

Display level	Cause code	Temporary cause code	Alarm text	Alarm definition	Possible cause	Action
Installer	5201		Warning outdoor sensor TL1 failure	Warning failure (>170 kOhm) on sensor TL1, after 3 faults in 2 hours.	Outdoor sensor TL1 missing	Install outdoor sensor
					Signal cable not connected to outdoor sensor TL1	Connect signal cable to outdoor sensor TL1
					Signal cable not connected to I/O board	Connect signal cable to I/O board
					Failure on signal cable to outdoor sensor TL1	Check/replace signal cable to outdoor sensor TL1
					Outdoor sensor TL1 is out of range	Check sensor TL1 ohm value to relevant sensor table
					Outdoor sensor TL1 faulty	Replace outdoor sensor TL1
Installer	5202		Warning outdoor sensor TL1 short circuited	Warning short circuit (<900 Ohm) on sensor TL1, after 3 faults in 2 hours.	I/O board not working	Replace I/O board
					Outdoor sensor TL1/signal cable short circuited	Check sensor TL1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Outdoor sensor TL1 short circuited	Check ohm value with relevant sensor table/replace outdoor sensor TL1
					Signal cable to outdoor sensor TL1 short circuited	Repair/replace signal cable to outdoor sensor TL1
Customer	5203		Alarm outdoor sensor TL1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor T0.	I/O board not working	Replace I/O board
					See possible causes for cause code 5201, 5202	See possible action for action code 5201, 5202
Installer	5204		Warning flow sensor T0 failure	Warning failure (>179 kOhm) on sensor T0, after 3 faults in 2 hours.	Flow sensor T0/signal cable failure.	Check sensor T0/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Screw terminal on I/O board to flow sensor T0 not tightened	Check screw terminal
					Flow sensor T0/signal cable failure.	Replace flow sensor T0
					I/O board not working	Replace I/O board
Installer	5205		Warning flow sensor T0 short circuited	Warning short circuit (<390 Ohm) on sensor T0 after 3 faults in 2 hours.	Flow sensor T0/signal cable short circuited.	Check sensor T0/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Flow sensor T0 short circuited	Check ohm value with relevant sensor table/replace flow sensor T0
					Signal cable to flow sensor TL1 short circuited	Repair/replace signal cable to flow sensor T0
					I/O board not working	Replace I/O board
Customer	5206		Alarm flow sensor T0 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor T0.	See possible causes for cause code 5204, 5205	See possible action for action code 5204, 5205
Installer	5207		Warning Z1 heat transfer fluid out sensor TC1 failure	Warning failure (>179 kOhm) on sensor TC1 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1/signal cable failure.	Check sensor TC1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Screw terminal on I/O board to flow sensor TC1 not tightened	Check screw terminal
					Flow sensor TC1/signal cable failure.	Replace flow sensor TC1
Installer	5208		Warning Z1 heat transfer fluid out sensor TC1 short circuited	Warning short circuit (<390 Ohm) on sensor TC1 after 3 faults in 2 hours.	I/O board not working	Replace I/O board
					Heat transfer fluid out sensor TC1/signal cable short circuited.	Check sensor TC1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Heat transfer fluid out sensor TC1 short circuited	Check ohm value with relevant sensor table/replace heat transfer fluid out sensor TC1
					Signal cable to heat transfer fluid out sensor TC1 short circuited	Repair/replace signal cable to heat transfer out sensor TC1
Customer	5209		Alarm Z1 heat transfer fluid out sensor TC1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC1.	See possible causes for cause code 5207, 5208	See possible action for cause code 5207, 5208
Installer	5210		Warning Z2 heat transfer fluid out sensor TC1 failure	Warning failure (>179 kOhm) on sensor TC1 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1 heat pump 2/signal cable failure.	Check sensor TC1 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Screw terminal on I/O board to flow sensor TC1 heat pump 2 not tightened	Check screw terminal
					Heat transfer fluid out sensor TC1 heat pump 2/signal cable failure.	Replace heat transfer fluid out sensor TC1 heat pump 2
					I/O board not working	Replace I/O board
Installer	5211		Warning Z2 heat transfer fluid out sensor TC1 short circuited	Warning short circuit (<390 Ohm) on sensor TC1 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1 heat pump 2/signal cable short circuited.	Check sensor TC1 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Heat transfer fluid out sensor TC1 heat pump 2 short circuited	Check ohm value with relevant sensor table/replace heat transfer fluid out sensor TC1 heat pump 2
					Signal cable to flow sensor T0 short circuited	Repair/replace signal cable to heat transfer out sensor TC1
					I/O board not working	Replace I/O board
Customer	5212		Alarm Z2 heat transfer fluid out sensor TC1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC1 heat pump 2.	See possible causes for cause code 5210, 5211	See possible action for cause code 5210, 5211
Installer	5213		Warning Z1 heat transfer fluid in sensor TC0 failure	Warning failure (>179 kOhm) on sensor TC0 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC0/signal cable failure.	Check sensor TC0/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Screw terminal on I/O board to flow sensor TC0 not tightened	Check screw terminal
					Flow sensor TC0/signal cable failure.	Replace flow sensor TC0
					I/O board not working	Replace I/O board
Installer	5214		Warning Z1 heat transfer fluid in sensor TC0 short circuited	Warning short circuit (<390 Ohm) on sensor TC0 after 3 faults in 2 hours.	Heat transfer fluid in sensor TC0/signal cable short circuited.	Check sensor TC0/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
					Heat transfer fluid in sensor TC0 short circuited	Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TC0
					Signal cable to heat transfer fluid out sensor TC0 short circuited	Repair/replace signal cable to heat transfer out sensor TC0
					I/O board not working	Replace I/O board
Customer	5215		Alarm Z1 heat transfer fluid in sensor TC0 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5213, 5214	See possible action for cause code 5213, 5214

Installer	5216	Warning Z2 heat transfer fluid in sensor TC0 failure	Warning failure (>179 kOhm) on sensor TC0 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC0 heat pump 2/signal cable failure. Screw terminal on I/O board to flow sensor TC0 heat pump 2 not tightened Flow sensor TC0 heat pump 2/signal cable failure. I/O board not working	Check sensor TC0 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check screw terminal Replace flow sensor TC0 heat pump 2 Replace I/O board
Installer	5217	Warning Z2 heat transfer fluid in sensor TC0 short circuited	Warning short circuit (<390 Ohm) on sensor TC0 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid in sensor TC0 heat pump 2/signal cable short circuited. Heat transfer fluid in sensor TC0 heat pump 2 short circuited Signal cable to heat transfer fluid out sensor TC0 heat pump 2 short circuited I/O board not working	Check sensor TC0 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TC0 heat pump 2 Repair/replace signal cable to heat transfer fluid out sensor TC0 heat pump 2 Replace I/O board
Customer	5218	Alarm Z2 heat transfer fluid in sensor TC0 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5217, 5216	See possible action for cause code 5216, 5217
Installer	5234	Warning Pool temperature sensor TP1 failure	Warning failure (>179 kOhm) on sensor TP1 after 3 faults in 2 hours	Pool temperature sensor TP1/signal cable failure. Screw terminal on I/O board to Pool temperature sensor TP1 not tightened Pool temperature sensor TP1/signal cable failure. I/O board not working	Check sensor TP1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check screw terminal Replace pool temperature sensor TP1 Replace I/O board
Installer	5235	Warning Pool temperature sensor TP1 short circuited	Warning short circuit (<390 Ohm) on sensor TP1 after 3 faults in 2 hours.	Pool temperature sensor TP1/signal cable short circuited. Pool temperature sensor TP1 short circuited Signal cable to heat transfer fluid out pool temperature sensor TP1 short circuited I/O board not working	Check pool temperature sensor TP1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant sensor table/replace pool temperature sensor TP1 Repair/replace signal cable to pool temperature sensor TP1 Replace I/O board
Customer	5236	Alarm Pool temperature sensor TP1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5234, 5235	See possible action for cause code 5234, 5235
Installer	5237	Warning Z1 hot water sensor TW1 failure	Warning failure (>179 kOhm) on sensor TW1 after 3 faults in 2 hours.	Hot water sensor TW1/signal cable failure. Screw terminal on I/O board to hot water sensor TW1 not tightened Hot water sensor TW1/signal cable failure. I/O board not working	Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check screw terminal Replace flow sensor TW1 Replace I/O board
