TDE MACNO

mini OPENDRIVE

OPDEXP SYSTEM

TDE MACNO
Tecnologie Digitali Elettroniche S.p.A.
www.tdemacno.it

give life to Technology

TDE MACNO

OPD EXP SYSTEM

OPENDRIVE EXP

mini OPENDRIVE EXP

Experience, eXpertise, Performance

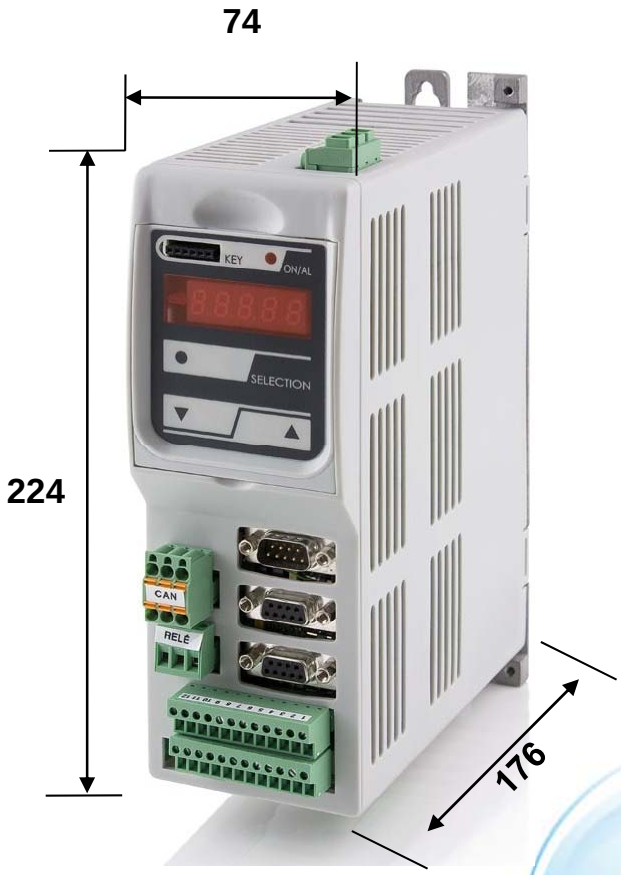
The Innovative technology
in the Motion Control

Mini OPENDRIVE EXP

servo drive and FOC inverter
Intelligent, compact and dynamic
Optimum power / size

Mini OPD EXP 230 V				
Power (kW) 110*- 230Vac (+15% -15%)	**0,4 ***	**1,1**	**2,2**	**3**
Rated current [Arms]	2,3	5,6	8,4	10
Overload	120% x 30 s – 150% x 30 s – 200% x 3 s +150% x 40 s – 200% x 30 s			
Dimensions (HxWxD) [mm]	H= 224 x W= 74 x D= 176			
Weight	1,7 kg			
Approvals	CE, in evaluation UL			

