

Excellent Technology, Efficiency and Quality

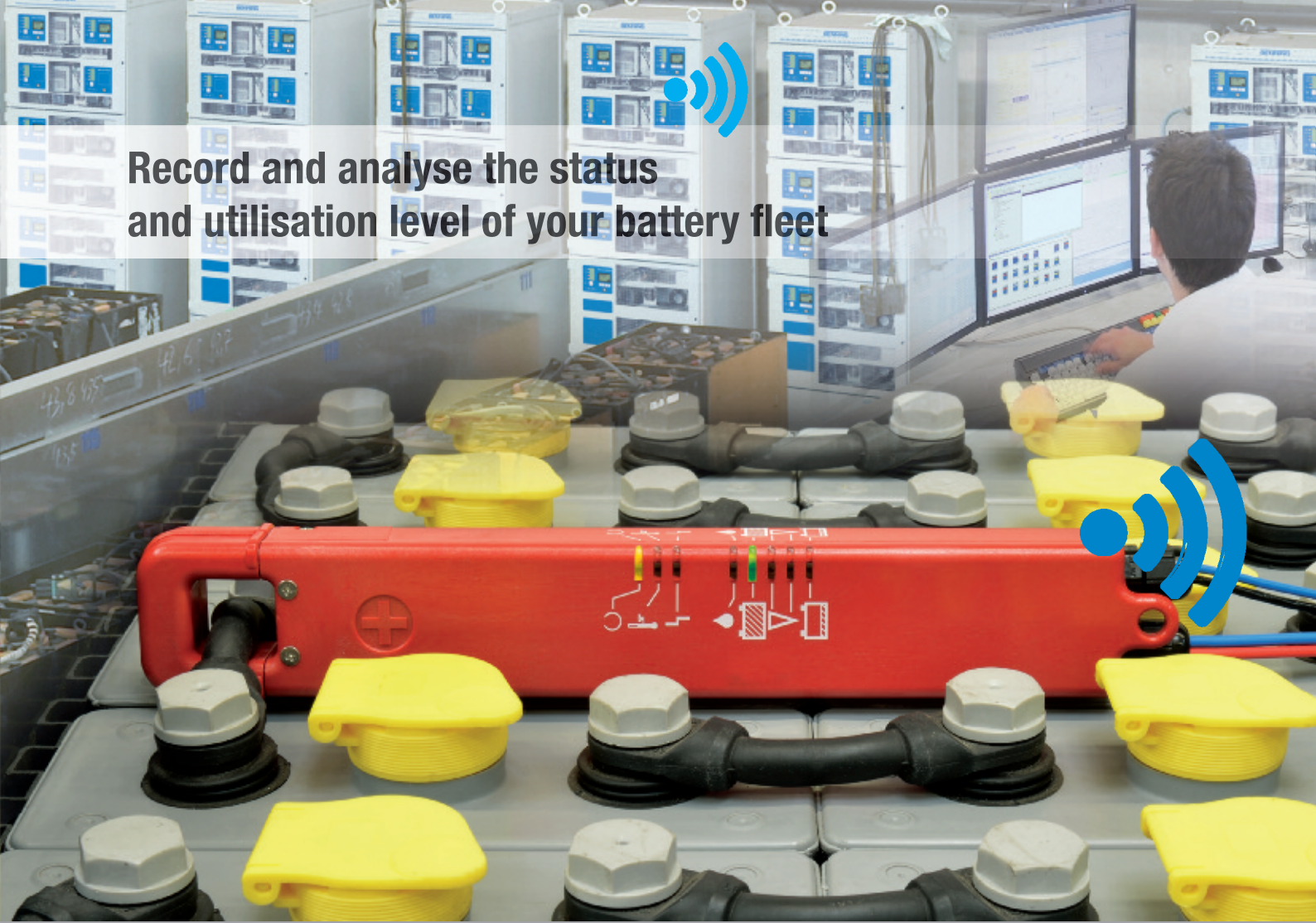


BATCOM plus

Battery controller with radio transmission



Record and analyse the status and utilisation level of your battery fleet



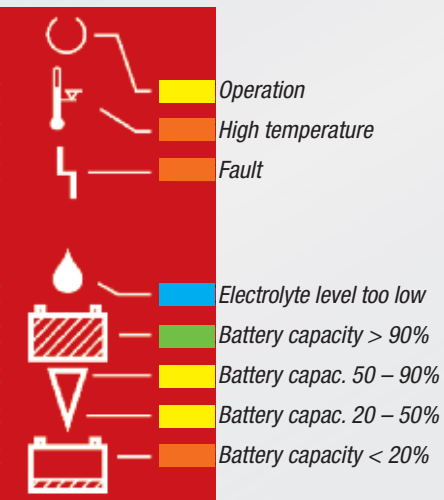
BATCOM plus batteries Battery controller with radio transmission

