AC Brushless Servodrives

VANADIO
AC - SERVO - DRIVES

3rd part controller

Characteristics (side label)

Control Modes (side label)

MODELS

Code	Power supply	Current	Motor power
AW5A6750	100 ÷ 120 Vac (monophase)	up to 3.0Arms (peak of 12Arms for 1s max with DC max = 10%)	up to 750 W

POWER STAGE
Internally there is a voltage doubler so on the motor the voltage will be twice the supply voltage
Ultrasonic chopper frequency 40 kHz

COMMUNICATION INTERFACE
EtherCAT or Ethernet (Modbus TCP/IP) or Profinet or CANbus and Serial (Modbus RTU)

FEEDBACK INTERFACE
Incremental encoder input 5 V differential RS422 or single-ended TTL/CMOS (isolated) or absolute encoder input SSI or BiSS-C (isolated)

POSITION SENSOR INTERFACE
Hall sensor 5 V Single-Ended (TTL/CMOS) (isolated)

SCI INTERFACE
Service SCI interface for configuration, programming and real time debugging

OPTOISOLATED INPUTS
up to 16 digital

OPTOISOLATD OUTPUTS
up to 12 digital

ANALOGUES INPUTS
up to 2 isolated

ANALOGUES OUTPUTS
up to 2 isolated

OPTOISOLATED STO INPUTS
Safe Torque Off inputs SIL3/PLe

SAFETY PROTECTIONS
over/under-voltage, over current, overheating, short circuit between motor phase to phase and phase to ground

TEMPERATURES
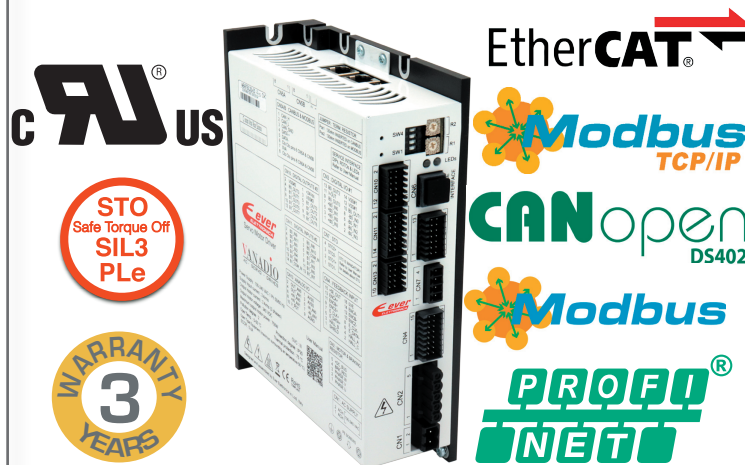working from 5°C to 50°C, storage from -25°C to 55°C

HUMIDITY
5% ÷ 85% not condensing

PROTECTION DEGREE
IP20

PROTECTION CLASS

EtherCAT

Modbus TCP/IP

CANopen DS402

Modbus

PROFINET

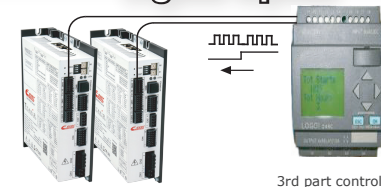STO Safe Torque Off SIL3 PLe

WARRANTY 3 YEARS

AW5A6750

- Mains power supply 120 Vac
- Incremental or absolute encoder and Hall sensor inputs
- Serial Service for real time programming and debugging
- Safe Torque Off SIL3/PLe inputs (STO)
- External braking resistor management
- Compliance with the most common PLC Masters on the market
- New e3PLC Programming Environment, easy and intuitive
- UL recognized certified

Slave mode - a0380 CANopen DS402
- a0680 EtherCAT
- a0790 Modbus + CANopen
- a0890 Ethernet (Modbus TCP/IP)
- a0990 Profinet

Master Controller: PC, PLC, Panel PC or other
Ethernet switch
Modbus TCP/IP
EtherCAT or Profinet
CANbus Modbus

Drive control through commands by Master Controller.
Suitable for multi axes systems.
Built in powerfull Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

User Programmable - eePLC- a0690 / a0790 / a0890 / a0990

FIELDBUS DRIVES WITH AUTONOMOUS FUNCTIONING that, by integrating advanced PLC and motion controller functions in one single device, programmable by the user with the IDE for Windows PC and e3PLC, allows to reduce the traditional machine control solution.

Traditional Solution

| PLC | → | Motion Module | → | Drive | → | Motor |

e3PLC Solution

AW5A6750 Drive line **e3PLC** → Motor

The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion Module, an integrated Real-time Process Module, applications can be easily created for special applications such as:
- *Labelling*
- *Electronic cams*
- *Control Sequences of cable processing*
- *Many other user-customized processes ...*

