

SMART.UP

NEW SYSTEM FOR BATTERY AND FORKLIFT MONITORING



SmartUP is a device designed for the monitoring and control of lead batteries. Its main features are:

- Measurement of the instantaneous battery data including voltage, current, available Ah and temperature. An indication of the amount of Ah available is provided by LEDs on the panel
- Built-in RTC (Real Time Clock) to build a log of the data collected with date and time
- Storage of historical data. The history of the battery can be viewed on a PC using the SmartViewII software application. The data collected can be viewed grouped by working cycle or by day. For each working cycle the data is presented both in figures and graphics
- Data download to a PC: Through a USB connection, all data can be sent to the SmartViewII PC program
- Data download to a USB memory dongle: inserting a USB memory dongle into the SmartUP USB port, it is possible to upload all of the stored data. Afterwards, connecting the dongle to a PC, it is possible to import all of the fleet data using the SmartViewII.
- Statistical analysis. SmartViewII has numerous functions able to provide statistics to check the correct use of the battery and the charge reporting any anomaly

It monitors battery data:

- Measure of instantaneous data: V, I, T, Ah
- Storage and analysis of old data
- Statistical analysis
- Upload data to a PC

Technical data:

Stored working cycles	400
Current and voltage graphic data	11400 samples (47 days setting Samplig Time = 6min)
Stored daily data	Last 30 days

WORKING RANGE:

Current size: T200	Suitable for batteries from 100Ah to 340Ah
Current size: T400	Suitable for batteries from 350Ah to 740Ah
Current size: T800	Suitable for batteries from 750Ah to 1500Ah

ELECTRICAL DATA:

Power supply min ÷ max	18V ÷ 144V
Avarage absorbed power	< 1.5W
Internal protection	Fuse at the supplì port
Working temperature	-20°C ÷ +50°C

Physical data:

Mechanical size	60mm x 60mm x 130mm
Weight	200g
Protection grade	IP 54

SUMMARY

#	Start Discharge	DisT hh:mm	StartV V/ce	Ah→	MinV V/ce	Soc %	Start Charge	ChaT hh:mm	Ah←	IStop A	StopV V/ce	Soc %
23	27/05/13 15:49	0:00	-	0	54.61	-	27/05/13 15:49	0:08	10	69.3	2.22	-
22	27/05/13 15:49	0:00	-	0	54.61	0	00/00/00 00:00	0:00	0	0.0	0.00	0
21	27/05/13 15:36	0:00	-	0	54.61	-	27/05/13 15:37	0:00	0	0.0	0.00	-
20	27/05/13 15:36	0:00	-	0	54.61	0	00/00/00 00:00	0:00	0	0.0	0.00	0
19	27/05/13 15:26	0:00	-	0	54.61	25	27/05/13 15:26	0:00	0	0.0	0.00	25
18	27/05/13 12:54	2:30	2.26	127	1.84	0	00/00/00 00:00	0:00	0	0.0	0.00	25
17	27/05/13 12:54	0:00	-	0	54.61	-	27/05/13 12:54	0:00	0	0.0	0.00	-
16	27/05/13 12:54	0:00	-	0	54.61	0	00/00/00 00:00	0:00	0	0.0	0.00	0
15	27/05/13 12:41	0:00	-	0	54.61	-	27/05/13 12:42	0:00	0	0.0	0.00	-
14	27/05/13 12:41	0:00	-	0	54.61	0	00/00/00 00:00	0:00	0	0.0	0.00	0
13	27/05/13 12:28	0:00	-	0	54.61	100	27/05/13 12:28	0:00	0	0.0	0.00	100
12	27/05/13 11:52	0:12	54.61	10	2.01	96	27/05/13 12:10	0:17	11	23.2	2.39	100
11	25/05/13 19:12	3:18	54.61	167	1.65	39	27/05/13 09:42	1:53	152	24.0	2.38	100
10	24/05/13 19:04	3:21	2.22	169	1.65	19	25/05/13 15:09	3:44	177	10.8	2.38	100
9	24/05/13 15:27	1:47	2.27	91	1.91	56	24/05/13 17:15	1:46	94	12.5	2.38	100
8	23/05/13 18:13	3:16	2.29	166	1.65	20	24/05/13 09:06	5:08	191	6.7	2.37	100
7	23/05/13 15:42	0:52	54.61	44	1.94	79	23/05/13 16:41	1:30	51	8.6	2.39	100
6	23/05/13 15:42	0:00	-	0	54.61	100	23/05/13 15:42	0:00	0	0.0	0.00	100
5	23/05/13 10:16	1:17	2.28	65	1.92	69	23/05/13 11:34	3:16	83	6.8	2.38	100
4	22/05/13 18:28	0:00	-	0	54.61	-	22/05/13 18:28	1:07	27	6.6	2.39	-
3	22/05/13 18:28	0:00	-	0	54.61	0	00/00/00 00:00	0:00	0	0.0	0.00	0
2	25/02/13 15:14	2:51	2.22	144	1.65	-	26/02/13 08:39	6:45	186	6.7	2.36	-
1	25/02/13 15:08	0:00	-	0	54.61	-	00/00/00 00:00	0:00	0	0.0	0.00	-

