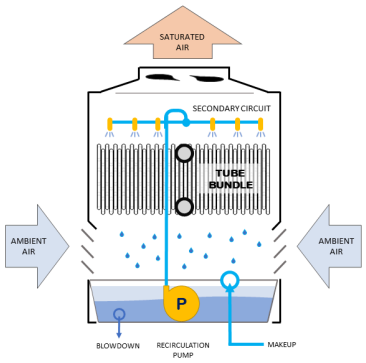
Operating characteristics of each unit MCE-045R4-2CN-K1

Selection 2173-2025 rev. 0
Project: New Product Application
Customer: ENERGY TECHNOLOGY LIST



Evaluation parameters

Cooler type	Evaporative condenser
Flow direction	Induced draft counter-flow
Model	MCE-045R4-2CN-K1
Heat exchanger characteristics	Smooth tube bundle
Operation	Wet
Fluid type	AMMONIA
Dry bulb temperature [°C]	30,0
Wet bulb temperature [°C]	21,0
Cooling capacity [kW]	545,4

Fluid

Condensing temperature [°C]	32,0
Condensing pressure [bar]	12,4
Fluid type	AMMONIA

Air

Description	Input	Output
Dry bulb temperature [°C]	30,0	29,3
Wet bulb temperature [°C]	21,0	29,3
Relative humidity [%]	44,2	100,0

Motor - Fan

Fan - motor number	2
Fan type	Axial
Fan - motor coupling	Direct
Flow type	Induced
Evaluated rotation speed [rpm]	940
Inverter frequency [Hz]	50
Motor nameplate power [kW]	4,40
Pole number	6
Nominal rotation speed [rpm]	940
Single motor full load Current at 400 V [A]	9,4
Total motor nameplate power [kW]	8,80
Voltage/phase	400/3
Frequency [Hz]	50
IP protection	IP56
Insulation class	F/B
Efficiency class	IE3
Motor mounting arrangement	M/V
Connection type	Star/Delta

Pump specifications

Evaporation [m3/h]	0,79
Pumps number	1
Pump nameplate power [kW]	2,20
Pump type	Centrifugal
Single pump full load current at 400 V [A]	5,20

Noise

Noise reduction accessory	None
Sound power ISO 3744 [dB(A)]	91,7
Sound power ATC 128 [dB(A)]	88,3
Sound pressure ISO 3744 at 15m [dB(A)]	56,3
Sound pressure ATC 128 at 15m [dB(A)]	56,3

Sound power level calculated in compliance with ISO 3744, SPL values collected in free field without any background noise, with medium water flow. Average sound pressure level at the indicated distance calculated in accordance with EN13487 latest edition. Tolerance on data ± 2 dB(A).

Weight and size

Total lenght [mm]	3.690
Total width [mm]	1.260
Total height [mm]	3.490
Empty weight [kg]	2.520
Operating weight [kg]	5.130

Dimensions and weight could vary depending on optional accessories.

Materials of construction

Structure	HDGS
Casing	Sandwich panel
Basin	FRP
Fan blades	PPG
Water distribution	PVC
Nozzles	PP
Nuts and bolts	AISI304
Drift eliminator	PP
Tube bundle	HDGS
Louvers	FRP

Colors

Casing	RAL 7035
Basin	RAL 7035
Top	RAL 7035