**Please complete and return this commissioning form within 14 days of commissioning.**

A logo with a ball

Description automatically generated

**The commissioning form should be returned along with the following documentation:**

* **Photo image of the installed heat pump and local area (1m around the unit)**
* **Wiring schematic as installed**
* **Pipe work schematic as installed**

**Section 1. Pre-commissioning**

**(Air cooled heat pump mono-block products)**

|  |  |
| --- | --- |
| **Installer’s details name and address:** | **Site address:** |
|  |  |
|  |  |
| **Installers contact details, telephone No: and email:** |  |
|  |  |
|  |  |
| **Date equipment was installed.** | **Date equipment was commissioned.** |
|  |  |
| **Equipment details:** |  |
| Model **WiSAN-YME** | **Refrigerant type and quantity** |
| Size? 2.1 3.1. 4.1. 5.1. 6.1. 7.1. 8.1 | (see data plate label) |
| Serial No |  |
| (See data plate label or white bar code label) |  |
| Ancillaries if supplied with unit |  |
|  |  |
|  |  |
| **Pre-operational checks** | **Additional notes:** |
| Damage to equipment/ refrigerant leakage? |  |
|  |  |
|  |  |
| **Location - suitable space around the unit** |  |
| Clearance to rear - M |  |
| Clearance to front - M |  |
| Clearance to left - M |  |
| Clearance to right - M |  |
| Distance to other buildings/windows M |  |
| **Ambient sensor (check if subject to sun/wind?) Yes/No** |  |
| **Unit correctly mounted, AV mounts? Yes/No** |  |
| **Condensate drain suitable? Yes/No** |  |
| **Electrical power to unit and correctly installed?** |  |
| Site voltage at unit V |  |
| Electrical isolation Yes/No |  |
| Electrical protection Yes/No |  |
| Cables correct Yes/No |  |
| **Water side installation** |  |
| Water strainer must be installed Yes/No |  |
| Low loss header / buffer tank installed Yes/No |  |
| Buffer tank volume (> than min water vol?) lt |  |
| Water flow measurement device? Yes/No |  |
| Water flow rate l/s |  |
| Isolation valves on flow/return Yes/No |  |
| Flexible connections on flow/return Yes/No |  |
| Expansion vessel sized for system lt |  |
| Water quality checked (inhibitors/Glycol?) % |  |
| Pipes insulated/protected for low ambient Yes/No |  |
| Air purged from system Yes/No |  |
| DHW T5 sensor fitted and secured Yes/No |  |
| T1 sensor fitted after IBH/AHS (option) Yes/No |  |
| **System Installation completed Yes/No** |  |
| DHW valve wired (DHW/heating) Yes/No |  |
| Wall controller fitted and wired Yes/No |  |
| Thermostats fitted and wired (option) Yes/No  Mode change / one zone / 2 Zone. |  |
| Remote on/off Yes/No |  |
| AHS Additional heat source (dip switch) Yes/No |  |
| TBH DHW heater (dip switch) Yes/No |  |
| Pd Pump Yes/No |  |
| IBH Back up heater Yes/No |  |
| Mixing valve + PC +P\_C Yes/No |  |
| Ensure power connected 24 your prior commissioning (crank case heaters on) Yes/No |  |

**Section 2. Commissioning**

**(Air cooled heat pump mono-block products)**

**Please record all parameter changes made during the commissioning.**

**It is mandatory to check/correct those in highlighted yellow. Enabling functions may open up associated parameter menus or disable menus.**

