



B17®

AC BRUSHLESS SERVODRIVE



B17®

Digital eurocard brushless servodrive for AC sinusoidal servomotors up to 20Nm (2860 oz.-in.)

Typical applications are: Conveyors, Medical, Textile Equipment, Packaging Machinery, Positioners, Converting Machinery, Feeders.

STANDARD FEATURES

- ✓ Single DC Power Supply
- ✓ Three phase sinusoidal - four quadrant operation
- ✓ 32 Bit RISC Micro-controller
- ✓ Two feedback modes:
 - 1) from incremental encoder (max 200 KHz) emulation resolution divided by 1 - 2 - 4 - 8 16 - 32 - 64 - 128 (IAW original)
 - 2) from resolver (2 - 4 - 6 - 8 poles) encoder emulation (standard setting) 4096 - 2048 - 1024 - 512 - 256 - 128 P/r (2 poles resolver - 14 bit - 4000 Rpm Max Motor Speed)
- ✓ Positive / Negative Limit Switches
- ✓ Two programmable digital inputs (alternative with limit switches)
- ✓ Parameter setting by keys on the front panel or RS232/485
- ✓ Available software interface (windows 95/98 based)
- ✓ Enable inputs available with both positive/negative logical levels
- ✓ Completely protected from: Over/Under supply voltage
Over temperature/External short circuit motor polarity
Absence or improper connection of speed feedback

SPECIFICATIONS

- ✓ Operating frequency: 16 (KHz)
- ✓ Operating temperature: 0 ÷ 40 °C (32÷104°F)
- ✓ Motor current monitor (Iq component): ±10VDC (at peak current)
- ✓ Motor speed monitor:
 - encoder feedback ±10VDC (at 200 KHz)
 - resolver feedback (2 poles) ±10VDC (at 6000 Rpm motor)
- ✓ Auxiliary external input supply voltage: 24VDC (for logic only)
- ✓ Enable signals: +10÷30VDC
- ✓ Analog input reference (differential): ±10VDC (16 bit resolution)
- ✓ Output voltage supply: +10/-10VDC @ 2.5mA
- ✓ Humidity [%] (without condensation): 10 ÷ 85%



DESCRIPTION

The **B17® Digital** amplifiers are euro-card formatted servodrives for sinusoidal brushless servomotors. They have a very flexible design and can be supplied to accomodate rack mount (up to 6 axis slots). The power stage is made by power Mos-fet or Igbt.

ACCESSORIES

(see specific data sheets for details)

- ✓ SERVOMOTORS
 - Super Sax: 0.35÷17Nm
- ✓ RACK MULTIAXIS (with internal power supply)
 - RKB: 2÷6 axis + dumping slot
- ✓ DUMPING CARDS (for all rack systems)
 - SHR : braking power 50÷800 W
- ✓ TRANSFORMERS
 - TM/TT: single/3ph, 100÷8000 Va
- ✓ NET FILTERS (for CE compliance)
 - FRM/FRT: single/3ph, 2÷16 Arms

MODEL		B17 A60						B17 B140						B17 C200						B17 D300 ⚡						
SIZE		4/8	8/16	10/20	14/28	20/40	25/50	4/8	8/16	10/20	14/28	20/40	25/50	4/8	8/16	10/20	14/28	20/40	25/50	4/8	8/16	10/20	14/28	20/40	25/50	
WIDTH (TE)	STANDARD OPTION	13	13	13	13 ^Δ	13 ^Δ	13 ^Δ	13	13	13	13 ^Δ	13 ^Δ	13 ^Δ	13	13	13 ^Δ	13 ^Δ	17 ^Δ	17 ^Δ	13	13	13 ^Δ	13 ^Δ	17 ^Δ	NA	
		—	—	—	17	—	—	—	—	—	17	—	—	—	—	—	17	—	—	—	—	—	17	—	—	NA
Rated Current (Arms)		4	8	10	14	20	25	4	8	10	14	20	25	4	8	10	14	20	25	4	8	10	14	20	25	NA
Peak Current (Arms) x 2 sec.		8	16	20	28	40*	50*	8	16	20	28	40*	50*	8	16	20	28	40*	50*	8	16	20	28	40*	50*	NA
FDC: Supply Line Fuse (type F, M or T)*		15 A / 250 V (5x20 mm) (F, M, T-TYPE)			25 A / 500 V (6.3x32 mm) (T-TYPE)			15 A / 250 V (5x20 mm) (F, M, T-TYPE)			25 A / 500 V (6.3x32 mm) (T-TYPE)			15 A / 250 V (5x20 mm) (F, M, T-TYPE)			25 A / 500 V (6.3x32 mm) (T-TYPE)			25 A / 500 V (6.3x32 mm=0.25x1.25") (T-TYPE)						
Supply (Vdc)		63 Vdc ▲						140 Vdc ▲						200 Vdc ▲						300 Vdc ▲						

