



B17 BOX

AC BRUSHLESS SERVODRIVE



B17 BOX®

Digital stand alone brushless servodrive for AC sinusoidal servomotors up to 20Nm (2860 oz.-in.) encoder and resolver feedback

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

STANDARD FEATURES

- ✓ Internal power supply and dumping circuit
- ✓ 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

- ✓ Supply voltage range: (B17 BOX 200) 52÷145 Vac
(B17 BOX 300) 85÷240 Vac
- ✓ 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
- ✓ Enable signals +10÷30Vdc
- ✓ Analog input reference (differential) ±10 Vdc (16 bit resolution)
- ✓ Output voltage supply +10/-10V @ 2.5mA
- ✓ Humidity (%) (without condensation) 10 ÷ 95%



DESCRIPTION

The B17 Box® Digital amplifier, is a stand alone four quadrant converter with sinusoidal wave suitable for driving AC Brushless Servomotors. Comes complete with its own internal power supply, dumping circuit and detachable plug-in terminals for easy installation. The power stage is made by power Mos-fet or Igbt.

ACCESSORIES

(see specific data sheets for details)

- ✓ SERVOMOTORS
- Ssax 1000/2000:0.35÷17Nm (50÷2428 oz.-in.)
- ✓ GEARBOXES
- Rex 100: 5 flange sizes, R ratios 1/3÷1/216
- ✓ TRANSFORMERS
- TM/TT: single/3ph 100÷8000 VA
- ✓ NET FILTERS (for CE compliance)
- FRM/FRT: single/3ph, 2÷16 Arms

MODEL	B17 BOX 200					B17 BOX 300 ° ‡				
	4/8	8/16	10/20	14/28	20/40	4/8	8/16	10/20	14/28	20/40
SIZE										
Rated Current (Arms)	4	8	10	14	20	4	8	10	14	20
Peak Current (Arms) x 2 sec.	8	16	20	28	40*	8	16	20	28	40*
F2: Supply Line Fuses (T-type = time-lag)	4 A 250 V	8 A 250 V	10 A 250 V	14 A 250 V	20 A 250 V	4 A 250 V	8 A 250 V	10 A 250 V	14 A 250 V	20 A 250 V
Supply (VAC) (3PH)	145 Vac ^					230 Vac ^				

