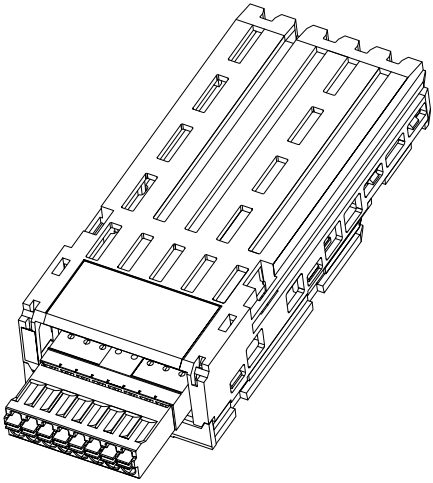
QGH1764000

HTL encoder interface module 12/15/24 Vdc

VW3A3424



⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only appropriately trained persons who are familiar with and understand the contents of this manual and all other pertinent product documentation and who have received safety training to recognize and avoid hazards involved are authorized to work on and with this drive system. Installation, adjustment, repair, and maintenance must be performed by qualified personnel.
- The system integrator is responsible for compliance with all local and national electrical code requirements as well as all other applicable regulations with respect to grounding of all equipment.
- Many components of the product, including the printed circuit boards, operate with mains voltage. Do not touch.
- Use only properly rated, electrically insulated tools and measuring equipment.
- Do not touch unshielded components or terminals with voltage present.
- Motors can generate voltage when the shaft is rotated. Prior to performing any type of work on the drive system, block the motor shaft to prevent rotation.
- AC voltage can couple voltage to unused conductors in the motor cable. Insulate both ends of unused conductors of the motor cable.
- Do not short across the DC bus terminals or the DC bus capacitors or the braking resistor terminals.
- Before performing work on the drive system:
  - Disconnect all power, including external control power that may be present.
  - Place a "Do Not Turn On" label on all power switches.
  - Lock all power switches in the open position.
  - Wait 15 minutes to allow the DC bus capacitors to discharge. The DC bus LED is not an indicator of the absence of DC bus voltage that can exceed 800 Vdc.
  - Follow the instructions given in the chapter "Verifying the Absence of Voltage" in the installation manual of the product.
- Before applying voltage to the drive system:
  - Verify that the work has been completed and that the entire installation cannot cause hazards.
  - If the mains input terminals and the motor output terminals have been grounded and short-circuited, remove the ground and the short circuits on the mains input terminals and the motor output terminals.
  - Verify proper grounding of all equipment.
  - Verify that all protective equipment such as covers, doors, grids is installed and/or closed.

Failure to follow these instructions will result in death or serious injury.

Electrical equipment should be installed, operated, serviced, and maintained only by qualifed personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this product.

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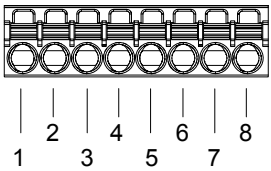


Maximum Encoder Cable Length				
Encoder Supply	Minimum Cable Cross Section	Total Encoder Consumption		
		100 mA	175 mA	200 mA
12 Vdc	0.2 mm² (AWG 24)	100 m	50 m	50 m
	0.5 mm² (AWG 20)	250 m	150 m	100 m
	0.75 mm² (AWG 18)	400 m	250 m	200 m
	1 mm² (AWG17)	500 m	300 m	250 m
	1.5 mm² (AWG15)	500 m	500 m	400 m
15 Vdc	0.2 mm² (AWG 24)	250 m	150 m	-
	0.5 mm² (AWG 20)	500 m	400 m	-
	0.75 mm² (AWG 18)	500 m	500 m	-
24 Vdc	0.2 mm² (AWG 24)	500 m	-	-

PIN	SIGNAL	FUNCTION	ELECTRICAL CHARACTERISTICS
1	A+	Channel A	Incremental Signal: +12Vdc or +15Vdc or +24Vdc Input Impedance: 2kΩ Max Frequency: 300kHz Low level: ≤2Vdc High level: ≥9Vdc
2	A-	Channel /A	
3	B+	Channel B	
4	B-	Channel /B	
5	V+	Software configurable encoder supply voltage	+12Vdc / 200mA or +15Vdc / 175mA or +24Vdc / 100mA
6	V+		
7	0V	Reference potential for encoder supply	-
8	0V		
SHIELD		Overall cable shielding for signal lines	The shield has to be connected to the drive cabling plate

Encoder can be configured in [Complete settings] ➔ [Encoder configuration].
For more information, refer to the ATV900 Programming Manual (NHA80757).

