Control Wiring Diagram

5014166301

VIDAR
An ITT Company

General wiring diagram

Multi-function 24V_DC digital input

Refer to MI setting in parameter group G0 for MI1-6 selection.

*Default configuration

- +24V_DC / 200mA
- COM
- MI1 — S1 START*
- MI2
- MI3
- MI4
- MI5 — RESET*
- MI6
- DCM
- CM
- CM
- CM
- CM
- CM

NOTE
24VDC digital input terminals only. Do not wire 120/220V directly to these terminals.

Default: NPN (SINK) mode Refer to user manual wiring diagram for PNP (Source) Mode.

NOTE
*1 Jumper between S24V, STO1 and STO2 as factory setting. Remove the jumper before using the safety function.

- ESTOP
- +24V_DC
- Safety PLC
- SCM
- *1
- S24V
- STO1
- STO2

Multi-function output terminals

Resistive load
250 V_AC / 30 V_DC 3A
Inductive load
250 V_AC / 1.2A @ COS 0.4

Run Indn. (Default) Par. G1-04*
- RA1
- RB1
- RC1

Fault Indn. (Default) Par. G1-06
- RA2
- RB2
- RC2

NOTE
* By default the relay will change state when the motor shaft is rotating under power. Pr. G1-04 is set 165Ah: 0 Hz Output Indn and G1-00 b0: Relay 1 = ON

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Multi-function analog output terminal, 4-20mA

- AO1
- ACM
- ACM
- AO2

Motor RPM (Default) Par. G3-01
4mA = 0, 20mA = Max. Speed

Output Power (Default) Par. G3-15
4mA = 0, 20mA = 2 x Rated Power

Multi-function analog input terminal, 4-20mA/0-20mA/0-10V

- AI1
- ACM
- ACM
- AI2

Disabled (Default)
[For EXT1 Speed Reference Set Par. C1-01 to AI1
4mA = 0, 20mA = Max. Speed]

Disabled (Default)

Expansion slot — Communication card

Modbus TCP / Ethernet IP

8 ← 1

Pin 1: TX+   Pin 5: Reserved
Pin 2: TX-   Pin 6: RX-
Pin 3: RX+   Pin 7: Reserved
Pin 4: Reserved Pin 8: Reserved

Keypad RS-485

8 ← 1

Pin 5: SG+   Pin 1: Reserved
Pin 6: SGND   Pin 2: Reserved
Pin 7: Reserved   Pin 3: SGND
Pin 8: +15V/100mA Pin 4: SG-

- ○ Main circuit terminals
- ◉ Control circuit terminals
- ⏚ Shielded wire

Common applications

2-Wire motor contactor start/stop on power up/down

- +24V_DC / 200mA
- COM
- MI1
- MI2
- DCM
- CM
- CM
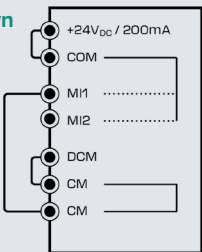
3-Wire momentary start/stop

- +24V_DC / 200mA
- COM
- Start
- Stop
- MI1
- MI2
- DCM
- CM
- CM
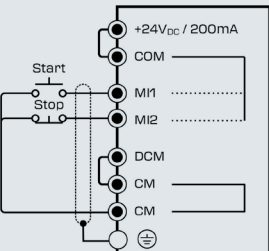
4-20mA Loop power transmitter with 2-wire start/stop

- *1 — +24V_DC / 200mA
- CM
- CM
- CM
- *1 — DCM
- COM
- PT (+/-)
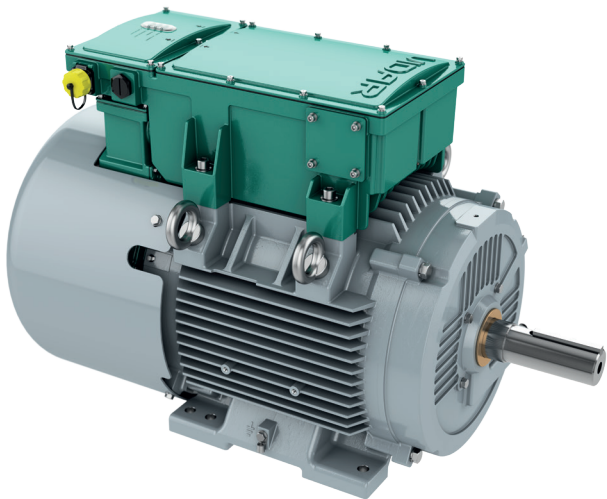- START/STOP
- MI1
- MI2
- AI1
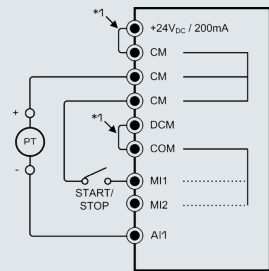
*1 Rewire the factory default jumpers to create additional 24V_DC terminals.

