in our flexibility to tailor our approach to suit our customer's specific requirements. Our products are typically certified to meet environmental standards RTCA DO160 and MIL-STD-810 (including gunfire). We're also familiar with EMC standard MIL-STD-461.
Additionally, we'd like to highlight that Airtechnology is developing a 270VDC controller to support its brushless motor, fan and heater products. What's more, the heating technology in our 28VDC product series can easily be adapted for use with 270VDC, aligning with the electrical architectures of contemporary aircraft.

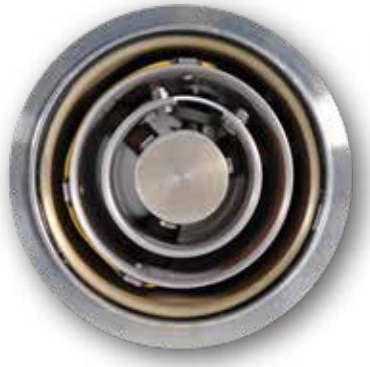






The heat source can be specified from three main technologies:

- **Heater Rods**: This type of heater uses a cartridge type "heater rod" which is inserted into an aluminium heat-sink.



- **Silicone Mat**: High-resistance wire is sandwiched between
layers of glass reinforced silicone rubber. The mats are bonded onto aluminium tubes which are arranged in a "nested" configuration. This arrangement provides a very large area for heat transfer and a low pressure drop while minimizing the heater's surface temperature.



- **Polyimide Etched**: An etched foil is sandwiched between
layers of polyimide which is bonded to a flat plate or surface
form. The plates are typically stacked together to form a heater core. Like silicone mat, this arrangement provides a very large area for heat transfer and a low pressure drop,
while minimizing the heater surface temperature.

APPLICATIONS

Complete Cabin Heating Systems

In today's commercial aerospace environment, it is essential that aircraft are as fuel efficient as possible. This necessity has led to a reduction in the number of systems such as bleed-air, which was typically used for cabin heating. We supply a variety of heaters servicing all parts of the aircraft. These heaters feature a robust, lightweight design, complete with complex controls and sensors to ensure they maintain the required temperature. What's more, their multilayered, fail-safe technologies meet the most stringent safety requirements (typical of modern-day commercial airliners).

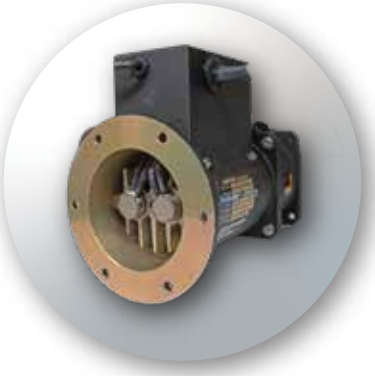
Supplemental Cabin Heaters

Heaters designed for use as supplemental heating in areas requiring additional heat. Examples include:

- Cockpit Heaters
- Windscreen De-Fog (Fan Heater)
- Galley and Door Areas
- Bulk Cargo
- Crew Rest Compartments
- VVIP Aircraft Conversions

Specialist Heating

- Electronics Pod Heating
- Recon Camera Heating De-Fog
- Electronic Warfare platforms
- UAV electronics heating





Available to order:

				Fan			Dimensions		
Rating (Watts)	Type No	Voltage	Supply	Airflow CFM (l/s)	Voltage	Supply	Weight lb (kg)	Dia in. (mm)	Length in. (mm)
150	E1414-AE1-511	115	1ph	-	-	-	1.1 (0.5)	1.9 (47)	15.4 (390)
300	E636-AC1-511	200	3 ph	55(26)	200	3 ph	3.5 (1.6)	2.8 (70)	5.9 (150)
	E1415-AE1-511	115	1ph	-	-	-	2.4 (1.1)	1.9 (47)	40.4 (1025)
	E1416-AE1-511	115	1ph (x2)	-	-	-	1.5 (0.7)	3.0 (76)	9.4 (240)
400	E812-AC1-111	115	1 ph	38(18)	28	DC	3.5 (1.6)	3.0 (77)	8.5 (215)
500	E1497-AE1-111	28	DC	63 (30)	28	DC	4.8 (2.2)	2.72 (69)	8.58 (218)
	E1609-AC1-111	28	DC	63 (30)	28	DC	5.1 (2.3)	2.72 (69)	8.58 (218)
	E796-AC1-111/2	28	DC	41(20)	28	DC	3.4 (1.55)	4.2 (106)	8.8 (224)
	E913-AE1-111	200	3 ph	106(50)	115	3 ph	3.5 (1.6)	2.8 (70)	6.7 (170)
	E930-AE1-511	200	3 ph	148(70)	200	3 ph	3.5 (1.6)	2.8 (70)	6.8 (173)
	E1385-AE1-111	28	DC	42(20)	28	DC	7.7 (3.5)	4.0 (102)	13.0 (331)
	E1463-AE1-511	200	3 ph	106(50)	200	3 ph	4.0 (1.8)	3.1 (78)	6.8 (173)
800	E1419-AE1-511	200	3 ph	-	-	-	3.6 (1.7)	4.0/5.0 (102/127)	17.3 (440)
900	E1384-AE1-511	200	3 ph	-	-	-	2.2 (1.0)	2.5 (63.5)	13.4 (340)
1000	E1397-AE1-111	28	DC	97(46)	28	DC	5.1 (2.3)	3.1 (80)	13.4 (340)
1200	E1025-AE1-111	200	3 ph	-	-	-	7.1 (3.2)	3.9 (100)	13.4 (340)
1500	E955-AE1-111	28	DC	170 (80)	28	DC	7.3 (3.3)	4.7 (120)	16.5 (420)
	E1563-AE1-511	200	3 ph	-	-	-	8.6 (3.9)	3.9 (100)	15.6 (396)
3000	E1001-AE1-511	200	3 ph	-	-	-	8.8 (4.0)	5.9 (150)	9.8 (250)
	E1418-AE1-511	200	3 ph	-	-	-	5.5 (2.5)	6.1 (156)	11.8 (300)
6000	E948-AE1-511	200	3 ph	224(106)	200	3 ph	13.7 (6.2)	6.5 (165)	19.8 (504)
	E1417-AE1-511	400	3 ph	-	-	-	7.3 (3.3)	4.0/7.5 (102/190)	21.1 (536)

Contact Us

Aerospace & Defence Applications

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