Installer	5238	Warning Z1 hot water sensor TW1 short circuited	Warning short circuit (<390 Ohm) on sensor TW1 after 3 faults in 2 hours.	Hot water sensor TW1/signal cable short circuited. Heat transfer fluid in sensor TW1 short circuited Signal cable to heat transfer fluid out sensor TW1 short circuited I/O board not working	Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TW1 Repair/replace signal cable to heat transfer out sensor TW1 Replace I/O board
Customer	5239	Alarm Z1 hot water sensor TW1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TW1.	See possible causes for cause code 5237, 5238	See possible action for cause code 5237, 5238
Customer	5246	Alarm Z1 electric cassette E2 tripped overhear protection / pressure switch	Alarm when overhear protection electric element or system pressure switch MC1 broken (<0.5 bar) in Air module.	Low system pressure, air in heating system Dirt in system filter/filter ball SC1 Poor circulation in heat transfer system/heating system Fuse F1 faulty Defective pressure switch Defective overhear protection Defective I/O board, no PWM signal to circulation pump Fuse F50 I/O board faulty Defective I/O board, 230 V missing on terminal 01 (S1, N) Defective I/O board Defective circulation pump Contactor to electric additional heat sticks in closed position	Vent the heating system as per instructions in manual, top up with water in heating system. Clean system filter/filter ball SC1 Check adjuster valves/radiator thermostats Replace fuse F1 Replace pressure switch Check cut-out temperature (96°C) Replace overhear protection Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Replace fuse F50 Check for 230 V on terminal 01 (S1, N) on I/O board Replace I/O board Replace circulation pump Check / replace contactor
Customer	5247	Alarm Z2 electric cassette E2 tripped overhear protection / pressure switch	Alarm when overhear protection electric element or system pressure switch MC1 broken in Air module 2.	See alarm 5246 above	See action for alarm 5246 above
Customer	5249	Warning your heat pump Z1 is not working optimally because your heat curve or hot water setting is set too high.		Heat curve/hot water temperature set too high Dirt in system filter/filter ball SC1	Check/adjust temperatures Clean system filter/filter ball SC1
Customer	5251	Warning your heat pump Z2 is not working optimally because your heat curve or hot water setting is set too high.		Heat curve/hot water temperature set too high Dirt in system filter/filter ball SC1	Check/adjust temperatures Clean system filter/filter ball SC1
Installer	5252	Warning Heat pump Z1 limited by low heating medium flow (check filter)	Warning when heat transfer fluid delta >13K in heating mode, or >7K in cooling mode.	Poor circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats
Installer	5265	Warning Heat pump board Z1 disconnected	Poor connection or interference on CAN bus between heat pump and inner part.	Bad contact in CAN bus connections on Installer board/ I/O board heat pump Failure on CAN bus cable between tower and heat pump Wrong type of CAN bus cable Can bus cable placed together with power supply to heat pump Incorrect earthing of CAN bus cable	Check CAN bus connections on Installer board/ I/O board heat pump Replace CAN bus cable between tower and heat pump Replace to correct type of cable Separate Can bus and power cable by at least 100 mm Remove/connect cable shield to/from earth
Customer	5266	Alarm Heat pump board Z1 disconnected	Alarm after 3 warnings in 3 hours or failure for 15 minutes	See causes for warning 5265 above	See action for warning 5265 above
				Bad contact in CAN bus connections on Installer board/ I/O board heat pump 2	Check CAN bus connections on Installer board/ I/O board heat pump 2

Installer	5267		Warning Heat pump board Z2 disconnected	Poor connection or interference on CAN bus between heat pump 2 and inner part.	Failure on CAN bus cable between tower and heat pump 2 Wrong type of CAN bus cable Can bus cable placed together with power supply to heat pump 2 Incorrect earthing of CAN bus cable	Replace CAN bus cable between tower and heat pump 2 Replace to correct type of cable Separate Can bus and power cable by at least 100 mm Remove/connect cable shield to/from earth
Customer	5268		Alarm Heat pump board Z2 disconnected	Alarm after 3 warnings in 3 hours or failure for 15 minutes	See causes for warning 5267 above	See action for warning 5267 above
Customer	5269		Alarm Z1 electric cassette EE has high temperature	Alarm when sensor TC1>87°C. Alarm resets when TC1<80°C.	Dirt in system filter/filter ball SC1 Poor circulation in heat transfer system/heating system Defective TC1 sensor	Clean system filter/filter ball SC1 Check adjuster valves/radiator thermostats Check sensor TC1 with relevant sensor table/replace sensor TC1
Customer	5270		Alarm Z2 electric cassette EE has high temperature	Alarm when sensor TC1>87°C. Alarm resets when TC1<80°C electric additional heat/tower 2.	See causes for alarm 5269 above	See action for alarm 5269 above
Customer	5271		Alarm Heating system 1 high flow temperature	Alarm when sensor T0 > "Max flow set point" by 5 K.	Defective T0 sensor 3-way valve VW1 does not switch from HW position Check that terminal 53 (O3) on I/O board gives 230 V in HW mode Check that terminal 53 (O3) on I/O board gives 230 V in HW mode Overheat protection has tripped	Check sensor TC0 with relevant sensor table/replace sensor TC0 Check function on 3-way valve VW1 If 230 V in HW mode replace VW1 motor part/cable If 230 V not available in HW mode replace IO/board Reset overheat protection
Customer	5272		Alarm External additional heat EM does not work	Alarm external additional heat/overheat protection Alarm at 230 V on terminal 64 on installer board inner part.	See causes for alarm 5246 Tripped fuse in distribution box	See action for alarm 5246 Replace/reset fuse in distribution box
Customer	5273		Alarm Heat pump Z1 phase guard alarm	Alarm for phase loss, only 3-phase models. 1-phase: L1 missing = inner part no voltage. L3 missing = heat pump no voltage.	Tripped fuse in tower Phase(s) missing on input terminal heat pump Phase(s) missing on input terminal on EMI filter in inverter If there is voltage on all phases on EMI filter the inverter is faulty	Reset fuse in tower Check all phases available on input terminal in heat pump Check all phases available on input terminal on EMI filter Replace inverter
Customer	5274		Alarm Heat pump Z2 phase guard alarm	Alarm as above, for heat pump 2.	See causes for alarm 5273	See action for alarm 5273
Customer	5275		Alarm Anode does not work	Alarm on voltage > 1 Volt DC on terminal 45, 46 on installer board longer than 6 hours.	Diode on anode board shines red Check LED is green on anode board If voltage > 1 V DC on terminal 45, 46 on installer board, installer board is malfunctioning No green LED on anode board If there is 230 V on terminal X1 on anode board and LED is green, the anode board is malfunctioning Dirty/clogged air heat exchanger on heat pump	Check connections/cablings on terminal X2 and anode rod in tank If diode is green, check that Replace installer board Check there is 230 V on terminal X1 on anode board Replace anode board Clean air heat exchanger on heat pump
Customer	5283		JR1 Alarm Clean heat pump Z2	Alarm when JR1 > 65°C in cooling mode in heat pump 2.	Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Poor/loss of circulation in heat transfer system/heating system	Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats
Installer	5285		Warning freeze protection is active	Warning if TC3 < 5°C. Warning resets when TC3 and TC1 > 7°C.	Defective TC3 sensor Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) on I/O board Defective I/O board Defective circulation pump Dirty/clogged air heat exchanger on heat pump	Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump Clean air heat exchanger on heat pump
Customer	5292		JR1 Alarm Clean heat pump Z1	Alarm when JR1 > 65°C in cooling mode.	Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump	Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump
Customer	5293		JR0 Alarm Clean heat pump Z1	Alarm when JR0 > -27 °C in heating mode	Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Room temperature set too low, flow temperature T0 < dew point Short circuit in cabling/humidity sensor	Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is voltage as above, replace I/O board Adjust room temperature to over dew point Measure Ohms on

Installer	5294	Warning Dew point monitor has tripped	>2.5V DC on terminal MK2 (34,35) dew point monitor in Installer board	Installer board not working	Measure voltage on terminal MK2 (34, 35 on installer board with cable to humidity sensor disconnected, if voltage is less than 2.5 V DC disconnect Installer board
