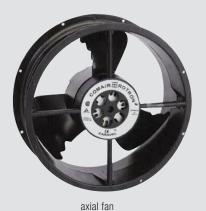


# axial fans, blowers & impellers

reliable and high-performance air moving devices









axial fan

impeller

#### AMS Technologies – where technologies meet solutions

AMS Technologies is a leading solution provider and distributor of high-tech, leading-edge components, systems and equipment, with more than 35 years of experience to date and currently serving more than 2000 European customers.

We are the specialists in both components and complete solutions for Optical Technology, Thermal Management and Power Technology fields, with access to and long standing relationships with the most advanced manufacturers in each of those fields. Drawing extensively on our experience in each of these differing technologies, and coupling this with our broad system-level competence, we are able to offer seamless and comprehensive solutions incorporating complementary aspects from all three key technology fields.

With an appropriate technical education, an element of entrepreneurial spirit and many years of design and consultancy expertise, our sales engineers can rapidly comprehend system requirements and provide you the customer with a solution that goes way beyond a simple understanding of our product datasheets. We take active involvement in the design cycle, defining and re-defining your specifications, and leading in many

cases to highly specific, customized products and solutions. Helping you to effectively outsource your production line, we can even provide you with the necessary leading turnkey contract manufacturing services in our key competency fields.

AMS Technologies has been delivering solutions into a variety of high-tech markets, including renewable energies, medical, defence & aerospace, research & scientific and various other industrial segments. Our customer base consists of Europe's largest leading technology corporations, a network of universities and research institutes as well as the most promising start-ups.

We thrive by working in a 'customer first' environment. Our pan-European customers are serviced from a network of local offices in Germany, the UK, France, Italy, Spain, Poland and Sweden, with a focused operations and logistics centre located in Munich, Germany.

Our commitment: Identifying the best solution for your project enabling you to become your customers' first choice!

**Your AMS Technologies team** 













#### axial fans, blowers & impellers

Our wide range of products for forced air cooling include axial fans and blowers both for AC and DC operation. Sizes of the square, rectangular and round shaped fans primarily focus on a range from 80 mm to 280 mm, supplying 42 m³/hr to 2,140 m³/hr. They are all designed to achieve high air performance, low-noise operation and low power consumption. While axial fans (airflow in parallel to the turning axis of the propeller) provide large flow rates but just a small increase in pressure, the centrifugal or radial DC "blower" fans as well as EC impellers (axial air intake, 90° offset radial air outlet) deliver more pressure but less flow rate - making a DC blower or EC impeller the solution of choice for higher pressure systems.

#### DC axial fans & blowers

Our portfolio of brushless DC fans is covering nominal voltages of 12 V, 24 V and 48 V. Your system's regulated power supply provides one of these? Then selecting the right brushless DC fan could give you the exact performance required, immune to AC input variables that are always an issue with AC fans.

Speed and airflow of a typical DC fan are proportional to the voltage supplied, so a single product may be used to meet the demands of different applications - simply by setting the supply voltage to a value that provides the desired airflow.

#### AC axial fans

Powering fans directly from mains significantly reduces the effort for voltage conversion and control and might take load off your system's power supply. So if a constant airflow is all you are looking for, AMS Technologies offers a broad range of ACfan models with a rated voltage of 230 VAC, sizes from 78 mm to 254 mm and rated airflow from 45 m<sup>3</sup>/hr to 1,615 m<sup>3</sup>/hr. Custom AC fans (e.g. for 115 V AC) are available on request.

#### EC axial fans & impellers

Electronically Commutated (EC) fans feature DC motors but are powered by AC voltages. With this technology, our EC axial fans & impellers offer enhanced performance and reliability. Converting AC voltage to DC voltage enables wide input operating voltage range and gives the fan electronics great motor control capabilities, reducing the overall power draw and extending the fan's lifetime.



