

Fault Code	Wired Controller Display Content	Specific Fault Content	Possible Causes of Fault	Troubleshootings
System Fault				
1	wrong phasic	Phase Error Protection	Incorrect Phase Sequence Connection	Adjust Wiring
2	eep data err	EEPROM Data Error	Parameter Value Out of Limits Incompatibility Between New and Old Program Parameter Ranges Incorrect program selection or improper operation leading to program disorder	Initialize Parameters If initialization fails, consult the manufacturer
3	SysEnvTempErr	System Ambient Temperature Fault	Ambient temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
4	SysInTempErr	System Return Temperature Fault	Return temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
5	SysOutTempErr	System Output Temperature Fault	Output temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
6	Protect eep err	System Maintenance Data Error	Incorrect program selection or improper operation leading to program disorder	Restore Factory Settings or Reflash Program
7	lack phasic	Phase Loss Protection	Power Phase Loss	Use multimeter to measure power line voltage, Check for any phase loss
8	lack fan	Air Supply Pressure Differential	[Equipment type] is “Air-Cooled Supply”, insufficient airflow from blower	Check If the Blower Is Faulty (Not applicable for water-cooled chillers)
9	DHW Sensor Err	Hot Water Tank Probe Fault	Hot water tank temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
10	TACt temp. error	Buffer Tank Probe Fault	Buffer tank sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
16	Fcu01_commu_err	Fan Coil 01 Communication Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire

[illegible]

[illegible]

[illegible]

62	Fcu31_commu_err	Fan Coil 31 Communication Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
63	Fcu32_commu_err	Fan Coil 32 Communication Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
64	Fcu17_err	Fan Coil 17 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
65	Fcu18_err	Fan Coil 18 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
66	Fcu19_err	Fan Coil 19 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
67	Fcu20_err	Fan Coil 20 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
68	Fcu21_err	Fan Coil 21 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
69	Fcu22_err	Fan Coil 22 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
70	Fcu23_err	Fan Coil 23 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
71	Fcu24_err	Fan Coil 24 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
72	Fcu25_err	Fan Coil 25 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
73	Fcu26_err	Fan Coil 26 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
74	Fcu27_err	Fan Coil 27 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
75	Fcu28_err	Fan Coil 28 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
76	Fcu29_err	Fan Coil 29 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire

77	Fcu30_err	Fan Coil 30 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
78	Fcu31_err	Fan Coil 31 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
79	Fcu32_err	Fan Coil 32 Fault	Fan coil to main control board connection plug loose or connection wire disconnected	Unplug and reinsert connection wire well, Check or replace connection wire
Compressor Fault				
97	CM DI LP	Compressor Low Pressure	Insufficient Refrigerant or System Leakage	Check for leaks, repair, re-vacuum and refill refrigerant as per nameplate
			Main Electronic Expansion Valve Opening Too Small (Electronic Expansion Valve Out of Step)	Manually Reset Electronic Expansion Valve or
			Low Pressure Switch Fault	1. Low Pressure Switch Terminal Loose, Unplug and Reinsert the Terminal; 2. Low Pressure Switch Wire Broken or Switch Body Damaged, Replace Low Pressure Switch
98	CM DI HP	Compressor High Pressure	Water flow too low, water pipeline clogged	Check Water Pipeline Flow Rate
			Water Pipeline Filter Dirty or Clogged	Clean Water Pipeline Filter
			Air in Water Pipeline System	Repeatedly Vent Air from the Water Pipeline System
			Outdoor Unit Shut-Off Valve Not Open (Split Type)	Check If Shut-Off Valve Is Open
			Refrigerant Overcharge (Units Have Recharged During Maintenance)	Re-vacuum, refill refrigerant as per nameplate
			Liquid Pipe Connection Twisted or Clogged (Split Type)	Replace Liquid Pipe Connection
			Main Electronic Expansion Valve Actually Not Open	1. Electronic expansion valve coil failure, replace the coil; 2. Electronic expansion valve body is stuck (unit does not reset after power cycling), replace the electronic expansion valve body

