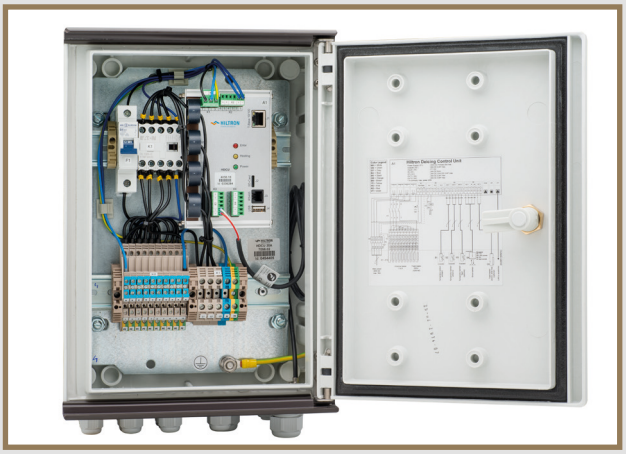
# Compact HDCU - Hiltron De-icing Control Unit

## Web-based Antenna De-icing System

Combined ***De-icing sensor*** and ***dish heating system*** for ***direct control*** of small to medium ***satellite antennas***.



### FEATURES

- 230 V single phase or 400V three phase supply.
- Three dedicated circuits for heater control to connect up to three pads per circuit.
- One additional circuit for feed or sub-reflector heater control (230 VAC).
- One circuit for feed heater control (24 VDC).
- Heater current control and protection.
- Max. current per segment (phase) 20 A.
- Processor controlled de-icing with four sensors.
- Ethernet interface for M&C.
- Web based user friendly operator interface.
- Control via SNMP.

### OPTIONS

- Logical control inputs and outputs for manual remote operation.

---

The Hiltron De-icing Control Unit HDCU is a combined de-icing sensor and heating control system built for outdoor applications. It is primarily designed for direct control of small to medium (14 kW) electric satellite antenna de-icing systems.

The Control Unit provides three antenna heater circuits plus one feed/sub reflector heating circuit for load control. Each of the three heater circuits (see figure) can supply up to three antenna heater pads. Thus in total 9 heater pads can be connected. The permitted current for the three heater circuits is controlled and monitored independently via LAN or SNMP. For the supply of a feed/sub-reflector heating with 24V, a further independent monitoring and control circuit is implemented. In case of 230V supply for feed/sub-reflector a further separately monitored heater circuit is available.

The Hiltron Antenna De-icing Control Unit provides a manual control mode. In manual operation the heater function can be switched on or off the detected currents and temperatures, are still monitored and available via Web-interface or SNMP.

Optional logical control inputs and monitoring outputs are provided to control the antenna de-icing remotely.

HILTRON GmbH Emil-Rathenau-Str. 1 · 71522 Backnang · Germany · Tel: +49-7191-343570 · info@hiltron.de · www.hiltron.de

# Compact HDCU - Hiltron De-icing Control Unit

## Web-based Antenna De-icing System


## FEATURES

**Electrical**

| | |
|---|---|
| Power consumption of Control Logic: | AC input: 85-245V; 47-63Hz; Standby power < 4 W |
| Power capability (3-phase): | Max.20A@400VAC (per phase) |
| Power capability (1-phase): | Max. 3 x 20 A@230 VAC |
| Current for 3 common supplied heater pads: | Max. 20 A@230 VAC |

**Sensors**

| | |
|---|---|
| Temperature sensors: | PT 100 (ambient)<br>PT 100 (on antenna)<br>PT 100 (on feed, option) |
| Snow sensor: | Reflective Sensor with polarization filter |

**M&C- Parameters**

| | |
|---|---|
| Heater currents limits (upper and lower threshold | Heater circuit 1/2/3 (ant. dish)<br>Heater circuit 4 for feed/sub-reflector<br>Heater - 24 V supply - for feed |
| Heater currents safety limits: | Heater circuit 1/2/3/4 and<br>Heater - 24 V supply - for feed |
| Monitoring of parameters | Currents, settings, statuses |
| Control parameters: | Thresholds for activation and deactivation of heating, heating delay |

**M&C - Interfaces**

| | |
|---|---|
| LAN interface: | Ethernet / IEEE802.3<br>Data transfer rate: 10 Mbit/s<br>Connector: RJ45<br>Communication: Web / SNMP |
| USB interface: | For maintenance<br>(data logging, software update) |
| RS485 interface: | Type: RS485<br>Connector: RJ11<br>Baud rate: 38400 Baud |
| Control input: | Option |
| Monitor output: | Option |

**Mechanical / Environmental**

| | |
|---|---|
| Size: | 250 x 350 x 160 mm³. |
| Weight: | 5.5 kg |
| Temperature: | |
| - Operating: | -30°C to +50°C |
| - Non operating | -40°C to +80°C |
| Humidity: | |
| - Operating: | 5% to 95% non-condensing |
| - Non operating: | 0% to 100% non-condensing |
| Housing: | IP66 |
| CE safety: | EN60950-1 / UL 60950 |
| CE EMC: | EN 55022 Class B |
| Emissions: | EN 61000-6-4 |
| Immunity: | EN 61000-6-2 |



HILTRON GmbH Emil-Rathenau-Str. 1 · 71522 Backnang · Germany · Tel: +49-7191-343570 · info@hiltron.de · www.hiltron.de