|  |  |  |  |
| --- | --- | --- | --- |
| **DHW mode settings** |  | Default | Commissioned |
| 1.1 DHW MODE | Enable or disable the DHW mode NO/YES | YES |  |
| 1.2 DISINFECT | Enable or disable the disinfect mode NO/YES | YES |  |
| 1.3 DHW PRIORITY | Enable or disable the DHW priority mode NO/YES | YES |  |
| 1.4 DHW PUMP | Enable or disable the DHW pump mode NO/YES | NO |  |
| 1.5 DHW PRIORITY TIME SET | Enable or disable the DHW priority time set NO/YES | NO |  |
| 1.6 dT5\_ON | The temperature difference for starting the heat pump | 10 °C |  |
| 1.7 dT1S5 | The correct value to adjust the output of the compressor | 10 °C |  |
| 1.8 T4DHWMAX | The maximum ambient temperature that the heat pump can operate at for domestic water heating | 43 °C |  |
| 1.9 T4DHWMIN | The minimum ambient temperature that the heat pump canoperate for domestic water heating | -10 °C |  |
| 1.10 t\_INTERVAI\_DHW | the start time interval of the compressor in DHW mode | 5 MIN |  |
| 1.11 dT5\_TBH\_ OFF | the temperature difference between T5 and T5S that  turns the booster heater off | 5 °C |  |
| 1.12 T4\_TBH\_ON | the highest outdoor temperature the TBH can operate | 5 °C |  |
| 1.13 t\_TBH\_DELAY | the time that the compressor has run before starting the boost heater | 30 Min |  |
| 1.14 T5S\_DI | the target temperature of water in the domestic hot water tank in the Disinfect function | 65 °C |  |
| 1.15 t\_DI\_HIGHTEMP | the time that the highest temperature of water in the  domestic hot water tank in the DISINFECT function will last | 15 MIN |  |
| 1.16 t\_DI\_MAX | the maximum time that disinfection will last | 210 MIN |  |
| 1.17 t\_DHWHP\_RESTRICT | the operation time for the space heating/cooling operation | 30 MIN |  |
| 1.18 t\_DHWHP\_MAX | the maximum continuous working period of the heat pump in DWH priority mode | 90 MIN |  |
| 1.20 PUMP RUNNING TIME | the time that the DHW pump will keep running for | 5 MIN |  |
| 1.19 DHW PUMP TIME RUN | Enable or disable the DHW pump run as timed and keeps running for pump run time NO/YES | YES |  |
| 1.21 DHW PUMP DISINFECT | Enable or disable the DHW pump operate when the unit is in disinfect mode and T5≥T5S\_DI-2 NO/YES | YES |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Cooling Mode Settings** |  | Default | Commissioned |
| 2.1 COOL MODE | Enable or disable the cooling mode NO/YES | YES | NO |