It is essential for battery-powered forklifts to have a good availability level these days in order to operate reliably and efficiently.

Diagnostic and maintenance instructions by means of coloured LED indicators

The BATCOM plus battery controller has an extremely robust housing and can be fitted to the top of lead-acid batteries without using special tools.

Fig. 1: LED indicators in the housing of the BATCOM plus signal the following operating statuses:



Monitoring of the charging and discharging behaviour of the drive batteries and the battery temperatures and electrolyte levels is important for maximising the operational status of the vehicle fleet.

The recording of battery data and monitoring of the battery status are also extremely important in the continuously expanding leasing and rental business with long operating period assurances.

With the BATCOM plus battery controller with radio communication it is possible to record, store and query the relevant operating data that is communicated between the forklift, the drive battery and the charger.

The LED indicators in the housing of the BATCOM plus also signal the following: Operation, high battery temperature, fault, low electrolyte level and current charge status (Fig. 1).

In order to record the battery current, the BATCOM plus has a current measuring head which can be opened and fitted to any cell connector or a bypass cable.

The voltage measurement with automatic voltage detection (range 18-150V DC) is carried out at the pole terminals of respective drive battery.

The sensors for battery temperature and electrolyte level monitoring are connected to the BATCOM plus using cables.

The temperature probe is inserted between the middle cells of the drive battery, and the sensor for monitoring the electrolyte level is installed through a cell cover with appropriate hole.

The memory of the BATCOM plus battery controller has the capacity to store 2000 sets of discharge / charge information together with the date, the time and the duration.

