

| Group 30: Fault Functions | | | | | |
|---------------------------|--|---------------|------------|-------------|---|
| Code | Description | Range | Resolution | Default | S |
| 3010 | <p>STALL FUNCTION</p> <p>This parameter defines the operation of the Stall function. This protection is active if the drive operates in the stall region (see the figure) for the time defined by 3012 STALL TIME. The "User Limit" is defined in <i>Group 20: LIMITS</i> by 2017 MAX TORQUE 1, 2018 MAX TORQUE 2, or the limit on the COMM input.</p> <p>0 = NOT SEL – Stall protection is not used.</p> <p>1 = FAULT – When the drive operates in the stall region for the time set by 3012 STALL TIME:</p> <ul style="list-style-type: none"> • The drive coasts to stop. • A fault indication is displayed. <p>2 = ALARM – When the drive operates in the stall region for the time set by 3012 STALL TIME:</p> <ul style="list-style-type: none"> • An alarm indication is displayed. • The alarm disappears when the drive is out of the stall region for half the time set by parameter 3012 STALL TIME. | 0...2 | 1 | 0 (NOT SEL) | |
| | | | | | |
| 3011 | <p>STALL FREQUENCY</p> <p>This parameter sets the frequency value for the Stall function. See parameter 3010.</p> | 0.5...50.0 Hz | 0.1 Hz | 20.0 Hz | |
| 3012 | <p>STALL TIME</p> <p>This parameter sets the time value for the Stall function.</p> | 10...400 s | 1 s | 20 s | |
| 3017 | <p>EARTH FAULT</p> <p>Defines the drive response if the drive detects a ground fault in the motor or motor cables. The drive monitors for ground faults while the drive is running, and voltage is present on the output. Also see parameter 3023 WIRING FAULT.</p> <p>0 = DISABLE – No drive response to ground faults.</p> <p>Note: Disabling earth fault (ground fault) may void the warranty.</p> <p>1 = ENABLE – Ground faults display fault 16 (EARTH FAULT), and (if running) the drive coasts to stop.</p> | 0, 1 | 1 | 1 (ENABLE) | ✓ |
| 3018 | <p>COMM FAULT FUNC</p> <p>Defines the drive response if the fieldbus communication is lost.</p> <p>0 = NOT SEL – No response.</p> <p>1 = FAULT – Displays a fault (28, SERIAL 1 ERR) and the drive coasts to stop.</p> <p>2 = CONST SP 7 – Displays an alarm (2005, I/O COMM) and sets speed using 1208 CONST SPEED 7. This "alarm speed" remains active until the fieldbus writes a new reference value.</p> <p>3 = LAST SPEED – Displays an alarm (2005, I/O COMM) and sets speed using the last operating level. This value is the average speed over the last 10 seconds. This "alarm speed" remains active until the fieldbus writes a new reference value.</p> <p>WARNING! If you select CONST SP 7, or LAST SPEED, make sure that continued operation is safe when fieldbus communication is lost.</p> | 0...3 | 1 | 0 (NOT SEL) | |
| 3019 | <p>COMM FAULT TIME</p> <p>Sets the communication fault time used with 3018 COMM FAULT FUNC.</p> <ul style="list-style-type: none"> • Brief interruptions in the fieldbus communication are not treated as faults if they are less than the COMM FAULT TIME value. | 0.0...600.0 s | 0.1 s | 10.0 s | |
| 3021 | <p>AI1 FAULT LIMIT</p> <p>Sets a fault level for analog input 1.</p> <ul style="list-style-type: none"> • See 3001 AI<MIN> FUNCTION. | 0.0...100.0% | 0.1% | 0.0% | |
| 3022 | <p>AI2 FAULT LIMIT</p> <p>Sets a fault level for analog input 2.</p> <ul style="list-style-type: none"> • See 3001 AI<MIN> FUNCTION. | 0.0...100.0% | 0.1% | 0.0% | |

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| Code | Description | Range | Resolution | Default | S |
| 3023 | WIRING FAULT | 0, 1 | 1 | 1 (ENABLE) | ✓ |
| | <p>Defines the drive response to cross wiring faults and to ground faults detected when the drive is NOT running. When the drive is not running it monitors for:</p> <ul style="list-style-type: none"> • Improper connections of input power to the drive output (the drive can display fault 35, OUTPUT WIRING if improper connections are detected). • Ground faults (the drive can display fault 16, EARTH FAULT if a ground fault is detected). Also, see parameter 3017 EARTH FAULT. <p>0 = DISABLE – No drive response to either of the above monitoring results. 1 = ENABLE – The drive displays faults when this monitoring detects problems.</p> | | | | |
| 3024 | CB TEMP FAULT | 0, 1 | 1 | 1 (ENABLE) | |
| | <p>Defines the drive response to control board overheating. Not for drives with an OMIO control board.</p> <p>0 = DISABLE – No response. 1 = ENABLE – Displays fault 37 (CB OVERTEMP) and the drive coasts to stop.</p> | | | | |
| 3028 | EARTH FAULT LVL | 1...3 | 1 | 1 (Low) | |
| | <p>Defines detection level for ground (earth) fault. See Correcting faults, fault 16 EARTH FAULT.</p> <p>Note: Parameter 3017 EARTH FAULT has to be enabled.</p> <p>1 = LOW – Lower level of ground (earth) current detected generates a fault (high sensitivity). US DEFAULT 2 = MEDIUM – Medium sensitivity to ground (earth) fault current. 3 = HIGH – Higher level of ground (earth) current detected generates a fault (low sensitivity).</p> | | | | |