Customer	5295	Alarm Dew point monitor has tripped	Alarm after 30 minute warning	See causes for warning 5294	See action for warning 5294
Customer	5296	Cooling mode Alarm heat pump Z1. Fault on 4-way valve, cannot switch to cooling	Alarm if TR3>TR4 and TC3>TC0 after 5 minutes in cooling mode	Coil to 4-way valve not working Check function of 4-way valve 230 V lost on terminal VR4 (81, N) Fault on sensor (TR3, TR4, TC3, TC0) 4-way valve jams/not working	Check resistance in magnetic coil on 4-way valve (1.3-1.5 kOhm), if not replace coil Activate test outdoor unit, see separate document Replace I/O board Check sensor is in correct position, check sensor value with relevant sensor table and temperature Replace 4-way valve
Customer	5297	Alarm heat pump Z1. Fault on 4-way valve, cannot switch to heating	Alarm if TR4>TR3 and TC0>TC3 after 5 minutes in heating mode	Check function of 4-way valve Fault on sensor (TR4, TR3, TC0, TC3) 230 V on terminal VR4 during cooling mode/defrosting 4-way valve jams/not working	Activate test outdoor unit, see separate document Check sensor is in correct position, check sensor value with relevant sensor table and temperature Replace I/O board Replace 4-way valve
Installer	5298	Warning Heat pump Z1 pressure too high on JR1	Warning if JR1>67°C (44 bar G).	Dirt in system filter/filter ball SC1 Poor circulation in heat transfer system/heating system Air in heat transfer system/heating system Fault on sensor TC3, TC0, T0 VW1 does not switch from hot water to heat Defective Installer board Defective Installer board, no PWM signal Defective Installer board, 230 V missing on terminal 01 (51, N) Defective Installer board	Clean system filter/filter ball SC1 Ensure adequate flow Vent the heating system as per instructions in manual, top up with water in heating system. Check sensor value with relevant sensor table and actual Check VW1 position A=hot water, B=radiator Check that terminal 53 gives 230 V only for hot water Disconnect PWM signal on terminal 36,37 on Installer board, circulation pump should increase to 100%, if not replace circulation pump Check for 230 V on terminal 01 (51, N) on Installer board Replace Installer board
Customer	5299	Alarm Heat pump Z1 pressure too high on JR1	Alarm if JR1>67°C (44 bar G) 3 times in 2 hours	See warning 5298 above	See action for warning 5298 above
Installer	5300	Warning Heat pump Z2 high pressure switch has tripped	Warning if HP switch MR1 cuts out (44 bar)	Pressure switch not working Failure/poor connection in cabling between MR1 and inverter Failure/poor connection in cabling between MR1 and inverter	Broken circuit <43bar = replace pressure switch Check cabling/connections between MR1 and inverter Check that high pressure switch is closed
Customer	5301	Alarm Heat pump Z2 high pressure switch has tripped	Alarm if HP switch MR1 2 warning in 3 hours heat pump 2	See warning 5298, alarm 5299 above	See action for warning 5298, alarm 5299 above
Installer	5302	Warning Z1 high temperature on compressor driver	Internal high temperature in inverter, > 80°C gives warning	Poor heat transfer to cooling coil	Check screw union to cooling coil
Customer	5303	Alarm Z1 high temperature on compressor driver	Internal high temperature protection in inverter. > 80°C 3 warning in 3 hours, or warning active > 30 minutes gives alarm.	See warning 5302 above Defective inverter	See action for warning 5302 above Replace inverter
Installer	5304	Warning Z2 high temperature on compressor driver	Internal high temperature in inverter heat pump 2, > 80°C gives warning	See warning 5302 above	See action for warning 5302 above
Customer	5305	Alarm Z2 high temperature on compressor driver heat pump 2	Internal high temperature protection in inverter. > 80°C 3 warning in 3 hours, or warning active > 30 minutes gives alarm.	See alarm 5303 above	See action for alarm 5303 above
Installer	5310	Warning heat pump Z1 high hot gas temperature	Warning if TR6 > max temp (90 or 115°C) for more than 60 seconds	Suction gas overheating too high Check suction gas overheating	Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0
Customer	5311	Alarm heat pump Z1 high hot gas temperature	Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes.	See warning 5310 above	See action for warning 5310 above
Installer	5312	Warning heat pump Z2 high hot gas temperature	Warning if TR6 > max temp (90 or 115°C) for more than 60 seconds heat pump 2	Suction gas overheating too high Check suction gas overheating	Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0
Customer	5313	Alarm heat pump Z2 high hot gas temperature	Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2	Suction gas overheating too high	Check that suction gas overheating does not exceed 10C continuously
Installer	5314	Warning heat pump Z1 hot gas sensor TR6 failure	Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.	Check suction gas overheating Hot gas sensor TR6/signal cable failure. Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working	Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board
Installer	5315	Warning heat pump Z1 hot gas sensor TR6 short circuit	Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.	Hot gas sensor TR6/signal cable short circuited. Signal cable to hot gas sensor TR6 short circuited I/O board not working	Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Repair/replace signal cable to hot gas sensor TR6 Replace I/O board
Customer	5316	Alarm heat pump Z1 hot gas sensor TR6 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6	See possible causes for cause code 5314, 5315	See possible action for cause code 5314, 5315
Installer	5317	Warning heat pump Z2 hot gas sensor TR6 failure	Warning failure (>364 kOhm) on sensor TR6 heat pump 2 after 3 faults in 2 hours	Hot gas sensor TR6/signal cable failure. Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working	Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board
		Warning heat pump Z2 hot gas sensor TR6	Warning short circuit (<350 Ohm) on sensor	Hot gas sensor TR6/signal cable short circuited.	Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal

Installer	5318	Warning heat pump Z2 hot gas sensor TR6 short circuited	Warning short circuit (>390 Ohm) on sensor TR6 heat pump 2 after 3 faults in 2 hours.	Hot gas sensor TR6 short circuited Signal cable to hot gas sensor TR6 short circuited I/O board not working	Check ohm value with relevant sensor table/replace hot gas sensor TR6 Repair/replace signal cable to heat transfer out sensor TC1 Replace I/O board
Customer	5319	Alarm heat pump Z2 hot gas sensor TR6 heat pump 2 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6	See possible causes for cause code 5317, 5318	See possible action for action code 5317, 5318
Installer	5320	Warning heat pump Z1 condenser sensor TC3 failure	Warning failure (>390 kOhm) on condenser sensor TC3 after 3 faults in 2 hours	Condenser sensor TC3/signal cable failure. Screw terminal on I/O board to condenser sensor TC3 not tightened	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal
Installer	5321	Warning heat pump Z1 condenser sensor TC3 short circuited	Warning short circuit (<390 Ohm) on condenser sensor TC3 after 3 faults in 2 hours.	Condenser sensor TC3/signal cable failure. I/O board not working	Replace hot gas sensor TC3 Replace I/O board
Installer	5321	Warning heat pump Z1 condenser sensor TC3 short circuited	Warning short circuit (<390 Ohm) on condenser sensor TC3 after 3 faults in 2 hours.	Condenser sensor TC3/signal cable short circuited. Condenser sensor TC3 short circuited	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace condenser sensor TC3
Customer	5322	Alarm heat pump Z1 condenser sensor TC3 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on condenser sensor TC3	Signal cable to condenser sensor/sensor TC3 short circuited I/O board not working	Repair/replace signal cable/sensor to condenser sensor TC3 Replace I/O board
Customer	5322	Alarm heat pump Z1 condenser sensor TC3 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on condenser sensor TC3	See possible causes for cause code 5320, 5321	See possible action for action code 5320, 5321
Installer	5323	Warning heat pump Z2 condenser sensor TC3 failure	Warning failure (>390 kOhm) on condenser sensor TC3 heat pump 2 after 3 faults in 2 hours	Condenser sensor TC3/signal cable short circuited Condenser sensor TC3 short circuited	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace condenser sensor TC3
Installer	5324	Warning heat pump Z2 condenser sensor TC3 short circuited	Warning short circuit (<390 Ohm) on condenser sensor TC3 heat pump 2 after 3 faults in 2 hours.	Signal cable to flow sensor T0 short circuited I/O board not working	Repair/replace signal cable to condenser sensor TC3 Replace I/O board
