

<b>ABB Drives</b>			<b>RDNA-01 Operating Instruction</b>			<b>3AFE</b> 00364785.DOC	
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## Quick Start-up Guide for RDNA-01 DeviceNet Adapter and ACS550/ACS800

Mount the module according to the user's manual. If the MacID and baud rate is set by hardware, configure the DIP-switches before mounting (access to the rotary switches is easier then).

Connect the fieldbus connector according to the instructions in the user's manual.

Activate the fieldbus module with parameter 98.02.

Set the communication profile to ABB Drives or Generic in the ACS800 with parameter 98.07 (not necessary with ACS550).

Instances 20, 21, 70 and 71 require the Generic profile selection (ACS550 detects the profile automatically).

If the baud rate and MacID are set by software, set the required MacID with parameter 51.02 and the baud rate with parameter 51.03. This also requires that parameter 51.04 is set to 1.

Select the Output and Input instances with parameter 51.06 and 51.07. If Instances 20 to 101 are used, parameters 51.08 to 51.26 are ineffective, because the instances are 4 bytes long with fixed inputs and outputs.

If Instances 102 and 103 are chosen, the I/O length can be selected from 4 to 9 words with parameter 51.26 VSA I/O Size.

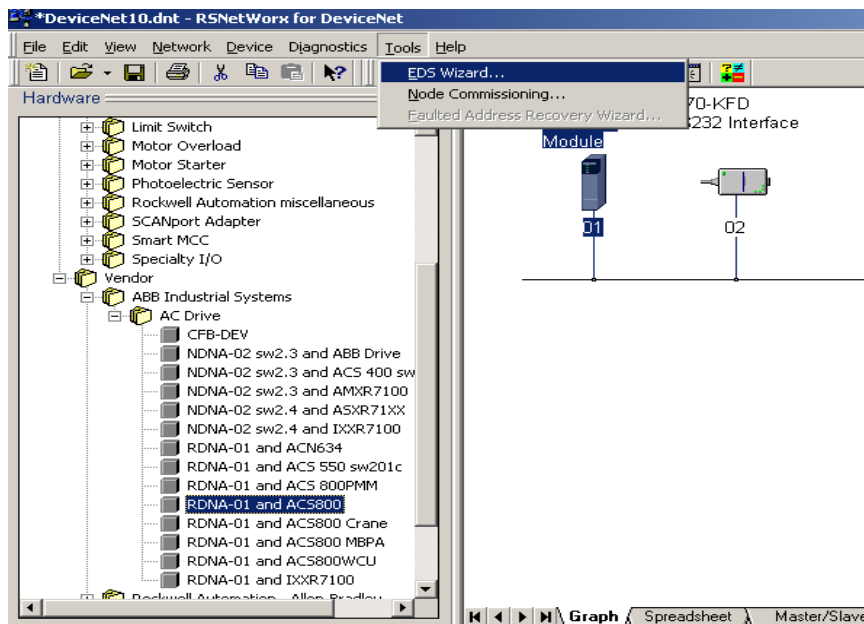
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### Example 1: GENERIC DRIVES PROFILE

10.01 EXT1 STRT/STP/DIR	COMM.CW	(COMM in ACS550)
11.02 EXT1/EXT2 SELECT	EXT1	
11.03 EXT REF1 SELECT	COMM.REF	(COMM in ACS550)
16.01 RUN ENABLE	COMM.CW	(COMM in ACS550)
16.04 FAULT RESET SEL	COMM.CW	(COMM in ACS550)
98.02 COMM. MODULE LINK	FIELDBUS	(COMM PROT SEL and EXT FBA in ACS550)
98.07 COMM PROFILE	GENERIC	(ACS800 only)
51.01 MODULE TYPE	DEVICENET	(Read Only)
51.02 Module MacID	3	
51.03 Module Baud rate	2	(500 kbit/s)
51.04 HW/SW Option	0	(Hardware settings)
51.05 Stop Function	0	(Ramp stop)
51.06 Output Instance	20	
51.07 Input Instance	70	
....		
51.27 FBA PAR REFRESH	Refresh	

**NOTE: The new settings in parameter group 51 will take effect only when the module is powered up the next time or when the module receives a refresh command (parameter 51.27).**

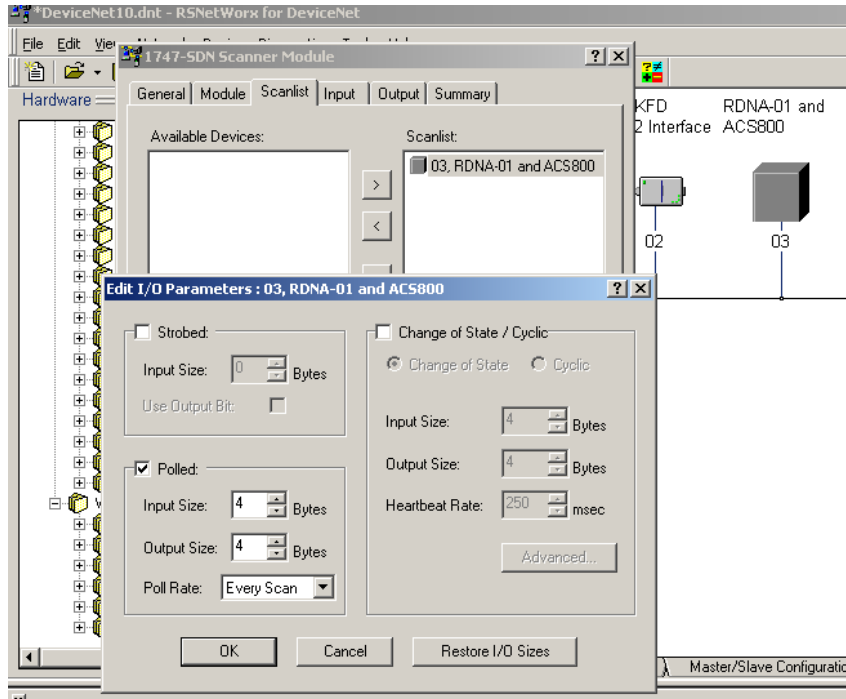
The RDNA-01 EDS file must be imported to the PLC. The ACS550 and ACS800 have a different EDS file. The Generic profile EDS file differs from the ABB Drives profile EDS file to fulfil the ODVA compliancy. If full EDS files are required, then the EDS file becomes also drive software dependent.



