Idle Run / Idle Mode configuration options in easYgen-3000XT

Özgür Tosun - 2024-11-26 - Engine

Idle Mode / Idle Run

- Short Description, with excerpts of our technical manual and ToolKit parameter screens example

Idle Mode

General notes

When the engine is operated at idle speed, undervoltage, underfrequency, and underspeed monitoring as well as the monitoring of the flexible limits 33 through 40 are not performed.

This function allows for a controlled operation of an engine without alarm messages at a lower speed (below the configured underspeed monitoring values) for e.g. a warm-up operation with low emission.

The frequency controller output does not control the idle speed; it will remain in initial state position. The GCB cannot be closed in idle mode.

A message may be output to a relay here using the LogicsManager (Idle mode is active, command variable 04.15), e.g. as a signal for a speed controller. The display indicates "Idle run active" during idle mode.

The idle mode can be **only** used if the function is supported by the ECU or the frequency controller.

The normal operation monitoring limits will be enabled again, if one of the following conditions is fulfilled:

- Idle mode has ended and generator frequency has reached rated frequency -1 Hz. (e.g. 49 Hz at 50 Hz rated)
- Idle mode has ended and engine delayed monitoring (parameter 3315) has expired.

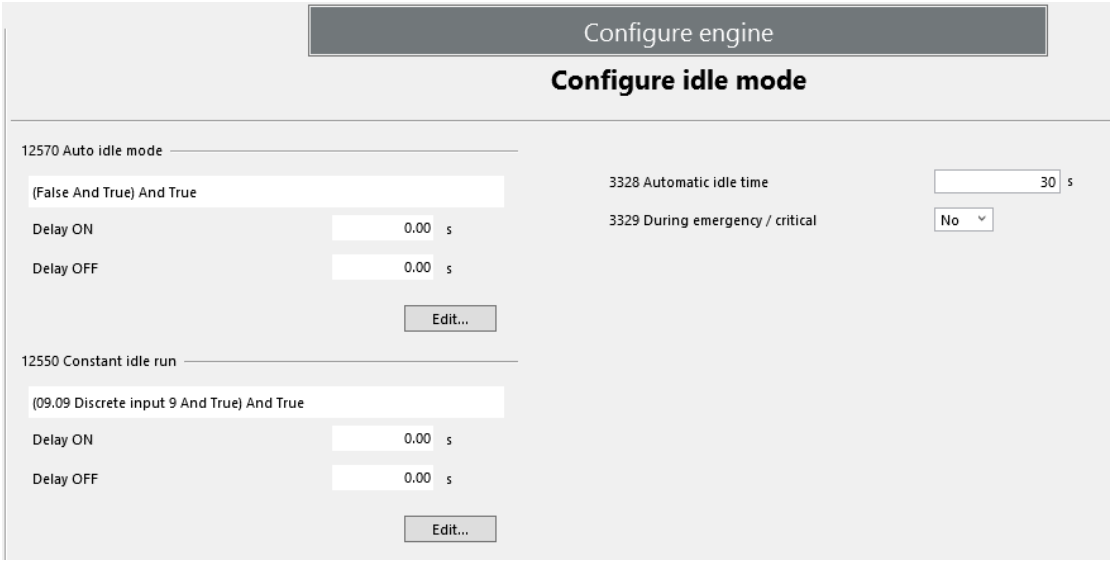
The flexible limits 33 through 40 are disabled during idle mode operation (“4.5.5 Flexible Limits”).

Parameter descriptions

ID	Parameter	CL	Setting range **[Default]**	Description
12570	**Auto idle mode**	2	Determined by LogicsManager 86.20 **[(0 & 1) ≥1 0]** = 15719	Once the conditions of the LogicsManager have been fulfilled the engine will be operated in idle mode automatically for the configured time during start-up. Monitoring is limited as described above. This function may always be configured to "1" for example. **Notes** For information on the LogicsManager and its default settings see “9.3.1 LogicsManager Overview”.
12550	**Constant idle run** (Continuous idle mode)	2	Determined by LogicsManager 86.14 **[(0 & 1) & 0]** = 10713	As long as the conditions of the LogicsManager have been fulfilled the engine will be continuously operated in idle mode. Monitoring is limited as described above. A key switch via a DI may be configured here for example. **Notes** The idle mode is blocked if the GCB is already closed. For information on the LogicsManager and its default settings see “9.3.1 LogicsManager Overview”.
3328	**Automatic idle time**	2	1 to 9999 s	The automatic idle mode is active for the time configured here.

	(Time for automatic idle mode)		**[30 s]**	Monitoring is limited as described above during this time.
3329	**During emergency / critical** (Idle mode possible during emergency / critical operation)	2	Yes	If an emergency or critical operation is enabled, the engine will go to rated speed only after completing the configured idle mode.
			[No]	If an emergency or critical operation is enabled, no idle run will be performed. The engine will go directly to rated speed.

Configuration Screen in ToolKit



Example for a configuration of a hard-wired relay output, that signals the engine to switch to Idle run.