Installer	5324	Warning heat pump Z2 condenser sensor TC3 short circuited	Warning short circuit (<390 Ohm) on condenser sensor TC3 heat pump 2 after 3 faults in 2 hours.	Condenser sensor TC3/signal cable short circuited. Condenser sensor TC3 short circuited	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace condenser sensor TC3
Customer	5325	Alarm heat pump Z2 condenser sensor TC3 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on condenser sensor TC3	Signal cable to condenser sensor/sensor TC3 short circuited I/O board not working	Repair/replace signal cable/sensor to condenser sensor TC3 Replace I/O board
Customer	5325	Alarm heat pump Z2 condenser sensor TC3 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on condenser sensor TC3	See possible causes for cause code 5323, 5324	See possible action for action code 5323, 5324
Installer	5330	Warning heat pump Z1 communication error to compressor driver	Warning if > 20% of data sent to inverter returns with error (wrong answer or no answer)	No voltage to outdoor part Interference on MOD bus Incorrect CAN bus cable routing between IDU, ODU	Check 230/400 V connections in tower and ODU Check MOD bus cable/connection terminals between I/O board and inverter Check cabling and routing (at least 100 mm between power cable and Can bus cable)
Customer	5331	Alarm heat pump Z1 communication error to compressor driver	Alarm if communication lost or > 30% of data sent to inverter returns with error (wrong answer or no answer)	No voltage to outdoor part Interference on MOD bus Incorrect CAN bus cable routing between IDU, ODU I/O board not working Inverter not working	Check 230/400 V connections in tower and ODU Check MOD bus cable/connection terminals between I/O board and inverter Check cabling and routing (at least 100 mm between power cable and Can bus cable) Check for 12V DC on MOD bus terminal (31, 34) on I/O board. If no 12V DC, replace I/O board Replace inverter
Installer	5332	Warning heat pump Z2 communication error to compressor driver	Warning if > 20% of data sent to inverter heat pump 2 returns with error (wrong answer or no answer)	No voltage to outdoor part Interference on MOD bus Incorrect CAN bus cable routing between IDU, ODU	Check 230/400 V connections in tower and ODU Check MOD bus cable/connection terminals between I/O board and inverter Check cabling and routing (at least 100 mm between power cable and Can bus cable)
Customer	5333	Alarm heat pump Z2 communication error to compressor driver	Alarm if communication lost or > 30% of data sent to inverter heat pump 2 returns with error (wrong answer or no answer)	No voltage to outdoor part Interference on MOD bus Incorrect CAN bus cable routing between IDU, ODU I/O board not working Inverter not working	Check 230/400 V connections in tower and ODU Check MOD bus cable/connection terminals between I/O board and inverter Check cabling and routing (at least 100 mm between power cable and Can bus cable) Check for 12V DC on MOD bus terminal (31, 34) on I/O board. If no 12V DC, replace I/O board Replace inverter
Installer	5347	Warning heat pump Z1 input voltage too low	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V	Poor contact in voltage supply to IDU/ODU Low input mains voltage	Check voltage supply In event of repeated warnings contact electricity supplier
Installer	5350	Warning heat pump Z1 asynchronous drive on compressor	Warning compressor motor (Synchronous motor) not synchronous, after 5 unsuccessful attempts to start	Gap in cabling between compressor and inverter Gap in cabling between compressor and inverter Oil/fluid in compressor when trying to start Compressor sensor TR1 shows wrong value	Check cabling/connections between compressor and inverter Check cabling/connections between compressor and inverter Compressor sensor TR1 shows wrong value Check compressor sensor TR1 with relevant sensor table and actual temperature
Customer	5351	Alarm heat pump Z1 asynchronous drive on compressor	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes. Resets after 4 minutes if cause does not remain	If I/O board has been replaced, incorrect adjustment of rotary encoder on I/O board See possible causes for cause code 5350	Check adjustment with relevant wiring diagram See possible action for action code 5350

Installer	5352	Warning heat pump Z2 asynchronous drive on compressor heat pump 2	Warning compressor motor (Synchronous motor) not synchronous, after 5 unsuccessful attempts to start heat pump 2	Gap in cabling between compressor and inverter	Check cabling/connections
				Oil/fluid in compressor when trying to start	Check cabling/connections between compressor and inverter
				Compressor sensor TR1 shows wrong value	Compressor sensor TR1 shows wrong value
				If I/O board has been replaced, incorrect adjustment of rotary encoder on I/O board	Check compressor sensor TR1 with relevant sensor table and actual temperature
				Check adjustment with relevant wiring diagram	
Customer	5353	Alarm heat pump Z2 asynchronous drive on compressor	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes. Resets after 4 minutes if cause does not remain	See possible causes for cause code 5352	See possible action for action code 5352
Installer	5354	Warning heat pump Z1 overcurrent compressor	Warning if inverter registers overcurrent >42 A DC to compressor >20 microseconds. Warning resets after 4 minutes if cause does not remain	Failure/short circuit in cabling between inverter and compressor	Check cabling between inverter and compressor
				Electrical fault in compressor	Measure resistance between windings and earth. With resistance < 10kOhm replace compressor
				Inverter not working	Replace inverter
Customer	5355	Alarm heat pump Z1 Overcurrent compressor	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5354	See possible action for action code 5354
Installer	5356	Warning heat pump Z2 overcurrent compressor	Warning if inverter registers overcurrent >42 A DC to compressor >20 microseconds heat pump 2. Warning resets after 4 minutes if cause does not remain	Failure/short circuit in cabling between inverter and compressor	Check cabling between inverter and compressor
				Electrical fault in compressor	Measure resistance between windings and earth. With resistance < 10kOhm replace compressor
				Inverter not working	Replace inverter
Customer	5357	Alarm heat pump Z2 Overcurrent on compressor	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5356	See possible action for action code 5356
Installer	5360	Warning heat pump Z2 PFC overcurrent on compressor driver	Warning if input AC current > 31A 6 times. Resets after 4 minutes if fault does not remain	Short dip in power supply/mains	In event of repeated warnings contact electricity supplier
				Internal fault in inverter	Replace inverter
Customer	5361	Alarm heat pump Z2 PFC overcurrent on compressor driver	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5360	See possible action for action code 5360
Customer	5362	Info heat pump Z1 overvoltage	Info if DC bus voltage >440 V > 30 seconds. Resets after 4 minutes if DC bus voltage < 380 V	Too high voltage to heat pump	Check main fuses for poor contact
				Too high input mains voltage	In event of repeated warnings contact electricity supplier
Installer	5366	Warning heat pump Z1 low overheating	Warning if suction gas overheating < 2°C and hot gas overheating < 20°C	Motor not correctly installed	Check valve motor
				Check that valves open/close in correct order	Activate test outdoor unit
				Expansion valve motor defective	Measure resistance between cable orange, red, yellow and black to grey. 46kOhm = ok, in event of failure or short circuit replace valve motor
				Expansion valve VR1 open too much/sticks in open position	With repeated warnings replace expansion valve
Customer	5367	Alarm heat pump Z1 low overheating	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5366	See possible action for action code 5366
Installer	5368	Warning heat pump Z2 low overheating	Warning if suction gas overheating < 2°C and hot gas overheating < 20°C heat pump 2	Motor not correctly installed	Check valve motor
				Check that valves open/close in correct order	Activate test outdoor unit
				Expansion valve motor defective	Measure resistance between cable orange, red, yellow and black to grey. 46kOhm = ok, in event of failure or short circuit replace valve motor
				Expansion valve VR1 open too much/sticks in open position	With repeated warnings replace expansion valve
Customer	5369	Alarm heat pump Z2 low overheating	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5368	See possible action for action code 5368
Installer	5374	Warning heat pump Z1 freeze protection of condenser	Warning if TC3 < 5°C. Warning resets when TC3 and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats
				Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
				Air in heat transfer system/heating system	Vent the heating system as per instructions in manual, top up with water in heating system.
