AEP-300
Azimuth over Elevation
Positioning System

AEP-300 GENERAL SPECIFICATIONS

The AEP-300 antenna positioning systems consists of a two axis Azimuth-over-Elevation Positioner (AEP), controller (ACU-3D-24) and cables required for power and control of the positioner. The AEP version provides continuous azimuth rotation and a generous 3.50 inch hole through the center for cables or waveguide to the unit being rotated. The elevation mechanism is designed to handle large counter levered loads and provides up to 1200 ft lbs of torque to accommodate this type of operation.

This is a lightweight unit capable of supporting up to 300 lbs vertical load

The drive system is comprised of brushless DC servomotors with dual feedback loops, resolvers are used for velocity and commutation feedback and very durable 15 Bit Absolute Encoders are used to close the position loop. These units were designed for reliable operation in outdoor environments using the same components ARA uses to meet Mil-STD-810F requirements.

The control unit can be remotely located to facilitate integration with the end user's system. It can be controlled locally using front panel controls or remotely via serial Interface (RS-232) using simple, well defined commands. The control unit is suitable for mounting in an equipment rack and was designed to meet Mil-STD-810F for indoor operation.

RANGE of MOTION
- Azimuth: Continuous
- Elevation: -95 to +95°

POSITIONING ACCURACY
- Azimuth: ±0.2°
- Elevation: ±0.2°

CONTINUOUS TORQUE
- Azimuth: 350 ft lbs
- Elevation: 1,200 ft lbs

VELOCITY:
- Azimuth: 1 - 20 deg/sec
- Elevation: 1 - 10 deg/sec

ACCELERATION:
- Azimuth: 20 deg/sec²
- Elevation: 10 deg/sec²

POWER INPUT:
- Controller 120VAC/60Hz
- (Optional 220VAC/50Hz)

WEIGHT:
- Positioner: 220 lbs
- Controller: 30 lbs

POSITIONER:
- Operational Temperature: -20°-131°F
- Relative Humidity: 0 to 100%