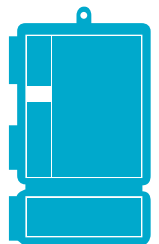




## IntelliPEAK 900™

Discover how the next generation Digital Control Unit can empower you to make better decisions about energy use.



# IntelliPEAK

Over 4.5 million Comverge Digital Control Units (DCU) have been successfully deployed and installed at over five hundred North American utilities, making our hardware and software solution the most trusted and widely deployed direct load management solution in North America.

Our next generation DCU IntelliPEAK 900 delivers more features and functions the energy efficiency program requires.

IntelliPEAK 900 has the ability to individually control up to four loads if desired, saving hardware and installation costs over the program life. A single IntelliPEAK 900 can be used to control both HVAC and water heater installations. Each device can be individually controlled through separate commands or they can both be controlled with a single command.

## Features

- Built-in ZigBee communication
  - Remote test port to allow testing outside the house
  - Migration to AMI HAN network using Smart Energy Profile (SEP) v1.0
- Multiple communication protocols available
  - ZigBee
  - 900 MHz
  - VHF
  - Combination of ZigBee/900 MHz or ZigBee/VHF
- Improved VHF receiver
  - Synthesized local oscillator for 8 MHz band frequency tuning
  - Improved interference rejection performance
- Supports wideband (25KHz) or narrowband (12.5KHz) channels
- Standard POCSAG communication protocol
- Flexible outputs to control HVAC and/or appliances
  - Maximum four relay outputs with relay mapping
- Flexible control strategies
  - Cycling
  - Adaptive cycling to eliminate “free-riders”
  - Randomization for smooth in/out transitions
- Flexible group addressing to control single or multiple devices (VHF)
  - Hierarchical group addressing
  - Four million individual addresses
- Smart profiling and event logging with timestamp

## Control Capabilities

The IntelliPEAK 900 is capable of controlling a single or multiple loads, including:

- Summer peaking applications:
  - HVAC control
  - Pool motors
  - Backyard spas
  - Electric vehicle chargers
  - Electric hot water heaters
- Winter peaking loads:
  - Electric hot water heaters
  - Electrically resistive strip heat

## Specification

The electronic components are housed in a weatherproof, hinged enclosure of high-impact polycarbonate (NEMA 4 rated). The enclosure is intended to be mounted on or near the load being controlled. Alternatively, it can be mounted indoors near the air handler to control the strip heat and water heater.