				Defective TC3 sensor	Check sensor TC3 with relevant sensor table/replace sensor TC3
				Defective I/O board, 230 V missing	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board, no PWM signal	Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
				Defective I/O board, 230 V missing on terminal 01 (51, N)	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board	Replace I/O board
				Defective circulation pump	Replace circulation pump
				Customer	5375
Installer	5376	Warning heat pump Z2 freeze protection of condenser	Warning if TC3 < 5°C heat pump 2. Warning resets when TC3 and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats
				Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
				Air in heat transfer system/heating system	Vent the heating system as per instructions in manual, top up with water in heating system.
				Defective TC3 sensor	Check sensor TC3 with relevant sensor table/replace sensor TC3
				Defective I/O board, 230 V missing	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board, no PWM signal	Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
				Defective I/O board, 230 V missing on terminal 01 (51, N)	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board	Replace I/O board
				Defective circulation pump	Replace circulation pump
				Customer	5377
Customer	5378	Warning Heat pump Z1 failed defrosting	Warning if TR24 < 25°C or pressure sensor PH1 < 30°C after 800 seconds in defrosting. Warning after 3 times in 3 hours, or if conditions are active for 30 minutes.	Too low temperature in heating system	Open more thermostats on heating system
				Sensor TL2 defective	Check sensor TL2 with relevant sensor table and actual temperature. In event of deviation replace sensor TL2.

Customer	5380	Warning Heat pump Z2 failed defrosting	Warning if TR24 < 25°C or pressure sensor PH1 < 30°C after 800 seconds in defrosting. Warning after 3 times in 3 hours, or if conditions are active for 30 minutes heat pump 2.	Too low temperature in heating system Sensor TL2 defective	Open more thermostats on heating system Check sensor TL2 with relevant sensor table and actual temperature. In event of deviation replace sensor TL2
Customer	5387	Alarm heat pump Z1 compressor driver is too hot	Warning if internal temperature sensor in PFC module inverter > 80°C for 10 seconds	Poor heat transfer to cooling coil In event of repeated alarm, defective inverter	Check screw union to cooling coil Replace inverter
Customer	5389	Alarm heat pump Z2 compressor driver is too hot	Warning if internal temperature sensor in PFC module inverter > 80°C for 10 seconds heat pump 2	Poor heat transfer to cooling coil In event of repeated alarm, defective inverter	Check screw union to cooling coil Replace inverter
Installer	5394	Warning heat pump Z1 Internal compressor driver fault 1	Warning if inverter registers overcurrent >42 A DC to compressor >20 microseconds. Warning resets after 4 minutes if cause does not remain	Failure/short circuit in cabling between inverter and compressor Electrical fault in compressor Inverter not working	Check cabling between inverter and compressor Measure resistance between windings and earth. With resistance < 10kOhm replace compressor Replace inverter
Customer	5395	Alarm heat pump Z1 Internal compressor driver fault 1	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5394	See possible action for action code 5394
Installer	5396	Warning heat pump Z2 Internal compressor driver fault 1	Warning if inverter registers overcurrent >42 A DC to compressor >20 microseconds heat pump 2. Warning resets after 4 minutes if cause does not remain	Failure/short circuit in cabling between inverter and compressor Electrical fault in compressor Inverter not working	Check cabling between inverter and compressor Measure resistance between windings and earth. With resistance < 10kOhm replace compressor Replace inverter
Customer	5397	Alarm heat pump Z2 Internal compressor driver fault 1	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5396	See possible action for action code 5396
Installer	5408	Warning heat pump Z1 air intake temperature sensor TL2 failure	Warning after 3 faults (>170 kOhm) in 2 hours air intake sensor TL2 failure	Air intake sensor TL2/signal cable failure. Screw terminal on I/O board to air intake sensor TL2 not tightened Air intake sensor TL2/signal cable failure. I/O board not working	Check sensor TL2/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace air intake sensor/signal cable sensor TL2 Replace I/O board
Installer	5409	Warning heat pump Z1 air intake temperature sensor TL2 short circuited	Warning short circuit (<900 Ohm) on air intake sensor TL2 after 3 faults in 2 hours.	Air intake sensor TL2/signal cable short circuited. Air intake sensor TC3 short circuited Signal cable to air intake sensor/sensor TL2 short circuited I/O board not working	Check sensor TL2/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace air intake sensor TL2 Repair/replace signal cable/sensor to condenser sensor TL2 Replace I/O board
Customer	5410	Alarm heat pump Z1 air intake temperature sensor TL2 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5408, 5409	See possible action for action code 5408, 5409
Installer	5411	Warning heat pump Z2 air intake temperature sensor TL2 failure	Warning after 3 faults (>170 kOhm) in 2 hours air intake sensor TL2 heat pump 2 failure	Air intake sensor TL2/signal cable failure. Screw terminal on I/O board to air intake sensor TL2 not tightened Air intake sensor TL2/signal cable failure. I/O board not working	Check sensor TL2/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace air intake sensor/signal cable sensor TL2 Replace I/O board
Installer	5412	Warning heat pump Z1 air intake temperature sensor TL2 short circuited	Warning short circuit (<900 Ohm) on air intake sensor TL2 heat pump 2 after 3 faults in 2 hours.	Air intake sensor TL2/signal cable short circuited. Air intake sensor TL2 short circuited Signal cable to air intake sensor/sensor TL2 short circuited I/O board not working	Check sensor TL2/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace air intake sensor TL2 Repair/replace signal cable/sensor to condenser sensor TL2 Replace I/O board
Customer	5413	Alarm heat pump Z1 air intake temperature sensor TL2 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5411, 5412	See possible action for action code 5411, 5412
Installer	5414	Warning heat pump Z1 fluid line in heating mode sensor TR3 failure	Warning failure (>179 kOhm) on sensor TR3 after 3 faults in 2 hours	Sensor TR3/signal cable failure. Screw terminal on I/O board to sensor TR3 not tightened Sensor TR3/signal cable failure. I/O board not working	Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check screw terminal Replace sensor TR3 Replace I/O board
Installer	5415	Warning heat pump Z1 fluid line in heating mode sensor TR3 short circuited	Warning short circuit (<390 Ohm) on sensor TR3 after 3 faults in 2 hours.	Heat transfer fluid in sensor TR3/signal cable short circuited. Sensor TR3 short circuited Signal cable/sensor TR3 short circuited I/O board not working	Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR3 Replace sensor TR3 Replace I/O board
Customer	5416	Alarm heat pump Z1 fluid line in heating mode sensor TR3 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	See possible causes for cause code 5414, 5415	See possible action for action code 5414, 5415
Installer	5417	Warning heat pump Z2 fluid line in heating mode sensor TR3 failure	Warning failure (>179 kOhm) on sensor TR3 heat pump 2 after 3 faults in 2 hours	Sensor TR3/signal cable failure. Screw terminal on I/O board to sensor TR3 not tightened Sensor TR3/signal cable failure. I/O board not working	Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR3 Replace I/O board
Installer	5418	Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuited	Warning short circuit (<390 Ohm) on sensor TR3 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid in sensor TR3/signal cable short circuited. Sensor TR3 short circuited Signal cable/sensor TR3 short circuited I/O board not working	Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR3 Replace sensor TR3 Replace I/O board
Customer	5419	Alarm heat pump Z2 fluid line in heating mode sensor TR3 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	See possible causes for cause code 5417, 5418	See possible action for action code 5417, 5418

Installer	5420	Warning heat pump Z1 fluid line in cooling mode sensor TR4 failure	Warning after 3 faults (>170 kOhm) in 2 hours sensor TR4 failure	Sensor TR4/signal cable failure.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Screw terminal on I/O board to sensor TR4 not tightened	Check screw terminal on I/O board
				Air intake sensor TR4/signal cable failure. I/O board not working	Replace sensor/signal cable sensor TR4 Replace I/O board
Installer	5421	Warning heat pump Z1 fluid line in cooling mode sensor TR4 short circuited	Warning short circuit (<900 Ohm) on sensor TR4 after 3 faults in 2 hours.	Sensor TR4/signal cable short circuited.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Sensor TR4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TR4
				Signal cable/sensor TR4 short circuited I/O board not working	Replace signal cable/sensor to sensor TR4 Replace I/O board
