



# HEATING & COOLING COIL PRODUCTS

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DDS  
DUAL DISCHARGE  
UNIT COOLERS

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## DDS DUAL DISCHARGE UNIT COOLERS

The DDS units have been designed to provide a range of Dual Discharge Coolers with high quality features and low cost offering real value for money to the user for a wide range of applications. There are two fan speed options with 4 mm or 6 mm fin spacing providing capacities from 1.7 to 10 kW evaporating @  $-8^{\circ}\text{C}$  .  $8^{\circ}\text{C}$  TD Air On to evaporating temperature.

### Features

**Coil.** 1/2" o.d. copper tubes mechanically expanded into aluminium fins at 4 mm or 6 mm spacing. The coil is pressure tested to 25-barG vacuum dehydrated and sealed with a nitrogen holding charge.

**Casing.** Galvanised sheet steel finished with white polyester powder paint. Lightweight and robust construction, with easy access to end covers, drain pans and fan motors.

### Fans & Motors

Backward curved centrifugal impellers with external rotor motors for 240/1/50 Hz supply. The fan motors are wired from the motor terminal box to a common junction box mounted at the end of the unit.

### Defrost

**ED.** High Power 240/1/50 Hz 1 phase stainless steel sheathed elements are wired to the common junction box at the end of the unit.



# DDS CAPACITIES



## STANDARD NOISE LEVEL SPECIFICATION

MODEL	Capacity kW	Air Vol m3/s	Coil Data				Fan Data				Defrost				
			Total Surface m2	Int Vol dm3	Inlet inch o.d.	Outlet inch o.d.	No	dia	rpm	Input kW	Total Power FLA	kW	Approx Dry Wt kg		
6mm Fin Spacing															
DDS 1 66	1.7	0.47	5.8	3.0	1/2	1/2	1	310	1430	0.125	0.56	2.5	52		
DDS 2 66	3.4	0.95	11.7	6.1	1/2	7/8	2	310	1430	0.25	1.12	3.5	79		
DDS 3 66	5	1.42	17.5	9.1	5/8	7/8	3	310	1430	0.375	1.68	4.5	104		
DDS 3 86	6.6	1.42	23.3	12.2	5/8	7/8	3	310	1430	0.375	1.68	4.5	107		
DDS 4 86	8	1.89	31.1	16.3	5/8	1 1/8	4	310	1430	0.5	2.24	6.5	132		
4 mm Fin Spacing															
DDS 1 44	1.25	0.47	5.6	2.0	1/2	1/2	1	310	1430	0.125	0.56	2.5	51		
DDS 1 64	1.87	0.47	8.4	3.0	1/2	1/2	1	310	1430	0.125	0.56	2.5	53		
DDS 1 84	2.5	0.47	11.2	4.1	1/2	1/2	1	310	1430	0.125	0.56	2.5	55		
DDS 2 64	3.75	0.95	16.8	6.1	1/2	7/8	2	310	1430	0.25	1.12	3.5	79		
DDS 2 84	5	0.95	22.4	8.1	5/8	7/8	2	310	1430	0.25	1.12	3.5	82		
DDS 3 64	5.6	1.42	25.1	9.1	5/8	7/8	3	310	1430	0.375	1.68	4.5	105		
DDS 3 84	7.5	1.42	33.5	12.2	5/8	1 1/8	3	310	1430	0.375	1.68	4.5	108		
DDS 4 84	10	1.89	44.7	16.3	5/8	1 1/8	4	310	1430	0.5	2.24	6.5	134		

## LOW NOISE LEVEL SPECIFICATION

MODEL	Capacity kW	Air Vol m3/s	Coil Data				Fan Data				Defrost				
			Total Surface m2	Int Vol dm3	Inlet inch o.d.	Outlet inch o.d.	No	dia	rpm	Input kW	Total Power FLA	kW	Approx Dry Wt kg		
6mm Fin Spacing															
DDS 1 66	1.4	0.31	5.8	3.0	1/2	1/2	1	310	950	0.107	0.47	2.5	52		
DDS 2 66	2.8	0.63	11.7	6.1	1/2	7/8	2	310	950	0.214	0.94	3.5	79		
DDS 3 66	4.1	0.94	17.5	9.1	5/8	7/8	3	310	950	0.321	1.41	4.5	104		
DDS 3 86	5.5	0.94	23.3	12.2	5/8	7/8	3	310	950	0.321	1.41	4.5	107		
DDS 4 86	6.6	1.25	31.1	16.3	5/8	1 1/8	4	310	950	0.428	1.88	6.5	132		
4 mm Fin Spacing															
DDS 1 44	1.0	0.31	5.6	2.0	1/2	1/2	1	310	950	0.107	0.47	2.5	51		
DDS 1 64	1.5	0.31	8.4	3.0	1/2	1/2	1	310	950	0.107	0.47	2.5	53		
DDS 1 84	2.1	0.31	11.2	4.1	1/2	1/2	1	310	950	0.107	0.47	2.5	55		
DDS 2 64	3.1	0.63	16.8	6.1	1/2	7/8	2	310	950	0.214	0.94	3.5	79		
DDS 2 84	4.1	0.63	22.4	8.1	5/8	7/8	2	310	950	0.214	0.94	3.5	82		
DDS 3 64	4.6	0.94	25.1	9.1	5/8	7/8	3	310	950	0.321	1.41	4.5	105		
DDS 3 84	6.2	0.94	33.5	12.2	5/8	1 1/8	3	310	950	0.321	1.41	4.5	108		
DDS 4 84	8.3	1.25	44.7	16.3	5/8	1 1/8	4	310	950	0.428	1.88	6.5	134		

## Selection

Capacity tables are rated at -8 °C saturated suction temperature R22, 0°C air on temperature. Capacities are net heat extracted by the coil not including fan heat.

