



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 ÷ 85%



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 lgbt.

ACCESSORIES

(see specific data sheets for details)

- ✓ SERVOMOTORS
 - Super Sax: 0.35÷17Nm (50÷2428 oz.-in.)
- ✓ 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 ⚡				
SIZE	4/8	8/16	10/20	14/28	20/40	4/8	8/16	10/20	14/28	20/40
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

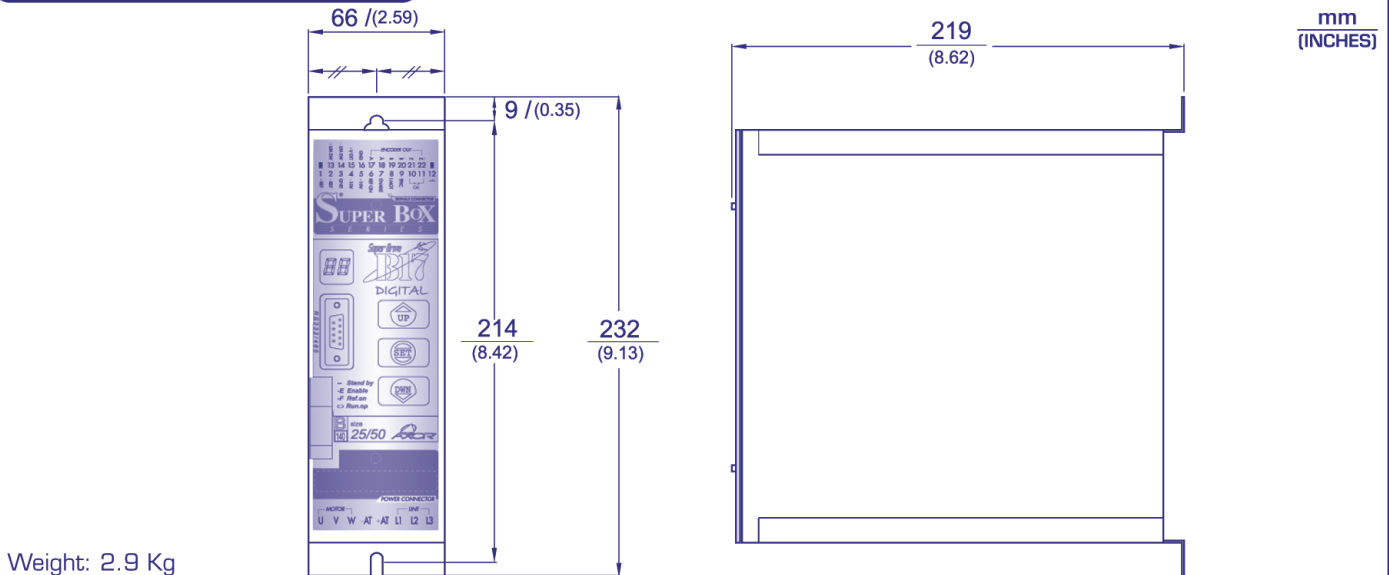
*: Peak current= x 1 second

⚡: Optocoupled

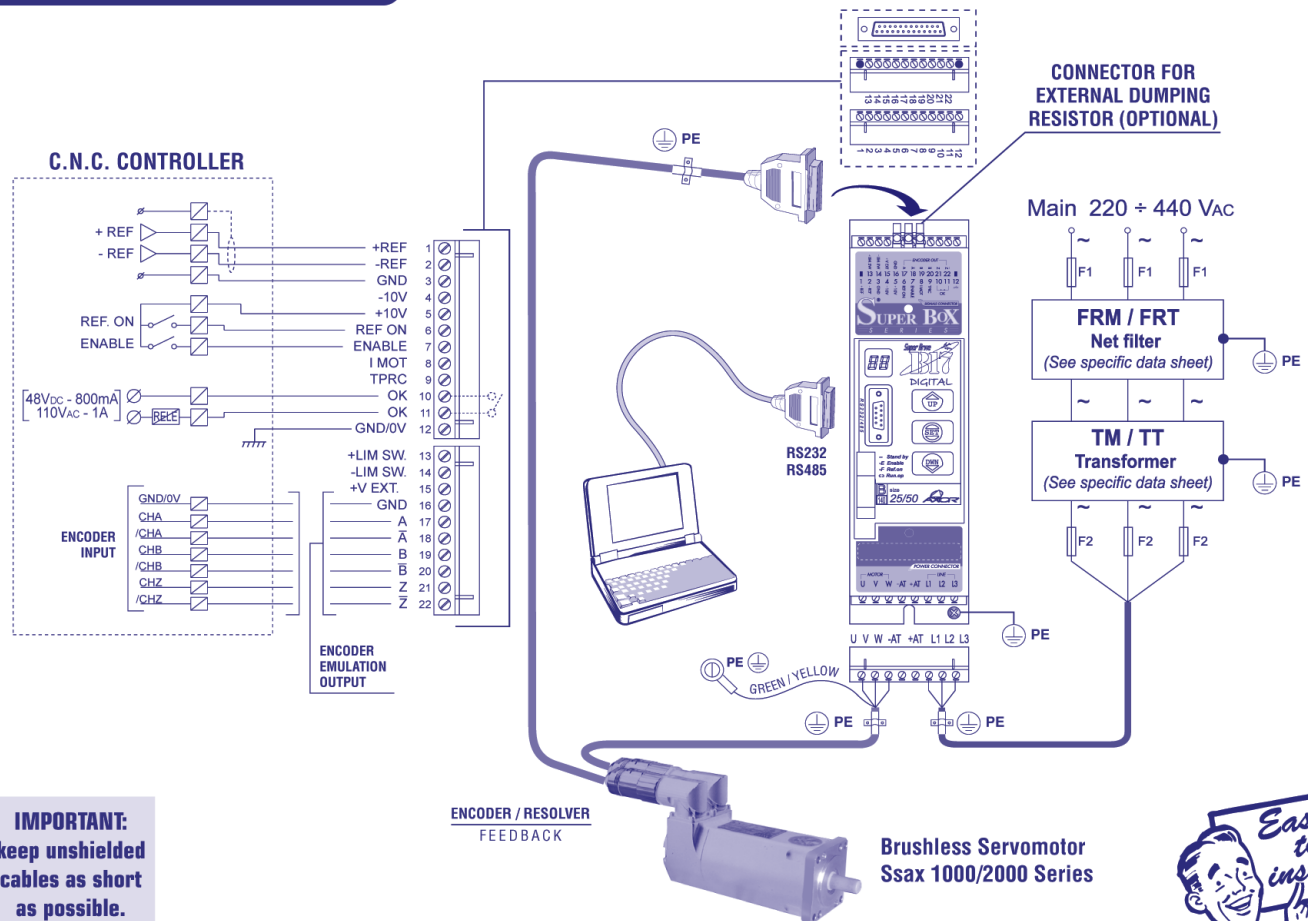
★ AXOR IND. A COMPLETE LINE OF MOTORS AND SERVODRIVES ★

Drawings are not to scale (see quotations)

MECHANICAL DIMENSIONS



CONNECTION DIAGRAM



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

AXOR: adjustment identification number

CONTROL MODE:

RD = Differential reference
IO = Demand current (torque mode)

FEEDBACK:

EC = Commutation encoder

RO = Resolver

EH = Encoder+external hall