Customer	5422	Alarm heat pump Z1 fluid line in cooling mode sensor TR4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4.	See possible causes for cause code 5421, 5421	See possible action for action code 5420, 5421
Installer	5423	Warning heat pump Z2 fluid line in cooling mode sensor TR4 failure	Warning after 3 faults (>170 kOhm) in 2 hours sensor TR4 heat pump 2 failure	Sensor TR4/signal cable failure.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Screw terminal on I/O board to sensor TR4 not tightened	Check screw terminal on I/O board
				Air intake sensor TR4/signal cable failure. I/O board not working	Replace sensor/signal cable sensor TR4 Replace I/O board
Installer	5424	Warning heat pump Z2 fluid line in cooling mode sensor TR4 short circuited	Warning short circuit (<900 Ohm) on air intake sensor TL2 heat pump 2 after 3 faults in 2 hours.	Sensor TR4/signal cable short circuited.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Sensor TR4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TR4
				Signal cable/sensor TR4 short circuited I/O board not working	Replace signal cable/sensor to sensor TR4 Replace I/O board
Customer	5425	Alarm heat pump Z2 fluid line in cooling mode sensor TR4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4 heat pump 2.	See possible causes for cause code 5421, 5421	See possible action for action code 5420, 5421
Installer	5426	Warning heat pump Z1 suction gas sensor TR5 failure	Warning failure (>179 kOhm) on sensor TR5 after 3 faults in 2 hours	Sensor TR5/signal cable failure.	Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal
				Screw terminal on I/O board to sensor TR5 not tightened	Check screw terminal on I/O board
				Sensor TR5/signal cable failure. I/O board not working	Replace sensor TR5 Replace I/O board
Installer	5427	Warning heat pump Z1 suction gas sensor TR5 short circuited	Warning short circuit (<390 Ohm) on sensor TR5 after 3 faults in 2 hours.	Sensor TR5/signal cable short circuited.	Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Sensor TR5 short circuited	Check ohm value with relevant sensor table/replace sensor TR5
				Signal cable/sensor TR5 short circuited I/O board not working	Replace sensor TR5 Replace I/O board
Customer	5428	Alarm heat pump Z1 suction gas sensor TR5 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	See possible causes for cause code 5426, 5427	See possible action for action code 5426, 5427
Installer	5429	Warning heat pump Z2 suction gas sensor TR5 failure	Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours	Sensor TR5/signal cable failure.	Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal
				Screw terminal on I/O board to sensor TR5 not tightened	Check screw terminal on I/O board
				Sensor TR5/signal cable failure. I/O board not working	Replace sensor TR5 Replace I/O board
Installer	5430	Warning heat pump Z2 suction gas sensor TR5 short circuited	Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.	Sensor TR5/signal cable short circuited.	Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
				Sensor TR5 short circuited	Check ohm value with relevant sensor table/replace sensor TR5
				Signal cable/sensor TR5 short circuited I/O board not working	Replace sensor TR5 Replace I/O board
Customer	5431	Alarm heat pump Z2 suction gas sensor TR5 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	See possible causes for cause code 5429, 5430	See possible action for action code 5429, 5430
Installer	5432	Warning heat pump Z1 pressure sensor low pressure JR0 failure	Warning if voltage < 0.5V on terminal 17 on IO board	Gap in cabling/terminal 17,19 on IO board	Check cabling and terminal connections 17, 19 on IO board
				IO board defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage <0.5V, replace IO board
				Pressure sensor JR0 defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace pressure sensor
Customer	5434	Alarm heat pump Z1 pressure sensor low pressure JR0 faulty	Alarm after 3 faults in 2 hours, or 15 minutes constant failure	See possible causes for cause code 5432	See possible action for action code 5432
Installer	5435	Warning heat pump Z2 pressure sensor low pressure JR0 failure	Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2	Gap in cabling/terminal 17,19 on IO board	Check cabling and terminal connections 17, 19 on IO board
				IO board defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage <0.5V, replace IO board
				Pressure sensor JR0 defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace pressure sensor
Customer	5437	Alarm heat pump Z2 pressure sensor low pressure JR0 faulty	Alarm after 3 faults in 2 hours, or 15 minutes constant failure	See possible causes for cause code 5435	See possible action for action code 5435
Installer	5438	Warning heat pump Z1 pressure sensor high pressure JR1 failure	Warning if voltage < 0.5V on terminal 16 on IO board	Gap in cabling/terminal 16.18 on IO board	Check cabling and terminal connections 16, 18 on IO board
				IO board defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage <0.5V, replace IO board
				Pressure sensor JR1 defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace pressure sensor
Customer	5440	Alarm heat pump Z1 pressure sensor high pressure JR1 faulty	Alarm after 3 faults in 2 hours, or 15 minutes constant failure	See possible causes for cause code 5438	See possible action for action code 5438
				Gap in cabling/terminal 16.18 on IO board	Check cabling and terminal connections 16, 18 on IO board

Installer	5441	Warning heat pump Z2 pressure sensor high pressure JR1 failure	Warning if voltage < 0.5V on terminal 16 on IO board heat pump 2	IO board defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage < 0.5V, replace IO board
				Pressure sensor JR1 defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace pressure sensor
Customer	5443	Alarm heat pump Z2 pressure sensor high pressure JR1 faulty	Alarm after 3 faults in 2 hours, or 15 minutes constant failure	See possible causes for cause code 5441	See possible action for action code 5441
Customer	5445	Alarm heat pump Z1 Buzzer alarm fan	Alarm if 230 V lost on terminal 34 (74, 75) IO board	Fan blocked	Check that fan is not physically blocked
				Check fan as per test outdoor unit	Activate test outdoor unit
				I/O board defective	Check there is 230V on input PL3 SSM terminal 34 (75, N)
				I/O board defective	If there is no voltage as above, replace I/O board
				Fan without 230V	Check there is 230V on output PL3 terminal 32 (78, N)
				Fan without 0-10V signal	Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit
				Fan defective	If there is voltage as above, replace fan
Installer	5446	Hoses between inner part and heat pump Z1 are switched	Alarm if TC3 < 1°C from TC0, and PH1 > 7°C > TC3 longer than 30 seconds	Hoses (riser/return) between heat pump and inner part switched	Fit hoses to correct connections
				Defective sensor TC3, TC0	Check position of sensor, check sensor as per relevant sensor table and actual temperature, in event of deviation replace sensor
Installer	5448	Refrigerant shortage heat pump Z1	Alarm after 20 minutes if expansion valve VRO is open > 20% of calculated value.	Not enough refrigerant in heat pump	Check amount of refrigerant, activate "Evacuate/fill" function when emptying/filling refrigerant
				Leak on cooling circuit	Check/rectify leak
Customer	5450	Condensation drain blocked in heat pump Z1	T26 does not increase as per specifications after defrosting	Condensation drain in heat pump blocked	Check/clear drain
				Heating cable in condensation drain defective, drain frozen	Check/replace heating cable
				No voltage to heating cable	Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable
Customer	5451	Flow too low through heat pump Z1 when defrosting	Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting	Too low temperature in heating system	Open more thermostats on heating system
				Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
				Air in heating system	Vent the heating system as per instructions in manual, top up with water in heating system.
				ö	Check adjuster valves/radiator thermostats
				Defective I/O board, no PWM signal to circulation pump	Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
				Defective I/O board, 230 V missing on terminal 01 (51, N)	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board	Replace I/O board
				Defective circulation pump	Replace circulation pump
Customer	5452	Internal fault on inverter to compressor in heat pump Z1	Buzzer alarm internal fault in inverter	Defective inverter	Replace inverter
Customer	5453	No voltage to heat pump Z1	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V	Low/no voltage to heat pump	Check main fuses for poor contact/tripped fuses
				Low input mains voltage	In event of repeated warnings contact electricity supplier
Customer	5454	Condensation drain blocked in heat pump Z2		Condensation drain in heat pump blocked	Check/clear drip pan/drain
				Heating cable in condensation drain defective, drain frozen	Check/replace heating cable
				No voltage to heating cable	Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable
Customer	5455	Flow too low through heat pump Z2 when defrosting	Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2	Too low temperature in heating system	Open more thermostats on heating system
				Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
				Air in heating system	Vent the heating system as per instructions in manual, top up with water in heating system.
