

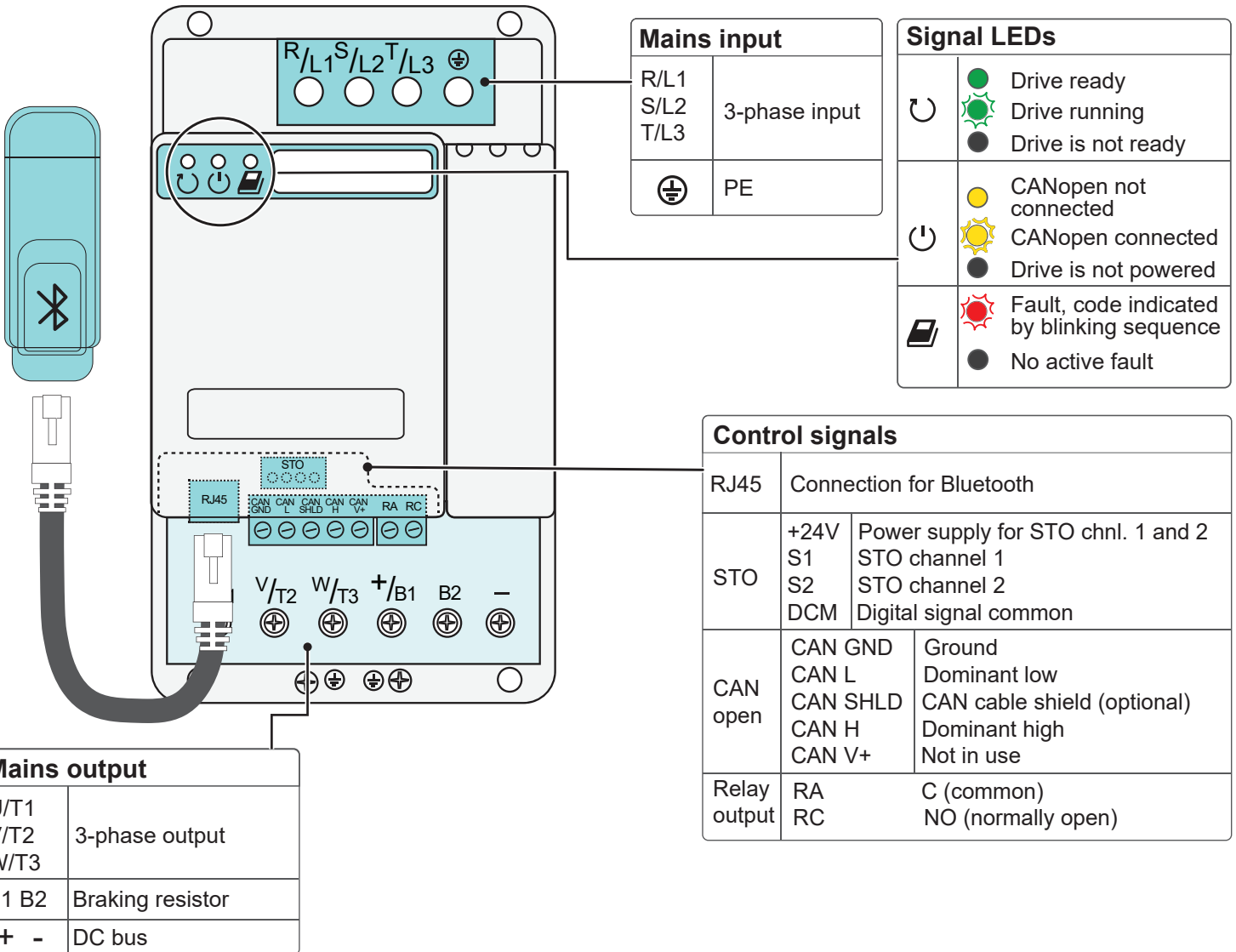
QUICK INSTALLATION GUIDE

Frequency converter ControlMaster Edge



Disclaimer: Person conducting this work must be appropriately trained and familiar with product range and related safety instructions. This quick guide only complements original instructions and does not replace them.

A General information



Rating label

TDU00xE000 INPUT: 3PH, 380~480VAC, 50/60Hz OUTPUT1: x.x A, x.x kVA OUTPUT2: x.x A, x.x kVA FREQUENCY RANGE: 0~320Hz VERSION: x.x <input type="checkbox"/> EMC LEVEL MODIFIED <input type="checkbox"/> OPTION BOARD	Current ratings and switching frequency													
	TDU	4 kHz	5 kHz	6 kHz	7 kHz	8 kHz	9 kHz	10 kHz	11 kHz	12 kHz	13 kHz	14 kHz	15 kHz	
004	3.4 A	3.1 A	2.8 A	2.5 A	2.3 A	2.1 A	1.9 A	1.7 A	1.6 A	1.5 A	1.4 A	1.3 A		
009	8.2 A	8.0 A	7.9 A	7.6 A	7.1 A	6.6 A	6.2 A	5.7 A	5.3 A	5.0 A	4.7 A	4.4 A		
017	16.5 A	16.0 A	15.5 A	14.7 A	13.7 A	12.9 A	12.0 A	11.2 A	10.6 A	9.9 A	9.2 A	8.7 A		
028	28.0 A	27.2 A	26.3 A	24.9 A	23.2 A	21.8 A	20.4 A	19.0 A	17.9 A	16.8 A	15.7 A	14.8 A		
045	45.0 A	45.0 A	45.0 A	45.0 A	43.2 A	39.6 A	36.0 A	32.9 A	30.2 A	27.5 A	25.2 A	23.0 A		

Note: In case of product reclamation, include the following information:

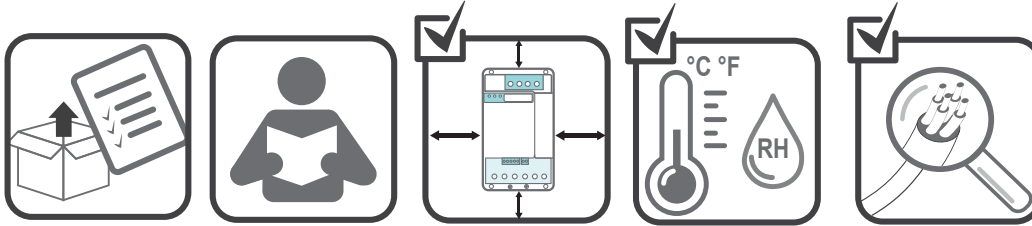
Type, serial number, fault code (if applicable), application (hoist/travel), how problem appears (e.g. fault code F001 during acceleration).

If any problems or malfunctions occur during commissioning, refer to the troubleshooting section in the service instructions, to find out the reason. Make sure all problems are solved before you continue operation.

B Installation



High voltages inside the device.
 Wait at least 5 min after the mains input voltage has been switched off before service actions.
 When signal LEDs are on there is dangerous voltage on the DC bus.
 When signal LEDs turns off, the DC bus voltage is about 100 V.
 Note that there is a dangerous voltage in the braking resistor when DC bus is charged.



Preparations

1. Check that the delivery corresponds to the order.
2. Read the safety instructions.
3. Check the clearances around device carefully.
4. Check ambient conditions.
5. Check sizes of motor cable, the control wires etc.
6. Check control wirings.

Parameters and commissioning

1. Switch on mains power, release emergency stop button, and press start pushbutton.
2. To check parameters establish connection between device and TD DriveTool app.

NOTE: Usually, the parameters are properly set after factory tests and no adjustments are needed.

• Compact brake motors for traveling (MF06MA, MF06LA)
 See the motor parameter values from Service Instruction.

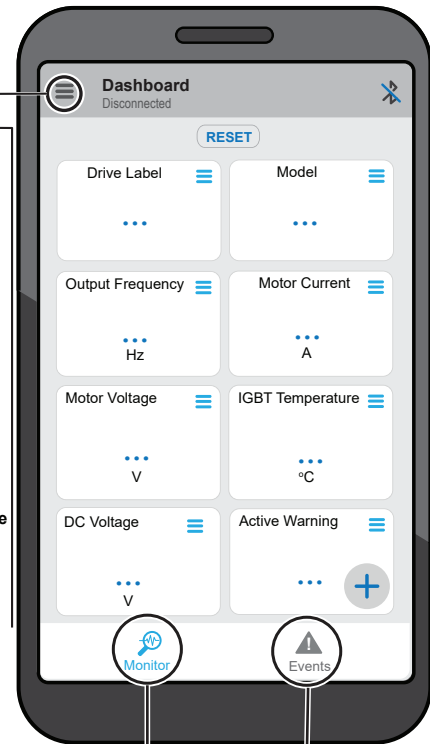
• Other motors for traveling

1. Check parameters 01-00...01-06, and 00-01.
2. Perform automatic tuning with TD Drive Tool

• All motors for lifting

See the motor parameter values from Service Instruction.

NOTE: Use only pre-defined motors with factory tested parameter values.



Parameters

00-00	User Role Key	03-06	Motor Rs
00-01	Drive Selection	03-07	Motor Rr
00-02	Accel Time	03-08	Motor Lm
00-03	Decel Time	03-09	Motor Lx
00-04	Min Frequency	03-10	System Inertia
00-05	Max Frequency	03-11	ASR1/2 Switch F
01-00	Motor Nom Volt	03-12	ASR Zero-Speed
01-01	Motor Nom Freq	03-13	ASR1 Low-Speed
01-02	Motor Nom Curr	03-14	ASR2 High-Speed
01-03	No-Load Current	04-00	DI1 Function...
01-04	Motor Cos Phi	04-05	DI6 Function
01-05	Motor Nom Power	05-00	Ramp Stretching
01-06	Motor Nom Speed	05-01	Flux Brake
01-08	Start Current	05-02	Slowdown Mode
02-00	Brake Open Delay	05-03	Brake Chopper
02-01	Start DC Time	06-00	Node ID
02-02	Start Frequency	06-01	CAN Speed
02-03	Load Floating Time	06-02	Control Place
03-00	ESR mode	06-03	Process Data 1...
03-01	ESR Max Freq	06-09	Process Data 7
03-02	Ramp Scale Freq	07-00	Switching Freq
03-03	U/f Zero Freq Volt	08-00	F#1 Fault Record...
03-04	U/f Mid Voltage	08-09	F#10 Fault Record
03-05	U/f Mid Freq		

Monitoring values

Output frequency	Output frequency to the motor
Motor current	Output current to the induction motor
Motor voltage	Output voltage to the motor
IGBT temperature	Internal temperature of IGBT module
DC voltage	Inverter DC-link voltage
Freq reference	Frequency reference
Freq command	Frequency command from a radio or a pendant controller
STO input	Safe torque off input status
RO status	Status of relay output
DI status	Status of digital input
CANopen SW	Status word of CANopen
CANopen CW	Control word of CANopen
Active Warning	Code of active warning
Active Fault	Code of active fault
Drive Label	Drive label code of the connected frequency converter

Common fault codes

F001...	Over current
F003	Over current
F006	Over current
F007...	Overvoltage
F010	Overvoltage
F011...	Undervoltage
F014	Undervoltage
F140	Ground fault
F141	Ground fault
F200	CANopen communication
F201	Motor overtemperature
F202	Both directions fault
F203	Ramp supervision
F204	Parameter fault
F205	Parameter fault