Commissioning

WARNING

Only qualified persons should conduct commissioning.

CAUTION

Preliminary electrical system checks such as earth continuity, polarity, resistance to earth and short circuit must be carried out by using a suitable test meter by a competent person.

NOTICE

Installation manual / Installer reference guide. This general commissioning checklist can be used as a guideline and reporting template during the commissioning and hand-over to the user.

For more detailed commissioning instructions, see the installation manual or the installer reference guide.

Installer	
Company name	
Contact person	
Telephone N°	
Email address	
Date	

Performed by	
Company	
Name	
Telephone N°	
Email address	
Date	
Certificate	

End customer	
Name	
Street – N°	
Zip code – City	
Country	
Telephone N°	
Email address	

Maintenance by	
Company	
Name	
Telephone N°	
Email address	
Date	

Installation

Model name		Refrigerant type	R32	Circuit 1 weight	kg
Serial number				Circuit 2 weight	kg
Serial number applied units					
Software version				Total weight	kg
Manufacturing date					
Reference installation		Type of Chiller		☐ Packaged EWA(Y)T-CZP/N/H	
				☐ Split EWYT-CZI/O	

Safety / last minute risk analysis

Note: Before continuing, make sure all required safety measures are taken. If not, do NOT start commissioning. Perform a last minute risk analysis on the following items. For more details, see the installer reference guide of the unit.

Safe access to the installation	☐ Yes	☐ No	General check on possible safety hazards	☐ Done	☐ Not done
Enclosed workplace	☐ No	☐ Yes	Emergency exits	☐ OK	☐ Not OK
Working at heights	☐ No	☐ Yes	Presence of necessary personal protection equipment	☐ OK	☐ Not OK
Electrical hazards	☐ No	☐ Yes			

Precommissioning

Note: Full installation has to be done in line with the installation manual. If NOT, do NOT commission and solve all open issues first.

Installation checklist available	☐ Yes	☐ No	Installation checklist filled	☐ Yes	☐ No
Unit installed according to Daikin Manuals?	☐ OK	☐ Not OK			

Visual inspection

Shipping damages	☐ Yes	☐ No	Sales selection data available	☐ Yes	☐ No
Unit grounded	☐ OK	☐ Not OK	Logbook available and complete?	☐ Yes	☐ No
Correct unit foundation	☐ Yes	☐ No	Vibrations/frictions	☐ Yes	☐ No
Presence of installation mistakes	☐ Yes	☐ No	Noise	☐ Yes	☐ No

	Compressor 1	Compressor 2
Model		
Serial number		

Unit setpoint	°C
What BMS system	

Refrigerant piping check

Pressure within Refrigerant circuit	☐ Yes	☐ No	Leak test performed	☐ Yes	☐ No
Leak found	☐ Yes	☐ No	If found, leak fixed	☐ Yes	☐ No

Water piping check

Valves installed	☐ Yes	☐ No	Correct water direction	☐ Yes	☐ No
Filters installed	☐ Yes	☐ No	Piping/water according to specifications	☐ Yes	☐ No
Plant piping visually revised	☐ Yes	☐ No	Safe installation	☐ Yes	☐ No
Plant piping according to Installation drawing	☐ Yes	☐ No			

Electrical check

Filed wiring according to Wiring diagram	☐ Yes	☐ No	Oil Heaters were on before start up	☐ Yes	☐ No
Are electrical connections correct	☐ Yes	☐ No	National electrical laws and local laws respected	☐ Yes	☐ No
Circuit Breaker installed	☐ Yes	☐ No			

Split models check

Piping height between indoor/outdoor	m		Piping limit within specifications	☐ Yes	☐ No
Piping length between indoor/outdoor	m		Communication between indoor and outdoor	☐ OK	☐ Not OK
Refrigerant charge	kg		Latest software version on indoor and outdoor	☐ Yes	☐ No
Charge written on model label	☐ Yes	☐ No	Space requirements for indoor	☐ OK	☐ Not OK
Piping status	☐ OK	☐ Not OK			

