R2ESIA06

Equipment description
The Handset is a battery powered thermostat with a Liquid Crystal Display (LCD).
The Handset utilises Radio Frequency technology to communicate with the
Evaporative Cooler Power module (ECP05) and Cooler Power Module (CPMD). By
sensing the room temperature and controlling the operations of the fan and pump via
the ECP05 and CPMD, the Handset can be used to control the comfort level of a
building. In addition, the Handset provides features like programmable time
operations, pump and drain valve control, Water manager operation, time of day
clock, economy mode, automatic and manual control modes.

Specifications
Battery Requirements
(Note these can change based on processor and transmitter selection)
Operating Voltage   : 4.5v d.c.
Batteries   : 3 x 1.5v d.c. (AAA alkaline)
Battery life   : minimum 2000 hours of operation (2 years)
Memory Backup   : 3 minutes after batteries removed once "Battery Low"
is
  indicated, assuming no buttons are pressed
Operating Temperature
Operating temperature   : 0 C to 40 C
Storage temperature   : 0 C to 50 C
Relative humidity   : 0 to 85% non condensing

Transmission Frequency And Range
Carrier frequency   : 433.92 ±0.4 MHz
Signal frequency   : 300 Hz
RF Output Power   : 5.8uW max
Modulation   : ASK
Range   : 50 metres

Periodic Transmission
When operating   : sends the data packet once every 2 minutes to 10
minutes
When off   : none

Data Packet
Packet size   : 3 x 6 byte packets (8 bits per byte), total 18 bytes
Byte 1   : Preamble 0ffH fixed
Byte 2   : Header 0aaH fixed
Bytes 3 - 5   : Data 00H to 07fH variable
Byte 6   : CRC (last byte) 00H to 0ffH variable