



DTM versus DT1

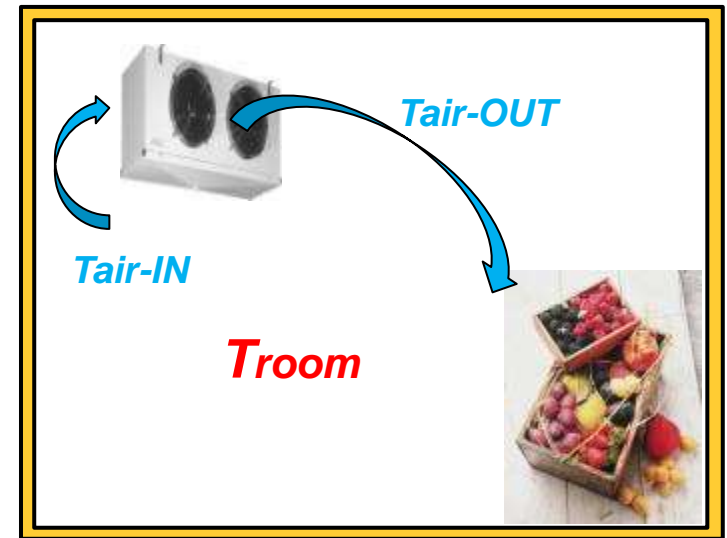


# Сравнение: DTM & DT1 расчеты

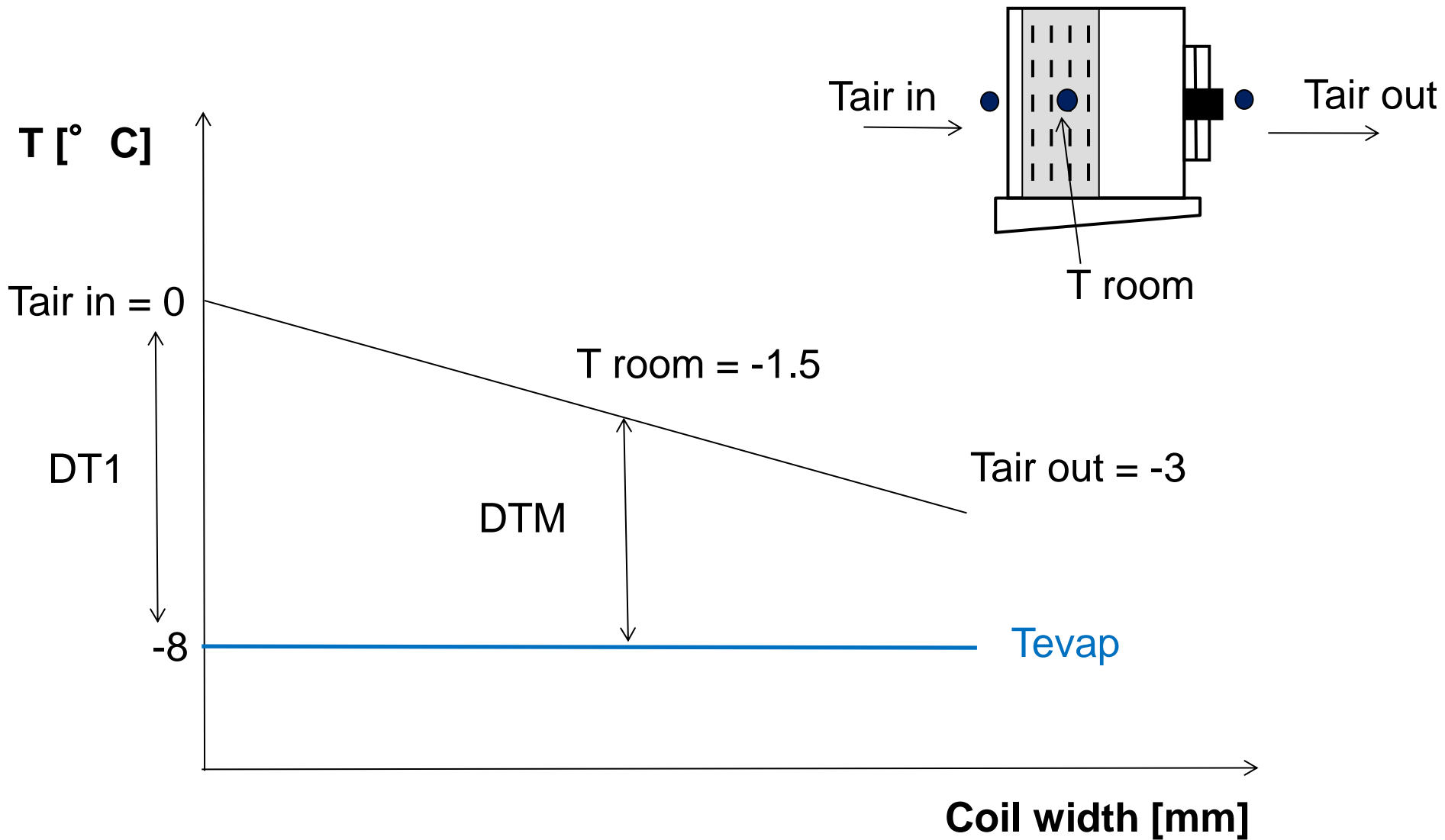
$$DT1 = T_{air\ in} - T_{evap}$$

$$DTM = T_{room} - T_{evap}$$

$$DTM = (T_{air\ in} + T_{air\ out}) / 2 - T_{evap}$$



# Сравнение: DTM & DT1 расчеты



# Сравнение



Температура входящего  
воздуха

≠



Температура в  
камере

**РАЗНИЦА В ХАРАКТЕРИСТИКАХ ДОСТИГАЕТ 20%!!!!**

# Сравнение: DTM & DT1 расчеты



## Calculation

Capacity	23.00	[kW]
Air Temperature	0.0	[°C]
Evaporating Temp.	-8.0	[°C]
Relative Humidity	<input type="checkbox"/> 85.0	[%]
Temperature Difference	8.0	[K]
Eurovent Class	-	▼
Fluid	R404A	▼

Sensible heat ratio	0.714	[]
Rel. hum air leaving	93.5	[%]
DTM	6.30	[K]
ErP 2015 compliant		
Length	2230.0	[mm]
Height	830.0	[mm]
Depth	700.0	[mm]
Standard unit weight	195.4	[kg]

Model	Capacity kW	Surface Area m <sup>2</sup>	FinSpacing mm	Margin %	Air Flowrate m <sup>3</sup> /h	Air Throw m	Noise dB(A)	Sound power LWA LWA
CCEH502.1CS	23.80	144.4	6.0	3.49	13800	31.60	55	76

## Thermal Data

Refrigerant	R404A
Air Temperature	0.0 °C / -3.4 °C
Relative Humidity	85.0% / 93.5%
Evaporation Temp	-8.0 °C
DT1 (Air Inlet Temp. Difference)	8.0 K
DTM (Room Temp. Difference)	6.30 K

T room = - 1,7° C

# Сравнение: DTM & DT1 расчеты

DTm

## Calculation

Capacity	23.00	[kW]