### Selection example

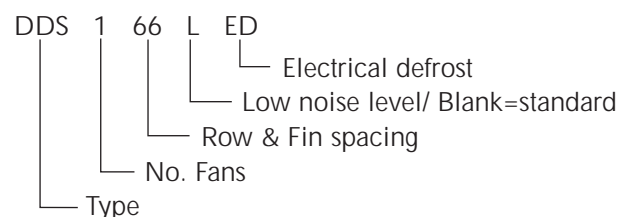
A cooler is required to do 6.5 kW with R22 evaporating @ -7°C, room temperature 0°C with 4mm fin spacing electric defrost and standard fans.

1. Select correction factor from table for 7 K TD and -7°C evaporating.
2. Factor = 0.88
3. Correct required duty to catalogue rated capacity.  
 $6.5 / 0.88 = 6.81$  kW
4. Select Model from Standard Noise Level Specification table and 4 mm fin spacing.  
Model DDS 3 84 ED

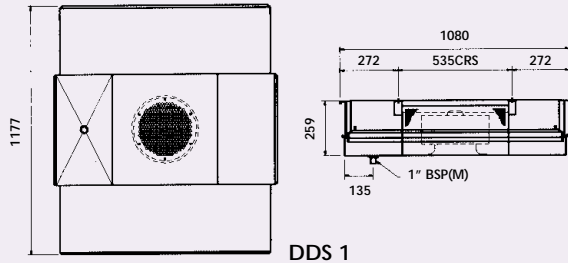
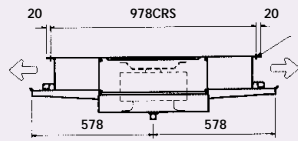
## CAPACITY CORRECTION FACTORS

TD DT1	-30	-23	-18	-12	-8	-7	-1	5
6	0.64	0.66	0.7	0.72	0.75	0.76	0.79	0.8
7	0.74	0.77	0.81	0.84	0.88	0.88	0.92	0.94
8	0.85	0.88	0.93	0.96	1	1.01	1.05	1.1
9	0.96	0.99	1.05	1.08	1.13	1.14	1.18	1.2
10	1.06	1.1	1.16	1.2	1.25	1.26	1.31	1.4

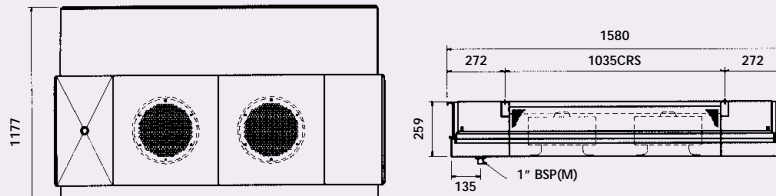
## MODEL DESIGNATION



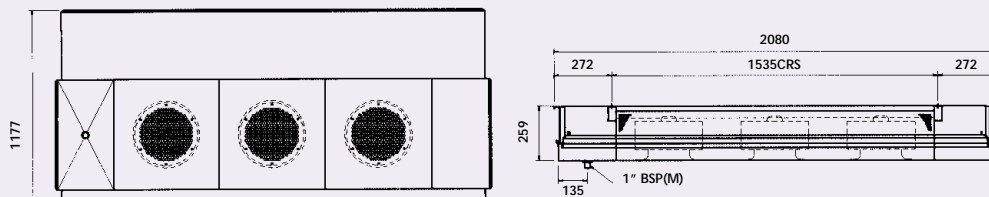
## DIMENSIONS



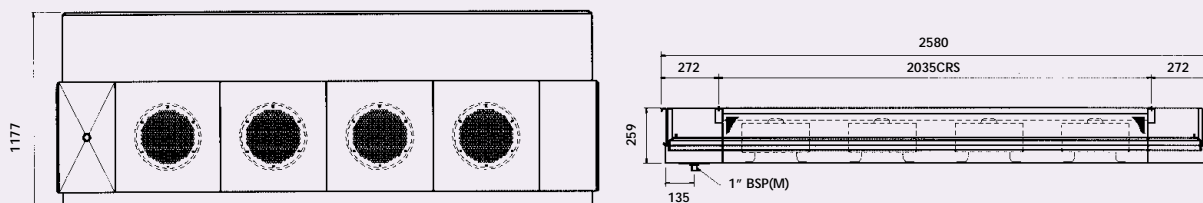
DDS 1



DDS 2



DDS 3



DDS 4

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Bulletin DDS 1/3/07

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