

Since
1985



BATTERY HEALTH MONITORING SYSTEM



Model No.

FEATURES

BHMS Monitors:

- ◆ Bank & Individual Battery / Cell voltages
- ◆ Charging, Discharging currents
- ◆ Load currents (Optional)
- ◆ Internal Resistance (Optional)
- ◆ Ambient temperature of Battery environment
- ◆ Temperature of Batteries / Cells (Optional)
- ◆ Charged AH, Discharged AH & Net charge of Battery Bank
- ◆ Various reports for identifying the failures & utilization of Battery Bank

ADVANTAGES

- ◆ 24X7 Continuous monitoring
- ◆ State of Battery bank (Charging / Discharging / Idle)
- ◆ Identification of weak Batteries / Cells prior to failure extends the Battery / Cell life
- ◆ System downtime helps to reduce
- ◆ Performance of Battery bank & their utilization can be assured
- ◆ Remote monitoring of Single or Multiple Battery Banks - saves time
- ◆ Purchasing of Batteries / Cells through planned schedules, not emergency replacement
- ◆ Documentary evidence for Battery / Cell warranty issues
- ◆ Visual and Audible alarms in case of any failure
- ◆ Complete Isolation from Battery Bank
- ◆ Battery / Cell failure is easily identified in stand alone Battery bank

SPECIFICATIONS

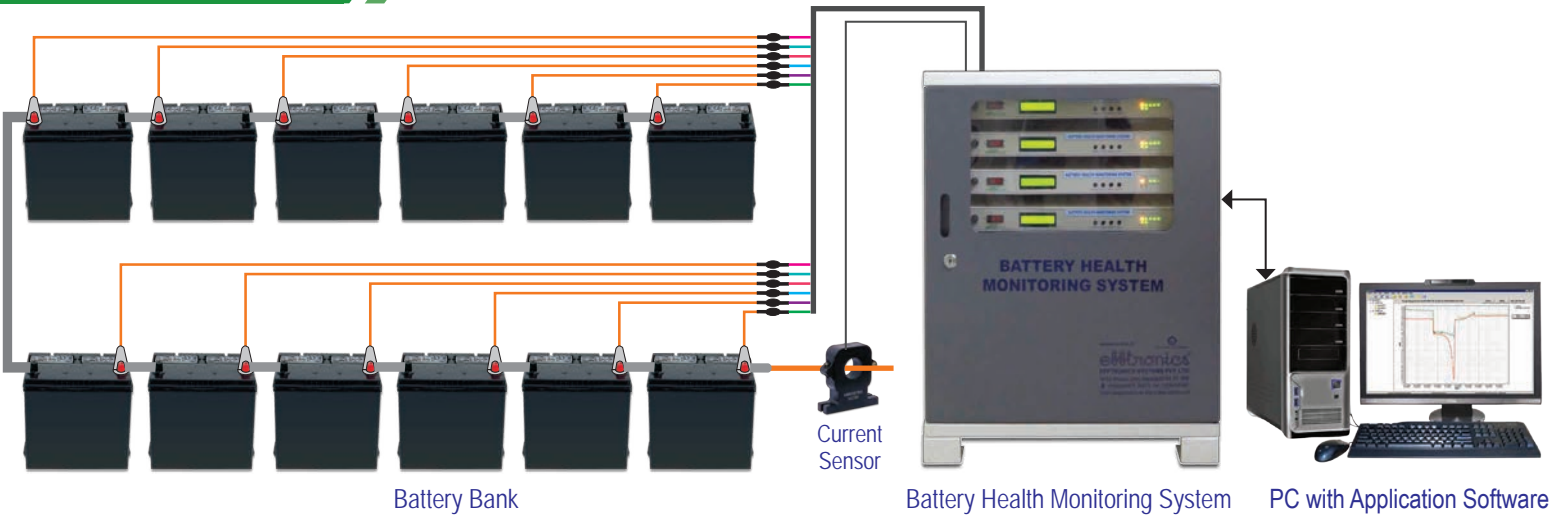
Specification		Description	
Operating Voltage Conditions			
Rated Voltage	+24V DC		
Operating Voltage	+18V to +36V DC		
Nominal Input Current	400mA at +24V DC		
Operating Temperature Range	0°C to 85°C		
CPU	ARM based Micro-controller System		
Communication & Memory Details			
Communication Interface	RS232, RS485, USB 2.0, Ethernet (TCP/UDP), MODBUS		
Memory	Latest 10 lack events permanent storage		
Networking of BHMS modules	Wired or Wireless		
System Inputs & Outputs			
Parameter	Channels	Range	Accuracy
Voltage	21 including 1 Bank voltage	0 - 18V / 0 - 3V	±1% in 2V to 15V, 0.5V to 2.5V
Current	3	0 to 300A With 0-50A / 0-100A / 0-200A / 0-300A (Selectable Sensors)	±2% in 20% to 80%, ±5% in <20%, >80% of the sensor rating
Temperature	On-board temperature, Ambient temperature, 20 Batteries/Cells temperatures	-25°C to +100°C	±1°C
Internal Resistance	20	0 to 10Ω	±5%
Potential free contacts	2	12V, 1A	
Digital inputs	2	12V, 160mA	
User Interface			
Faults Indication	Buzzer		
Visual Indication	LED Indications for Power ON, System Health & Communication status		
User Interface	Remote and Local display for all measuring Battery / Cell parameters, Net AH, Communication & Faults		

"A PRODUCT DEVELOPMENT COMPANY"

