Application Note AN-ODP-12

Using standby mode to save energy

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- ***General:***

In some applications, it may be beneficial to disable the drive output automatically when the drive output speed at zero or at minimum speed limit and to re-enable the output automatically when the requested speed increases back up from zero or minimum speed. For systems with a low duty cycle, this could effectively be offered as an energy saving option.

In order to satisfy this kind of application, Optidrive Plus provides a user Standby function that will enable the drive to drop into standby when minimum speed is requested for extended time periods.

This document describes how to use this Standby function.

- ***Parameters:***

P2-20 Standby mode select

P2-20 =0: Standby function is disabled. Drive will continue to deliver energy to the motor even drive is running at minimum speed (P1-02) until the enable signal is removed.

P2-20=1~60 Drive will enter Standby mode when drive remains at minimum speed for a time period greater than that set in P2-20. In standby mode, the drive output is disabled automatically.

Note that for drive firmware revisions prior to V2.21, standby mode could only be entered of the speed remained at 0Hz /rpm for the preset time interval.

Return from Standby mode

If the speed reference increases above the value set in the minimum speed limit (P1-02) at any time, the drive will automatically wake from Standby mode and the motor speed will increase as normal. No intervention from User / external control system is required.

Note:
If the user has enabled the zero speed holding function defined in P2-16, then the standby function will be disabled internally no matter what value is in P2-20.
For drives with firmware revisions V2.00 or later, the default setting for P2-16 is 0.2.
If the user wants to enable the standby function, 0 must be entered in P2-16.

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