

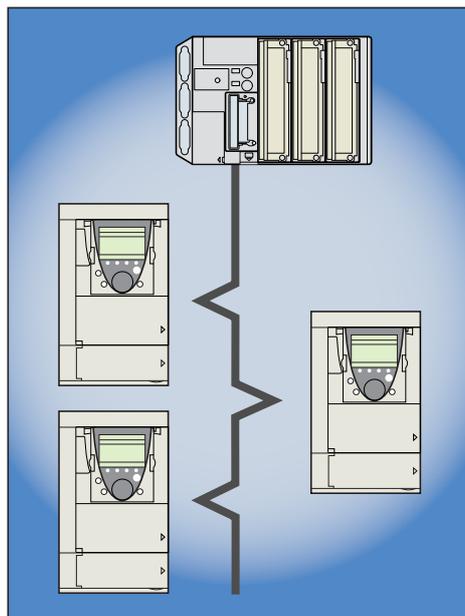
Altivar 71

Altivar 58(F) migration Fipio card

User's manual

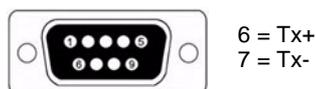
VW3 A3 301

11/2010



1. Communication via Fipio network – VW3 A3 301 option card

1. 1. Reminder of the connection method: Same as existing method



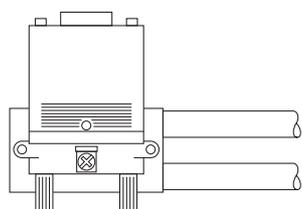
1. 2. Presentation

The VW3 A3 301 Fipio communication card, compatible with Altivar 58(F), can be used to connect an Altivar 71 drive, with software version ie 03 or higher, to a Fipio network. Its functions have been designed specifically for configuration transfer and drive control by means of periodic data. The message handling service is not installed. You can check the Altivar 71 software version via the graphic display terminal [\[1.11 – IDENTIFICATION\]](#) menu, Appli Software VxxIE03

It is only designed for replacement of an Altivar 58(F) equipped with a VW3-A58301 Fipio card.

1. 3. Connecting to the Fipio bus

If the tap junction connector used with the Altivar 58 is a TSX FP ACC12 connector, no restrictions are imposed when replacing an Altivar 58(F) with an Altivar 71.



TSX FP ACC2 connector with wiring on the right.

If this tap junction connector is a TSX FP ACC2, the Fipio cables and/or the TSX FP ACC7 line terminator must be located on this tap junction connector on the side indicated opposite.

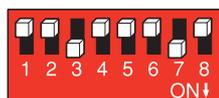
This involves modifying the tap junction connector's internal connections, and it is possible that this may pose new problems in respect of cable length(s), see Compatibility Manual, General, page 44.

1. 3. 1. Configuring the drive address on the Fipio network

Example



Address 11: 2#001011



Address 34: 2#100010

Address	Switches	Address	Switches	Address	Switches	Address	Switches
	1234 5678		1234 5678		1234 5678		1234 5678
0	0000 0000	16	0001 0000	32	0010 0000	48	0011 0000
1	0000 0001	17	0001 0001	33	0010 0001	49	0011 0001
2	0000 0010	18	0001 0010	34	0010 0010	50	0011 0010
3	0000 0011	19	0001 0011	35	0010 0011	51	0011 0011
4	0000 0100	20	0001 0100	36	0010 0100	52	0011 0100
5	0000 0101	21	0001 0101	37	0010 0101	53	0011 0101
6	0000 0110	22	0001 0110	38	0010 0110	54	0011 0110
7	0000 0111	23	0001 0111	39	0010 0111	55	0011 0111
8	0000 1000	24	0001 1000	40	0010 1000	56	0011 1000
9	0000 1001	25	0001 1001	41	0010 1001	57	0011 1001
10	0000 1010	26	0001 1010	42	0010 1010	58	0011 1010
11	0000 1011	27	0001 1011	43	0010 1011	59	0011 1011
12	0000 1100	28	0001 1100	44	0010 1100	60	0011 1100
13	0000 1101	29	0001 1101	45	0010 1101	61	0011 1101
14	0000 1110	30	0001 1110	46	0010 1110	62	0011 1110
15	0000 1111	31	0001 1111	47	0010 1111	63	0011 1111

Note: Addresses 0 and 63 must not be used on an Altivar 58(F) or an Altivar 71.