				Poor circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats
				Defective I/O board, no PWM signal to circulation pump	Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
				Defective I/O board, 230 V missing on terminal 01 (51, N)	Check for 230 V on terminal 01 (51, N) on I/O board
				Defective I/O board	Replace I/O board
				Defective circulation pump	Replace circulation pump
Customer	5456	Internal fault on inverter to compressor in heat pump Z2	Buzzer alarm internal fault in inverter heat pump 2	Defective inverter	Replace inverter
Installer	5458	Warning Z2 hot water sensor TW1 failure	Warning failure (>179 kOhm) on sensor TW1 heat pump 2 after 3 faults in 2 hours.	Hot water sensor TW1/signal cable failure.	Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
				Screw terminal on I/O board to hot water sensor TW1 not tightened	Check screw terminal
				Hot water sensor TW1/signal cable failure.	Replace flow sensor TW1
				I/O board not working	Replace I/O board
Installer	5459	Warning Z2 hot water sensor TW1 short circuited	Warning short circuit (<390 Ohm) on sensor TW1 heat pump 2 after 3 faults in 2 hours.	Hot water sensor TW1/signal cable short circuited.	Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal
				Heat transfer fluid in sensor TW1 short circuited	Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TW1
				Signal cable to heat transfer fluid out sensor TW1 short circuited	Repair/replace signal cable to heat transfer out sensor TW1
				I/O board not working	Replace I/O board
Customer	5460	Alarm Z2 hot water sensor TW1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TW1 heat pump 2	See possible causes for cause code 5458, 5459	See possible action for cause code 5458, 5459

Customer	5461	Alarm heat pump Z2. Fault on 4-way valve, cannot switch to cooling	Alarm if TR3>TR4 and TC3>TC0 after 5 minutes in cooling mode heat pump 2	Coil to 4-way valve not working	Check resistance in magnetic coil on 4-way valve (1.3-1.5 kOhm), if not replace coil
				Check function of 4-way valve	Activate test outdoor unit, see separate document
				230 V lost on terminal VR4 (81, N)	Replace I/O board
				Fault on sensor (TR3, TR4, TC3, TC0)	Check sensor is in correct position, check sensor value with relevant sensor table and temperature
Customer	5462	Alarm heat pump Z2. Fault on 4-way valve, cannot switch to heating	Alarm if TR4>TR3 and TC0>TC3 after 5 minutes in heating mode heat pump 2	4-way valve jams/not working	Replace 4-way valve
				Check function of 4-way valve	Activate test outdoor unit, see separate document
				Fault on sensor (TR4, TR3, TC0, TC3)	Check sensor is in correct position, check sensor value with relevant sensor table and temperature
				230 V on terminal VR4 during cooling mode/defrosting	Replace I/O board
Customer	5463	Alarm heat pump Z1 defrost Clean heat pump outdoor part	Alarm if timer for defrosting exceeds 800 seconds 3 times, or if 3 defrostings needed in minimum time for heat production	4-way valve jams/not working	Replace 4-way valve
				Evaporator blocked with ice	Melt ice carefully with hot water
				Too low temperature in heating system	Open more thermostats on heating system
Customer	5465	No voltage to heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec heat pump 2 Warning resets after 2 minutes if input AC voltage > 190 V	Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
				Low/no voltage to heat pump	Check main fuses for poor contact/break
				Low input mains voltage	In event of repeated warnings contact electricity supplier
Customer	5500	Floor heating thermostat on external input tripped	Alarm on closing of external input 1-3 on I/O board, depending on selection.	Safety thermostat for floor heating has tripped	Reset thermostat, adjust heat curve if necessary
Customer	5501	JR0 Alarm Clean heat pump Z2	Alarm when JR0 < -27 °C in heating mode heat pump 2	Blocked/low air flow to air heat exchanger on heat pump	Ensure adequate air flow over air heat exchanger.
				Check fan as per test outdoor unit	Activate test outdoor unit
				Fan without 230V	Check there is 230V on output PL3 terminal 32 (78, N)
				Fan without 0-10V signal	Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit
				Fan defective	If there is voltage as above, replace fan
				I/O board not working	If there is no voltage as above, replace I/O board
				Electric heater in drip pan not working	Measure resistance of electric heater, 75W-720 Ohm, 50W-1070 Ohm, in event of failure replace electric heater
Customer	5502	Electric heater in drip pan in heat pump Z2 not working	Sensor TA4 does not exceed 5°C during defrosting heat pump 2	Sensor TA4 not working	Check sensor position and sensor value with relevant sensor table and actual temperature
				I/O board not working	Check there is 230V on output EA0 terminal 27 (80, N) on manual operation of drip pan heater
				I/O board not working	If there is no voltage as above, replace I/O board
Installer	5503	Warning Problem with connection to load monitor	Communication between Installer board and load monitor lost for 30 seconds	Incorrect cabling/connections	Check cabling/connections
				Bad contact in CAN bus connections on Installer board tower and load monitor	Check CAN bus connections on Installer board tower and load monitor
				Failure on CAN bus cable between Installer board tower and load monitor	Replace CAN bus cable between Installer board tower and load monitor
				Wrong type of CAN bus cable	Replace to correct type of cable
Customer	5504	Alarm Connection to load monitor disconnected	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	Can bus cable placed together with power supply to heat pump	Separate Can bus and power cable by at least 100 mm
				See possible causes for cause code 5432	See possible action for action code 5432
Customer	5505	Electric heater in drip pan in heat pump Z1 not working	Sensor TA4 does not exceed -2 °C during defrosting	Electric heater in drip pan not working	Measure resistance of electric heater, 75W-720 Ohm, 50W-1070 Ohm, in event of failure replace electric heater
				Sensor TA4 not working	Check sensor value with relevant sensor table and actual temperature
				I/O board not working	Check there is 230V on output EA0 terminal 27 (80, N) on manual operation of drip pan heater
				I/O board not working	If there is no voltage as above, replace I/O board
Installer	5506	Compressor does not start	Alarm if compressor has not started in 2 minutes after start signal sent	Temporary malfunction inverter	Replace and switch on voltage to heat pump
Installer	5507	MR1 high pressure alarm B in heat pump Z1	Warning if HP switch MR1 cuts out (44 bar)	Internal fault in inverter	Replace inverter
				Pressure switch not working	Broken circuit <43bar = replace pressure switch
Installer	5507	MR1 high pressure alarm B in heat pump Z1	Warning if HP switch MR1 cuts out (44 bar)	Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter
				Failure/poor connection in cabling between MR1 and inverter	Check that high pressure switch is closed
				Failure/poor connection in cabling between MR1 and inverter	Strap input MR1 in inverter, warning should disappear if not replace inverter
Customer	5508	MR1 high pressure alarm A in heat pump Z1	Alarm if HP switch MR1 2 warnings in 3 hours	See warning 5507 above	See action for warning 5507 above
Installer	5509	MR1 high pressure alarm B in heat pump Z2	Warning if HP switch MR1 cuts out (44 bar)	Failure in cable /pressure switch MR1	Measure/total Ohms pressure switch at first Molex connector, closed = ok
				Pressure switch not working	Broken circuit <43bar = replace pressure switch
				Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter
				Failure/poor connection in cabling between MR1 and inverter	Strap input MR1 in inverter, warning should disappear if not replace inverter
Customer	5510	MR1 high pressure alarm A in heat pump Z2	Alarm if HP switch MR1 2 warning in 3 hours heat pump 2	Broken circuit <43bar = replace pressure switch	Replace pressure switch
				Pressure switch not working	Broken circuit <43bar = replace pressure switch
				Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter
Customer	5510	MR1 high pressure alarm A in heat pump Z2	Alarm if HP switch MR1 2 warning in 3 hours heat pump 2	Failure/poor connection in cabling between MR1 and inverter	Check that high pressure switch is closed
				Failure/poor connection in cabling between MR1 and inverter	Check that high pressure switch is closed

Installer	5512	Condensing temperature outside envelope in heat pump Z1	Warning if temperature on PH1 > highest permitted actual envelope longer than 30 seconds	Evaporation temperature too low in relation to condensing temperature	Outdoor temperature probably too low. See diagram chapter 4 in installation manual
Customer	5513	Condensation too high in heat pump Z1	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	Evaporation temperature too low in relation to condensing temperature Flow too high/low delta in heating system	Outdoor temperature probably too low. See diagram chapter 4 in installation manual Adjust temperature/flow