**Note: Only one EDS file with the same Product ID can be installed in the PLC at a time.**

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With the settings of Example 1 the byte length in the PLC must be set to 4 bytes IN and OUT.



The Main Control Word (MCW), Main Status Word (MSW), reference and actual signals are according to the ODVA AC/DC Drive Functional Profile instances 20 and 70. See the RDNA-01 user's manual for further details.

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## Example 2: ABB DRIVES PROFILE

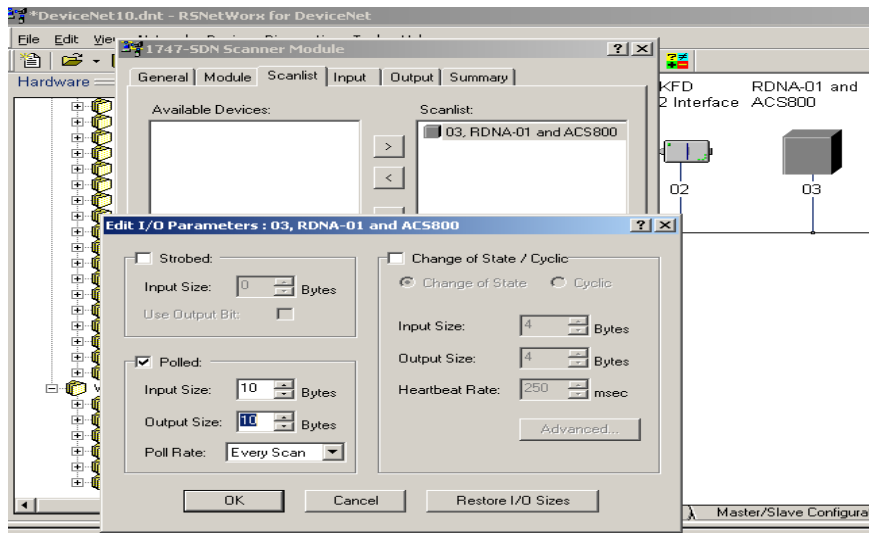
10.01 EXT1 STRT/STP/DIR	COMM.CW	(COMM in ACS550)
10.02 EXT2 STRT/STP/DIR	COMM.CW	(COMM in ACS550)
11.02 EXT1/EXT2 SELECT	COMM.CW	(COMM in ACS550)
11.03 EXT REF1 SELECT	COMM.REF	(COMM in ACS550)
11.06 EXT REF2 SELECT	COMM.REF	(COMM in ACS550)
16.01 RUN ENABLE	COMM.CW	(COMM in ACS550)
16.04 FAULT RESET SEL	COMM.CW	(COMM in ACS550)
98.02 COMM. MODULE LINK	FIELD BUS	(COMM PROT SEL and EXT FBA in ACS550)
98.07 COMM PROFILE	ABB DRIVES	(ACS800 only)
51.01 MODULE TYPE	DEVICENET	(Read Only)
51.02 Module MacID	3	
51.03 Module Baud rate	2	(500 kbit/s)
51.04 HW/SW Option	1	(software settings)
51.05 Stop Function	1	(coast stop)
51.06 Output Instance	102	
51.07 Input Instance	103	
51.08 Output I/O Par 1	1	(Main Control Word)
51.09 Output I/O Par 2	2	(Speed Reference)
51.10 Output I/O Par 3	1202	(const speed 1)
51.11 Output I/O Par 4	1203	(const speed 2)
51.12 Input I/O Par 1	4	(Main status Word)
51.13 Input I/O Par 2	5	(Actual 1)
51.14 Input I/O Par 3	104	(current)
51.15 Input I/O Par 4	320	(latest fault)
51.16 Output I/O Par 5	2501	(crit speed sel)
.....		
51.21 Input I/O Par 5	325	(latest warning)
.....		
51.26 VSA I/O Size	5	
51.27 FBA PAR REFRESH	Refresh	

**NOTE: The new settings in parameter group 51 will take effect only when the module is powered up the next time or when the module receives a refresh command (parameter 51.27).**

The installation of the EDS file is similar as in example 1.

With the settings of Example 2 the byte length in the PLC must be set to 10 bytes IN and OUT.

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The Main Control Word (MCW), Main Status Word (MSW), reference and actual signals are according to the ABB Drives profile. See the Firmware manual of the drive for more information.