

TRANS-2, TRANSLATOR FOR 2-PHASE MOTORS, 80 V / 8A

To be mounted on heat sink

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Drawing: N 200-8A-TRANSLATOR 2 Encombrement, N° 647.

The electrical parameters given in this data sheet are tentative. They can be changed after full characterization without notice

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1. POWER WIRING

1.1. J2 connector: supply and power

A Weidmüller or Phoenix 12 poles connector is available on the front (see drawing 647).

The supply input is not protected against wrong connections.

PIN	SIGNAL	FUNCTION
1	PHASE A	Motor
2	PHASE /A	Motor
3	+UM	Supply
4	+UM	Connected to 3
5	0 V	Supply return
6	0 V	Connected to 5
7	PHASE B	Motor
8	PHASE /B	Motor
9	0 V	Common to the limit switch
10	BLSW	Negative limit switch
11	FLSW	Positive limit switch
12	+ 12 V	Limit switch supply

1.2. J1 connector: command signals

(Flat cable 10 pol connector)

BROCHE	SIGNAL	DESTINATION
1	+12V +24V	Photocoupler common Special execution
2	NC	Not connected
3	FAULT	Fault signal (active if high)
4	NC	Not connected
5	/BOOST	Current boost (active low)
6	/RESET	Motor current suppression, initialization
7	/STEP	Pulse (active low)
8	NC	Not connected
9	/DIR	Direction (active low)
10	NC	Not connected

The "/" means 'input active low'

2. CURRENT SETTING

The rotative switch CURRENT SETTING sets the correct phase peak current for the motor (see drawing 647).

The current value is given for an active "BOOST" signal. If this signal is inactive, the current is 40 percent less.

Maximum peak current: 8 A.

Position	Peak current	Position	Peak current
0	2 A	5	5.3 A
1	2.7 A	6	6 A
2	3.3 A	7	6.7 A
3	4 A	8	7.3 A
4	4.6 A	9	8 A

3. TECHNICAL DATAS

Bipolar driver with 1600 micro-steps per revolution.
Current controlled by "slow/fast decay".

The signals "/BOOST", "/STEP", "/DIR" are active low, signal "FAULT" is active high, all are opto-isolated.

	Minimum	Typical	Maximum
Ambient Temperature	0 °		50 °
Radiator Temperature			80 °
Motor Supply Voltage UM	60 VDC	75 VDC	90 VDC
Input Command Current /DIR, /STEP		16 mA	
Input Command Current /BOOST, /RESET		8 mA	
Current from FAULT output with 1 V residual		4 mA	

3.1. Notice for supply design

The current consumption depend on the running factor and the motor size, but the maximum is 4 A.

The power supply must be designed with a 10'000 uF capacitor to absorb break energy.

The power dissipation in normal use needs a radiator with termical resistor of maximum 1 K/W.

A forced ventilation allows radiator size reduction.

It is recommended to blow inside a closed box with heat sink.

3.2. Limit Switches

The limit switches are direction sensitive. If activated, the torque is falling down but the take-out is possible in the other direction.

The sensors must be PNP output normally closed, the supply for the sensors or the contacts must be taken from pin 12 (12V, 330 Ohm internal resistor).

If no limit switch is needed, a bridge must be done between pin 10, 11 and 12.

3.3. LEDs

(see drawing 647):

POWER ON: - Unit supplied

FAULT: - Over-current.
 - Over-and under-voltage on motor supply UM.
 - Over-temperature

LIMIT SWITCH: - A limit switch is active

Limit switch activate FAULT signal too.

The FAULT signal causes the motor torque to be zero.

To reset the fault signal, the logic supply must be off during several seconds, or the RESET input must be used.