Pre-start up

Water flow is ok	☐ Yes	☐ No	Water Volume within specifications	☐ Yes	☐ No
Air purged	☐ Yes	☐ No	Flow switch functional	☐ Yes	☐ No
Main voltage	☐ OK	☐ Not OK	Phase voltage	☐ OK	☐ Not OK

	L1-L2	L2-L3	L1-L3		
Main voltage	V	V	V		
Phase unbalance	%			Unbalance checked as specified in IOM	☐ Yes ☐ No

Auxiliary transformer voltage U1	☐ OK	☐ Not OK	Electrical insulation Compressor 1	☐ OK	☐ Not OK
Auxiliary transformer voltage U2 (if 2 circuits)	☐ OK	☐ Not OK	Electrical insulation Compressor 2	☐ OK	☐ Not OK
Electrical connections	☐ OK	☐ Not OK			
Software updated	☐ Yes	☐ No	Brine options corrected	☐ Yes	☐ No
Alarm limits revised	☐ Yes	☐ No			

Changed settings

Note: Add all changed settings and their current value.

Setting	Description	Default value	New value	Setting	Description	Default value	New value

Protections

Anti-freeze protection	°C		Low pressure unload (only with glycol)	bar	
Low outdoor air thermistor lockout	bar				

Calibration

			Offset if calibrated
Evaporator leaving water temperature sensor	☐ OK	☐ Not OK	
Evaporator entering water temperature sensor	☐ OK	☐ Not OK	
Outside air temperature sensor	☐ OK	☐ Not OK	
Suction temperature sensor	☐ OK	☐ Not OK	
Discharge temperature sensor	☐ OK	☐ Not OK	
calibration performed	☐ Yes	☐ No	

Dry tests						
General alarm operational	☐ OK	☐ Not OK	Compressor heaters operational	☐ OK	☐ Not OK
Fan operational	☐ OK	☐ Not OK	Expansion valve operational	☐ OK	☐ Not OK
Fan speed operational	☐ OK	☐ Not OK	High pressure switch	☐ OK	☐ Not OK
4-way valve operational	☐ OK	☐ Not OK	Compressor	☐ OK	☐ Not OK

Pre-start up comments:

Start-up running adjustments						
Pressure transducers	☐ OK	☐ Not OK	Pressures transducers calibration	☐ Yes	☐ No

Start-up refrigerant system data					
Number of running compressors			Suction superheat	K	
Unit capacity	%		Discharge pressure	bar	
Compressor capacity	%		Condensation temperature	°C	
Suction pressure	bar		Discharge temperature	°C	
Evaporating temperature	°C		Discharge superheat	K	
Expansion valve position	pulse		Liquid temperature	°C	
Suction temperature	°C				

	Capacity (%)	L1 (A)	L2 (A)	L3 (A)	Full load amperage
Compressor 1					
Compressor 2					

Battery resistance electronic expansion valve Ω

Oil heater compressor 1 ☐ OK ☐ Not OK Oil heater compressor 2 ☐ OK ☐ Not OK

Cooling operation data from evaporator					
Inlet water temperature	°C		Approach temperature	K	
Outlet water temperature	°C		Pressure drop evaporator	bar	

	L1 (A)	L2 (A)	L3 (A)	Full load amperage
Pump 1 evaporator				

Check leaving water temperature sensors ☐ OK ☐ Not OK Check flow switch ☐ OK ☐ Not OK

Heating operation data from condenser					
Inlet water temperature	°C		Approach temperature	K	
Outlet water temperature	°C		Pressure drop evaporator	bar	

	L1 (A)	L2 (A)	L3 (A)	Full load amperage
Pump 1 condenser				

Check leaving water temperature sensors ☐ OK ☐ Not OK Check flow switch ☐ OK ☐ Not OK

Analysis report							
Water analysis sample (on demand)	☐ Yes	☐ No		Glycol analysis sample (on demand)	☐ Yes	☐ No	

Overall result							
The installation is working:	☐ Good	☐ Not good		Follow-up site visit needed?	☐ Yes	☐ No	
	☐ Safe	☐ Not safe					

Shortcomings and measures to be taken

General remarks:

Shortcomings that were not fixed during the commissioning:

Measures to be taken in order to resolve the remaining shortcomings:

Signature certified technician

SCIC001 2023.01