

CELLWATCH SPECIFICATIONS - Battery Monitoring Unit (BMU)

Computer Characteristics

Laptop Computer	IBM A20M, Pentium III with 5 gigabyte hard drive (25"X22"X12"), 508 mm x 305 mm x 508 mm, SRAM, floppy and CD player
Operating System	Microsoft Windows '98
Software	NDSL BMU applications

Physical Characteristics

Height, depth, Width	100mm x 200mm x 300mm (25"X22"X12")
Enclosure materials	Steel with powder coating, plexiglass lockable front cover.
Color	Pebble grey back and sides
Mounting centers	4 corner mounting holes 260mm x260mm (10 7/32" x 10 7/32") centers
Mounting Hole size	8mm (5/16") diameter

CELLWATCH SPECIFICATIONS - Control Unit (CU)

Operating Specifications

Ambient operating T°	Voltage readings 0C to 50C Storage Temperature -10°C to 80°C
Power supply	Manually switchable 110 VAC or 230 VAC UPS supply
Power supply range	80 VAC to 135 VAC 160 VAc to 270 VAC
Power supply frequency	50HZ to 60 HZ
Power supply rating	Max. 5Va (15mA quiescent current)

Communications

RS485 Interface	Input and Output with optional Jumper for termination
Max. range	300 meters (1000 ft) total bus length
Fiber optic range	Min 150mm (6") max 50 meters (150 ft)
Max. CUs per RS485 bus	31

Alarm outputs

Outputs relays	4 relays, single contact volts free
Electrical characteristics	30Vdc @ 8 amps max
Electrical distortion	1500 Vac
contact material	AgCdO
Service life	50 million operations, min.

Protection

Sensing outputs	Short circuit proof
Insulation resistance	600 volts DC

Sensing inputs

Temperature sensor	Solid state probe
Resolution	0.05 degrees C - accuracy : +/-1 degree C (pending final test of TT/E/008)
Range	2 to 80 degrees C
Mounting	8mm (5/16")
Current sensor	Solid state, ferrite core sprung clamp
Sensitivity	1m V/1A
Resolution	0.5A
Usefull range	+/-25 to 1000A
Communication rate	9600 baud

CELLWATCH SPECIFICATIONS - Control Unit (CU) (continued...)

Physical characteristics

Length, Depth, Width	(11 7/8" x 11 3/4" x 43/4") - 301,6 mm x 298,4 mm x 120,6 mm
Enclosure material	Steel with powder coating
Color	Pebble Grey
Mounting centers	4 corner mounting holes, 260mm x 260mm (10 7/32" x 10 7/32") centers.
Mounting Hole size	8mm (5/16") diameter

CELLWATCH SPECIFICATIONS - Data Collection Module (DCM)

Voltage Measuring characteristics

Voltage measuring range	0 volts to 60 volts on any one input channel
Resolution	15mV
Accuracy	2 volts nominal source +/-1.0% - 6 volts nominal source +/-0.5% 12 volts nominal source +/-0.25%

Protection

Transient Suppression	Up to 600VDC. 1Kw at
Short circuit	100uS pulses non repetitive fitted
Reverse polarity protection	Any combination, in any connection order, for any period of time with in the rated voltage

Ri Measuring characteristics

Ri Measuring range	0.25 to 29.5Mohm
Resolution	100uohm
T° co-efficient of reading	3uohm/C (-5 to +80C at nominal 1Mohm)
Communication rate	9600 baud
Max. DCMs per control unit	254

Fibre optic loop

Fibre optic range	M in 150mm (6") Max 50 meters (150 ft)
Cable length	(All leads must be bundled together as much as possible) Min 100mm (4") max variation between cables on one unit 2 meters (6ft6")

Temperatures

Operating temperature	(in voltage measurements mode) 0C to 50 C
Operating temperature	(in resistance (R1) measurement mode) 0C to 35C
Storage temperature	-0C to 80C
Ri/hetsink trip temperature	107 at source
Power supply, normal	from 4x2v cells up to 4x12V monoblocs (jars)
Power supply, voltage	Min 6.5 volts DC

Operating current

Quiescent current	25 mA (0.025AH)
During resistance testing	Additional 0.0027A/Hr

Physical characteristics

Length, Depth, Width	117mm x 64mm x 46mm (4 5/8" x 2 17/32" x 1 27/32")
Mounting pads	2 x "3M Dual Lock™ & SJ3552" 50mm (2")
Mounting hole centers	3.2mm (1/8") 100mm centers (3.92")
Enclosure material	ABS
colour	Black