99	CM curr high	Compressor Current Too High	Compressor Stalled or Lacks Oil or Liquid Hammer	Power off for 30 minutes, then restart, or replace the compressor
100	CM curr low	Compressor Current Too Low	Compressor lacks refrigerant, or compressor operating frequency too low	Check for refrigerant leakage, or if compressor drive is normal
101	WING T ERR	Fin Temperature Probe Fault	Fin temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
102	EXH T ERR	Exhaust Temperature Probe Fault	Exhaust temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
103	EXH T HIGH	Exhaust Temperature Too High	System Lacks Refrigerant	Check for leaks, repair, re-vacuum, refill refrigerant by pressure
			Main Electronic Expansion Valve Opening Too Small (Electronic Expansion Valve Out of Step)	Manually Reset Electronic Expansion Valve or
			Compressor Lacks Oil	Consult Manufacturer for Compressor Oil Refill
			Air Mixed into System	First discharge residual refrigerant, then re-vacuum, refill refrigerant as per nameplate
104	LP SENSOR ERR	Low Pressure Sensor Fault	Low pressure sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
105	HP SENSOR ERR	High Pressure Sensor Fault	High pressure sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
106	CM press low	Low Pressure Too Low	Insufficient Refrigerant or System Leakage	Check for leaks, repair, re-vacuum and refill refrigerant as per nameplate
			Main Electronic Expansion Valve Opening Too Small (Electronic Expansion Valve Out of Step)	Manually Reset Electronic Expansion Valve or
			Low Pressure Switch Fault	1. Low Pressure Switch Terminal Loose, Unplug and Reinsert the Terminal; 2. Low Pressure Switch Wire Broken or Switch Body Damaged, Replace Low Pressure Switch

107	CM press high	High Pressure Too High	Water flow too low, water pipeline clogged	Check Water Pipeline Flow Rate
			Water Pipeline Filter Dirty or Clogged	Clean Water Pipeline Filter
			Air in Water Pipeline System	Repeatedly Vent Air from the Water Pipeline System
			Outdoor Unit Shut-Off Valve Not Open (Split Type)	Check If Shut-Off Valve Is Open
			Refrigerant Overcharge (Units Have Recharged During Maintenance)	Re-vacuum, refill refrigerant as per nameplate
			Liquid Pipe Connection Twisted or Clogged (Split Type)	Replace Liquid Pipe Connection
			Main Electronic Expansion Valve Actually Not Open	1. Electronic expansion valve coil failure, replace the coil; 2. Electronic expansion valve body is stuck (unit does not reset after power cycling), replace the electronic expansion valve body
108	CM GAS IN ERR	Suction Temperature Fault	Suction temperature sensor interface loose or sensor wire disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
109	CM EVAP IN ERR	Post-Valve Temperature Fault	Temperature sensor interface behind the valve is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
110	GasInLow	Suction Temperature Is Too Low	Main electronic expansion valve is not actually open or has a small opening, or the external fan is not rotating	1. Electronic expansion valve coil failure, replace the coil; 2. Electronic expansion valve body is stuck (unit does not reset after power cycling), replace the electronic expansion valve body; 3. Check the external fan wiring and inspect the external motor
111	Emerg defrost	Frequent Emergency Defrosting	Unit Return Air and Supply Air Are Not Smooth	Check if the reserved space for heat dissipation around the unit (front, back, left, right) is sufficient as per the product installation manual, and if there are any obstructions blocking the return and supply air

