SECTION 1 - OVERVIEW

This manual is organized so that information is easy to find and easy to use. It begins by detailing how to identify the basic electrical characteristics of Delta Drivers and Delta Motors, and provides comprehensive product specifications.

The six available Modes of Operation are then described, complete with signal wiring and parameter set up. Sections on Power and Driver Wiring, Regen Resistor selection and Dynamic and Mechanical Braking follow. A Troubleshooting section can aid you in the unlikely event that anything goes wrong.

Motor and Driver Speed/Torque Curves follow this preliminary information, allowing you to match Drivers and Motors to your specific applications. A final section which contains cables and various Mechanical Drawings round out this manual.

1.1 IDENTIFYING DELTA PACKAGES

Delta packages can be identified as follows.

Your Delta package model number uses this designation:

DELTA-XYYYYABCD,

WHERE:

X = motor series
- Blank = standard
- A = A series
- B = B series
- C = Custom
- D = D series
- E = E series

YYYY = is the rated mechanical output wattage of the package

A =
- H = 3000 rpm rated motor
- M = 2000 rpm rated motor
- L = 1500 rpm rated motor
- C = custom speed

B =
- R = resolver based system
- RA = absolute resolver sensor based system
- E = encoder based system
- EA = absolute encoder sensor based system

C =
- A = 220 VAC system, single or three phase
- B = 120 VAC system, single phase (only for smallest drive and only up to 200 watts)

D = motor and driver options where
- B = integral brake option
- I = 14 bit analog input
- J = Sourcing I/O Expansion Board
- K = Sinking I/O Expansion Board
- 1X = 1 cycle resolver
- others as defined in future

Example: A Delta package designated DELTA-120HRB is a 120-watt motor, with a 3000 rpm rated motor, a resolver based system, 120 VAC system. If this same package was equipped with an integral brake, it would be designated DELTA-120HRBB.

1.2 IDENTIFYING DELTA DRIVES

Delta Drivers can be identified as follows. This information is on the Driver label:

Your Delta Driver model number uses this designation:

DSD-CURRENT/ZYX,

WHERE:
- CURRENT = Peak Driver Current in amps (rms)
- Z = feedback method:
  - R = resolver feedback
  - E = encoder feedback
  - RA = absolute resolver feedback
  - EA = absolute encoder feedback
- Y = input voltage:
  - A = 220 VAC input (single or three phase)
  - B = 115 VAC input (single phase) - only available up to 200 watts
- X = option:
  - I = 14 bit analog input A & D converter
  - J = Sourcing I/O Expansion Board
  - K = Sinking I/O Expansion Board

Example: A Delta Driver designated DSD-8.5/RB has a peak current rating of 8.5 A rms, resolver feedback, and 115 VAC 1∅ input voltage.

1.3 IDENTIFYING DELTA MOTORS

Delta Motors can be identified as follows. This information is on the Motor label:

Your Delta Motor model number uses this designation:

DBM-SERIES WATTAGE/SPEED YZ,

WHERE:
- SERIES = Motor series
  - Blank = standard
  - A = A series
  - B = B series
  - C = Custom
  - D = D series
  - E = E series
- WATTAGE = Rated Motor Power in watts
- SPEED = Rated Motor Speed in hundreds of RPMs
- Y = feedback method:
  - R = resolver feedback
  - E = encoder feedback
  - RA = absolute resolver feedback
  - EA = absolute encoder feedback
- Z = B for a motor with an integral brake
  - T for windings with "Tropical" fungus protection
  - W for washdown sealing
  - 1X = 1 cycle resolver

Example: A Delta Motor designated DBM-120/30R is a 120-watt motor with a 3000 rpm rated speed and resolver feedback. If this same motor were equipped with an integral brake, it would be designated DBM-120/30RB. If the same motor was equipped with "Tropical" fungus protection, it would be designated DBM-120/30RT and with a brake, it would be designated DBM-120/30RBT.