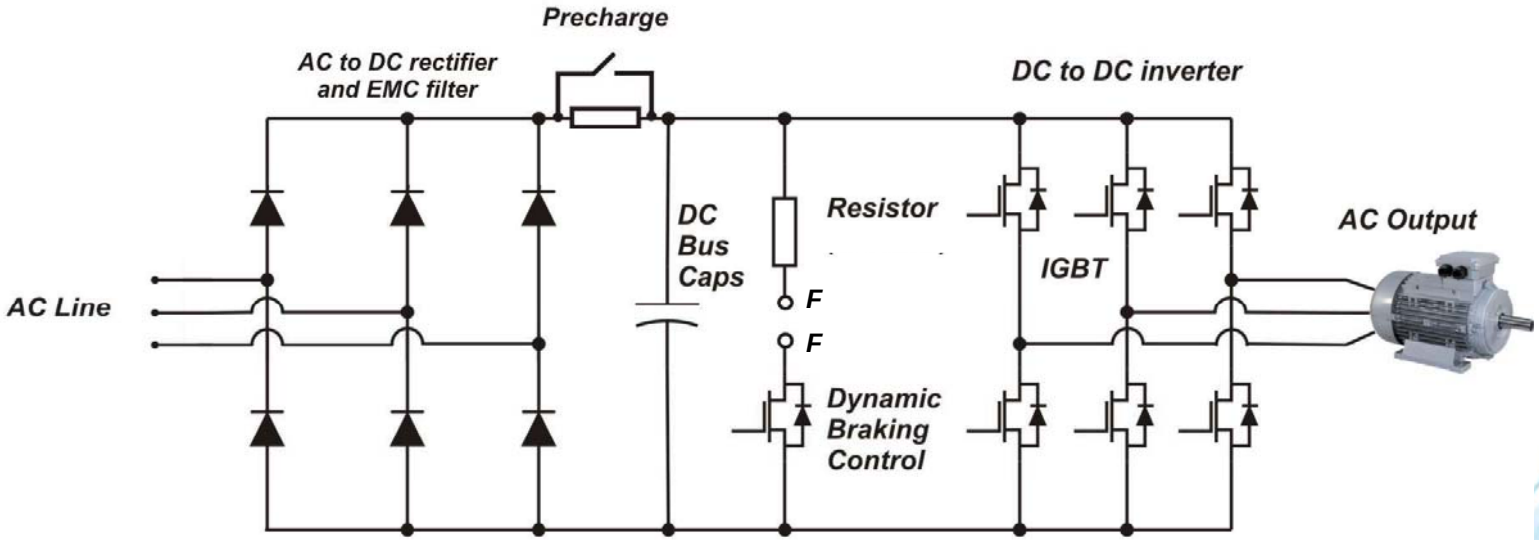
Mini OPD EXP 400V			
Power (kW) 400 - 460V ac (+10% -15%)	**0,8**	**1,5**	**3**
Rated current [Arms]	2,3	3,8	6,8
Overload	120% x 30 s – 150% x 30 s – 200% x 3 s +150% x 40 s – 200% x 30 s		
Dimensions (HxWxD) [mm]	H= 224 x W= 74 x D= 176		
Weight	1,7 kg		
Approvals	CE, in evaluation UL		



Mini OPD EXP is one of the most compact in the market thanks to the plastic housing that increases mechanical strength as well

Pulse - Width - Modulation Inverter

Basic Power Circuit



MINI OPD EXP

- PE connection
- **AC Input Power: three phase / single phase 230 Vac (1/3 x 230Vac)**
  Only three phase 400V (3 x 400/460 Vac)
  Built-in EMC filter class A (industrial level)
- Memory key connector for parameters
- Keypad and display
- Encoder simulated output (frequency output)
- Frequency Input
- Can Bus line
- RS 485 Modbus communication port for PC programming and device interfacing
- Relay output
- 24 Vdc, Digital I/O & Analog I/O
- **Motor connection & DC BUS, brake terminals**
- Feedback options: Resolver, Encoder and Hall sensor – SinCos, Endat 2.1 – 2.2, Biss
- 24Vdc electronic supply, and motor temperature sensor. 24Vdc supply is not necessary for the standard use, but only for the control board back up functions
- Shield Cable management

MINI OPD EXP

Digital & analog I /Os	
Digital Input opto	n° 8
Digital Output opto	n° 2
Analog input	n° 2 (12 bit) (current or voltage selectable by jumper)
Analog input (differential)	n° 1 (12 bit) (current or voltage selectable by jumper)
Analog Output	n° 2 (10 bit)
Reference voltage	+ Vref = +10 V - Vref = -10 V AGND= 0 V
Relay output (125 Vac / 0,6A 48Vdc / 1A).	n° 1
Feedback	Resolver, Encoder hall sensor, TTL Incremental Encoder – SinCos absolute, Endat 2.1-2.2, Biss
Simulated Encoder Output	on DB9
Frequency input (A, /A, B, /B frequency and direction)	on DB9
Motor thermal switch	PTC,NTC and thermal switch (ON/OFF)
Fan on heat sink	Controlled by software to reduce noise and increase the fan life

TDE MACNO

Optimize for servo applications requiring high peak torque, dynamic response, easy of use and flexible integration futures. Two supply product variants (230V – 400V) ensure that the drive matches your servo applications.

Typical application:

- ***Printing***
- ***Packaging***
- ***Pick and Place***
- ***Material Handling***
- ***Indexing***
- ***Conveyor Positioning***
- ***Cut-to-length***
- ***Labelling***
- ***Rotary knife***
- ***Flying Shear***

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Pre-programmed protection function

- *Ambient / enviroment temperature*
- *DC Overvoltage*
- *DC Undervoltage*
- *Drive temperature*
- *Overcurrent*
- *Short circuit*
- *Power limits*

Programmable protection function

- *Current and torque limits*
- *External fault*
- *Motor thermal protection*
- *Motor underload protection*
- *Motor stall protection*
- *Input phase loss*