

## 16.4 Error Codes Table

Diagnosis display	Abnormality/Protection control	Abnormality judgement	Primary location to verify
H00	No abnormality detected	—	—
H12	Indoor/Outdoor capacity unmatched	90s after power supply	<ul style="list-style-type: none"> <li>Indoor/outdoor connection wire</li> <li>Indoor/outdoor PCB</li> <li>Specification and combination table in catalogue</li> </ul>
H15	Outdoor compressor temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Compressor temperature sensor (defective or disconnected)</li> </ul>
H20	Water pump abnormality	Continue for 10 sec.	<ul style="list-style-type: none"> <li>Indoor PCB</li> <li>Water pump (malfunction)</li> </ul>
H23	Indoor refrigerant liquid temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Refrigerant liquid temperature sensor (defective or disconnected)</li> </ul>
H27	Service valve error	Continue for 5 minutes	<ul style="list-style-type: none"> <li>High pressure sensor (defective or disconnected)</li> </ul>
H28	Abnormal solar sensor	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Solar temperature sensor (defective or disconnected)</li> </ul>
H31	Abnormal swimming pool sensor	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Pool temperature sensor (defective or disconnected)</li> </ul>
H36	Abnormal buffer tank sensor	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Buffer tank sensor (defective or disconnected)</li> </ul>
H38	Brand code not match	When indoor and outdoor brand code not same	—
H42	Compressor low pressure abnormality	—	<ul style="list-style-type: none"> <li>Outdoor pipe temperature sensor</li> <li>Clogged expansion valve or strainer</li> <li>Insufficient refrigerant</li> <li>Outdoor PCB</li> <li>Compressor</li> </ul>
H43	Abnormal Zone 1 sensor	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Water temperature Zone 1 sensor</li> </ul>
H44	Abnormal Zone 2 sensor	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Water temperature Zone 2 sensor</li> </ul>
H62	Water flow switch abnormality	Continue for 1 min.	<ul style="list-style-type: none"> <li>Water flow switch</li> </ul>
H63	Abnormal low pressure sensor	4 times in 20 minutes	<ul style="list-style-type: none"> <li>Low pressure sensor (defective or disconnect)</li> </ul>
H64	Refrigerant high pressure abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor high pressure sensor (defective or disconnected)</li> </ul>
H65	Abnormal deice water circulation	water flow > 7 l/min continuously for 20 second during anti freeze deice	<ul style="list-style-type: none"> <li>Water pump</li> </ul>
H67	Abnormal External Thermistor 1	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Room temperature Zone 1 sensor</li> </ul>
H68	Abnormal External Thermistor 2	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Room temperature Zone 2 sensor</li> </ul>
H70	Back-up heater OLP abnormality	Continue for 60 sec.	<ul style="list-style-type: none"> <li>Back-up heater OLP (Disconnection or activated)</li> </ul>
H72	Tank sensor abnormal	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Tank sensor</li> </ul>
H74	PCB communication error	Communication or transfer error	<ul style="list-style-type: none"> <li>Indoor main PCB and Sub PCB</li> </ul>
H75	Low water temperature control	Room heater disable and deice request to operate under low water temperature	<ul style="list-style-type: none"> <li>Heater operation must enable to increase water temperature</li> </ul>
H76	Indoor - control panel communication abnormality	—	<ul style="list-style-type: none"> <li>Indoor - control panel (defective or disconnected)</li> </ul>
H90	Indoor/outdoor abnormal communication	> 1 min after starting operation	<ul style="list-style-type: none"> <li>Internal/external cable connections</li> <li>Indoor/Outdoor PCB</li> </ul>
H91	Tank heater OLP abnormality	Continue for 60 sec.	<ul style="list-style-type: none"> <li>Tank heater OLP (Disconnection or activated)</li> </ul>
H95	Indoor/Outdoor wrong connection	—	<ul style="list-style-type: none"> <li>Indoor/Outdoor supply voltage</li> </ul>
H98	Outdoor high pressure overload protection	—	<ul style="list-style-type: none"> <li>Outdoor high pressure sensor</li> <li>Water pump or water leakage</li> <li>Clogged expansion valve or strainer</li> <li>Excess refrigerant</li> <li>Outdoor PCB</li> </ul>
H99	Indoor heat exchanger freeze prevention	—	<ul style="list-style-type: none"> <li>Indoor heat exchanger</li> <li>Refrigerant shortage</li> </ul>
F12	Pressure switch activate	4 times occurrence within 20 minutes	<ul style="list-style-type: none"> <li>Pressure switch</li> </ul>
F14	Outdoor compressor abnormal revolution	4 times occurrence within 20 minutes	<ul style="list-style-type: none"> <li>Outdoor compressor</li> </ul>
F15	Outdoor fan motor lock abnormality	2 times occurrence within 30 minutes	<ul style="list-style-type: none"> <li>Outdoor PCB</li> <li>Outdoor fan motor</li> </ul>
F16	Total running current protection	3 times occurrence within 20 minutes	<ul style="list-style-type: none"> <li>Excess refrigerant</li> <li>Outdoor PCB</li> </ul>