|  |  |  |  |
| --- | --- | --- | --- |
| **Heating Mode Settings** |  | Default | Commissioned |
| 3.1 HEAT MODE | Enable or disable the heating mode | YES |  |
| 3.2 t\_T4\_FRESH\_H | Refresh time of climate related curves for heating mode | 0.5 hours |  |
| 3.3 T4HMAX | Max ambient operating temperature for heating mode | 25 °C |  |
| 3.4 T4HMIN | Min ambient operating temperature for heating mode | -15 °C |  |
| 3.5 dT1SH | The temperature difference for starting the unit (T1) | 5 °C |  |
| 3.6 dTSH | The temperature difference for starting the unit (Ta) | 2 °C |  |
| 3.7 t\_INTERVAL\_H | The compressor start time interval | 5 MIN |  |
| 3.8 T1SETH1 | Temperature 1 of climate related curves for heat mode | 35 °C |  |
| 3.9 T1SETH2 | Temperature 2 of climate related curves for heat mode | 28 °C |  |
| 3.10 T4H1 | Temperature 1 of climate related curves for heat mode | -5 °C |  |
| 3.11 T4H2 | Temperature 2 of climate related curves for heat mode | 7 °C |  |
| 3.12 ZONE1 H-EMISSION | The type of zone 1 for heating mode：FCU(fan coil unit), RAD (radiator), FLH (floor heating) | RAD |  |
| 3.13 ZONE2 H-EMISSION | The type of zone 2 for heating mode：FCU(fan coil), RAD(radiator), FLH (floor heating). | FLH |  |
| 3.14 t\_DELAY\_PUMP | Time that the compressor has run before starting the pump | 2 MIN |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Auto Mode Settings** |  | Default | Commissioned |
| 4.1 T4AUTOCMIN | Min ambient temperature for cooling in auto mode | 25 °C |  |
| 4.2 T4AUTOHMAX | Maximum ambient temperature for heating in auto mode | 17 °C |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Temp Type Settings** |  | Default | Commissioned |
| 5.1 WATER FLOW TEMP | Enable WATER FLOW TEMP NO/YES | YES |  |
| 5.2 ROOM TEMP | Enable ROOM TEMP NO/YES | NO |  |
| 5.3 DOUBLE ZONE | Enable ROOM THERMOSTAT DOUBLE ZONE NO/YES | NO |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Temp Type Settings** |  | Default | Commissioned |
| 6.1 ROOM THERMOSTAT | Room thermostat No, Mode set, 1 zone, 2 zone | No |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Other Heat Source Settings** |  | Default | Commissioned |
| 7.1 dT1\_IBH\_ON | Temp diff between T1S and T1 for starting backup heater | 5 °C |  |
| 7.2 t\_IBH\_DELAY | Compressor run time before first backup heater starts | 30 MIN |  |
| 7.3 T4\_IBH\_ON | Ambient temperature for starting the backup heater | -5 °C |  |
| 7.4 dT1\_AHS\_ON | Temp diff between T1S and T1B to start additional heat source | 5 °C |  |
| 7.5 t\_AHS\_DELAY | Comp run time before starting the additional heat source | 30 MIN |  |
| 7.6 T4\_AHS\_ON | The ambient temperature for starting the additional heat Source | 10 °C |  |
| 7.7 IBH\_Locate | IBH/AHS Installation location pipe loop | Pipe |  |
| 7.8 P\_IBH1 | Power input of IBH1 | 0.0kw |  |
| 7.9 P\_IBH2 | Power input of IBH2 | 0.0kw |  |
| 7.10 P\_TBH | Power input of TBH | 2.0kw |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Holiday Away Settings** |  | Default | Commissioned |
| 8.1 T1S\_H.A\_H | The target outlet water temperature for space heating | 25 °C |  |
|  | when in holiday away mode |  |  |
| 8.2 T5S\_H.A\_DHW | The target outlet water temperature for domestic hot | 25 °C |  |
|  | water heating when in holiday away mode |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Auto Restart Settings** |  | Default | Commissioned |
| 13.1 AUTO RESTART COOL/HEAT MODE | Enable auto restart cooling/heating mode NO/YES | YES |  |
| 13.2 AUTO RESTART DHW MODE | Enable or disable the auto restart DHW mode NO/YES | YES |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Power Input Settings** |  | Default | Commissioned |
| 14.1 POWER INPUT LIMITATION | The type of power input limitation 0=NO 1-8 Setting | 0 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Input Settings** |  | Default | Commissioned |
| 15.1 ON/OFF (M1 M2) | Define the function of the M1 M2 switch.  REMOTE ON/OFF, TBH ON/OFF, AHS ON/OFF | Remote |  |
| 15.2 SMART GRID | Enable or disable the SMART GRID. NO, YES | No |  |
| 15.3 T1b (TW2) | Enable or disable the T1b (TW2). NO, YES | No |  |
| 15.4 Tbt1 | Enable or disable the Tbt1, NO, YES | No |  |
| 15.5 Tbt2 | Enable or disable the Tbt2, NO, YES | No |  |
| 15.6 Ta | Enable or disable the Ta (HMI, IDU) | HMI |  |
| 15.7 Ta-adj | The correction value for Ta on the wired controller | -2 |  |
| 15.8 Solar Input | Type of Solar input, No, Tsolar, 1SL 1SL2 | No |  |
| 15.9 F-Pipe length | Total length of the liquid pipe (F-Pipe length) less than 10m, more than 10m | < 10M |  |
| 15.10 RT/Ta\_PCB | Enables disables the RT/Ta\_PCB, NO, YES | No |  |
| 15.11 Pump I silent mode | Enables or disables Pump I silent mode, No, Yes | No |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Input Settings** |  | Default | Commissioned |
| 16.1 PER\_START | Start up % with multiple units | 10 % |  |
| 16.2 TIME\_ADJUST | Adjustment time for adding and subtracting units | 5 MIN |  |
| 16.3 ADDRESS RESET | Reset the address code of the unit 0-15 | FF |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Input Settings** |  | Default | Commissioned |
| 17.1 HMI SET | Master, Slave | Master |  |
| 17.2 HMI address for BMS | HMI address for the BMS 1-16 | 1 |  |

