

Sytronix DRn 5020

Variable-Speed Pump Drive System



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1 General

This document contains the release notes regarding the variable-speed pump system DRn 5020.

1.1 Releases

Table 1: Record of revisions of software file FWS-xFC01-C14-02Vxx

Software file name	Release date	Change of version
FWS-xFC01-C14-02V16-NN.ibf	11.2021	02V12 → 02V16

1.2 Requirements

- EFC 5610 frequency converter with integrated DRn 5020 ASF. ASF identifier code: C14
- EFC 5610 firmware version 03V38.

2 How to update ASF

To update a DRn 5020 ASF you require the Rexroth engineering tool IndraWorks Ds.

1. Establish a serial connection between the EFC pump controller and your computer via USB.
2. Open the dialog “ASF update” in the “Service” Menu.

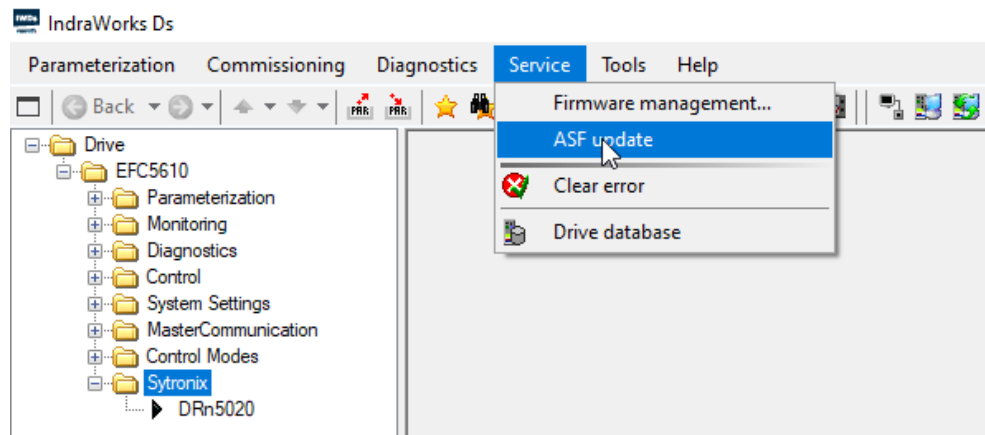


Fig. 1: Menu ASF update

In the ASF update menu, you can see the actual ASF release currently installed. For updating the ASF browse for the new ASF file (.ibf file) and press "Download".

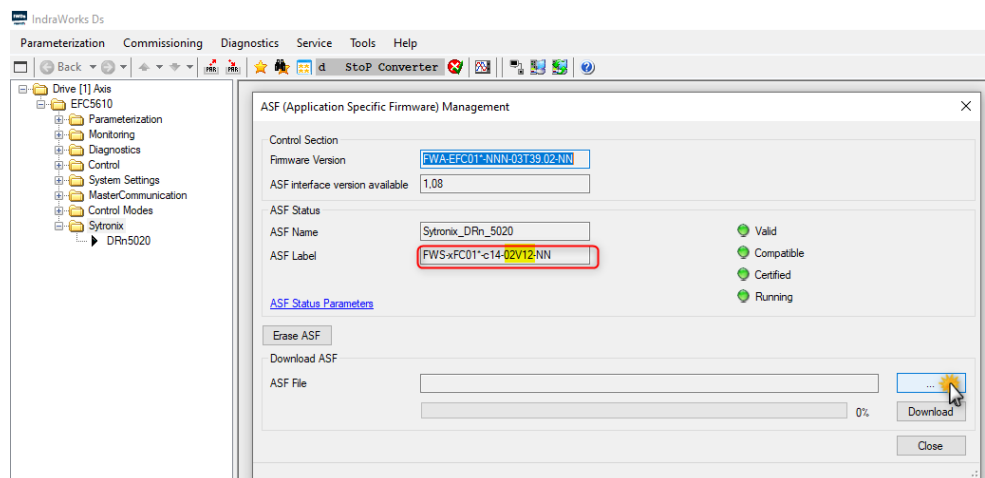


Fig. 2: Browsing for ASF and loading of ibf file

An ASF needs a valid certification. The certification for an ASF release is a .par file which can be loaded with IndraWorks Ds in the same dialog.