The data analisys can be done an intuitive way. You can consult the "Monthly Summary" Tab.

On a table are shown all of the battery working cycles:

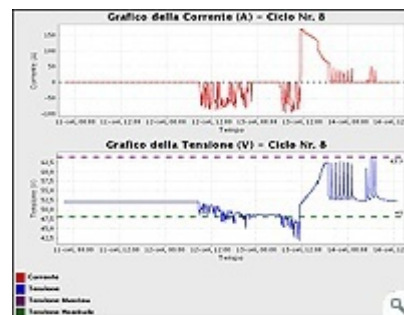
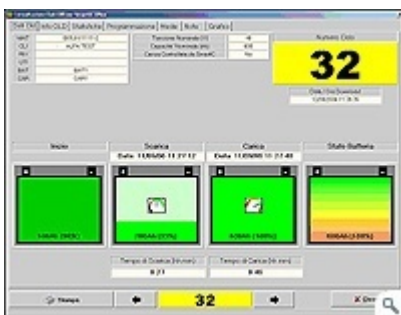
1. In blu the discharging phase

2. In orange the charging phase

The anomalies are indicated with red dots :

3. Low electrolyte level
4. Overdischarged Battery
5. Timer 1° phase
- 6 Timer 2° phase
7. Overrecharge
8. Low battery efficiency
9. Recharging not completed

WORKING CYCLE VIEW (with SmartViewII)



400 working cycles stored (Discharge/Recharge)

- Discharging time and capacity
- Recharging time and capacity
- Detailed working data
- Battery faults during the battery use and recharge

Battery voltage and current diagrams

- Working cycle Data e Time
- Zoom capability

Parametri di Scarica	Parametri di Ricarica
Numero di Cicli: 32 (0/100) (0/100) Tempo di Scarica: 30:22 (0/100) Tempo di Ricarica: 00:00 (0/100) Rapporto di Fase della Scarica: 30:22 (0/100)	Numero di Cicli: 32 (0/100) (0/100) Tempo di Scarica: 30:22 (0/100) Tempo di Ricarica: 00:00 (0/100) Rapporto di Fase della Ricarica: 30:22 (0/100)
Capacità Batteria (C10): 420 Ah (100%) Capacità Batteria (C20): 390 Ah (93%) Capacità Batteria (C50): 330 Ah (79%) Capacità Batteria (C100): 280 Ah (67%) Capacità in Fase Scarica: 207 Ah (49%)	Capacità Batteria (C10): 420 Ah (100%) Capacità Batteria (C20): 390 Ah (93%) Capacità Batteria (C50): 330 Ah (79%) Capacità Batteria (C100): 280 Ah (67%) Capacità in Fase Ricarica: 420 Ah (100%)
Temperatura Batteria (Superf): 33.5 °C	Temperatura Batteria (Superf): 33.5 °C