Installer	5514	Low pressure warning JR0 in heat pump Z1	Warning if PL1 < lowest permitted actual envelope (-27°C) longer than 30 seconds	Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working	Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is no voltage as above, replace I/O board
Customer	5515	Alarm low evaporation JR0 in heat pump Z1	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5514	See possible action for action code 5514
Installer	5517	Wrong compressor driver installed in heat pump Z2	Setting of rotary encoder on I/O board does not match installed inverter	Wrong combination of inverter / I/O board installed in heat pump 2 On replacement of inverter, wrong model of inverter On replacement of I/O board, wrong setting of rotary encoder on new I/O board	Check adjustment with relevant wiring diagram Check inverter model Check setting of rotary encoder with replaced I/O board
Installer	5518	Condensing temperature outside envelope in heat pump Z2	Warning if temperature on PH1 > highest permitted actual envelope longer than 30 seconds heat pump 2	Evaporation temperature too low in relation to condensing temperature	Outdoor temperature probably too low. See diagram chapter 4 in installation manual
Customer	5519	Condensation too high in heat pump Z2	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes heat pump 2	Evaporation temperature too low in relation to condensing temperature Flow too high/low delta in heating system	Outdoor temperature probably too low. See diagram chapter 4 in installation manual Adjust temperature/flow
Installer	5520	Low pressure warning JR0 in heat pump Z2	Warning if PL1 < lowest permitted actual envelope (-27°C) longer than 30 seconds heat pump 2	Blocked/low air flow to air heat exchanger on heat pump Check fan as per test outdoor unit Fan without 230V Fan without 0-10V signal Fan defective I/O board not working	Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is no voltage as above, replace I/O board
Customer	5521	Alarm low evaporation JR0 in heat pump Z2	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes heat pump 2	See possible causes for cause code 5520	See possible action for action code 5520
Customer	5522	Wrong combination of heat pump and inner part	Setting of rotary encoder on Installer board does not match installed heat pump	Wrong combination of heat pump / inner part On replacement of I/O board, wrong setting of rotary encoder on new I/O board On replacement of Installer board, wrong setting of rotary encoder on new Installer board	Check combination Check setting of rotary encoder with replaced I/O board Check setting of rotary encoder with replaced Installer board
Installer	5523	Warning heat pump Z1 PFC overcurrent on compressor driver	Warning if input AC current > 31A 6 times. Resets after 4 minutes if fault does not remain	Internal fault in inverter	Replace inverter
Customer	5524	Alarm heat pump Z1 PFC overcurrent on compressor driver	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5523	See possible action for action code 5523
Customer	5526	Alarm heat pump Z2 defrost Clean heat pump outdoor part	Alarm if timer for defrosting exceeds 800 seconds 3 times, or if 3 defrostings needed in minimum time for heat production heat pump 2	Evaporator blocked with ice	Melt ice carefully with hot water
Installer	5527	Alarm heat pump Z1 too much refrigerant in heat pump	Alarm if PH1 > 5°C than TC3 and undercooling > than set point, both conditions filled longer than 5 minutes during hot water production	Heat pump overfilled	Empty heat pump and fill with amount as per type plate
Installer	5528	Warning heat pump Z2 compressor sensor TR1 failure	Warning failure (>364 kOhm) on sensor TR1 after 3 faults in 2 hours heat pump 2	Screw terminal on I/O board to compressor sensor TR1 not tightened compressor sensor TR1/signal cable failure. I/O board not working compressor sensor TR1/signal cable short circuited.	Check screw terminal Replace compressor sensor TR1 Replace I/O board Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5529	Warning heat pump Z2 compressor sensor TR1 short circuit	Warning short circuit (>350 kOhm) on sensor TR1 after 3 faults in 2 hours heat pump 2	Compressor sensor TR1/short circuited Signal cable to compressor sensor TR1 short circuited I/O board not working See possible causes for cause code 5314, 5315	Check ohm value with relevant sensor table and actual temperature/replace compressor sensor TR1 Repair/replace signal cable to compressor sensor TR1 Replace I/O board See possible action for cause code 5314, 5315
Customer	5530	Alarm heat pump Z2 compressor sensor TR1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR1 heat pump 2	Compressor sensor TR1/signal cable failure.	Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5531	Warning heat pump Z1 compressor sensor TR1 failure	Warning failure (>364 kOhm) on sensor TR1 after 3 faults in 2 hours.	Screw terminal on I/O board to compressor sensor TR1 not tightened compressor sensor TR1/signal cable failure. I/O board not working	Check screw terminal Replace compressor sensor TR1 Replace I/O board
Installer	5532	Warning heat pump Z1 compressor sensor TR1 short circuited	Warning short circuit (>350 kOhm) on sensor TR1 after 3 faults in 2 hours	Compressor sensor TR1/signal cable short circuited. Compressor sensor TR1/short circuited Signal cable to compressor sensor TR1 short circuited I/O board not working	Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace compressor sensor TR1 Repair/replace signal cable to compressor sensor TR1 Replace I/O board
Customer	5533	Alarm heat pump Z1 compressor sensor TR1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR1	See possible causes for cause code 5531, 5532 Screw terminal on I/O board to drip pan sensor TA4 not tightened	See possible action for cause code 5531, 5532 Check screw terminal on I/O board

Installer	5534		Warning heat pump Z2 temperature sensor TA4 failure	Warning after 3 faults (>170 kOhm) in 2 hours sensor TA4 failure heat pump 2	Screw terminal on I/O board to drip pan sensor TA4 not tightened Drip pan sensor TA4/signal cable failure. I/O board not working	Check screw terminal on I/O board Replace sensor/signal cable sensor TA4 Replace I/O board
Installer	5535		Warning heat pump Z2 temperature sensor TA4 short circuited	Warning short circuit (>900 kOhm) on sensor TA4 after 3 faults in 2 hours heat pump 2	Drip pan sensor TA4/signal cable short circuited. Sensor TA4 short circuited Signal cable/sensor TA4 short circuited I/O board not working	Check sensor TA4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace sensor TA4 Replace signal cable/sensor to sensor TA4 Replace I/O board
Customer	5536		Alarm heat pump Z2 temperature sensor TA4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4 heat pump 2	See possible causes for cause code 5534, 5535	See possible action for action code 5534, 5535
Installer	5537		Hoses between inner part and heat pump Z2 are switched	Alarm if TC3 < 1°C from TC0, and PH1 > 7°C > TC3 longer than 30 seconds	Hoses (riser/return) between heat pump and inner part switched Defective sensor TC3, TC0	Check the hose connections Check sensor as per relevant sensor table and actual temperature, in event of deviation replace sensor
Customer	5538		Warning heat pump Z1 temperature sensor TA4 failure	Warning after 3 faults (>170 kOhm) in 2 hours sensor TA4 failure	Screw terminal on I/O board to drip pan sensor TA4 not tightened Drip pan sensor TA4/signal cable failure. I/O board not working	Check screw terminal on I/O board Replace sensor/signal cable sensor TA4 Replace I/O board
Customer	5539		Warning heat pump Z1 temperature sensor TA4 short circuited	Warning short circuit (<900 Ohm) on sensor TA4 after 3 faults in 2 hours	Drip pan sensor TA4/signal cable short circuited. Sensor TA4 short circuited Signal cable/sensor TA4 short circuited I/O board not working	Check sensor TA4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table and actual temperature/replace sensor TA4 Replace signal cable/sensor to sensor TA4 Replace I/O board
Installer	5540		Alarm heat pump Z1 temperature sensor TA4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4	See possible causes for cause code 5538, 5539	See possible action for action code 5538, 5539
Customer	5541		Communication with pool board failed	Communication between Installer board and pool board lost for 90 seconds	Bad contact in CAN bus connections on Installer board tower and pool board Failure on CAN bus cable between Installer board tower and pool board Wrong type of CAN bus cable Can bus cable placed together with power supply to heat pump Incorrect earthing of CAN bus cable	Check CAN bus connections on Installer board tower and pool board Replace CAN bus cable between Installer board tower and pool board Replace to correct type of cable Separate Can bus and power cable by at least 100 mm Remove/connect cable shield to/from earth