## DC axial fans & blowers – technical specifications

Series	Model	Fan Type	Design		Fan Size		
		,,		Height	Length	Width	
	ST12B3	Axial	square	80 mm	80 mm	32 mm	
Sprint DC	ST24B3	Axial	square	80 mm	80 mm	32 mm	
	ST24K3	Axial	square	80 mm	80 mm	32 mm	
	ST24Z3	Axial	square	80 mm	80 mm	32 mm	
	MC12B3	Axial	square	120 mm	120 mm	32 mm	
	MC12B7	Axial	square	120 mm	120 mm	32 mm	
	MC24B3	Axial	square	120 mm	120 mm	32 mm	
Muffin DC	MC24B7	Axial	square	120 mm	120 mm	32 mm	
	MC48B3	Axial	square	120 mm	120 mm	32 mm	
	MC24K3	Axial	square	120 mm	120 mm	32 mm	
	MS12B3	Axial	square	120 mm	120 mm	38.1 mm	
Muffin XP DC	MS24B3	Axial	square	120 mm	120 mm	38.1 mm	
	MS48B3	Axial	square	120 mm	120 mm	38.1 mm	
Muffin XL DC	MD24B1	Axial	square	119.13 mm	119.13 mm	39.12 mm	
	MD48B1	Axial	square	119.13 mm	119.13 mm	39.12 mm	
	GL12B4	Axial	square	127 mm	127 mm	38.1 mm	
	GL12B7	Axial	square	127 mm	127 mm	38.1 mm	
	GL24B3	Axial	square	127 mm	127 mm	38.1 mm	
Galaxy DC	GL24B4	Axial	square	127 mm	127 mm	38.1 mm	
	GL24B7	Axial	square	127 mm	127 mm	38.1 mm	
	GL48B4	Axial	square	127 mm	127 mm	38.1 mm	
	GL48B7	Axial	square	127 mm	127 mm	38.1 mm	
	JQ12B4	Axial	rectangular	171.5 mm	150.4 mm	50.8 mm	
	JQ24B4	Axial	rectangular	171.5 mm	150.4 mm	50.8 mm	
Major DC	JQ24K7	Axial	rectangular	171.5 mm	150.4 mm	50.8 mm	
	JQ48B4	Axial	rectangular	171.5 mm	150.4 mm	50.8 mm	
	PQ12B4	Axial	round	171.5 mm	171.5 mm	50.8 mm	
Patriot DC	PQ24B4	Axial	round	171.5 mm	171.5 mm	50.8 mm	
	PQ48B4	Axial	round	171.5 mm	171.5 mm	50.8 mm	
	MT12B3	Axial	rectangular	171.45 mm	150.37 mm	54.99 mm	
Maltese DC	MT24B3	Axial	rectangular	171.45 mm	150.37 mm	54.99 mm	
	MT48B3	Axial	rectangular	171.45 mm	150.37 mm	54.99 mm	
Tarzan DC	TD24B1	Axial	square	175.51 mm	175.51 mm	107.21 mm	
	CD12B3	Axial	round	254 mm	254 mm	88.9 mm	
Caravel DC	CD24B3	Axial	round	254 mm	254 mm	88.9 mm	
	CD48B3	Axial	round	254 mm	254 mm	88.9 mm	
Misture C C DC	MFXE24Z3D3-E2	Axial	round	171.28 mm	171.28 mm	50.8 mm	
Mixtus 6.8 DC	MFXE48Z3D3-E2	Axial	round	171.28 mm	171.28 mm	50.8 mm	
Whiffet DC	WT12B3	Blower	square	79.8 mm	79.8 mm	32 mm	
Whiffet DC	WT24B3	Blower	square	79.8 mm	79.8 mm	32 mm	
Digguit DC	BD12B3	Blower	rectangular	120.7 mm	120.7 mm	31 mm	
Biscuit DC	BD24B3	Blower	rectangular	120.7 mm	120.7 mm	31 mm	