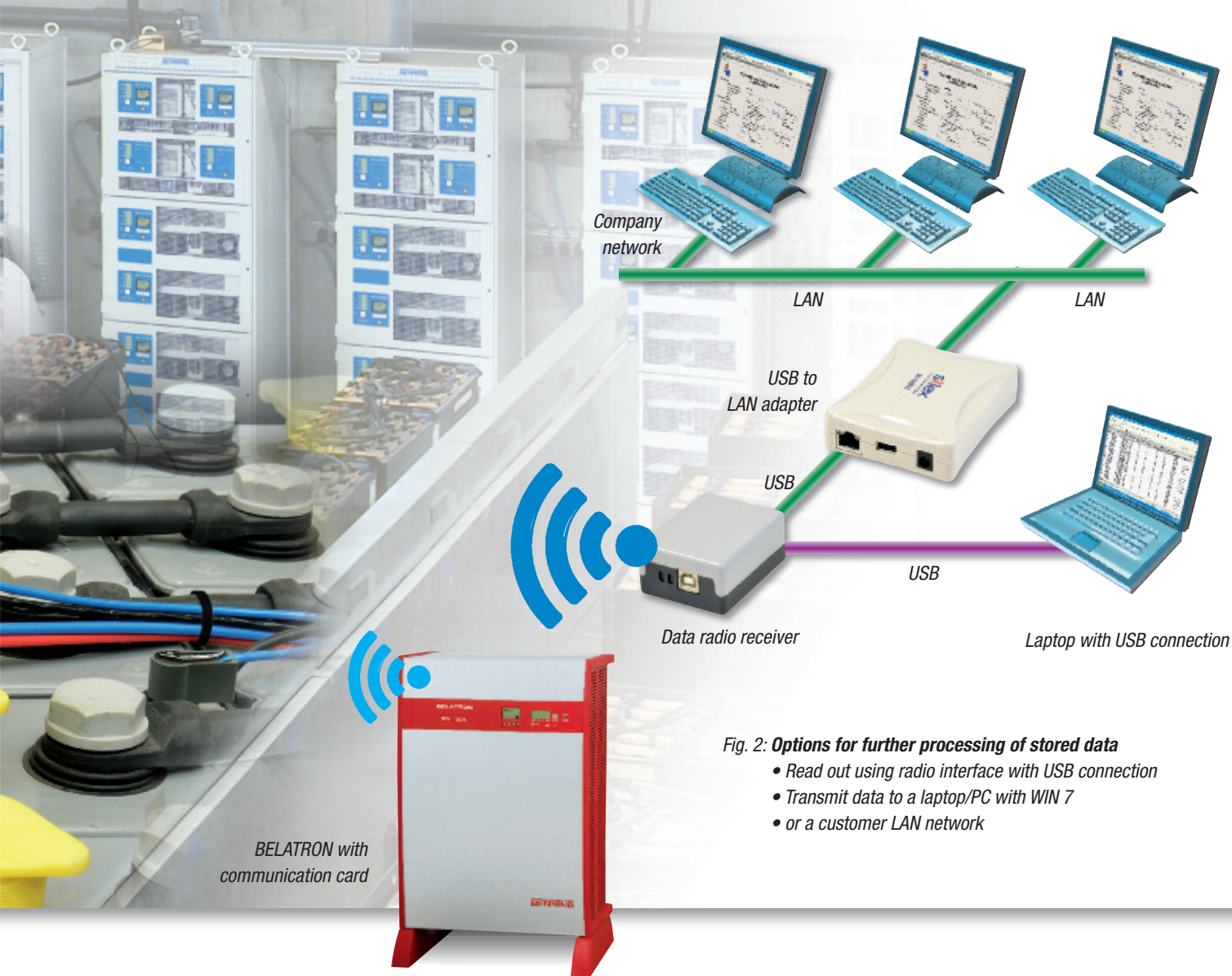


Fig. 2: Options for further processing of stored data

- Read out using radio interface with USB connection
- Transmit data to a laptop/PC with WIN 7
- or a customer LAN network

The following data is stored:

Sum total data:

- Number of charging cycles
- Number of intermediate charging cycles
- Frequency and duration of low electrolyte level
- Frequency and duration of high and low temperature levels
- Frequency and duration of deep discharging

The following are displayed with the date and time:

- Charging/discharging data
- High and low temperature
- Low electrolyte level
- Deep discharging
- Amount of current loaded and removed (Ah) during the respective charging and discharging cycles

Fig. 2 shows options for further processing of the data stored in the BATCOM plus.

The battery data can be prepared in tables and analysed using the optional Traction Monitor Software (figs. 3 and 4).