Quick-Start Guide

To download the complete Installation and operation manual

Scan the link

Get in touch

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Overview and safety

01

This guide is a simplified overview to help you start up the VIDAR motor with embedded intelligence. For detailed instructions to unpack, inspect and install the VIDAR properly, refer to the VIDAR Owners and Operator Manual.

DANGER   CAUTION

Danger! This equipment poses risks of electrical shock and mechanical hazards. Only qualified personnel should perform maintenance or repairs. Always follow safety protocols and consult the VIDAR Owners and Operator Manual for detailed instructions.

Main components

02
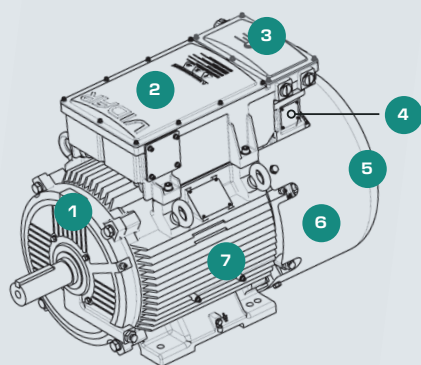
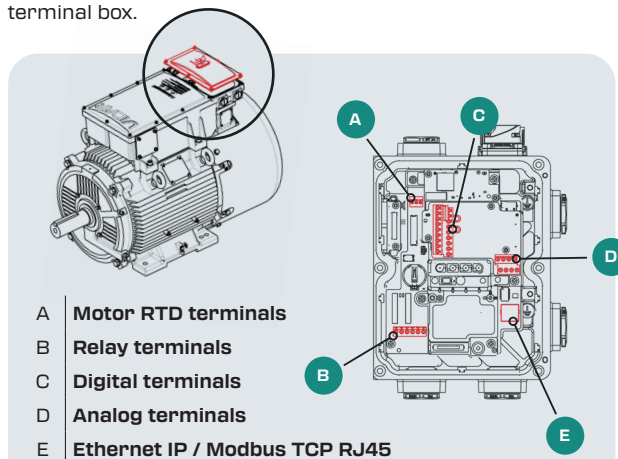| 1	Motor	5	Fan
2	Terminal box	6	Fan cowling
3	Control terminal box	7	Conduit box (optional)
4	Converter		

Main circuit terminals

03

Connect the main 3-phase power supply to terminals R/L1, S/L2, and T/L3 in the main terminal box or optional conduit box. Branch circuit protection must be provided in accordance to any applicable local codes.
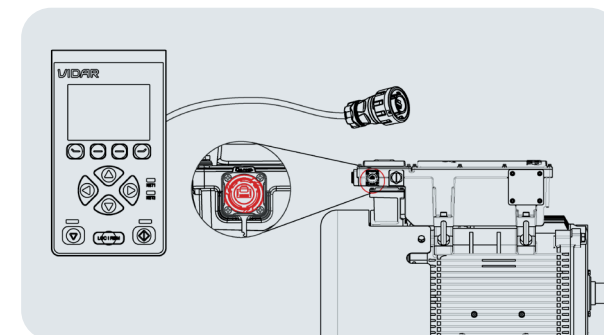

POWER
R/L1   S/L2   T/L3
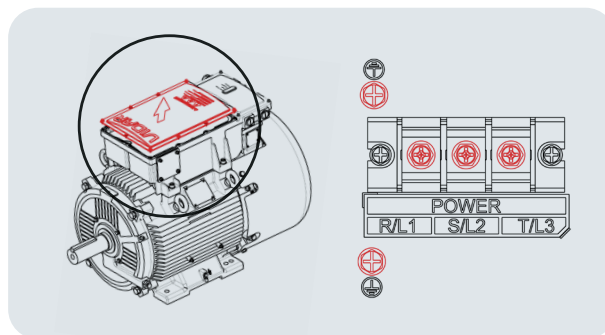
Application control terminals

04

For remote control and feedback, connect the control wires to the appropriate terminals in the application control terminal box.

A	Motor RTD terminals
B	Relay terminals
C	Digital terminals
D	Analog terminals
E	Ethernet IP / Modbus TCP RJ45

Connecting the keypad

05

For programming and troubleshooting, connect the VIDAR universal keypad (sold separately) to the external RJ45 keypad port. Once finished, disconnect the keypad cable and resecure the IP66 cover.

Start up wizard

06

With the VIDAR powered and the keypad connected for the first time, a prompt will appear to start the Start-Up Wizard. Follow the on-screen instructions to program the VIDAR. For application specific programming refer to the VIDAR Programming Manual.

Ready FWDs   09:36   Local

Startup Wizard

1. Start the Wizard
2. Exit the Wizard

Func   Home   Select