			Defrost Temperature Sensor Anomaly	Troubleshoot or Replace the Defrost Temperature Sensor
			Outdoor Fan Speed Decreases	Check If the Outdoor Fan Is Abnormal
112	gasInOutErr	Abnormal Suction and Discharge Temperature Difference	High discharge temperature, low suction temperature, refrigerant circulation is not smooth	Check if the main electronic expansion valve is blocked and if the pipeline filter is clogged
113	EvapLow	Refrigeration Evaporation Is Too Low	Main electronic expansion valve is not actually open or has a small opening, or the external fan is not rotating	1. Electronic expansion valve coil failure, replace the coil; 2. Electronic expansion valve body is stuck (unit does not reset after power cycling), replace the electronic expansion valve body; 3. Check the external fan wiring and inspect the external motor
114	SubFreq	Frequency Reduction Switch	Compressor current is too high, or the temperature difference between inlet and outlet water is too large	Check if the water pipeline is clogged, if the water heat exchanger is dirty or clogged, and if the water pump is operating
115	bak	Backup		
116	temp in low	Return Water Temperature Is Too Low	Return Water Temperature Reaches the Minimum Protection Value	Check if the water pipeline piping and water heat exchanger are frozen, and if the water pipeline is clear
117	temp in high	Return Water Temperature Is Too High	The return water temperature sensor is detecting a temperature different from the actual return water temperature	Check if the return water temperature sensor probe has detached and is near the high-temperature pipe; check if the temperature probe's resistance has shifted or distorted, and consider replacing it.
118	fan1 except	Fan 1 Speed Is Abnormal	Outdoor Fan Failure or Fan Drive Failure	Check if the fan is damaged and if the fan drive is damaged
119	fan2 except	Fan 2 Speed Is Abnormal	Outdoor Fan Failure or Fan Drive Failure	Check if the fan is damaged and if the fan drive is damaged
120	ec1 commu err	EC1 Communication Failure	EC Fan 1 Communication Problem Occurs	Check EC Fan 1 Communication Line and Whether the Fan Is Compatible with the Drive

121	ec1 err	EC1 Failure	EC Fan 1 or EC Fan Drive Failure	Check if EC fan 1 is damaged and if the fan drive is damaged
122	ec2 commu err	EC2 Communication Failure	EC Fan 2 Communication Problem Occurs	Check EC Fan 2 Communication Line and Whether the Fan Is Compatible with the Drive
123	ec2 err	EC2 Failure	EC Fan 2 or EC Fan Drive Failure	Check if EC fan 2 is damaged and if the fan drive is damaged
124	invt commu err	Frequency Conversion Communication Failure	Poor connection between the motherboard and frequency drive board, motherboard or frequency drive board is faulty	Unplug and reinsert the connection plug between the motherboard and frequency drive board, or replace the motherboard and frequency drive
125	invt err	Frequency Conversion Failure	Frequency Drive Board Failure	Check the specific frequency fault and respond accordingly
126	invt model set	Frequency Model Is Setting	[Frequency Compressor Code] Is Inconsistent with the Actual Compressor Used	Check If the Frequency Compressor Code Used Is Correct
127	EVI in err	Economizer Inlet Temperature Fault	Economizer inlet temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
128	EVI out err	Economizer Outlet Temperature Fault	Economizer outlet temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
Unit Fault				
161	unit env err	Module Ambient Temperature Fault	Module ambient temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
162	commu err	Communication Failure	Corresponding module cascade communication is disconnected, or communication is interfered with and not restored within a certain time	Check if the [number of modules] setting is correct Check if the dip switch settings of the corresponding module board are correct Check if the cascade communication line is poorly connected Check for obvious electrical interference (e.g., in the same electrical box with the drive)