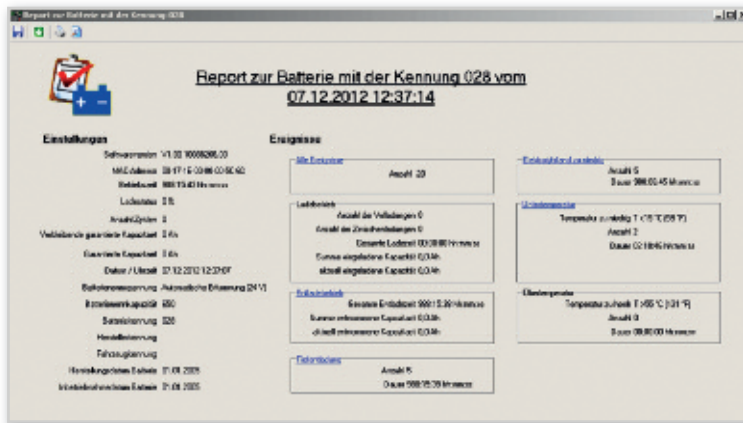


Fig. 3: Battery report

Nummer	Typ	Beginn/Tag	Seitenspannung [V]	Ergebnis [Ah]	Seitenspannung [V]	Ladestufe [V]	Temperatur [°C]	Ursache [Minuten]	Ursache
1	Start Ladung	27.08.2012 17:40:12	52,71	30	26	90	4	00:00:00	
2	Start Entladung	27.08.2012 17:40:12	52,71	30	26	90	4	00:00:00	
4	Start Ladung	24.08.2012 15:45:00	54,54	71	29	82	10	02:14:00	
6	Start Ladung	24.08.2012 15:45:00	53,51	70	26	90	8	11:02:15	Alle Vektoren...
6	Start Entladung	25.08.2012 14:45:00	52,52	91	27	90	8	00:25:54	
7	Start Ladung	27.08.2012 02:40:13	55,10	30	26	41	209	06:58:19	Alle Vektoren...
8	Start Entladung	28.08.2012 03:40:13	55,10	30	26	41	209	06:58:19	
9	Start Ladung	04.12.2012 12:42:23	55,10	30	24	60	24	15:40:25	Alle Vektoren...
9	Start Entladung	04.12.2012 12:42:23	55,10	30	24	60	24	15:40:25	
11	Start Ladung	18.12.2012 02:20:22	59,84	46	28	90	49	00:17:36	Alle Vektoren...
11	Start Entladung	18.12.2012 02:20:22	59,84	46	28	90	49	00:17:36	
13	Start Ladung	11.12.2012 05:40:40	57,51	33	27	90	47	06:57:12	Alle Vektoren...
13	Start Entladung	11.12.2012 05:40:40	57,51	33	27	90	47	06:57:12	
14	Start Ladung	18.12.2012 11:42:46	52,71	132	23	90	23	14:42:20	Alle Vektoren...
14	Start Entladung	18.12.2012 11:42:46	52,71	132	23	90	23	14:42:20	
18	Start Ladung	18.12.2012 18:40:37	55,53	31	26	23	252	00:20:38	Alle Vektoren...
18	Start Entladung	18.12.2012 18:40:37	55,53	31	26	23	252	00:20:38	
19	Start Ladung	23.12.2012 05:40:12	57,43	20	24	147	147	00:17:40	Alle Vektoren...
19	Start Entladung	23.12.2012 05:40:12	57,43	20	24	147	147	00:17:40	
19	Start Ladung	26.12.2012 18:20:02	55,54	30	24	23	207	16:17:58	Alle Vektoren...
19	Start Entladung	26.12.2012 18:20:02	55,54	30	24	23	207	16:17:58	
20	Start Ladung	27.12.2012 05:40:12	59,84	42	28	90	49	03:02:18	Alle Vektoren...
20	Start Entladung	27.12.2012 05:40:12	59,84	42	28	90	49	03:02:18	
21	Start Ladung	01.12.2012 05:40:12	55,51	30	24	23	23	184:26:57	Alle Vektoren...
21	Start Entladung	01.12.2012 05:40:12	55,51	30	24	23	23	184:26:57	
23	Start Ladung	08.12.2012 02:20:22	59,82	46	28	90	49	00:17:36	Alle Vektoren...
23	Start Entladung	08.12.2012 02:20:22	59,82	46	28	90	49	00:17:36	
24	Start Ladung	07.12.2012 05:40:12	52,71	132	23	90	23	14:42:20	Alle Vektoren...
24	Start Entladung	07.12.2012 05:40:12	52,71	132	23	90	23	14:42:20	
26	Start Ladung	13.12.2012 05:40:12	60,80	17	26	90	80	00:00:00	Alle Vektoren...
26	Start Entladung	13.12.2012 05:40:12	60,80	17	26	90	80	00:00:00	
27	Pause Ld	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	Alle Vektoren...
27	Pause Ld	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	
28	Start Ladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	Alle Vektoren...
28	Start Entladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	
36	Start Ladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	Alle Vektoren...
36	Start Entladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	
37	Start Ladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	Alle Vektoren...
37	Start Entladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	
38	Start Ladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	Alle Vektoren...
38	Start Entladung	26.12.2012 17:40:37	55,53	6	26	62	8	05:42:25	
39	Start Ladung	27.12.2012 05:40:12	52,71	132	23	90	23	14:42:20	Alle Vektoren...
39	Start Entladung	27.12.2012 05:40:12	52,71	132	23	90	23	14:42:20	
39	Start Ladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	Alle Vektoren...
39	Start Entladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	
39	Start Ladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	Alle Vektoren...
39	Start Entladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	
39	Start Ladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	Alle Vektoren...
39	Start Entladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	
39	Start Ladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	Alle Vektoren...
39	Start Entladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	
39	Start Ladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	Alle Vektoren...
39	Start Entladung	27.12.2012 18:20:02	59,84	42	28	90	49	03:02:18	