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Rated Voltage	Rated Input Power	Speed	Rated Airflow	Rated Air Pressure	Noise	Termination	
12 VDC	3.4 W	3400 rpm	54.4 m³/hr	57 Pa	40.9 dB(A)	Leadwires	
24 VDC	3.3 W	3400 rpm	54.4 m³/hr	57 Pa	40.9 dB(A)	Leadwires	
24 VDC	4.5 W	4200 rpm	64.6 m <sup>3</sup> /hr	81 Pa	44.2 dB(A)	Leadwires	
24 VDC	6.0 W	4700 rpm	76.5 m³/hr	92 Pa	51.5 dB(A)	Leadwires	
12 VDC	7.9 W	3700 rpm	170 m³/hr	98 Pa	47.8 dB(A)	Leadwires	
12 VDC	7.9 W	3700 rpm	170 m³/hr	98 Pa	47.8 dB(A)	Leadwires / Tachometer	
24 VDC	5.5 W	3700 rpm	170 m³/hr	98 Pa	47.8 dB(A)	Leadwires	
24 VDC	5.5 W	3700 rpm	170 m³/hr	98 Pa	47.8 dB(A)	Leadwires / Tachometer	
48 VDC	8.4 W	3700 rpm	170 m³/hr	98 Pa	47.8 dB(A)	Leadwires	
24 VDC	10.7 W	4100 rpm	187 m³/hr	112 Pa	50.0 dB(A)	Leadwires	
12 VDC	7.0 W	3000 rpm	187 m³/hr	70 Pa	49.1 dB(A)	Leadwires	
24 VDC	7.0 W	3000 rpm	187 m³/hr	70 Pa	49.1 dB(A)	Leadwires	
48 VDC	7.2 W	3000 rpm	187 m³/hr	70 Pa	49.1 dB(A)	Leadwires	
24 VDC	6.0 W	3100 rpm	180.1 m³/hr	69 Pa	50.0 dB(A)	Leadwires	
48 VDC	5.8 W	3100 rpm	180.1 m³/hr	69 Pa	50.0 dB(A)	Leadwires	
12 VDC	15.6 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Terminals	
12 VDC	15.6 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Leadwires / Tachometer	
24 VDC	15.1 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Leadwires	
24 VDC	15.1 W	3300 rpm	254.9 m <sup>3</sup> /hr	139 Pa	53.6 dB(A)	Terminals	
24 VDC	15.1 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Leadwires / Tachometer	
48 VDC	14.9 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Terminals	
48 VDC	14.9 W	3300 rpm	254.9 m³/hr	139 Pa	53.6 dB(A)	Leadwires / Tachometer	
12 VDC	27.1 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
24 VDC	24.0 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
24 VDC	43.2 W	4200 rpm	484.2 m³/hr	269 Pa	58.9 dB(A)	Leadwires / Tachometer	
48 VDC	22.1 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
12 VDC	27.1 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
24 VDC	24.0 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
48 VDC	22.1 W	3400 rpm	399.3 m³/hr	207 Pa	54.3 dB(A)	Terminals	
12 VDC	36.0 W	3400 rpm	506.3 m³/hr	207 Pa	57.1 dB(A)	Leadwires	
24 VDC	40.8 W	3400 rpm	506.3 m <sup>3</sup> /hr	202 Pa	57.1 dB(A)	Leadwires	
48 VDC	34.6 W	3400 rpm	506.3 m <sup>3</sup> /hr	202 Pa	57.1 dB(A)	Leadwires	
24 VDC	36.0 W	3250 rpm	553 m³/hr	167 Pa	65.2 dB(A)	Leadwires	
12 VDC	30.0 W	1650 rpm	931 m³/hr	107 Fa	49.1 dB(A)	Leadwires	
24 VDC	28.8 W	1650 rpm	931 m³/hr	102 Fa	49.1 dB(A)	Leadwires	
48 VDC	28.8 W	1650 rpm	931 m³/hr	102 Pa	49.1 dB(A)	Leadwires	
24 VDC	74.4 W	5400 rpm	669.4 m³/hr	589 Pa	72.0 dB(A)	Leadwires	
48 VDC	74.4 W	5400 rpm	669.4 m <sup>3</sup> /hr	589 Pa	72.0 dB(A)	Leadwires	
12 VDC	74.4 W	4050 rpm	25.5 m <sup>3</sup> /hr	154 Pa	72.0 dB(A) 51.4 dB(A)	Leadwires	
					, ,		
24 VDC	4.8 W	4050 rpm	25.5 m³/hr	154 Pa	51.4 dB(A)	Leadwires	
12 VDC	10.8 W	3040 rpm	41.3 m³/hr	222.5 Pa	51.2 dB(A)	Leadwires	
24 VDC	11.5 W	3040 rpm	41.3 m³/hr	222.5 Pa	51.2 dB(A)	Leadwires	