163	eeeprom data err	EEPROM Data Error	Parameter Value Out of Limits Incompatibility Between New and Old Program Parameter Ranges	Initialize Parameters If initialization fails, consult the manufacturer
164	lack phasic	Phase Loss Protection	Power Phase Loss	Use multimeter to measure power line voltage, Check for any phase loss
165	wrong phasic	Reverse Phase Protection	Incorrect Phase Sequence Connection	Adjust Wiring
166	temp out low	Module Outlet Temperature Is Too Low	The probe of module outlet temperature sensor is damaged, or the water pipeline is frozen	Replace the module outlet temperature sensor, or Check if the water pipeline is ice-blocked
167	temp out high	Module Outlet Temperature Is Too High	The probe of module outlet temperature sensor is damaged, or water temperature exceeds the maximum set by the electric control due to heating effect in the electrified water pipeline	Replace the module outlet temperature sensor, or Check the actual water temperature in the water pipeline and reduce the electric heating time in the water pipeline
168	unit out err	Module Outlet Temperature Fault	Module temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
169	air lack water	Insufficient Air Conditioning Water Flow	Water pump is broken, or pump wire is disconnected	Replace Pump or Repair Pump Circuit
			Water Pipeline Is Not Clear	Check water pipeline filter, clean it, and repeatedly vent the water pipeline air
			Flow switch is damaged, or flow switch wire is disconnected	Repair or Replace Flow Switch
170	Air fan OL	Fan Overload Protection	Fan current exceeds the maximum set range, or fan is overheated	Check if the fan side has poor heat dissipation, remove obstructions or clean the finned heat exchanger
171	unit in err	Module Return Temperature Fault	Module return water temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
172	anti-ice low	Anti-Freeze Temperature Is Too Low	Anti-Freeze Temperature Reaches the Minimum Protection Value	Check if the water pipeline piping and water heat exchanger are frozen

173	anti-ice err	Anti-Freeze Temperature Fault	Anti-freeze temperature sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
174	outInDiffHigh	Excessive Temperature Difference Between Outlet and Return	Water Pipeline Is Not Clear	Check water pipeline filter, clean it, and repeatedly vent the water pipeline air
			Water pump is undersized, resulting in insufficient water flow	Replace Pump
			Return water temperature sensor is loose, causing detected temperature to be different from actual return water temperature	Refix Return Water Temperature Sensor
175	outInDiffErr	Abnormal Outlet and Return Temperature Difference	Abnormal Outlet and Return Temperature Difference Outlet and Return Temperature Probes Are Reversed Outlet and Return Temperature Probes Detect Abnormally	Check Probe Position Replace Probe Check Water Flow
176	power error	Power Failure	Power Supply Phase Is Missing or Incorrect	Use multimeter to measure power line voltage, Check for any phase loss Check If the Input Point Status of “Power Fault” Is Normal
177	commu except	Communication Abnormal	Corresponding module cascade communication is disconnected, or communication is interfered, but it’ s recovered in a short time	Check If the Cascade Communication Line Is Poorly Connected Check for Obvious Electrical Interference (E.G., in the Same Electrical Box with the Drive)
178	EAH OL	Auxiliary Electric Heating Overload	Auxiliary Electric Heating Current Exceeds the Maximum Permissible Current for Auxiliary Electric Heating	Replace with a Smaller Electric Heater (Refer to the Unit Manual for Maximum Current Power Requirements for Auxiliary Electric Heating)
179	PUMPF alarm	VFD Pump Warning	VFD Pump Operation Abnormal	Check VFD Pump Specification Warning Information
180	EAH over load	Backup	Auxiliary Electric Heating Current Exceeds the Maximum Permissible Current for Auxiliary Electric Heating	Replace with a Smaller Electric Heater (Refer to the Unit Manual for Maximum Current Power Requirements for Auxiliary Electric Heating)

181	PUMPF err	VFD Pump Fault	VFD Pump Has a Fault	Check Fault Information of VFD Pump Specification
182	Flow sensor error	Flow Sensor Fault	Flow sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
183	IDU and ODU communication error	Indoor and Outdoor Unit Communication Abnormal	Indoor and outdoor unit function or the communication between indoor and outdoor boards has a problem	Confirm Indoor and Outdoor Board Connected Well and Power up Again Check If Communication Lines Are Poorly Connected Check for Obvious Electrical Interference If still unresolved, consult the manufacturer
184	Protocol version mismatch	Protocol Version Is Too Low	Indoor and Outdoor Unit Program Version Are Incompatible	Change indoor and outdoor unit version, consult the manufacturer
185	R290 sensor error	R290 Sensor Fault	R290 sensor interface is loose, or sensor wire is disconnected	Unplug sensor connector, Check sensor wire or replace the sensor
186	R290 gas letout	R290 Leakage	R290 Refrigerant Leakage Occurs in the System	Check leak, weld leak points, re-evacuate, refill refrigerant according to nameplate
Frequency Conversion Failure				
			Compressor Shaft Jam	Knock the middle of the compressor gently with wood, or replace the compressor

