

# JG Air Cooler

## AFC Compact Systems



	JG	3	4	L	AV
Range	JG				
Model	1,2,3,4,5,6,7,8				
Fin Spacing	4mm				
Defrost	Blank = No defrost, L = Standard Electric Defrost.				
Fin Material	Blank = Aluminium				
Coil	Blank = HCFC				

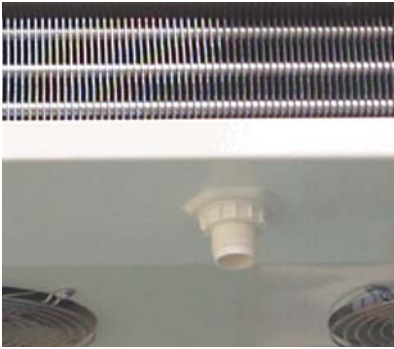


### JG Unit Coolers

The JG range of eight, cost-effective, small 'blow through' unit coolers suitable for both high and low temperature applications. Its ultra low-profile design makes it ideal for use in areas such as reach-in and walk-in cold cabinets and small cold rooms. With an evaporating range of +10°C to - 40°C, the JG range offers nominal capacities from 0.33kW to 1.64kW (R404A at 8K DT1) and will operate with low ozone depletion factor refrigerants R404A, R134a, and R507A.

#### Casework

The casework is aluminium, electrostatically powder painted and cured at 180°C to ensure an even, flexible and durable white gloss finish. Motors and fans are secured to the fan plate, which can be lowered to provide access to all refrigeration piping, electrical connections and components. An inner draintray is fitted to prevent sweating and improve condensate drainage.



#### Coils

Coils are manufactured from 3/8" OD copper tube (internally grooved to provide an extended inner surface) and aluminium fins. Tubes are mechanically expanded to provide a tight interference fit between the aluminium fin collar and the copper tube, giving excellent heat transfer characteristics. Fin spacing is 4.3mm. Models 1 to 5 have a single circuit and are suitable for use with an internally equalised expansion valve. Models 6, 7 and 8 have two circuits and require an externally equalised expansion valve. All coils are pressure tested to 36.0 bar.

#### Motors and Fans

The motors are 7W, 230V, single phase, shaded pole with internal thermal protection (auto reset) and are suitable for both 50Hz and 60Hz supplies. They are wired to an internal junction box with cable entry to the cooler being provided via knockouts in both sides and the back. Fans are 200mm diameter running at a nominal speed of 1200rpm (1500rpm at 60Hz). The motors, fans and junction box can easily be accessed by unscrewing the base of the fan plate/drain pan and allowing it to hinge down along one edge.

#### Electric Defrost

Electric defrost kits are available for all models and are supplied separately. The elements are of the stainless steel sheathed type with sealed electrical connections, retained by clips and wired back to the junction box.

#### Installation

The JG units are designed to be mounted to the ceiling using the keyhole slots in the casework. The drain connection is 3/4" BSP.

Refrigeration	R404A	R134a	R507A	R407A/F	R407C
Capacity factor (dew point, DT1)	1.00	0.91	0.97	1.18*	1.35*
Refrigerant charge density (kg/dm <sup>3</sup> )	0.312	0.338	0.313	0.332	0.332



# JG Selection data, Drawings and Dimensions

Model	Capacity (dew point) 8K DT1		Fan/Motor Specifications 230V - 1ph - 50Hz						Coil Data			Electric defrost W
	R404A	R134a	No. fans	Air volume	Air throw (***)	Noise level (**)	Total Power Input	Total FLC	Surface Area	Internal volume	Approx. Ref. charge	
	W	W		m <sup>3</sup> /s	m	dB (A)	W	A	m <sup>2</sup>	dm <sup>3</sup>	gms	
JG1	330	300	1	0.1	3.5	50	38	0.25	0.81	0.264	0.09	275
JG2	520	470	1	0.08	3.0	49	38	0.25	1.63	0.527	0.18	550
JG3	660	600	1	0.09	3.0	49	38	0.25	2.31	0.707	0.24	700
JG4	800	728	1	0.08	3.0	49	38	0.25	3.47	1.060	0.36	700
JG5	1000	910	2	0.16	4.0	52	76	0.50	3.05	0.901	0.3	900
JG6	1210	1100	2	0.14	3.5	52	76	0.50	4.57	1.350	0.46	900
JG7	1360	1240	3	0.23	4.5	54	114	0.75	4.10	1.174	0.4	1000
JG8	1640	1490	3	0.21	4.0	54	114	0.75	6.14	1.760	0.6	1000

Notes:

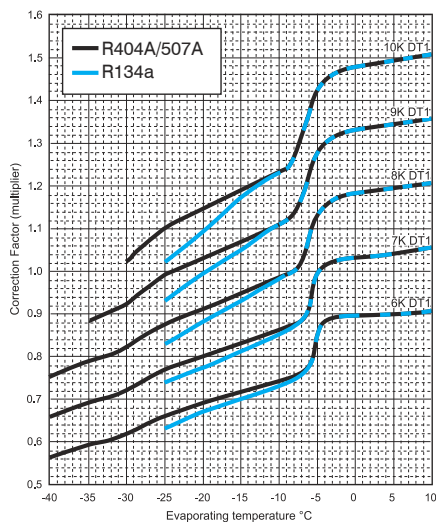
Rating conditions: The duties shown in this catalogue are at EN 328 Standard Condition 2 (-8°C saturated suction temperature, 0°C air entering). For data on refrigerants not shown, please contact your supplier.

- \* DT1 is the difference between the entering air temperature and the saturated suction temperature at the outlet of the cooler.
- \*\* Noise levels are based on free field conditions at a distance of 3m. Actual noise levels will depend upon cold store construction, store loading and the number of coolers installed.
- \*\*\* Terminal air velocity 0.25m/s, free air conditions at 10°C. Air throw cannot be considered on absolute value because many factors have a substantial effect on the distance achieved.
- † Total Power Input at Standard Condition 2 (-8°C saturated suction temperature, 0°C air entering).

## Options and Spares

Description	Part Number	JG1	JG2	JG3	JG4	JG5	JG6	JG7	JG8
Defrost kit for JG1	G1 - E1	1	-	-	-	-	-	-	-
Defrost kit for JG2	G2 - E1	-	1	-	-	-	-	-	-
Defrost kit for JG3 & 4	G3/4 - E1	-	-	1	1	-	-	-	-
Defrost kit for JG5 & 6	G5/6 - E1	-	-	-	-	1	1	-	-
Defrost kit for JG7 & 8	G7/8 - E1	-	-	-	-	-	-	1	1
Fan/motor assembly	231 - 920 - 028	1	1	1	1	2	2	3	3
Fan guard	244 - 116 - 001	1	1	1	1	2	2	3	3
Drain connection 3/4" BSP	261 - 763 - 006	1	1	1	1	1	1	1	1
Gasket for drain connection	261 - 763 - 007	1	1	1	1	1	1	1	1

JG Cooler DT1 - WET



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## Correction factors

These are provided for calculating duties at other conditions and with alternative refrigerants. Correction Factors (multiply capacity)