### Options

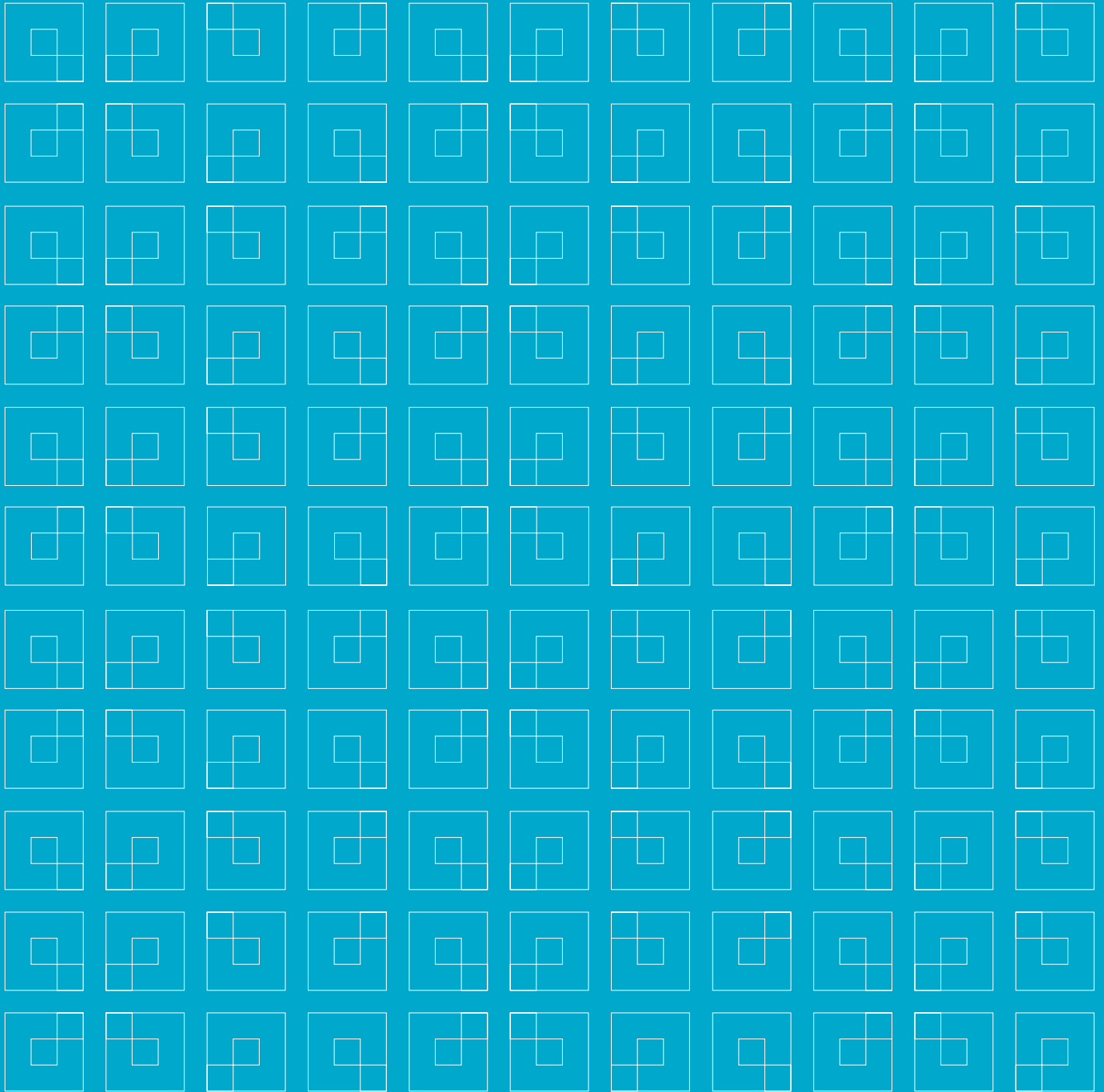
- Alternate operating voltages
- User-selectable combinations of 5 amp relays, 30 amp relays, and relay drivers
- Wideband or narrowband VHF receiver
- ZigBee only option

## Technical Data

| PHYSICAL DATA       |   |
|---------------------|---|
| Temperature         | -30 to 60° C  |
| Humidity            | 0% to 95% (non-condensing)  |
| Electrical input    | 240 VAC, optional: 120, 120/208/240, 240/480 VAC  |
| Power consumption   | Less than 10VA  |
| Surge capability    | ANSI C37.90-2002  |
| Relay rating/cycles | On-board: 24VAC, 5 Amp<br>Off-board: 240VAC, 30 Amp Resistive<br>Approximately 25,000 cycles at rated loads |
| Regulatory          | FCC part 15; ANSI C37.90-2002 (SW); UL Listed   |
| Packaging           | Injection molded, high-impact poly-carbonate  |

| VHF RECEIVER    |  |
|-----------------|--|
| Frequency range | 139 to 174 MHz , 25KHz or 12.5KHz spacing  |
| Channels        | Tunable within 8 MHz band  |
| Selectivity     | 50 dB image rejection; 60 dB Adjacent Channel Rejection  |
| Sensitivity     | Greater than 20 $\mu$ v/m sensitivity (internal antenna)<br>Greater than 10 $\mu$ v/m sensitivity (external antenna) |
| Data Rate       | 1200 Bps (25KHz bandwidth) or 512 Bps (12.5KHz bandwidth)  |
| Communications  | One-way POSCAG Paging Protocol   |

| ZIGBEE TRANSCEIVER |  |
|--------------------|--|
| Frequency range    | 2.4 GHz  |
| Channels           | 16   |
| Output Power       | 100 mW (+20 dBm)   |
| Data Rate          | 250 KBps   |
| Sensitivity        | -96 dBm  |
| Range              | Indoor/Urban: Up to 300 ft. (90m) line of sight                        |
| Communications     | Secure two-way communication with Energy Service Portal or Smart Meter |



## Corporate Offices

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