193	Er.ocb(1) Overcurrent at start	Overcurrent During VFD Startup	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
			Main Electronic Expansion Valve Not Open	Check if the electronic expansion valve coil is loose, if the terminals are tightly connected, or replace the electronic expansion valve and coil.

194	Er.ocA(2) Overcurrent during acceleration	VFD Acceleration Overcurrent	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
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195	Er.ocd(3) Overcurrent during deceleration	VFD Deceleration Overcurrent	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
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196	Er.ocn(4) Overcurrent during constant-speed operation	VFD Constant Speed Overcurrent	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
197	Er.ouA(5)Overvoltage during acceleration	VFD Acceleration Overvoltage	1. Abnormal input voltage. 2. Compressor wear causing energy feedback issues at startup. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Replace the compressor. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.
198	Er.oud(6) Overvoltage during deceleration	VFD Deceleration Overvoltage	1. Abnormal input voltage. 2. Compressor wear causing energy feedback issues at startup. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Replace the compressor. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.

199	Er.oun(7) Overvoltage during constant-speed operation	VFD Constant Speed Overvoltage	1. Abnormal input voltage. 2. Compressor wear causing energy feedback issues at startup. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Replace the compressor. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.
200	Er.ouE(8) Overvoltage in standby state	VFD Standby Overvoltage	1. Abnormal input voltage. 2. Compressor wear causing energy feedback issues at startup. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Replace the compressor. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.
201	Er.dcL(9) Undervoltage during running	VFD Running Undervoltage	1. Abnormal input voltage. 2. The power supply network or transformer capacity is too small to support the unit, leading to a significant voltage drop and fault protection when unit power increases. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Confirm the grid capacity and whether the unit's power exceeds the grid capacity. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.
202	Er.PLI(10) Input phase loss	VFD Input Phase Loss	1. Input line not properly connected. 2. Input voltage is unbalanced in the three phases or the voltage is too low. 3. VFD capacitors are visibly bulging. 4. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check wiring. 2. Check input voltage. 3. Replace the drive or capacitor board. 4. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.

203	Er.PLo(11) Output phase loss	VFD Output Phase Loss	1. Output line is not properly connected, or the internal wiring of the compressor disconnected. 2. VFD circuit abnormal, short-circuited by water or foreign objects. 3. If phase loss protection occurs during normal operation, it could be due to compressor wear from oil deficiency or decreased winding insulation. If repeated startup attempts are made, it often accompanies other protective faults like overcurrent or stall.	1. Check wiring and whether resistance between compressor terminals is normal. 2. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 3. Replace the compressor.
204	Er.FoP(12) Power device protection	VFD Power Device Protection	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.

205	Er.oHI(13) Inverter overheating	VFD Overheating	1. Poor heat dissipation at the installation location. 2. Foreign objects or obstructions in the unit's ventilation duct. 3. Drive circuit problem occurs, short-circuited by water or foreign objects. 4. Abnormal unit cooling fan.	1. Check if the installation location of the drive has proper airflow. 2. Check if the ventilation duct can properly ventilate. 3. Use a blower to dry for a while or replace the drive. 4. Replace the cooling fan.
206	Er.oLI(14) Inverter overload	VFD Overload	1. Poor heat dissipation at the installation location. 2. Foreign objects or obstructions in the unit's ventilation duct. 3. Drive circuit problem occurs, short-circuited by water or foreign objects. 4. Abnormal unit cooling fan.	1. Check if the installation location of the drive has proper airflow. 2. Check if the ventilation duct can properly ventilate. 3. Use a blower to dry for a while or replace the drive. 4. Replace the cooling fan.
207	Er.oLL(15) Motor overload	VFD Motor Overload	1. Compressor code selected incorrectly 2. Low ambient temperature startup without preheating. 3. Compressor operates beyond high and low pressure range. 4. Input voltage drops. 5. Severe compressor wear, high current during low-frequency startup platform.	1. Check and verify compressor code. 2. Adjust control parameters to avoid the compressor running out of range. 3. Start at low ambient temperature, fully preheat before starting. 4. Check input voltage and confirm the cause of the drop. 5. Severe wear, suggest replace the compressor.
208	Er.EEF(16) PFC startup failure	VFD PFC Startup Failure	1. Abnormal input voltage. 2. The power supply network or transformer capacity is too small to support the unit, leading to a significant voltage drop and fault protection when unit power increases. 3. VFD circuit abnormal, short-circuited by water or foreign objects.	1. Check input voltage. 2. Confirm the grid capacity and whether the unit's power exceeds the grid capacity. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive.