Series	Model	Fan Type	Design		Fan Size	
				Height	 Length	Width
0	SU2B1	Axial	square	80 mm	80 mm	38 mm
Sprite AC	SU3B1	Axial	square	80 mm	80 mm	38 mm
	MX2B1	Axial	square	120 mm	120 mm	38 mm
	MX3B1	Axial	square	120 mm	120 mm	38 mm
Muffin XL AC	MX2B3	Axial	square	120 mm	120 mm	38 mm
	MX3B3	Axial	square	120 mm	120 mm	38 mm
	MR2B3	Axial	round	172 mm	151 mm	51 mm
	MR77B3	Axial	round	172 mm	151 mm	51 mm
Major AC	MR2D3	Axial	round	172 mm	151 mm	51 mm
	MR77D3	Axial	round	172 mm	151 mm	51 mm
	PT2B3	Axial	round	172 mm	51 mm	51 mm
	PT77B3	Axial	round	172 mm	51 mm	51 mm
Patriot AC	PT2D3	Axial	round	172 mm	51 mm	51 mm
	PT77D3	Axial	round	172 mm	51 mm	51 mm
	MA2B3	Axial	rectangular	172 mm	150 mm	55 mm
Maltese AC	MX3B3 Axial square 120 mm   MR2B3 Axial round 172 mm   MR7B3 Axial round 172 mm   MR2D3 Axial round 172 mm   MR7D3 Axial round 172 mm   PT2B3 Axial round 172 mm   PT7PB3 Axial round 172 mm   PT2D3 Axial round 172 mm   PT7D3 Axial round 172 mm   MA2B3 Axial rectangular 172 mm   MA7B3 Axial rectangular 172 mm   TNE2C Axial square 176 mm   TNE3C Axial square 176 mm   TNE3A Axial square 176 mm   TNE3A Axial square 176 mm   TNE3A Axial round 254 mm   CLE2L2 Axial round 254 mm	172 mm	150 mm	55 mm		
	TNE2C	Axial	square	176 mm	176 mm	107 mm
	TNE2A	Axial	square	176 mm	176 mm	107 mm
Tarzan AC	TNE3C	Axial	square	176 mm	176 mm	107 mm
	TNE3A	Axial	square	176 mm	176 mm	107 mm
	CLE2L2	Axial	round	254 mm	89 mm	89 mm
Caravel AC	CLE2T2	Axial	round	254 mm	89 mm	89 mm
Caraver AC	CLE3L2	Axial	round	254 mm	89 mm	89 mm
	CLE3T2	Axial	round	254 mm	89 mm	89 mm
	CLE2L5	Axial	round	254 mm	107 mm	107 mm
Caravel XLAC	CLE2T5	Axial	round	254 mm	107 mm	107 mm
	CLE3L5	Axial	round	254 mm	107 mm	107 mm
	CLE3T5	Axial	round	254 mm	107 mm	107 mm