Fig. 4: Event list

BENNING worldwide**Austria**

Benning GmbH
Elektrotechnik und Elektronik
Eduard-Klinger-Str. 9
3423 ST. ANDRÄ-WÖRDERN
Tel.: +43 (0) 22 42 / 3 24 16-0
Fax: +43 (0) 22 42 / 3 24 23
E-mail: info@benning.at

Belarus

1000 BENNING
ul. Belorusskaya, 51-25
224025, BREST, REPUBLIK BELARUS
Tel.: +375 (0) 1 62 / 97 47 82
Fax: +375 (0) 1 62 / 29 33 77
E-mail: info@benning.brest.by

Belgium

Benning Belgium
Power Electronics
Z. 2 Essenestraat 16
1740 TERNAT
Tel.: +32 (0) 2 / 5 82 87 85
Fax: +32 (0) 2 / 5 82 87 69
E-mail: info@benning.be

Croatia

Benning Zagreb d.o.o.
Trnjanska 61
10000 ZAGREB
Tel.: +385 (0) 1 / 6 31 22 80
Fax: +385 (0) 1 / 6 31 22 89
E-mail: info@benning.hr

Czech Republic

Benning CR, s.r.o.
Zahradní ul. 894
293 06 KOSMONOSY
(Mladá Boleslav)
Tel.: +420 / 3 26 72 10 03
Fax: +420 / 3 26 72 25 33
E-mail: odbyt@benning.cz

France

Benning
conversion d'énergie
43, avenue Winston Churchill
B.P. 418
27404 LOUVIERS CEDEX
Tel.: +33 (0) / 2 32 25 23 94
Fax: +33 (0) / 2 32 25 13 95
E-mail: info@benning.fr

Germany

Benning Elektrotechnik und Elektronik
GmbH & Co. KG
Factory I: Münsterstr. 135-137
Factory II: Robert-Bosch-Str. 20
46397 BOCHOLT
Tel.: +49 (0) 28 71 / 93-0
Fax: +49 (0) 28 71 / 932 97
E-mail: info@benning.de

Great-Britain

Benning Power Electronics (UK) Ltd.
Oakley House
Hogwood Lane
Finchampstead
BERKSHIRE
RG 40 4QW
Tel.: +44 (0) 1 18 / 9 73 15 06
Fax: +44 (0) 1 18 / 9 73 15 08
E-mail: info@benninguk.com

Hungary

Benning Kft.
Power Electronics
Rákóczi út 145
2541 LÁBATLAN
Tel.: +36 (0) 33 / 50 76 00
Fax: +36 (0) 33 / 50 76 01
E-mail: benning@vnet.hu

Italy

Benning Conversione di Energia S.r.l.
Via 2 Giugno 1946, 8/B
40033 CASALECCHIO DI RENO (BO)
Tel.: +39 0 51 / 75 88 00
Fax: +39 0 51 / 6 16 76 55
E-mail: info@benningitalia.com

Netherlands

Benning NL
Power Electronics
Peppelkade 42
3992 AK HOUTEN
Tel.: +31 (0) 30 / 6 34 60 10
Fax: +31 (0) 30 / 6 34 60 20
E-mail: info@benning.nl

Poland

Benning Power Electronics Sp. z o.o.
Korczykowska 30
05-503 GŁOSKÓW
Tel.: +48 (0) 22 / 7 57 84 53
Fax: +48 (0) 22 / 7 57 84 52
E-mail: biuro@benning.biz

P. R. China

Benning Power Electronics (Beijing) Co., Ltd.
Tongzhou Industrial Development Zone
1-B BeiEr Street
101113 BEIJING
Tel.: +86 (0) 10 / 61 56 85 88
Fax: +86 (0) 10 / 61 50 62 00
E-mail: info@benning.cn

Russian Federation

Russian Federation
000 Benning Power Electronics
Schelkovskoye chausse 5
105122 MOSCOW
Tel.: +7 4 95 / 9 67 68 50
Fax: +7 4 95 / 9 67 68 51
E-mail: benning@benning.ru

Serbia

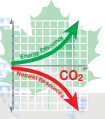
Benning Power Electronics doo
Srbija
Kornelija Stankovića 19
11000 BEOGRAD
Tel.: +381 (0) 11 / 3 44 20 73
Fax: +381 (0) 11 / 3 44 20 73
E-mail: info@benning.co.rs