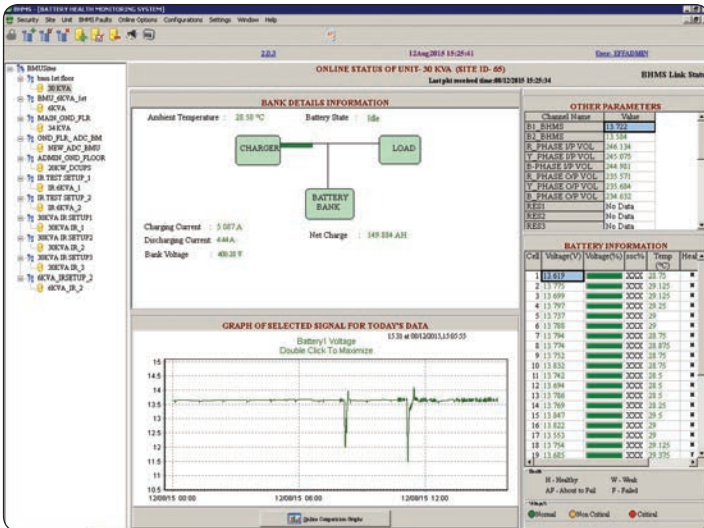
BATTERY HEALTH MONITORING SYSTEM



SYSTEM CONECTIVITY



SOFTWARE

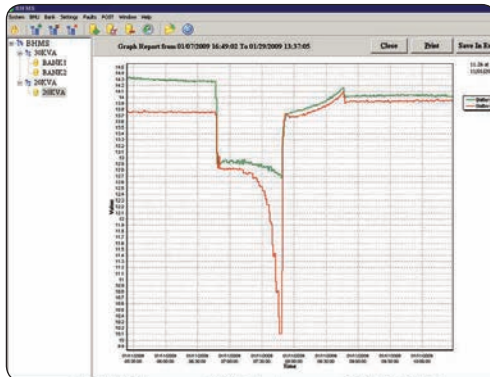


Main screen shows the online status of Battery bank state i.e; 'Charging' or 'Discharging' or 'Idle', Bank parameters, Net charge, Battery / Cell parameters



Graphical representation of Bank parameters, Battery / Cell parameters at a glance

REPORTS



Graphical comparison of failed battery and healthy battery.

BANK NAME	STATE	AH	AH %	START	END	EXPIRATION	AMB. TEMP(C)	MIN.	MAX.	AVERAGE	MIN.	MAX.	AVERAGE	POWER
SP BATT BANK	Charging	12.357	41.1	11/30/2011	11/30/2010	01/18/13	39	39	39	8.8	10.72	9.976	1.34617	
SP BATT BANK	Discharging	31.471	103.1	11/30/2011	11/30/2010	02/15/47	38	38.5	38.25	13.44	15.6	14.62	3.46181	
SP BATT BANK	Charging	20.214	67.1	11/30/2011	11/30/2010	01/19/14	38.5	38.5	38.5	8.065	10.88	9.422	2.22554	
SP BATT BANK	Discharging	23.067	73.7	11/30/2011	11/30/2010	01/18/57	37.5	38.5	38	13.6	18.495	15.059	2.53737	
SP BATT BANK	Charging	11.633	39	11/30/2011	11/30/2010	00/33/29	37.5	37.5	37.5	3.969	4.664	4.1333	1.28205	
SP BATT BANK	Discharging	0.006	0	11/30/2011	11/30/2010	00/00/08	37.5	37.5	37.5	5.44	5.44	5.44	0.00066	
SP BATT BANK	Charging	34.103	111.4	11/30/2011	11/30/2010	03/05/35	37.5	39	38.16	5.704	12.44	10.37	3.75139	
SP BATT BANK	Discharging	0.004	0	11/30/2011	11/30/2010	00/00/20	38.5	38.5	38.5	1.021	8.544	4.784	0.00044	
SP BATT BANK	Charging	1.332	0.4	11/30/2011	11/30/2010	00/14/40	38.5	38.5	38.5	8.32	10.33	9.381	0.14852	
SP BATT BANK	Discharging	0.004	0	11/30/2011	11/30/2010	00/02/07	38.5	38.5	38.5	2	9.072	5.556	0.00044	
SP BATT BANK	Charging	1.868	0.6	11/30/2011	11/30/2010	00/17/53	38.5	38.5	38.5	8.72	7.337	8.0248	0.20548	
SP BATT BANK	Discharging	0.008	0	11/30/2011	11/30/2010	00/02/56	38.5	38.5	38.5	1.587	12.48	7.034	0.00088	
SP BATT BANK	Charging	8.138	27	11/30/2011	11/30/2010	02/37/35	38.5	40.5	40.16	3.227	6.96	6.105	0.89518	
SP BATT BANK	Discharging	40.73	136	11/30/2011	11/30/2010	02/39/23	39.5	39.5	39.5	5.968	14.4	11.712	4.4803	
SP BATT BANK	Charging	18.449	61	11/30/2011	11/30/2010	02/04/19	39	40	39.5	3.453	11.28	8.48	2.02039	
SP BATT BANK	Discharging	40.492	136	11/30/2011	11/30/2010	02/35/05	37.5	40	38.5	0	17.48	12.34	4.47612	
SP BATT BANK	Charging	13.404	43	11/30/2011	11/30/2010	02/00/04	37.5	37.5	37.5	6.556	11.53	8.62	1.48434	

Battery State Report shows the changes in Battery / Cell state i.e; 'Charging' or 'Discharging', AH value, net charge, power and other parameters.



Historical trends of all Battery bank parameters and Battery / Cell parameters

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