Diagnosis display	Abnormality/Protection control	Abnormality judgement	Primary location to verify
F20	Outdoor compressor overheating protection	4 times occurrence within 30 minutes	<ul style="list-style-type: none"> <li>Compressor tank temperature sensor</li> <li>Clogged expansion valve or strainer</li> <li>Insufficient refrigerant</li> <li>Outdoor PCB</li> <li>Compressor</li> </ul>
F22	IPM (power transistor) overheating protection	3 times occurrence within 30 minutes	<ul style="list-style-type: none"> <li>Improper heat exchange</li> <li>IPM (Power transistor)</li> </ul>
F23	Outdoor Direct Current (DC) peak detection	7 times occurrence continuously	<ul style="list-style-type: none"> <li>Outdoor PCB</li> <li>Compressor</li> </ul>
F24	Refrigeration cycle abnormality	2 times occurrence within 20 minutes	<ul style="list-style-type: none"> <li>Insufficient refrigerant</li> <li>Outdoor PCB</li> <li>Compressor low compression</li> </ul>
F25	Cooling/Heating cycle changeover abnormality	4 times occurrence within 30 minutes	<ul style="list-style-type: none"> <li>4-way valve</li> <li>V-coil</li> </ul>
F27	Pressure switch abnormality	Continue for 1 min.	<ul style="list-style-type: none"> <li>Pressure switch</li> </ul>
F29	Low Discharge Superheat	1 times occurrence within 2550 minutes	<ul style="list-style-type: none"> <li>Discharge Temperature sensor</li> <li>Discharge Pressure Sensor</li> <li>Pressure Switch</li> <li>Outdoor PCB</li> </ul>
F30	Water outlet sensor 2 abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Water outlet sensor 2 (defective or disconnected)</li> </ul>
F32	Abnormal Internal Thermostat	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Control panel PCB thermostat</li> </ul>
F36	Outdoor air temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor air temperature sensor (defective or disconnected)</li> </ul>
F37	Indoor water inlet temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Water inlet temperature sensor (defective or disconnected)</li> </ul>
F40	Outdoor discharge pipe temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor discharge pipe temperature sensor (defective or disconnected)</li> </ul>
F41	PFC control	4 times occurrence within 10 minutes	<ul style="list-style-type: none"> <li>Voltage at PFC</li> </ul>
F42	Outdoor heat exchanger temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor heat exchanger temperature sensor (defective or disconnected)</li> </ul>
F43	Outdoor defrost sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor defrost sensor (defective or disconnected)</li> </ul>
F45	Indoor water outlet temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Water outlet temperature sensor (defective or disconnected)</li> </ul>
F46	Outdoor Current Transformer open circuit	—	<ul style="list-style-type: none"> <li>Insufficient refrigerant</li> <li>Outdoor PCB</li> <li>Compressor low</li> </ul>
F48	Outdoor EVA outlet temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor EVA outlet temperature sensor (defective or disconnected)</li> </ul>
F49	Outdoor bypass outlet temperature sensor abnormality	Continue for 5 sec.	<ul style="list-style-type: none"> <li>Outdoor bypass outlet temperature sensor (defective or disconnected)</li> </ul>
F95	Cooling high pressure overload protection	—	<ul style="list-style-type: none"> <li>Outdoor high pressure sensor</li> <li>Water pump or water leakage</li> <li>Clogged expansion valve or strainer</li> <li>Excess refrigerant</li> <li>Outdoor PCB</li> </ul>