1. Communication via Fipio network – VW3 A3 301 option card

1. 4. Configuring the drive in "ATV58(F) interchangeability" mode

This card has been designed exclusively for replacement of an Altivar 58(F), hence the "ATV58(F) interchangeability" mode is implicit and, therefore, no switch needs to be activated on the card.

Configuring the drive control mode

Configure the control mode applied to the drive in the [1.6 – COMMAND] (C L L -) menu on the graphic display terminal, the integrated display terminal or the PC-Software workshop.

Set [Profile] (C H C F) = [8 serie] (S E B) before installing the option card, otherwise an EPF2 fault will appear.

The PC-Software workshop will activate 8 serie mode once the configuration has been transferred to the drive.

1. 5. PLC configuration and application

In PL7 or Unity, the drive configuration remains the same as that of the original Altivar 58. Any configuration parameters that no longer exist in the Altivar 71 are nonetheless accepted in write mode (positive report) or read-only mode (the current value is returned).

1. 6. Restrictions and incompatibilities

Bits 11, 12 and 13 of monitoring parameter %IWp.2.c\0.0.3 (IOLR) are now reserved bits (inactive).

As a result, the following data is no longer available:

- Image of the red LED (%IWp.2.c\0.0.3 :X11)
- Image of the charge relay (%IWp.2.c\0.0.3 :X12)
- Image of the braking transistor (%IWp.2.c\0.0.3 :X13)

Bits 0 and 15 of monitoring parameter %IWp.2.c\0.0.6 (DF1) are now reserved bits (inactive).

As a result, the following data is no longer available:

- "Incorrect calibration constants (INF)" fault
- "Charge relay command loss (CRF)" fault
- The adjustment ranges of parameters IBR, IDC and UFR are different for the Altivar 58(F) and the Altivar 71. These values vary according to the rating of each drive. Make sure, therefore, that you adapt the value of these parameters. Otherwise, the PL7 Pro software workshop will display an error message.
- SPC parameter: It is essential to set parameter OPL to NO so that SPC can be modified. Otherwise, the PL7 Pro software workshop will display an error message.
- SFR parameter: The Altivar 58 accepted the value 0.5 kHz; this value is not compatible with the Altivar 71, whose minimum value is 1 kHz. Make sure, therefore, that you modify the value of SFR, otherwise the PL7 Pro software workshop will display an error message.
- CFG parameter: An Altivar 58(F) can only be replaced with an Altivar 71 when used in constant torque applications. As a result the assignment CFG = VT is prohibited; use a drive from the Altivar 61 range.
- TFR parameter: The Altivar 58 equipped with a VW3 A58301 Fipio card had a particular type of operation. It was possible for the value of the HSP parameter to be higher than that of the TFR parameter. This is no longer the case with the Altivar 71, which adopts a pedestal value for HSP. Make sure, therefore, that you adapt the value of these parameters. Otherwise, the PL7 Pro or Unity software workshop will display an error message.

1. Communication via Fipio network – VW3 A3 301 option card

1. 7. Managing loss of Fipio communication

The Altivar 71 VW3 A3 301 Fipio card, compatible with the Altivar 58(F), will respond to loss of communication with the Fipio master in the same way as the Altivar 58 VW3-A58301 Fipio card:

When the drive is disconnected from the Fipio bus, the CNF fault is not activated and the motor will stop on a ramp.

1. 8. Communication fault

Fipio communication faults are indicated by the red RD LED on the card.

The [\[Network fault\] \(CNF\)](#) parameter can be used to obtain more detailed information about the origin of the fault. It can only be accessed on the graphic display terminal, in the [\[1.10 DIAGNOSTICS\] \(dGt -\)](#) menu, [\[MORE FAULT INFO\] \(RF I -\)](#).

Value	Description of the values of the [Network fault] (CNF -) parameter
0	No fault
1	Initialization fault on the Fipio card (hardware problem)
2	Time out for receipt of periodic variables destined for the drive. This time out can be set by the network configuration software.
3	Hardware fault on the Fipio card
4	Hardware fault on the Fipio card
5	Master PLC changes from Run to STOP