Slovakia

Benning Slovensko, s.r.o.
Kukurická 17
83103 BRATISLAVA
Tel.: +421 (0) 2 / 44 45 99 42
Fax: +421 (0) 2 / 44 45 50 05
E-mail: benning@benning.sk

ISO
9001ISO
14001

SCC

**South East Asia**

Benning Power Electronics Pte Ltd
85, Defu Lane 10
#05-00
SINGAPORE 539218
Tel.: +65 / 68 44 31 33
Fax: +65 / 68 44 32 79
E-mail: sales@benning.com.sg

Spain

Benning Conversión de Energía S.A.
C/Pico de Santa Catalina 2
Pol. Ind. Los Linares
28970 HUMANES, MADRID
Tel.: +34 91 / 6 04 81 10
Fax: +34 91 / 6 04 84 02
E-mail: benning@benning.es

Sweden

Benning Sweden AB
Box 990, Hovslagarev. 3B
19129 SOLLENTUNA
Tel.: +46 (0) 8 / 6 23 95 00
Fax: +46 (0) 8 / 96 97 72
E-mail: power@benning.se

Switzerland

Benning Power Electronics GmbH
Industriestrasse 6
8305 DIETLIKON
Tel.: +41 (0) 44 / 8 05 75 75
Fax: +41 (0) 44 / 8 05 75 80
E-mail: info@benning.ch

Turkey

Benning GmbH
Türkiye İrtibat Bürosu
Can Sokak No: 7/B
34742-KOZYATAĞI
Kadıköy/İstanbul - Turkey
Tel.: +90 (0) 2 16 / 4 45 71 46
Fax: +90 (0) 2 16 / 4 45 71 47
E-mail: b.dinler@benning.de

Ukraine

Benning Power Electronics
3 Sim'yi Sosnykh str.
03148 KYIV
Tel.: +380 (0) 44 / 5 01 40 45
Fax: +380 (0) 44 / 2 73 57 49
E-mail: info@benning.ua

U.S.A.

Benning Power Electronics, Inc.
1220 Presidential Drive
RICHARDSON, TEXAS 75081
Tel.: +1 2 14 / 5 53 14 44
Fax: +1 2 14 / 5 53 13 55
E-mail: sales@benning.us

BENNING

Excellent Technology, Efficiency and Quality



BATCOM digital+

- Battery monitoring
- Status indicator
- Data logger
- BLUETOOTH® communication





Simple installation using a flexible attachable current measuring device (Hall sensor)



The BATCOM digital+ is a current measuring device for recording the current from a battery. It opens easily and can be attached to any cell connector or discharge cable without having to undo the cell connector. Voltage measurement with automatic voltage detection (range 18 V – 120 V DC) is done at the pole terminals of the relevant drive battery.

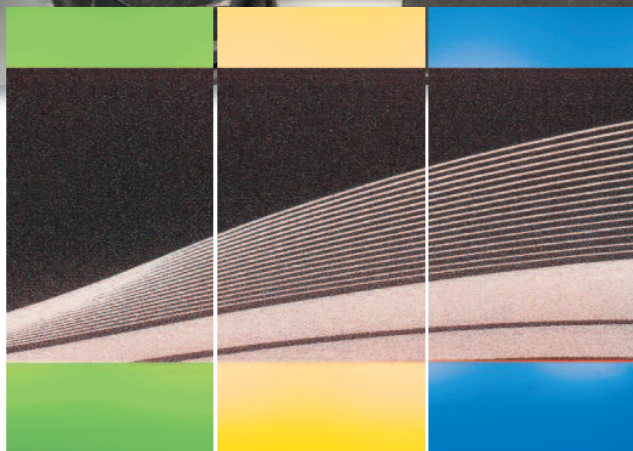
The smart generation of battery controllers with bidirectional communication

A high level of availability for electric industrial trucks is now essential for safe and efficient operation. Checking the charge-discharge behaviour of the drive batteries, as well as monitoring battery temperatures and electrolyte levels, are important measures for ensuring the fleet remains in operation for as long as possible.

In the leasing and rental business, long service life guarantees means that recording and documenting battery data, as well as monitoring the condition of the battery, are also of great importance.