*: FDC Fuse Type: F=Quick-acting
M= Medium time-lag
T=Time-lag

Δ: Forced cooling required

*: Peak current= x 1 second

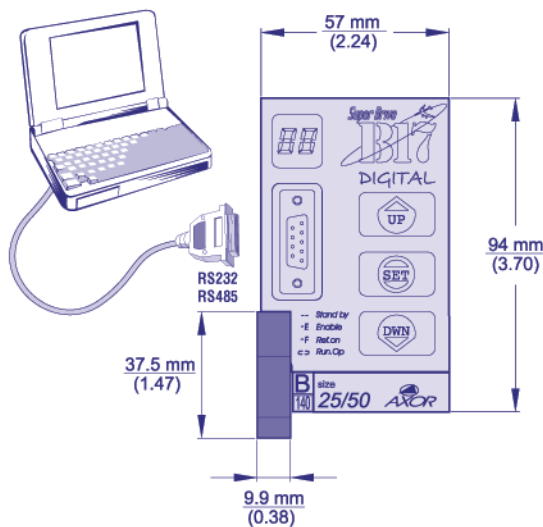
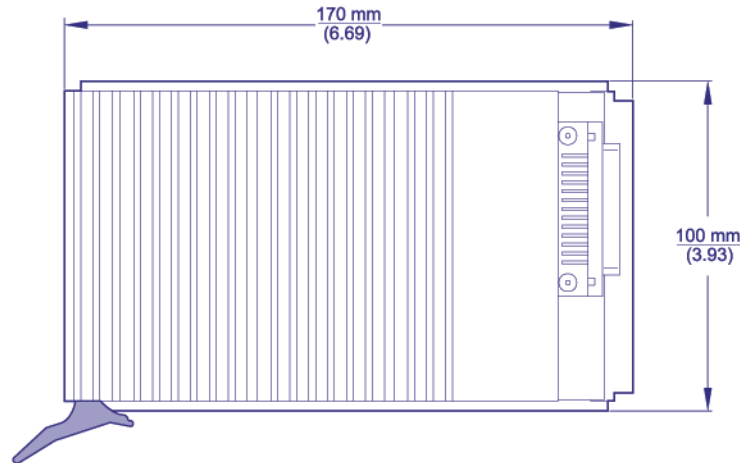
▲: Recommended DC power supply

°: Optocoupled

MECHANICAL DIMENSIONS

Drawings are not to scale (see quotations)

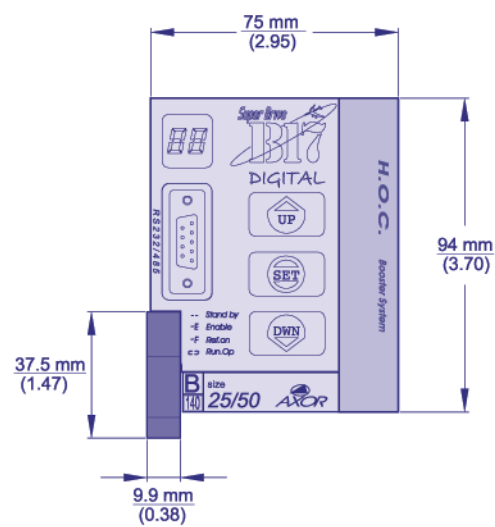
mm
(INCHES)



Standard version

13 TE

Weight: 0.8 Kg



Booster version
(Heatsink powered)

17 TE

Weight: 1.35 Kg



For the connection diagram, please see RKB (multiaxis power supply) system Data Sheet

ORDERING CODE

Example:

B17 - B140 - 20 / 40 - B - S - D - 1000 - EC - RD

NAME: Line of Brushless Servodrives

AMPLIFIER TYPE: A60 - B140 - C200 - D300

SIZE: 04/08 - 08/16 - 10/20 - 14/28 - 20/40 - 25/50*
(* = not available for B17 D 300 type)

HEATSINK VERSIONS:
N = Without Booster 13TE
B = Booster 17TE (optional)

PROTECTION:
S = Standard
T = Tropicalized

TYPE:
D = Digital
A = Analog

CONTROL MODE:
RD = Differential reference
IO = Demand current
(torque mode)

FEEDBACK:
EC = Commutation encoder
RO = Resolver
EH = Encoder+external hall

AXOR: adjustment
identification number