Once the unit is operating in a stable way under full load (approx. 20 minutes of compressor running time) record the operating parameter values shown in controller menu. Record for all operating modes if applicable/configured (i.e. Heating, DHW, Cooling).

|  |  |  |  |
| --- | --- | --- | --- |
| **Operating mode** | **Heating** | **DHW** | **Cooling** |
| Online units number |  |  |  |
| Operating mode |  |  |  |
| SV1 State |  |  |  |
| SV2 State |  |  |  |
| SV3 State |  |  |  |
| Pump\_I |  |  |  |
|  |  |  |  |
| Pump\_O |  |  |  |
| Pump\_C |  |  |  |
| Pump\_S |  |  |  |
| Pump\_D |  |  |  |
| Pipe backup heater |  |  |  |
| Tank backup heater |  |  |  |
|  |  |  |  |
| Gas boiler |  |  |  |
| T1 leaving water temp |  |  |  |
| Water flow |  |  |  |
| Heat pump capacity |  |  |  |
| Power consumed |  |  |  |
| Ta Room Temp |  |  |  |
|  |  |  |  |
| T5 Water tank temp |  |  |  |
| Tw2 circuit2 water temp |  |  |  |
| T1S' C1 Cli curve temp |  |  |  |
| T1S2' C2 Cli curve temp |  |  |  |
| TW\_O Plate W-Outlet Tem |  |  |  |
| TW\_I Plate W-Inlet Temp |  |  |  |
|  |  |  |  |
| Tbt1 Buffertank\_Up Temp |  |  |  |
| Tbt2 Buffertank\_Low Temp |  |  |  |
| T solar |  |  |  |
| IDU Software |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| ODU Model |  |  |  |
| Comp Current |  |  |  |
| Comp Frequency |  |  |  |
| Comp run time |  |  |  |
| Comp total run time |  |  |  |
| Expansion Valve |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Fan Speed |  |  |  |
| IDU Target Frequency |  |  |  |
| Frequency Limited Type |  |  |  |
| Supply Voltage |  |  |  |
| DC Generatrix Voltage |  |  |  |
| DC Generatrix Current |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| TW\_O Plate W\_Outlet Tem |  |  |  |
| TW\_I Plate W\_Inlet Temp |  |  |  |
| T2 Plate F-Out Temp |  |  |  |
| T2B Plate F-In Temp |  |  |  |
| Th Comp Suction Temp |  |  |  |
| Tp Comp Discharge Temp |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| T3 Outdoor Exchanger Tem |  |  |  |
| T4 Outdoor Air Temp |  |  |  |
| TF Module Temp |  |  |  |
| P1 Comp Pressure |  |  |  |
| ODU Software |  |  |  |
| HMI Software |  |  |  |

Check and record all hard-wired connections that have been made during the installation. The most common options are shown below: please tick those that have been installed

**Main wiring options, please indicate if used in your system**

1. **Domestic hot water valve connection wired?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ensure T5 sensor fitted in DHW tank

Diagram

Description automatically generated

Page 44

1. **Domestic hot water pump wired (via customer supplied contactor)?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Diagram

Description automatically generated

Page 45

1. **DHW Tank backup heater wired** **(via customer supplied contactor)?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Diagram

Description automatically generatedA picture containing diagram

Description automatically generated

Page 47 & 49

1. **Has the single zone thermostat connection been wired and activated in the menu? \_\_\_\_\_\_**

This will ensure the heat mode stops when there is no demand for heating.

Diagram, engineering drawing

Description automatically generated

1. **Boiler integrated within system?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Diagram

Description automatically generatedDiagram

Description automatically generated

Has the T1 (separately supplied sensor option) been installed

(required when using an additional heat source AHS)?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Diagram

Description automatically generated

Pages 47 and 49