The new BATCOM digital+ generation of battery controllers allows relevant operational data about the interactions between the industrial truck, drive battery and charger to be easily recorded, saved and accessed at any time via Bluetooth® communication.

The battery controller has a very robust and compact housing that is easily attached to the top side of lead acid batteries without requiring any special tools.



Freely configurable LED indicator display

Status: Low battery charge

Status: Electrolyte level too low

The large LED status indicator is visible from a distance and clearly shows various information, data and notifications such as:

- battery temperature
- faults
- low electrolyte level
- current charging status

With this concept BENNING is bringing the tried-and-tested and clear indicator lamp system, used for decades on charging units, to the new battery controllers. The desired colour combinations and associated notifications can be individually programmed and selected via software.



Simple communications between charger, battery controller and computer or smartphone/tablet

The new BATCOM digital+ generation of battery controllers developed by BENNING offers a high degree of reliability and flexibility. The wireless communication allows a bidirectional data exchange.

Using the appropriate app for a range of different devices and Bluetooth® low energy technology, you can set up a quick and uncomplicated connection with a PC and mobile devices such as tablets and smartphones.

Another key advantage: Communication with high-efficiency charging units from the BELATRON range. It allows optimal coordination for various things such as

- adaptation of charging behaviour depending on battery temperature (e.g. in cold store applications or high ambient temperatures)
- transfer of battery data for configuring optimal charging parameters
- optimisation of operational charging processes

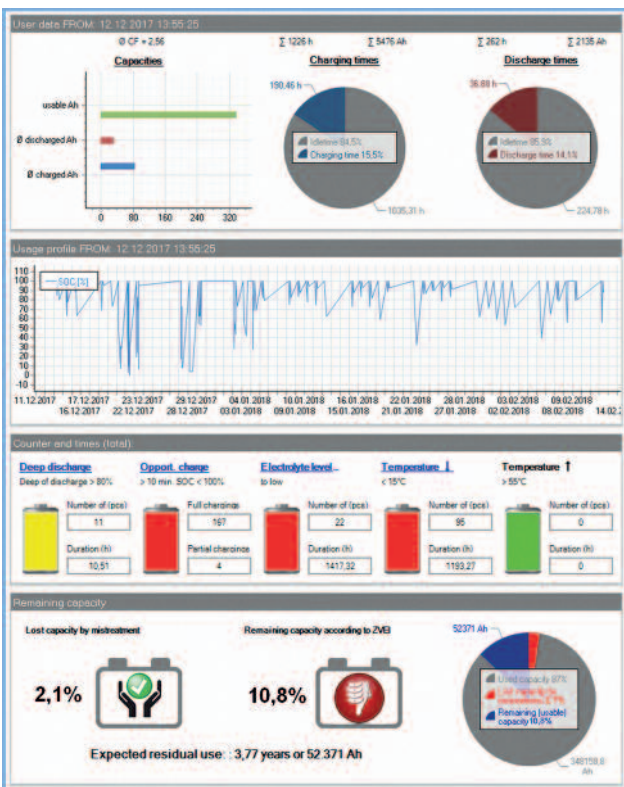
Maximum availability and operational security

Technical features:

- integrated data logger for comprehensive battery use evaluation
- integrated event logging for recording battery parameters
- integrated statistics counter for the entire life cycle of the battery
- detailed battery report with just one click



Visualisation of key battery data, e.g. charging status, temperature, battery voltage and current.



BATCOM digital+	
Voltage range	18 – 120 V DC
Current draw	max. 60 mA at 18 V DC
Current measurement range	± 3.5 – 1000 A
Operating temperature range	-10 to 60 °C
Permitted storage temp.	-20 to 60 °C
Relative humidity	< 90 %
Permitted altitude	up to 2000 m above sea level
Protection class	IP 65 according to EN 60529
Casing	PC-GF10 plastic casing, resistant to diluted sulphuric acid with an acid density of up to 1.4 kg/l
Dimensions (L x H x W)	
Controller	144 x 44 x 20 mm
Measurement device	65 x 47 x 22 mm Hole diameter = 20.8 mm
Weight	
(without / with measurement device)	245 g / 400 g
Standards	
	2014/35/EU – Low voltage directive
	2014/30/EU – Electromagnetic compatibility
	Shock and vibration tested according to IEC 68-2-29 and IEC 68-2-6
Part numbers	
BATCOM digital+	10175218
BATCOM digital	10176522 (version without measurement device)

Clear and easy to understand usage report containing battery data

The Bluetooth® word mark and logo are registered trademarks of Bluetooth SIG, Inc.