Air Temperature	1.7	[°C]
Evaporating Temp.	-8.0	[°C]
Relative Humidity	85.0	[%]
Temperature Difference	9.7	[K]
Eurovent Class	-	
Fluid	R404A	

Sensible heat ratio	0.695	[]
Rel. hum air leaving	92.6	[%]
DTM	7.94	[K]
ErP 2015 compliant		
Length	2230.0	[mm]
Height	830.0	[mm]
Depth	700.0	[mm]
Standard unit weight	190.4	[kg]

Model	Capacity kW	Surface Area m²	FinSpacing mm	Margin %	Air Flowrate m³/h	Air Throw m	Noise dB(A)	Sound power LWA LWA
CCEH502.1BS	26.09	108.3	6.0	13.4	14320	32.78	55	76

## Thermal Data

Refrigerant	R404A
Air Temperature	1.7 °C / -1.8 °C
Relative Humidity	85.0% / 92.6%
Evaporation Temp	-8.0 °C
DT1 (Air Inlet Temp. Difference)	9.7 K
DTM (Room Temp. Difference)	7.94 K

$T_{\text{room}} = 0^{\circ} \text{C}$



# Сравнение: DTM & DT1 расчеты



**Selected unit: CCEH502.1CS 230V CR PCA AL 6.0 CU**  
**Total price (RCPL) incl. Selected options: 3344 EUR**

**T room = - 1,7° C**



**Selected unit: CCEH502.1BS 230V CR PCA AL 6.0 CU**  
**Total price (RCPL) incl. Selected options: 3103 EUR**

**T room = 0 ° C**

# Выводы



Производители с сертификатом Eurovent всегда используют в расчетах значение DT1

Сравнение воздухоохладителей различных производителей при DT1-DT1 или DTM-DTM

Воздухоохладитель подобранный при DTM будет всегда меньше (дешевле) в сравнении с DT1