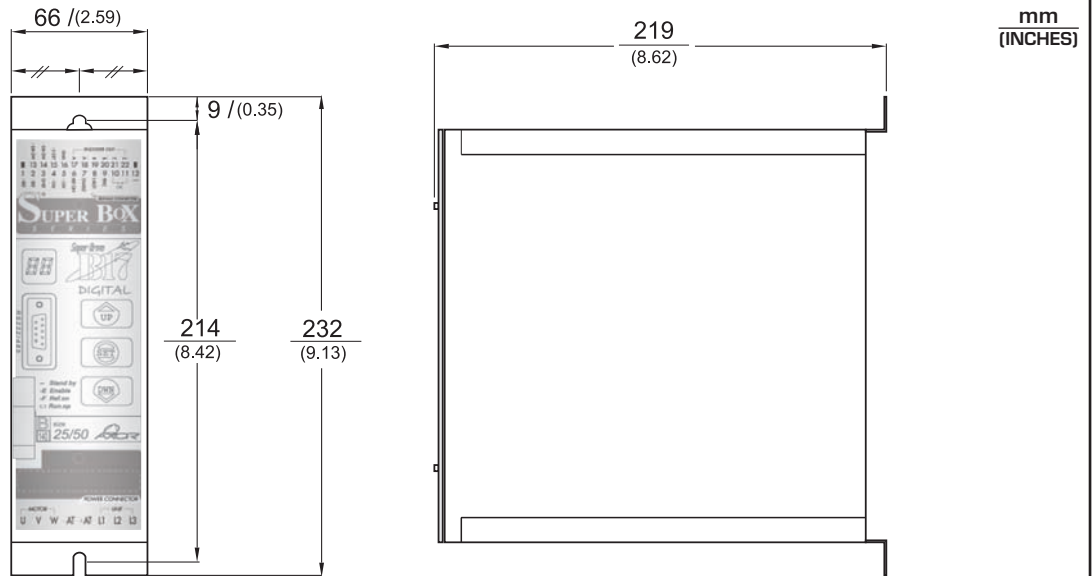
^: Recommended AC power supply

*: Peak current= x 1 second

° ‡: Optocoupled

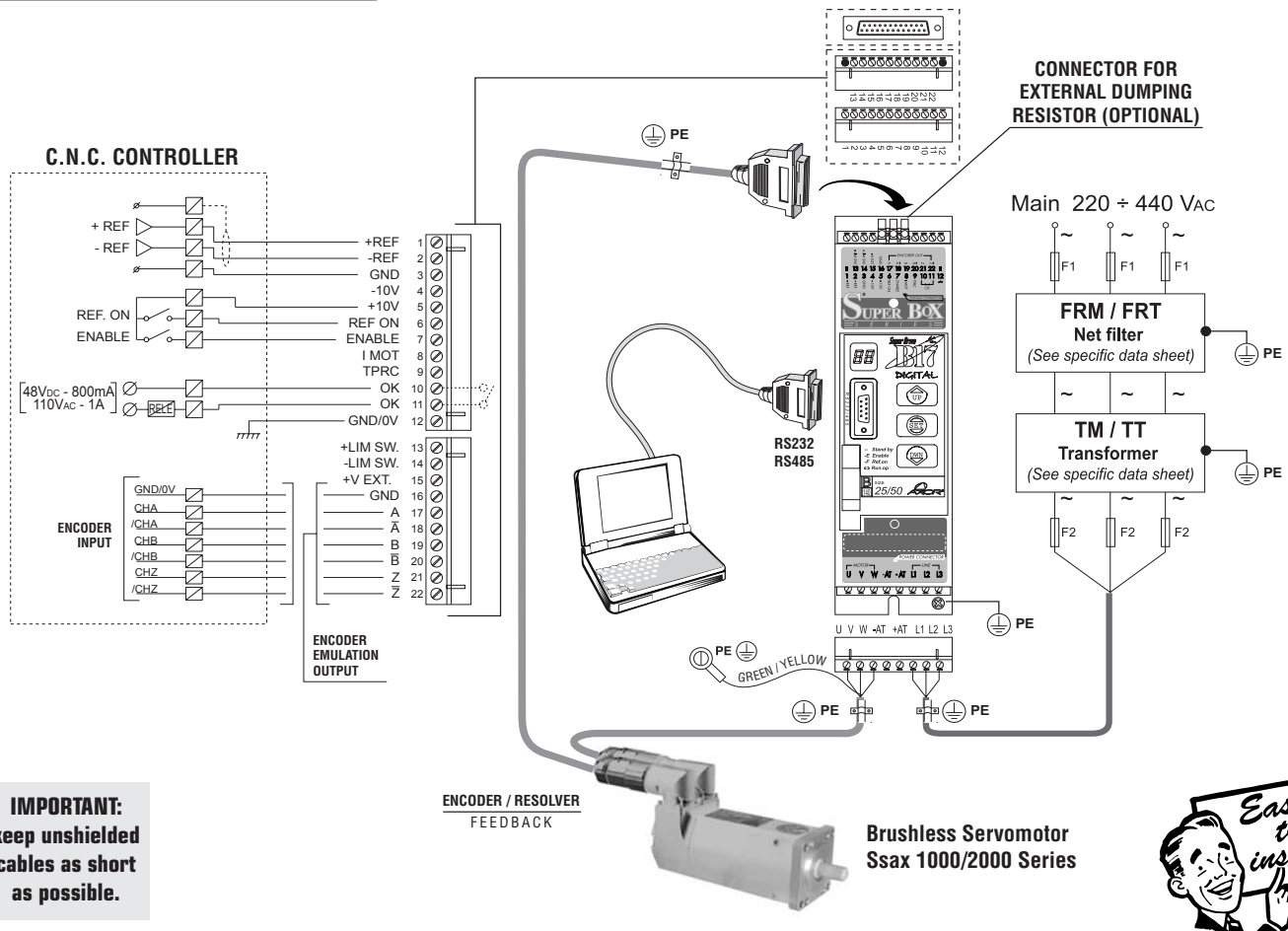
Drawings are not to scale (see quotations)

MECHANICAL DIMENSIONS



Weight: 2.9 Kg

CONNECTION DIAGRAM



IMPORTANT:
keep unshielded cables as short as possible.

ENCODER / RESOLVER
FEEDBACK

Brushless Servomotor
Ssax 1000/2000 Series



ORDERING CODE

Example:

B17 BOX - 200 - 20 / 40 - RX - S - D - 1000 / RO - RD

NAME: Ac Brushless Servodrive

AMPLIFIER TYPE: 200 - 300

SIZE: 04/08 - 08/16 - 10/20 - 14/28 - 20/40

DUMPING SIZE:

RX = internal standard resistors

R4 = 400W external resistors (optional)

R8 = 800W external resistors (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

Specifications subject to change without notice. This document has been carefully checked. However, Axor does not assume liability for errors or inaccuracies. © COPYRIGHT 2003 AXOR INDUSTRIES. All rights reserved. Printed in Italy. 12/03

Part number D.S./09.00/B17BOX/05