| All Drive Types | PF7000A | PF7000B | PF7000C | Marine Drive | Heat pipe Drive | Fault Message | Fault Code | Description | Recommended Action(s) |
|---|---|---|---|---|---|---|---|---|---|
| | X | X | | | X | InvHSnk OvrTemp | 178 | The temperature detection on the inverter heatsink, connected to Channel A fiber-optic receiver RX7 on FOI-M-A, has exceeded InvHSink TempTrp (P315). | • Confirm actual temperature in parameters is not higher than the trip value – If so, investigate the conditions of the drive (ambient/ loading/ elevation / ventilation/ filter status /heatsink clogging).<br>• Check the sensor and temperature offline (ambient) for accuracy.<br>• Check for any harmonic and capture DC current waveforms on ACB board.<br>• Ensure that the fan is working properly and that the air flow is sufficient in this cabinet. |
| | X | X | | | X | InvHSnk Sensor | 181 | While Not Running, The drive has detected a missing temperature sensor connected to the TFB on the inverter heatsink. A missing sensor can result in either a Fiber Optic Loss fault or a Sensor fault because a missing sensor can be interpreted as either 0 °C or over 100 °C, and both are unrealistic values. | • Verify sensor is completely seated properly on TFB.<br>• Measure sensor resistance.<br>• Replace if necessary. |
| X | | | | | | Inv OIBB Com Flt | 628 | Inverter OIBBS communication fault: Communication failed to the OIBBS. Communication from the inverter OIBBS is lost. | • Verify the drive settings. If the drive does not use the STO feature, disable STO and verify that the correct OIBB type is installed.<br>• Verify the inverter Optical Interface Base Board Safety (OIBBS) connections to the DPM.<br>• Check and cycle the control power to the safety system (OIBBS).<br>• If the same fault trips the drive again, contact the manufacturer for the OIBBS spare part for replacement. |
| X | | | | | | InvOvrVoltage SW | 468 | The drive has detected an over-voltage at the inverter output terminals in software for long cable applications. A fault is issued if the drive is gating else a warning is issued. | • Verify that the Motor Over Voltage Trip (P181) is set correctly.<br>• Verify that the motor cables are not disconnected.<br>• Contact MV Tech Support for assistance. |

| All Drive Types | PF7000A | PF7000B | PF7000C | Marine Drive | Heat pipe Drive | Fault Message | Fault Code | Description | Recommended Action(s) |
|---|---|---|---|---|---|---|---|---|---|
| X | | | | | | RecChB FbrOptic | 152 | Not normally used. While Not Running, the fiber-optic signal from the optional TFB connected to channel B fiber-optic receiver RX7 on FOI-L-B is not present. This is only a fault while not running. If this occurs while running it will appear as a warning. | • Check TFB and FOI board for power.<br>• Check the fiber-optic cables are properly seated in the transmitters and receivers.<br>• Check the fiber-optic cable for kinks/bends/breaks that could be blocking the signal. |
| X | | | | | | RecHSnk FbrOptic | 148 | While Not Running, the fiber-optic signal from the TFB on the rectifier heatsink, connected to channel A fiber-optic receiver RX7 on FOI-L-A is not present. This is only a fault while not running. If this occurs while running it will appear as a warning. | |
| X | | | | | | RecHSnk LowTemp | 147 | The drive detected that the rectifier heat sink temperature is less than 2 °C (35.6 °F). Ensure the room ambient is higher than 0 °C (32 °F) before starting the drive. | • Verify that the ambient in the control room is not below 2°C (35.6°F).<br>• Verify power to the TFB.<br>• There could be a mechanical problem with the temperature sensor or with the cable feeding the signal back to the TFB.<br>• Swap with the inverter hardware to identify the bad component. |
| | | | | | | RecChB LowTemp | 151 | This is not enabled on most drives and the parameter is a high-level parameter. The drive has detected that the temperature feedback from the optional temperature board is less than 2 °C (35.6 °F). | |
| X | | | | | | RecHSnk OvrTemp | 146 | The drive detected that the rectifier heat sink temperature has reached the trip setting. Be sure that the fan is working properly and that the air flow is sufficient in this cabinet. | Confirm actual temperature in parameters is not higher than the trip value. If so, investigate the conditions of the drive (ambient/ loading/ elevation / ventilation/ filter status /heatsink clogging).<br>Check TFB and FOI board for power and fiber-optic integrity.<br>Check the sensor and temperature offline (ambient) for accuracy. |