209	Er.oLP(17) Motor load overweight	VFD Motor Load Too Heavy	1. Compressor code selected incorrectly 2. Low ambient temperature startup without preheating. 3. Compressor operates beyond high and low pressure range. 4. Input voltage drops. 5. Severe compressor wear, high current during low-frequency startup platform.	1. Check and verify compressor code. 2. Adjust control parameters to avoid the compressor running out of range. 3. Start at low ambient temperature, fully preheat before starting. 4. Check input voltage and confirm the cause of the drop. 5. Severe wear, suggest replace the compressor.
210	Er.ULd(18) Motor over speed	VFD Motor Speed Too High	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor

211	Er.Co1(19) Motor D-axis overcurrent	VFD D-Axis Current Too High	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
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212	Er.Co2(20) Motor Q-axis overcurrent	VFD Q-Axis Current Too High	1. Compressor code selected incorrectly 2. Short circuit to ground (or metal casing) in compressor internal winding/terminals, or short circuit between internal coil windings, possibly also U.V.W wires have insulation damage, shorting to ground (or metal casing), or possible leakage/short between wires. 3. VFD circuit falsely detects overcurrent, or internal circuit falsely detects overcurrent due to moisture, water mist, or foreign object shorting. 4. High and low pressure not balanced during start. 5. Compressor operates beyond high and low pressure range. 6. Low ambient temperature startup without preheating. 7. Insufficient compressor oil return, causing wear.	1. Check and verify compressor code. 2. Check if the compressor is short-circuited to the ground and replace the compressor if necessary. 3. Inspect if there is water on the drive, use a blower to dry it for a while or replace the drive. 4. Wait for a while, and restart after high and low pressure balance. 5. Adjust control parameters to avoid the compressor running out of range. 6. For initial startup at low ambient temperatures, fully preheat before starting. 7. Modify control parameters to avoid prolonged low-frequency operation, add extra oil, and if wear is severe, consider replacing the compressor.
213	Er.EEP(21) Parameter saving failed	VFD Parameter Storage Failure	1. Drive circuit problem occurs, short-circuited by water or foreign objects. 2. Parameters have been changed beyond the parameter range.	1. Use a blower to dry for a while or replace the drive. 2. Initialize drive parameters.
214	Er.CFE(22) Communication error	VFD Communication Error.	1. Drive circuit problem occurs, short-circuited by water or foreign objects. 2. Drive dip switch changed. 3. Communication line disconnected.	1. Use a blower to dry for a while or replace the drive. 2. Confirm whether the drive dip switch address corresponds to the main control settings. 3. Check if the communication line is normal.
215	Er.ccF(23) Current test error	VFD Current Detection Fault.	1. Drive circuit problem occurs, short-circuited by water or foreign objects.	1. Use a blower to dry for a while or replace the drive.
216	Er.ArF(24) Heat temperature test error for PFC	VFD PFC Temperature Fault.	1. Drive circuit problem occurs, short-circuited by water or foreign objects.	1. Use a blower to dry for a while or replace the drive.