Rated Voltage	Rated Input Power	Speed	Rated Airflow	Rated Air Pressure	Noise	Termination
(50 Hz / 60 Hz)	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	
115 VAC	15/13 W	2380/2800 rpm	41.5/53.6 m³/hr	32.4/42.3 Pa	30/32 dB(A)	Leadwires
220 VAC	15/13 W	2380/2800 rpm	41.5/53.6 m³/hr	32.4/42.3 Pa	30/32 dB(A)	Leadwires
115 VAC	21/18 W	2700/3100 rpm	145.3/173 m³/hr	69.7/84.7 Pa	49/51 dB(A)	Terminals
220 VAC	21/18 W	2700/3100 rpm	145.3/173 m³/hr	69.7/84.7 Pa	49/51 dB(A)	Terminals
115 VAC	23/20 W	2500/2850 rpm	155.7/173 m³/hr	49.8/62.3 Pa	50/52 dB(A)	Terminals
230 VAC	23/20 W	2500/2850 rpm	155.7/173 m³/hr	49.8/62.3 Pa	50/52 dB(A)	Terminals
115 VAC	30/31 W	2850/3350 rpm	340/392 m³/hr	139/191 Pa	52.2/55.8 dB(A)	Terminals
220/230 VAC	26/30 W	2850/3350 rpm	340/392 m³/hr	139/191 Pa	52.2/55.8 dB(A)	Terminals
115 VAC	18/16 W	1400/1700 rpm	160/193 m³/hr	36/53 Pa	35.1/39.2 dB(A)	Terminals
220/230 VAC	16/15 W	1400/1700 rpm	160/193 m³/hr	36/53 Pa	35.1/39.2 dB(A)	Terminals
115 VAC	30/31 W	2850/3350 rpm	340/392 m³/hr	139/191 Pa	50.3/54 dB(A)	Terminals
220/230 VAC	26/30 W	2850/3350 rpm	340/392 m³/hr	139/191 Pa	50.3/54 dB(A)	Terminals
115 VAC	18/16 W	1400/1700 rpm	160/193 m³/hr	36/53 Pa	34.5/37.5 dB(A)	Terminals
220/230 VAC	16/15 W	1400/1700 rpm	160/193 m³/hr	36/53 Pa	34.5/37.5 dB(A)	Terminals
115 VAC	40.5/41.4 W	2850/3400 rpm	425/509 m³/hr	150/241 Pa	54.8/56.5 dB(A)	Terminals
220/230 VAC	40.5/41.4 W	2850/3400 rpm	425/509 m³/hr	150/241 Pa	54.8/56.5 dB(A)	Terminals
115 VAC	48/59 W	2820/3350 rpm	476/578 m³/hr	154/217 Pa	61.6/65.4 dB(A)	Leadwires
115 VAC	48/59 W	2820/3350 rpm	476/578 m³/hr	154/217 Pa	61.6/65.4 dB(A)	Terminals
220/230 VAC	52/59 W	2820/3350 rpm	476/578 m³/hr	154/217 Pa	61.6/65.4 dB(A)	Leadwires
220/230 VAC	52/59 W	2820/3350 rpm	476/578 m³/hr	154/217 Pa	61.6/65.4 dB(A)	Terminals
115 VAC	67/61 W	1400/1650 rpm	774/935 m³/hr	77/102 Pa	45.4/49.2 dB(A)	Leadwires
115 VAC	67/61 W	1400/1650 rpm	774/935 m³/hr	77/102 Pa	45.4/49.2 dB(A)	Terminals
230 VAC	60/60 W	1400/1650 rpm	774/935 m³/hr	77/102 Pa	45.4/49.2 dB(A)	Leadwires
230 VAC	60/60 W	1400/1650 rpm	774/935 m³/hr	77/102 Pa	45.4/49.2 dB(A)	Terminals
115 VAC	120/150 W	2650/2800 rpm	1492/1615 m <sup>3</sup> /hr	125/142 Pa	62.1/63.3 dB(A)	Leadwires
115 VAC	120/150 W	2650/2800 rpm	1492/1615 m³/hr	125/142 Pa	62.1/63.3 dB(A)	Terminals
220/230 VAC	98/135 W	2650/2800 rpm	1492/1615 m³/hr	125/142 Pa	62.1/63.3 dB(A)	Leadwires
220/230 VAC	98/135 W	2650/2800 rpm	1492/1615 m <sup>3</sup> /hr	125/142 Pa	62.1/63.3 dB(A)	Terminals



Model	Fan Type	Design				
			Height	Length	Width	
CREC8025-4500	Axial	square	80 mm	80 mm	25 mm	
CREC9225-4000	Axial	square	90 mm	90 mm	25 mm	
CREC1225-3200	Axial	square	120 mm	120 mm	25 mm	
CREC1238-4000	Axial	square	120 mm	120 mm	38 mm	
CREC12038-3600	Axial	square	120 mm	120 mm	38 mm	
CREC13538-2800	Axial	square	135 mm	135 mm	38 mm	
CREC133A-3200	Impeller	round	133 mm	133 mm	73 mm	
CREC133B-3600	Impeller	round	133 mm	133 mm	91 mm	
CREC175A-3000	Impeller	round	175 mm	175 mm	70 mm	
CREC190A-3200	Impeller	round	190 mm	190 mm	79 mm	
CREC220A-3000	Impeller	round	220 mm	220 mm	78 mm	
CREC225A-2600	Impeller	round	225 mm	225 mm	78 mm	
CREC225B-2600	Impeller	round	225 mm	225 mm	101 mm	
CREC1725-4000	Axial	rectangular	172 mm	150 mm	51 mm	
CREC1725/5-4000	Axial	round	172 mm	172 mm	55 mm	
CREC1725/5B-4000	Axial	round	172 mm	172 mm	55 mm	
CREC1725/5C-4000	Axial	round	172 mm	172 mm	55 mm	
CREC1806-4000	Axial	square	180 mm	180 mm	65 mm	
CREC2072-4000	Axial	square	208 mm	208 mm	72 mm	
CREC2206-4000	Axial	round	222 mm	222 mm	60 mm	_
CREC2208-3500	Axial	round	222 mm	222 mm	80 mm	
CREC2258-4000E1B	Axial	square	225 mm	225 mm	80 mm	_
CREC2258-4000E2B	Axial	square	225 mm	225 mm	80 mm	
CREC2509-3000	Axial	round	255 mm	255 mm	89 mm	_
CREC2880-3000	Axial	square	280 mm	280 mm	80 mm	

