Water Package Report

Project Name :	100 FA water source unit	Date :	06/05/2021

Input Data :

Power Supply :	380-420 V / 3~ / 50 Hz	Compressor Model 1 :	ZP385KCE-TWD	#	1
Compressor Type :	Scroll				
Company Name :	Copeland	Compressor Size :	Same		
Refrigerant :	R410A	Refrigerant Circuit #	1		
Evap. # :	1				

Condenser Data :

Company Name :	Onda		Cond. Model :	S82 X 200	1
Calculation By :	Water in/out:		Fluid :	Water	100 %
Fluid in Temp :	30	°C	Fluid out Temp :	35	°C
Flow Rate:	2	m3/hr	Fouling Factor :	1.8E-05	

Evaporator Data :

Coil Size	3/8		Coil Length :	1.5	m
Dry On Coil Temp. :	35	°C	Coil Height :	1.2	m
Wet on Coil Temp.:	23	°C	Coil #:	1	
Air Quantity:	19440	m3/hr	Evap. Power Input:	0	kW
Tube vertical Dist.	25.4	mm	Tube Horiz. Dist.	22	mm
Circuit #	24		Fins Material	Copper	
Fins Type	Wavy		Fins Thickness	0.0002	mm
Fins Per Length	2.118	mm	Tube Material	Copper	
Tube Shape	Enhanced		Rows #	4	
Capillary_Distribut PD	180	kPa			

Water Package Report

Project Name :	100 FA water source unit	Date :	06/05/2021

Expansion Valve Data :

Brand Name: Expansion Valve Model

Output Data :

Condensing Temp :	40.41	°C	Fluid Out Temp. :	35	°C
Evaporating Temp :	12.82	°C	Dry Off Coil Temp.:	19.32	°C
Power Input :	21.68	kW	Wet Off Coil Temp.:	16.9	°C
Mass :	2627.77	kg/hr	Sensible Capacity:	95.53	kW
Current :	38.65	A	On Coil Humidity :	3.66	g/kg
COP :	5.93		Off Coil Humidity :	1.39	g/kg
EER :	20.25		Off Coil RH :	79.21	%
Capacity :	128.63	kW	Air Flow Rate :	19440	m3/hr
Evap. Prssure Drop :	333.72	kPa			
Total Capacity :	128.63	kW	Total Power Input :	21.68	kW
SEER :			ESEER :		
SEPR :			IPLV		

		Discharge Line	Liquid Line	Mixture Line	Suction Line
Velocity	m/s	10.99	1.488	7.616	18.238
Pres.Drop	bar	0.068	0.017	0.058	0.118
Pipe Size:		1 3/8	1 1/8	1 1/8	1 3/8
T :	°C	60.37	37.3	12.8	17.8
P :	bar	24.433	24.433	11.497	11.797
V :	m3/kg	0.011365	0.00101	0.005171	0.01886
H :	kJ/kg	448.522	261.41	261.41	425.395
S :	kJ/kg.k	1.801	1.206	1.215	1.776
X :				0.203	

Water Package Report

Project Name :	100 FA water source unit	Date :	06/05/2021