| X | | | | | | RecChB OvrTemp | 150 | Not normally used. The drive has detected that the temperature feedback from the optional temperature board has reached the trip setting. | |
| X | | | | | | RecHSnk Sensor | 149 | The drive has detected while not running a missing temperature sensor connected to the TFB on the rectifier heatsink. A missing sensor can result in either a Fiber Optic Loss fault or a Sensor fault because a missing sensor can be interpreted as either 0 °C or over 100 °C, and both are unrealistic values. | • Verify sensor is completely seated properly on TFB.<br>• Measure sensor resistance.<br>• Replace if necessary. |
| X | | | | | | RecChB Sensor | 153 | Not normally used. The drive while not running has detected a missing temperature sensor connected to the optional temperature feedback channel. Be sure that the sensor in plugged in. | |
| X | | | | | | RecFbrOpt Config | 129 | The drive has detected that the number of fiber-optic boards does not match the number of devices. | • Verify the parameter settings.<br>• Check that the boards are plugged properly on the OIBB. |
| X | | | | | | Rec A1 Fault | 645 | Rectifier A1 fault: The rectifier OIBBS diagnostic subsystem has detected a fault. | • Ensure the OIB2s are installed in the OIBBS.<br>• Cycle the control power.<br>• If the same fault still trips the drive, contact the manufacturer for the OIBBS spare parts for replacement. |

| All Drive Types | PF7000A | PF7000B | PF7000C | Marine Drive | Heat pipe Drive | Warning Message | Warning Code | Description | Recommended Action(s) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | InvHSnk FbrOptic | 220 | While running, the fiber-optic signal from the TFB on the inverter heatsink, connected to channel A fiber-optic receiver RX7 on FOI-M-A is not present. This is only a fault while not running. If this occurs while running it will appear as a warning. | • Check the TFB and FOI board for power.<br>• Check that the fiber-optic cables are properly seated in the transmitters and receivers.<br>• Check the fiber-optic cables for kinks, bends, breaks that could be blocking the signal.<br>• This can occur if the sensor is not connected to the TFB.<br>• NOTE: This is a warning because the drive should not fault on the loss of the signal while running. There is no imminent danger to the drive, but the user needs to be aware that there is a temperature feedback signal missing. |
| | | | | | | InvHSnk OvrTemp | 216 | The temperature detection on the inverter heatsink, connected to channel A fiber-optic receiver RX7 on FOI-M-A, has exceeded inverter heatsink temperature warning (P316). | • Confirm that the actual temperature in parameters is not higher than the warning value. If so, investigate the conditions of the drive (ambient / loading/ elevation / ventilation/ filter status / heatsink clogging).<br>• Check the sensor and temperature offline (ambient) for accuracy.<br>• Be sure that the fan is working properly and that the air flow is sufficient in this cabinet. |
| | | | | | | Inv AC Cur Gain | 223 | The current gain calculated for motor current sensing is outside the limit of the expected range [2…5] pu. | • Verify that the HECS ratio and burden resistor match the drive/ motor ratings. |
| | | | | | | Inv AirflwSensor | 395 | The specified airflow velocity reading is out of normal range.<br>This warning code is not active in Firmware 11.001. | • Ensure that the airflow sensor is correctly plugged in and is not damaged. |
| | | | | | | Inv Ambient Loss | 447 | The specified ambient temperature reading is out of normal range. | • Ensure that the on-board temperature sensor is not damaged. If an external sensor is used, ensure that the sensor is correctly plugged in and is not damaged. |
| | | | | | | Inv High Ambient | 442 | The drive detected high ambient temperature at the specified location. | • Verify if the warning setting (P571) matches factory recommended value. |
| | | | | | | Inv HS Over Temp | 451 | The drive detected high heatsink temperature at the specified location. | • Verify if the warning (rectifier P112, inverter P316) and trip settings (rectifier P111, inverter P315) match factory recommended values. |
| | | | | | | Inv Low Ambient | 443 | The drive detected low ambient temperature at the specified location. | • Verify if the warning level setting matches factory recommendation. |