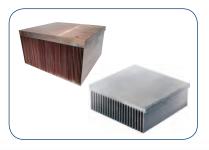


	d Voltage lz / 60 Hz)	Rated Input Power	Speed	Rated Airflow	Rated Air Pressure	Noise	Termination
90	- 264 VAC	5 W	4500 rpm	90.1 m³/hr	63 Pa	45 dB(A)	Terminals
90	- 264 VAC	5.5 W	4000 rpm	98.6 m³/hr	65 Pa	43 dB(A)	Terminals
90	- 264 VAC	5.5 W	3200 rpm	170 m³/hr	77 Pa	48 dB(A)	Terminals
90	- 264 VAC	12 W	4000 rpm	238 m³/hr	110 Pa	56 dB(A)	Terminals
90	- 264 VAC	16 W	3600 rpm	279 m³/hr	137 Pa	60 dB(A)	Terminals
90	- 264 VAC	14 W	2800 rpm	272 m³/hr	103 Pa	58 dB(A)	Terminals
100	) - 240 VAC	24 W	3000 rpm	287.2 m³/hr	378.5 Pa	63 dB(A)	Leadwires
100	- 240 VAC	26 W	3600 rpm	373.7 m³/hr	378.5 Pa	66 dB(A)	Leadwires
100	- 240 VAC	36 W	3000 rpm	545 m³/hr	356 Pa	69 dB(A)	Leadwires
:	230 VAC	77 W	3200 rpm	790.6 m³/hr	637 Pa	77 dB(A)	Leadwires
	230 VAC	100 W	3000 rpm	1091.7 m³/hr	674.8 Pa	78 dB(A)	Leadwires
:	230 VAC	103 W	3000 rpm	1136.6 m³/hr	637 Pa	77 dB(A)	Leadwires
:	230 VAC	104 W	3000 rpm	1214.5 m <sup>3</sup> /hr	650 Pa	78 dB(A)	Leadwires
100	- 240 VAC	25.5 W	4000 rpm	501.7 m³/hr	174.3 Pa	61 dB(A)	Terminals
100	) - 240 VAC	37 W	4000 rpm	567 m³/hr	273 Pa	68.5 dB(A)	Terminals
100	- 240 VAC	36 W	4000 rpm	527.7 m³/hr	273 Pa	62 dB(A)	Leadwires
100	) - 240 VAC	35 W	4000 rpm	500 m³/hr	231.6 Pa	69 dB(A)	Leadwires
11	5/230 VAC	87/95 W	4000 rpm	990 m³/hr	294 Pa	73 dB(A)	Leadwires
11	5/230 VAC	118/120 W	4000 rpm	1585 m³/hr	331 Pa	80 dB(A)	Leadwires
11	5/230 VAC	63/63 W	4000 rpm	1188 m³/hr	376 Pa	72 dB(A)	Leadwires
11	5/230 VAC	86/82 W	3500 rpm	1261 m³/hr	281 Pa	79 dB(A)	Leadwires
	115 VAC	109 W	4000 rpm	1450 m³/hr	393 Pa	74 dB(A)	Terminals
	230 VAC	110 W	4000 rpm	1450 m³/hr	393 Pa	74 dB(A)	Terminals
11	5/230 VAC	112/112 W	3000 rpm	1778 m³/hr	271 Pa	72 dB(A)	Leadwires
11	5/230 VAC	111/115 W	3000 rpm	2143 m³/hr	284 Pa	77 dB(A)	Terminals



#### associated products

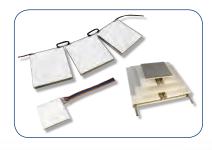
#### heat sinks



Selection, design and production of high performance heat sinks is a challenging task. Not only surface area, but factors such as efficiency of heat transfer in the vicinity of the heat

source and pressure drop need to be considered. For both our high-performance aluminum extrusions and copper brazed heat sinks, thermal performance curves for different component sizes and pressure drop are on hand.