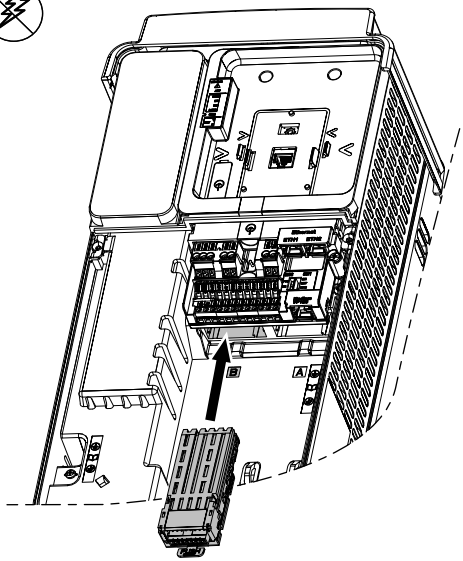
		PUSH PULL			OPEN COLLECTOR					
PIN	TWISTED WIRE PAIR	A/AB/B DIFFERENTIAL	AB SINGLE ENDED	A SINGLE ENDED	A/AB/B DIFFERENTIAL	AB PNP	AB NPN	A PNP	A NPN	I/O
1	1	R	R	R	R	R	R**	R	R**	I
2		R	R*	R*	R	R*	R	R*	R	I
3	2	R	R	-	R	R	R**	-	-	I
4		R	R*	-	R	R*	R	-	-	I
5	3	R	R	R	R	R	R	R	R	O
6	Opt.	-	-	-	-	-	R**	-	R**	O
7	3	R	R	R	R	R	R	R	R	O
8	Opt.	-	R*	R*	-	R*	-	R*	-	O
SHIELD		R	R	R	R	R	R	R	R	-

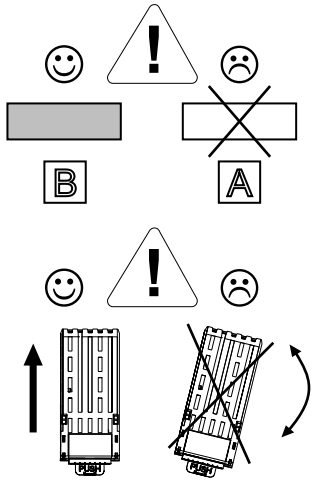
R: Required
- : Not required
Opt. : Optional

*: The inputs have to be wired to the 0V pins
**: The inputs have to be wired to the V+ pins

ATV900
Mounting

1





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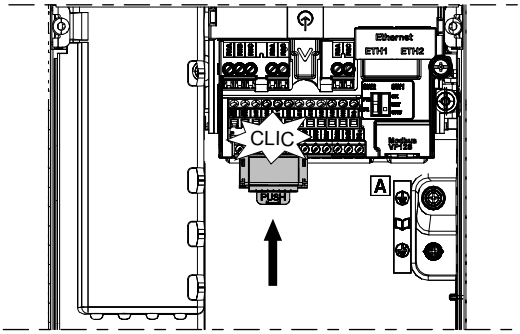

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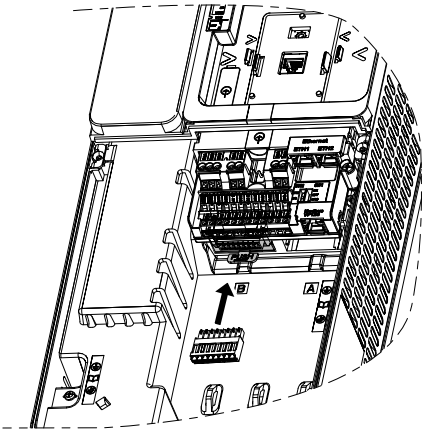
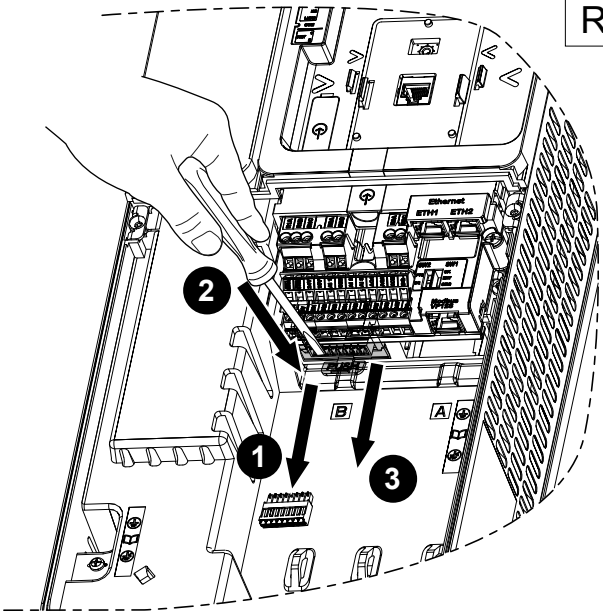
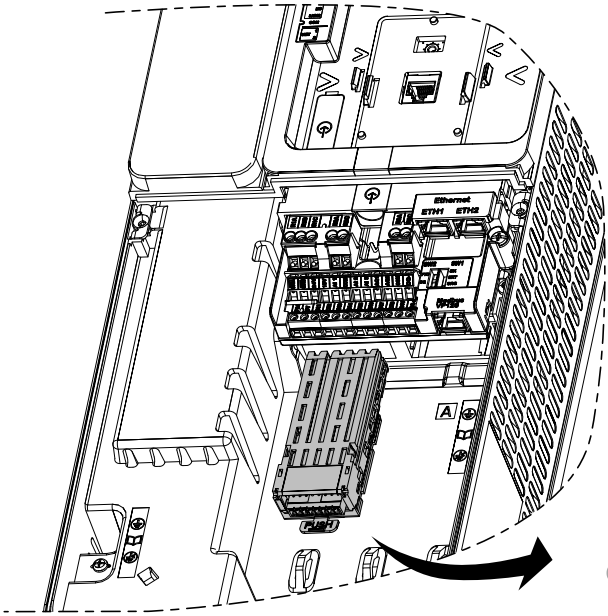


ATV900
Removing

1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