ever ELETTRONICA
the clever drive

ELETTRONICA PER AUTOMAZIONE INDUSTRIALE
Via del Commercio, 2/4 -9/11
Loc. S. Grato - Z.I.
26900 - LODI (LO) - Italy
Tel. 0039 0371 412318 - Fax 0039 0371 412367
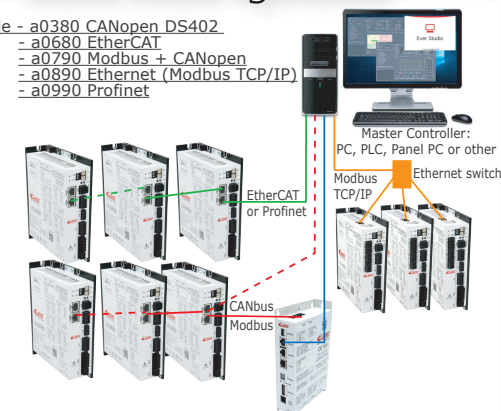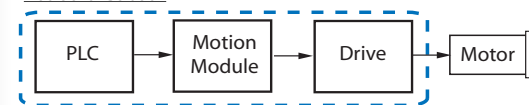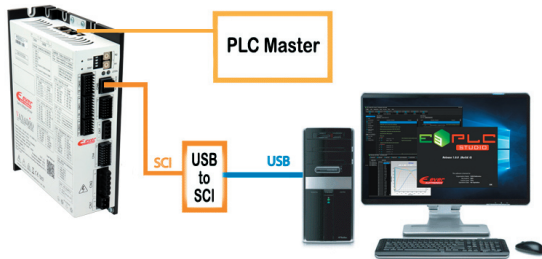email infoever@everelettronica.it
www.everelettronica.it

Ever co. proprietary PC Software Tools for easy and quick development, configuration and supervision of each system.

Fieldbus configuration (slave)

IDE e3PLC configuration (programmable)

Autonomous management of the firmware for the execution of the **homing**, of the target movement with relative or absolute quota and for the generation of the ramp profiles

Torque mode for operation with torque limitation

Speed control thanks to digital inputs, analogue inputs or fieldbus

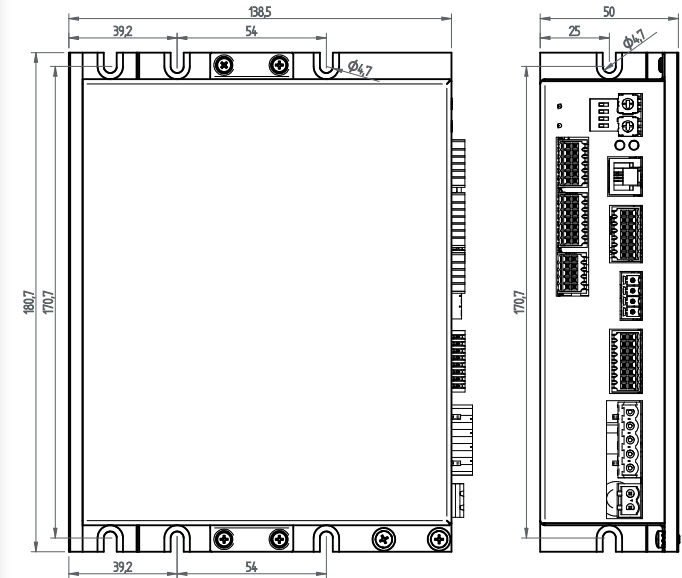**Electronic CAM** with advanced programming of internal profiles inside the drive

Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

Fast inputs and outputs for motor' start & stop and event synchronization for high speed response applications such as labeling, nick finder, flying saw etc.

Possibility to synchronize the movements in multi-axis systems, even without fieldbus

Enabling and on-the-fly changing of the motion control modes

Models	Dimensions (mm)			Weight (g.)
	H	D	W	
AW5A6750x2x1-20	180.7	138.5	50.0	800 approx

Ordering Information for AW5A6750

Ordering code		Power		System Resources								
Versions	Config.	Power supply	Current	Digital inputs	Digital outputs	Analogues inputs	Analogues output	Interface	STO inputs	Feedback interface	SCI interface	Control mode
Azionamenti Linea AW5A6750												
AW5A6750L221-20	a0380	100 ÷ 120 Vac (monophase) Internally there is a voltage doubler so on the motor the voltage will be twice the supply voltage	up to 3.0 Arms (peak of 12 Arms for 1s max with DC max = 10%)	4	3	--	--	CANbus CANopen and Serial RS485 Modbus-RTU	Safe Torque Off (STO)	Incremental or absolute Encoder and Hall sensor	Service SCI interface for programming and real time debugging	CANopen DS402
AW5A6750L2G1-20				16	12	2	2					
AW5A6750L221-10	a0790			4	3	--	--					e3PLC CANbus or e3PLC Modbus-RTU
AW5A6750L2G1-20				16	12	2	2					
AW5A6750E2G1-20	a0890			16	12	2	2	Ethernet (Modbus TCP/IP)				e3PLC Modbus TCP/IP
AW5A6750H221-20	a0680			4	3	--	--	EtherCAT				EtherCAT (CoE)
	a0690											e3PLC EtherCAT
AW5A6750T221-20	a0990			4	3	--	--	Profinet				e3PLC Profinet

Configuration and Programming Kits	
Kit code	Description
SW5_SERV00-SL	SCI service kit with cables, service serial to RS485 and RS485 to USB converters and Ever Studio configuration software.
SW5_SERV00-EE	SCI service kit with cables, service serial to RS485 and RS485 to USB converters and e3PLC programming software.