Browse for the .par file and press the “Download” button.

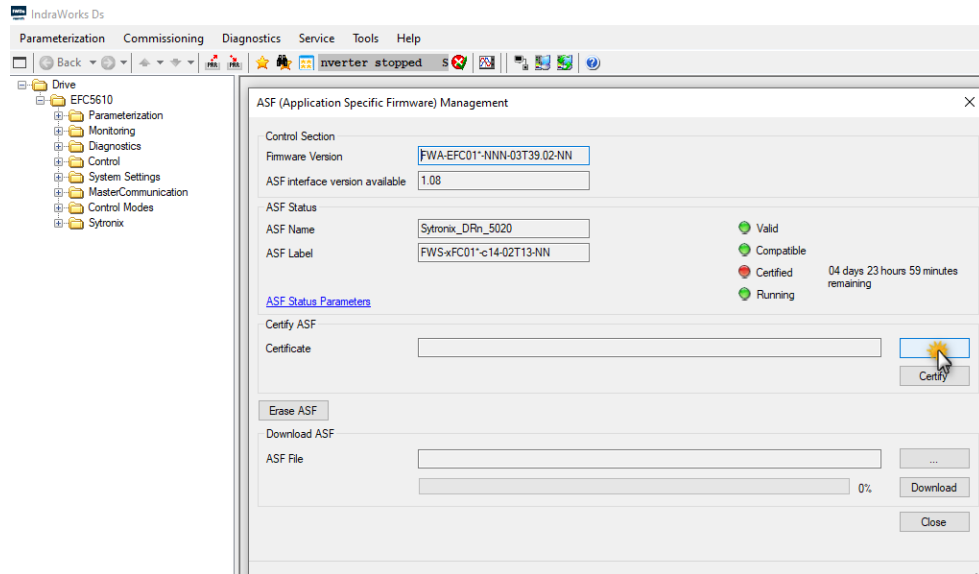


Fig. 3: Certification

Provided that the right certification was loaded, the ASF may be used for an unlimited period of time. Otherwise, the EFC will go on fault after 5 days of operation.

3 Fixed bugs

3.1 Decimal places

T&R ID:

DEF-1538

Description:

The decimal places for the motor current parameters C1.07,C1.20 and the stator/rotor resistor C1.21/C1.22 differ depending on the converter size.

	C1.07	C1.20	C1.21	C1.22
0.4... 37 kW	2	2	2	2
45 kW...160 kW	1	1	3	3

Bug fixing:

ASF now writes parameters depending on the converter power.

4 Functional extensions/modifications

4.1 Extension pump

T&R ID:

DEF-1751

Description:

ASF was extended for an additional pump of type A10VZO DR10/10

4.2 MOT-EC-HOY

T&R ID:

DEF-1724

Description:

The new IE3 motors MOT-EC-HOY can now be selected with a power ranging from 1.5 to 160 kW via parameters F1.15 and F1.16. The old IE2 motors MOT-FC-HOY are no longer available in the ASF.

4.3 Code optimization

T&R ID:

DEF-1719

Description:

The ASF code was optimized to achieve a lower workload of the available capacity.

4.4 Display configuration words

T&R ID:

DEF-1720

Description:

The configuration words F2.15 (DRn command source) and F4.00 (Protection function control word) are now displayed in binary values.

4.5 Sleep mode

T&R ID:

DEF-1599

Description:

The sleep condition has changed. The pressure command value must always have been reached before the pump controller can go to sleep mode. In ASF 02V12, it was only necessary that it was higher than the wake-up level.

4.6 Pre-magnetization

T&R ID:

DEF-1775

Description:

To achieve a pre-magnetization for induction motors the start condition E0.35 has changed from 0 to 1 (DC braking before start), and E0.39 (start DC braking current) is set to 50 %. Parameter E0.38 (start DC braking time) is still 0.0 seconds. The setting can be changed by the user, if necessary.

The ASF sets E0.38 to a motor-specific DC braking time only for MOT-EC-HOY motors.

4.7 Swivel angle sensor

T&R ID:

DEF-1774

Description:

The ASF can evaluate three different types of swivel angle sensors:

- SWS20
- AWAX voltage supply
- AWAX current supply

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