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APPLICATION NOTE

Drive Applications Support Library

Application Note	AN-P2-012
Title	Using The Display Scaling Function
Related Products	P2 Series AC Drives
Level: 1	<ul style="list-style-type: none"> 1 - Fundamental - No previous experience necessary. 2 - Basic - Some basic drives knowledge recommended. 3 - Advanced - Some basic drives knowledge required. 4 - Expert - Good experience in topic of subject matter recommended.

Overview:

P2 Series drives feature a built in "Standby Mode" function. This function disables the output of the inverter automatically when not required, and automatically enables it when required again. This can be used to save energy, and prevent damage to the connected motor.

This document describes how to use this Standby function.

Standby Mode Parameters:

P2-27 Standby Mode Time

This parameter determines the time for which the drive will operate before entering Standby Mode. The time period is set in seconds to one decimal place. Factory setting of this parameter is 20.0 Seconds.

P3-13 PID Error Wake Up Level

This parameter is active only in PID Control Mode (P1-12 = 3), and defines the PID error required (Difference between the Feedback and Setpoint) before the drive will restart after entering Standby Mode. This parameter is set in % to one decimal place, as a % of the PID feedback transducer range.

Standby Mode Operation:

P2 Series Standby Mode which operates as follows:

- When operating in any Control Mode Except PID Control Mode (P1-12 = 0, 1, 2, 4, 5 or 6):
 - Standby Mode can be enabled by setting parameter P2-27 > 0.0 seconds.
 - The drive will switch to Standby when the output frequency remains at Minimum Frequency / Speed (P1-02) for a time period equal to or greater than the time set in P2-27.
 - The drive will restart normal operation immediately when the frequency setpoint rises above minimum frequency.
- When operating in PID Control Mode (P1-12 = 3):
 - Standby Mode can be enabled by setting parameter P2-27 > 0.0 seconds.
 - The drive will switch to Standby when the output frequency remains at Minimum Frequency / Speed (P1-02) for a time period equal to or greater than the time set in P2-27.
 - When the drive enters Standby Mode, the Output of the PID Controller is set to zero.
 - The PI Controller will restart when the PI error (difference between the Setpoint and Feedback) exceeds the threshold level set in parameter P3-13 PI Control Error Wake Up Level.
 - The drive will restart when the output of the PID controller exceeds the Minimum Frequency / Speed (P1-02).

Appendix:

Revision History			
Version	Comments	Author	Date
1.0	Document Creation	KB	04/26/12
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