#### thermoelectric coolers



Thermoelectric cooling (TEC) uses the Peltier effect to create a thermal flux between the junction of two different types of materials. Thermoelectric systems require careful de-

sign, proper selection of components and special skills for assembly. AMS Technologies offers a complete thermoelectric solutions portfolio, including design consultancy, development services and all components for thermoelectric modules, heat sinks, temperature controllers, assemblies air-to-air, plate-to-air, liquid-to-air and others. Furthermore, thermoelectric recirculating chillers are available with extraordinarily high efficiency and quiet operation.

#### heat exchangers



AMS Technologies' heat exchanger portfolio includes tubefin heat exchangers (copper or stainless steel tubes expanded into copper or aluminum fin for good and cost effective

heat removal), oil cooler flat tube heat exchangers (aluminum flat tube fluid channels vacuum brazed with aluminum fin for optimum cooling with poor heat transfer fluids such as oil and EGW) and liquid-to-liquid brazed plate heat exchangers (herringbone construction for efficient maximum heat transfer in a compact and reliable package).

#### temperature sensors



Accurate and fast temperature sensors are essential for precision temperature control. Amongst the different types of temperature sensors, thermistors provide very high sensitivity,

small size and appropriate speed. AMS Technologies' extensive range of NTC thermistor temperature sensor probes with base resistance values from  $5~\mathrm{k}\Omega$  to  $231.5~\mathrm{k}\Omega$  include various types from ultraminiature bare bead, epoxy coated and pipe versions (polyimide, brass, brass nickel, stainless steel – threaded and unthreaded) to flange mount and plate models. Sizes range from 0.5 mm to 6.5 cm with Teflon coated lead lengths from 5 cm to 45 cm.



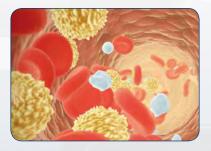
### from technology components to turnkey solutions

We want to accelerate your success, which is why AMS Technologies has invested in two design centers: in Krakow, Poland, and in the United Kingdom. Our goal is to augment your team's key competencies by providing engineering services that are not core to you or where you may struggle with available resources to finish your projects.

From design services to prototype development to complete turnkey solutions, our collaborative approach has already helped many customer projects to move from concept to production.

- Design, prototyping and "proof of concept"
- Development of turnkey solutions to the customer's order
- Design-in, systems integration, realization of entire design projects
- Development of customized specification sheets
- Effective project management of any product development
- Interdisciplinary system-level integrated design
- Appropriate subcontractor selection and production support
- Simulations and modeling of system-level designs
- Installation, training and servicing

#### custom cooling unit for biomedical reagents

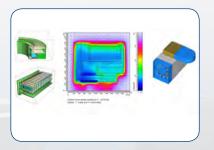


A haemostasis analyzing instrument performs various tests to measure blood coagulation. In one area of the instrument the blood samples are kept at a constant tempera-

ture of +37°C. Right next to the blood samples the reagents need to be conserved at constant +15 °C. The cooling of the reagents is done by forced air flow. For a redesign of the cooling system in their STA-R® haemostasis analyzer, French pharmaceutical laboratory STAGO turned to AMS Technologies.

After careful empirical investigation and determination of the cooling capacity, AMS Technologies developed a customized cooling unit with a powerful 24 VDC mini compressor with linear speed control, small evaporator and condenser heat exchangers, fans and other components of a refrigeration cycle - and successfully placed all these components inside the given restricted space. During the development the AMS Technologies experts also optimized air flow rate and duct to achieve uniform temperatures across the reagents.

#### directed air flow for precise temperature profile



In order to avoid condensation in plastic containers filled with reagents and mounted on a carousel, the customer had asked AMS Technologies to find a solution that would create the

same temperature profile of + 4°C to + 8°C bottom to top in every container's reagent.

With the help of computational fluid dynamic computations, the AMS Technologies experts showed that simply cooling the bottom disc of the carousel would not work, as insufficient thermal contact between plastic containers and cooled surface prevents effective cooling and does not allow to create the desired temperature profile. Instead AMS Technologies developed an air conditioning system based on two peltier cooling units and fans, distributing the air flow evenly to all containers. And designed the thermal insulation such that a perfectly defined temperature profile was achieved.











# enabling your ideas.

Optical, Power and Thermal Management Technologies

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