| | | | | | | Inv Low Airflow | 391 | The cooling airflow velocity on the specified power stack is below the trip/warn level.<br>This warning code is not active in Firmware 11.001. | • Be sure that there are no obstructions to the path of the incoming and/or outgoing air flow.<br>• Check for cooling fan deterioration.<br>• Verify if the trip (P840) and warn setting (P841) matches factory recommended values. |

| All Drive Types | PF7000A | PF7000B | PF7000C | Marine Drive | Heat pipe Drive | Warning Message | Warning Code | Description | Recommended Action(s) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Rec DC Cur Gain | 172 | The current gain calculated for DC link current sensing is lower than expected. | • Verify that the HECS ratio and burden resistor match the drive/ motor ratings. |
| | | | | | | Rec Gate Pwr Sup | 173 | Rectifier gate driver power supply warning.<br>This warning is for SGCT based drives and indicates a problem with the gate power supply associated with a particular device which is also likely in the warning queue. | • The device feedback was not correct due to power loss to the gate driver board.<br>• This can be from the 20V DC output of the IGDPS or on the gate driver board itself.<br>• This warning can also appear as a result of another device fault such as an Online fault.<br>• This warning can also come if the device has failed. |
| | | | | | | RecHSnk FbrOptic | 170 | While Not Running, the fiber-optic signal from the TFB on the Rectifier Heatsink, connected to Channel A fiber-optic receiver RX7 on FOI-L-A is not present. This is only a fault while not running. If this occurs while running it will appear as a warning. | • Check the TFB and FOI boards for power.<br>• Verify that the fiber-optic cables are properly seated in the transmitters and receivers.<br>• Check the fiber-optic cables for kinks, bends and/or breaks that could be blocking the signal.<br>• This can occur if the sensor is not connected to the TFB.<br>**NOTE:** This is a warning because the drive should not fault on the loss of the signal while running. There is no imminent danger to the drive, but the user needs to be aware that there is a temperature feedback signal missing. |
| | | | | | | RecChB FbrOptic | 171 | Not normally used: While Not Running, the fiber-optic signal from the optional TFB connected to channel B fiber-optic receiver RX7 on FOI-L-B is not present. This is only a fault while not running. If this occurs while running it will appear as a warning. | |
| | | | | | | RecHSnk OvrTemp | 162 | The drive detected that the heat sink temperature has reached the alarm level. | • Confirm the actual temperature in parameters is not higher than the warning value. If the actual temperature is higher than the warning level value, investigate the conditions of the drive (ambient / loading / elevation / ventilation/ filter status / heatsink clogging).<br>• Verify that the trip and warning settings match the factory recommended values.<br>• Check the TFB and FOI boards for power and fiber-optic integrity.<br>• Check the sensor and temperature offline (ambient) for accuracy.<br>• Be sure that the fan is working properly and that the air flow is sufficient in this cabinet. |
| | | | | | | RecChB OvrTemp | 163 | Not Normally Used – The temperature detection on a Rectifier Heatsink. The drive has detected that the temperature feedback from the optional temperature board has reached the warning level. | |
| | | | | | | RecHSnk Sensor | 168 | While running, the drive has detected a missing temperature sensor connected to the TFB on the rectifier heatsink. A missing sensor can result in either a Fiber Optic Loss fault or a Sensor fault because a missing sensor can be interpreted as either 0°C (32 °F) or over 100°C (212 °F), and both are unrealistic values. | • Verify that the sensor is completely seated properly on the TFB.<br>• Measure the sensor resistance. Replace if necessary.<br>• NOTE: This is a warning because the drive should not fault on the loss of the signal while running. There is no imminent danger to the drive, but the user needs to be aware that there is a temperature feedback signal missing. |
| | | | | | | RecChB Sensor | 169 | Not normally used: While running, the drive has detected a missing temperature sensor connected to the optional TFB connected to the fiber-optic receiver RX7 on FOI-L-B. A missing sensor can result in either a Fiber Optic Loss fault or a Sensor fault because a missing sensor can be interpreted as either 0°C (32 °F) or over 100°C (212 °F), and both are unrealistic values. | |