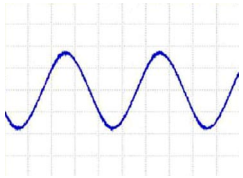
Features

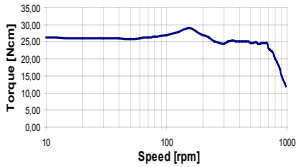
## Main features

√ Vectorial control

The sinusoidal phase current with "else" technology keep the motor torque constant allowing smooth and noiseless movements.



Current




Torque

√ Motor stall detection without encoder
√ Smooth movement
√ Compact size
√ Noiseless rotation
√ Reliability
√ Low EM emissions
√ Software resonance damping
√ Auto tuning of motor control parameters
√ High efficiency current set up
√ Reduction of motor temperature
√ Digital IN 2 ÷ 24 Vdc

## Specifications

**MODELS**

| Code | Power supply | Current max | Motors type |
|---|---|---|---|
| LWCD3032 | 24 ÷ 80 Vdc | 3.2 Arms | 3 phases |
| LWCD3070 | 24 ÷ 80 Vdc | 7.1 Arms | 3 phases |

**OPTO ISOLATED INPUTS**
4 Digital IN 2 ÷ 24 Vdc NPN, PNP or Line-Driver 2 MHz

**OPTO ISOLATED OUTPUT**
1 Digital OUT 24 Vdc - 100 mA for status monitoring

**STEP/REVOLUTION**
From 200 up to 51200 step/revolution (emulated)

**SAFETY PROTECTIONS**
Over/Under voltage, Over Current, Over Temperature, Short Circuit Phase/Phase and Phase/Ground

**STATUS MONITORING**
3 LED with guiding light (green and red/yellow)

**TEMPERATURE**
Working: from 0°C to 40°C. Storage: from -25°C to 55°C

**HUMIDITY**
5% ÷ 85%

**PROTECTION CLASS**
IP20

# Vectorial drivers for 3 phases stepper motors

error less servo efficient else® technology
by Ever Elettronica

TITANIO
VECTOR - STEPPER - DRIVES

WARRANTY 3 YEARS

# LWC

## Titanio drivers

- Equipped with advanced safety features:
  - √ Sensorless motor stall detection
  - √ Integrated diagnostic
  - √ Protections against short circuit motor, open phases, over/under voltage and temperature

LWC drivers of Titanio series, based on Arm Core M4 technology, are the solution to control stepper motors in clock&direction mode with an accuracy, smoothness and noiseless never seen before for a stepper driver.


Ever ELETTRONICA
the clever drive

**ELETTRONICA PER AUTOMAZIONE INDUSTRIALE**
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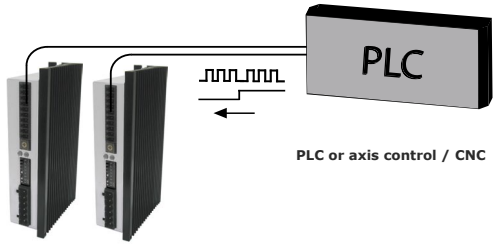
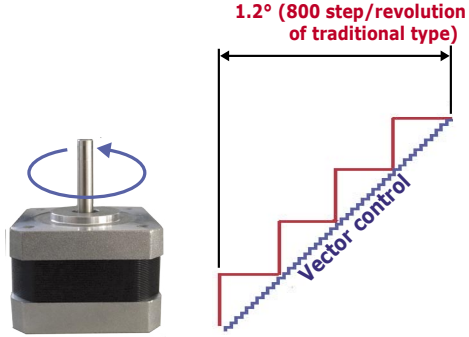
Control Modes

## STEP & DIRECTION




PLC or axis control / CNC

- Setting of the current value by means of dip-switches
- Selection of the number of step/revolution by means of roto-switches. In order to maintain compatibility with traditional drivers, the number of step/revolution have been emulated through software, the current regulation is always sinusoidal.




- Possibility to select five user functions:

1 - enabling of motor stall detection.
Reading the motor BEMF, LWC drivers detect without encoder the step loss, showing alarm status with the Fault digital OUT and a LED sequence.

2 - Step/Direction or Clock-Up / Clock-Down control mode.

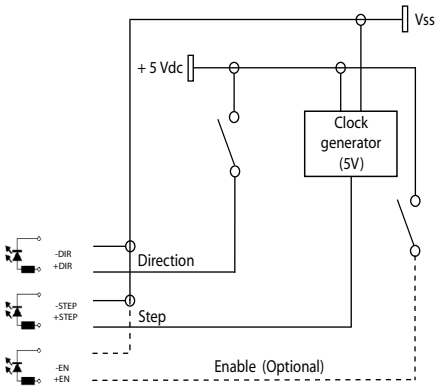
3 - enable input management (safety control).

4 - 30% or 70% automatic current reduction (still motor).

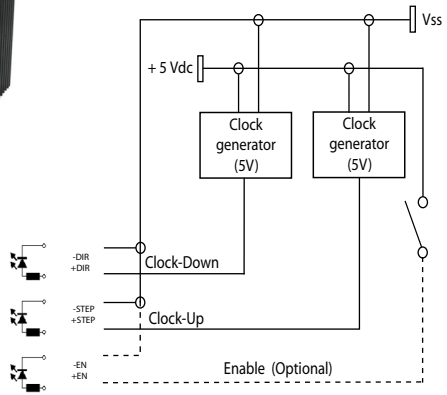
5 - enabling of "Clock Test" function, useful during the driver's installation, which shows the right presence of the clock signal through status LED flashing.

## Inputs Connection

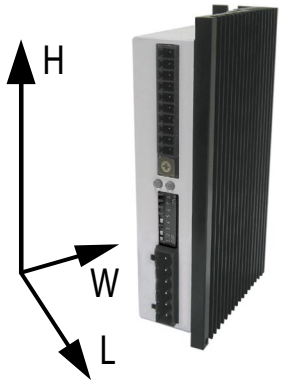
Connection of Step and Direction signals

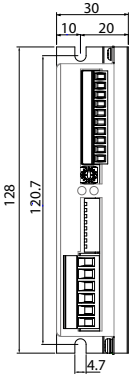



Connection of Clock-Up & Clock-Down signals




## Mechanical Data




| Models | Dimensions (mm) H | L | W | Weight (g.) |
|---|---|---|---|---|
| LWCD30xxN0A1-00 | 128.0 | 30.0 | 74.0 | 290 |

## Ordering Information for LWC Drives

| Ordering code | Power | | System resources | | |
|---|---|---|---|---|---|
| **Versions** | **Power Supply** | **Current** | **Digital Inputs** | **Analog Inputs** | **Digital Outputs** |
| **LWC Drive Series: Models 3032** | | | | | |
| LWCD3032N0A1-00 | 24 ÷ 80 Vdc | 0.21 ÷ 3.2 Arms (0.3 ÷ 4.5 Apeak) | 4 opto isolated 2-24 Vdc NPN, PNP or Line Driver 2 MHz | --- | 1 opto isolated 24 Vdc 100 mA PNP for FAULT |
| **LWC Drive Series: Models 3070** | | | | | |
| LWCD3070N0A1-00 | 24 ÷ 80 Vdc | 1.70 ÷ 7.1 Arms (2.4 ÷ 10.0 Apeak) | 4 opto isolated 2-24 Vdc NPN, PNP or Line Driver 2 MHz | --- | 1 opto isolated 24 Vdc 100 mA PNP for FAULT |