217	Er.Aco(25) Motor Lock at start	VFD Motor Stall on Startup.	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor
218	Er.Pgo(26) Motor lock during running	VFD Motor Stall During Operation.	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor
219	Er.rHo(27) Heat temperature test error	VFD Cooling Temperature Fault.	1. Drive circuit problem occurs, short-circuited by water or foreign objects.	1. Use a blower to dry for a while or replace the drive.

220	Er.Abb(28) Stall error	VFD Stall Fault.	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor
221	Er.lo1(29) Interrupt overflow 1	VFD Interruption Fault 1.	1. Drive circuit problem occurs, short-circuited by water or foreign objects.	1. Use a blower to dry for a while or replace the drive.
222	Er.lo2(30) Interrupt overflow 2	VFD Interruption Fault 2.	1. Drive circuit problem occurs, short-circuited by water or foreign objects.	1. Use a blower to dry for a while or replace the drive.
223	Er.PnL(31) Rotor shake at start	Excessive Rotor Vibration on Startup.	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor

224	Er.rr1(32) Rotor shake during running	Excessive Rotor Vibration During Operation.	1. Compressor code selected incorrectly 2. Compressor wiring phase error. 3. Compressor starts without high and low pressure balance. 4. Low ambient temperature, compressor starts without sufficient preheating. 5. Drive circuit problem occurs, short-circuited by water or foreign objects. 6. Compressor operating out of range. 7. Compressor wear	1. Check and verify compressor code. 2. Check the phase sequence of the compressor. 3. Wait for a while and start after high and low pressure balance. 4. Start at low ambient temperature, fully preheat before starting. 5. Use a blower to dry for a while or replace the drive. 6. Modify control parameters to prevent compressor from exceeding operation range. 7. Replace the compressor
225	Er.PF1(33) PFC Overcurrent	VFD PFC Overcurrent.	1. Drive circuit problem occurs, short-circuited by water or foreign objects. 2. Abnormal input voltage, voltage drop occurred. 3. If error occurs when the defrost valve is switching, it's a defrost timing problem.	1. Use a blower to dry for a while or replace the drive. 2. Check the input voltage to confirm the cause of the abnormality. 3. Check and adjust defrost timing to avoid excessive high-low pressure difference during valve switching.
226	Er.PF2(34) PFC peak current over	PFC Current Too High.	1. Drive circuit problem occurs, short-circuited by water or foreign objects. 2. Abnormal input voltage, voltage drop occurred. 3. If error occurs when the defrost valve is switching, it's a defrost timing problem.	1. Use a blower to dry for a while or replace the drive. 2. Check the input voltage to confirm the cause of the abnormality. 3. Check and adjust defrost timing to avoid excessive high-low pressure difference during valve switching.
227	Er.PF2(35) PFC rms current over	PFC Effective Current Too High.	1. Drive circuit problem occurs, short-circuited by water or foreign objects. 2. Abnormal input voltage, voltage drop occurred. 3. If error occurs when the defrost valve is switching, it's a defrost timing problem.	1. Use a blower to dry for a while or replace the drive. 2. Check the input voltage to confirm the cause of the abnormality. 3. Check and adjust defrost timing to avoid excessive high-low pressure difference during valve switching.
Pump Fault				
289	PUMPf error code[1]	VFD Pump Fault [1]	Short Circuit.	Check PWM Wiring.

290	PUMPf error code[2]	VFD Pump Fault [2]	Refer to the Corresponding Pump Specification.	Check the Water Pump Specification for Corresponding Faults Check PWM Wiring
291	PUMPf error code[3]	VFD Pump Fault [3]	Refer to the Corresponding Pump Specification.	Check the Water Pump Specification for Corresponding Faults Check PWM Wiring
292	PUMPf error code[4]	VFD Pump Fault [4]	Refer to the Corresponding Pump Specification.	Check the Water Pump Specification for Corresponding Faults Check PWM Wiring
293	PUMPf error code[5]	VFD Pump Fault [5]	Open Circuit	Check PWM Wiring.