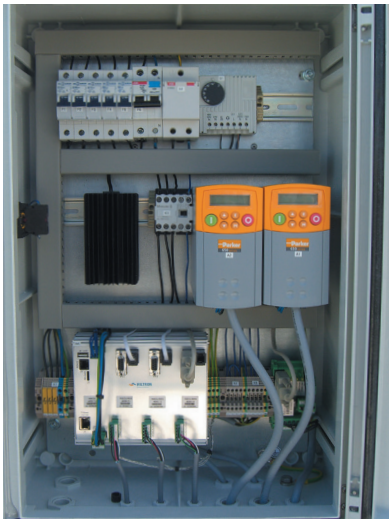
HACU - Hiltron Antenna Control Unit
for Positioning and Inclined Orbit Tracking

HILTRON Communications

High precision satellite antenna control unit for use in professional satellite communication systems.



Features

- Antenna Control Unit for positioning of up to four axis motorized antenna systems.
- All axis can be controlled and moved simultaneously.
- IP-based control from a PC running a graphical user interface compatible with standard web browsers.
- Integrated database for storage of potentially accessible satellite parameters.
- Fast positioning with three different speed steps.
- Ethernet interface for monitoring and control via SNMP.
- Serial interface for extensions, e.g. wind sensor.
- The ACU and the associated motor-control electronics are contained in a weatherproofed outdoor housing.

Options

- Extension to a satellite tracking system.
- Interface for 17 bit optical SSI encoders.
- Inclined orbit tracking.
- Handheld control unit for manual pointing.
- Integral control of third party beacon receivers.

The Hiltron HACU is a complete high precision motorized satellite antenna control unit for up to four axis motorized antenna systems and can be used in professional satellite communication systems. It combines affordability with the reliability and precision expected of professional-grade communications equipment.

The antenna control unit and associated motor-control electronics are contained in a weatherproofed outdoor housing with a hinged front access port secured by dual key screws. An emergency cut-off switch is accessible from outside of this housing. The figure (see above) shows the interior of the antenna control unit. For AZ and EL frequency inverters are used to drive three phase induction motors. One phase AC or 24V DC motor can be used to drive the polarization.

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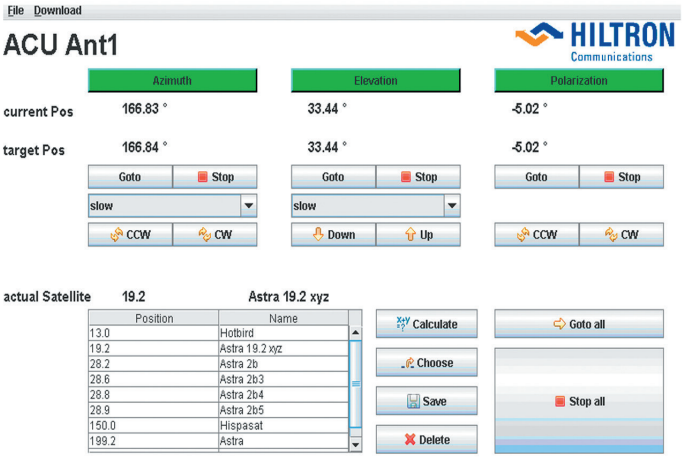
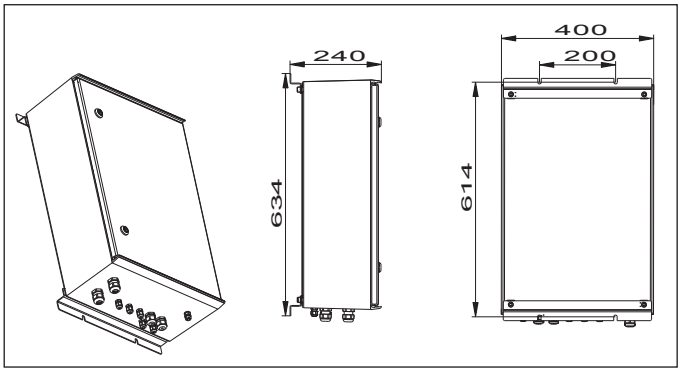
Specifications

Azimuth:	Frequency inverters for three phase induction motor. Nominal voltage: 230V, 0.75 kW
Elevation:	Frequency inverters for three phase induction motor. Nominal voltage: 230V, 0.75 kW
Polarization:	One phase 115 / 230 VAC or 24V DC motor
Power Drive:	Three different speed modes (slow/ medium/fast)
Angle measurement:	Interface for resolvers, optical SSI encoders or poti according customer requirements to be specified with the order.
Housing:	Outdoor cabinet, IP65
Ambient Temperature:	-25°C to +35°C (option: -25°C to +55°C)
Humidity:	Up to 95% non-condensing
Serial interface:	RJ11 connector, RS485 with 5V supply for extension modules.
M&C Interface:	Ethernet - Web-interface, SNMP
Additional features:	Emergency stop
Supply Voltage:	95-245VAC; 47-63Hz (for ACU) 230VAC +/- 15% single phase; 50/60 Hz 400VAC +/- 15% 3phase (alternatively) 208VAC +/- 15% 3phase (only upon special order)
Weight:	~10kg
CE safety : CE EMC: Emissions: Immunity:	EN60950-1 / UL 60950 EN 55022 Class B EN 61000-6-4 EN 61000-6-2

The antenna control unit is designed for IP-based control from a PC running a graphic user interface compatible with standard Web browsers. The control GUI (see figure below) displays all the information required to set and maintain azimuth, elevation and polarization, including current position and target position plus a database of potential accessible satellites. All relevant parameters of the frequency inverters are accessible via Web interface.

Once a satellite is selected, precise access parameters can be calculated at the press of a single button. Azimuth and elevation can be adjusted at up to three different speeds.





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