The LCD display shows clear and detailed information about the battery, e.g. voltage, current charging status, temperature, time elapsed since last charge, as well as information about faults such as deep discharge, low electrolyte levels and temperature problems.

Special features of the new BATCOM digital+ battery controller

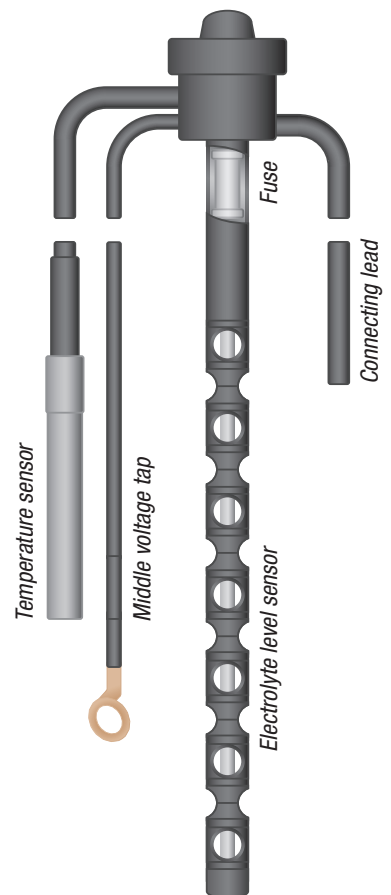
- Current measurement using a Hall sensor in a flexibly attachable current measurement head
- Bidirectional data transfer using Bluetooth® low energy technology
- Large programmable LED status indicator
- Digital display for e.g. voltage, charging status, temperature, etc.
- Software for system analysis (desktop/mobile)
- Compact dimensions for easy attachment
- One battery controller for all battery voltages and capacities

The multifunction sensor developed exclusively for the BATCOM digital+ combines three measurement functions in one smart system.

Installation of the sensor for electrolyte monitoring is done using a cell cover in the intended area.

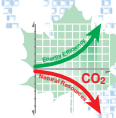
To check the battery temperature, the temperature probe is simply inserted between the middle cells of the lead acid battery.

The medium voltage reading is used to monitor battery symmetry. This allows the early detection of invisible cell defects so that appropriate measures can be taken to avoid any disruption to operation.



BENNING worldwideISO
9001ISO
14001ISO
50001

SCCP

**Austria**

Benning GmbH
Elektrotechnik und Elektronik
Eduard-Klinger-Str. 9
3423 ST. ANDRÄ-WÖRDERN
Tel.: +43 (0) 22 42 / 3 24 16-0
Fax: +43 (0) 22 42 / 3 24 23
E-mail: info@benning.at

Belarus

000 «BENNING Elektrotechnik
und Elektronik»
Masherova Ave., 6A, 1003
224030, BREST
Tel.: +375 162 / 51 25 12
Fax: +375 162 / 51 24 44
E-mail: info@benning.by

Belgium

Benning Belgium
branch of Benning Vertriebsges. mbH
Assesteenweg 65
1740 TERNAT
Tel.: +32 (0) 2 / 5 82 87 85
Fax: +32 (0) 2 / 5 82 87 69
E-mail: info@benning.be

Croatia

Benning Zagreb d.o.o.
Trnjanska 61
10000 ZAGREB
Tel.: +385 (0) 1 / 6 31 22 80
Fax: +385 (0) 1 / 6 31 22 89
E-mail: info@benning.hr

Czech Republic

Benning CR, s.r.o.
Zahradní ul. 894
293 06 KOSMONOSY
Tel.: +420 / 3 26 72 10 03
Fax: +420 / 3 26 74 12 99
E-mail: odbyt@benning.cz

France

Benning
conversion d'énergie
43, avenue Winston Churchill
B.P. 418
27404 LOUVIERS CEDEX
Tel.: +33 (0) / 2 32 25 23 94
Fax: +33 (0) / 2 32 25 13 95
E-mail: info@benning.fr

Germany

Benning Elektrotechnik und Elektronik
GmbH & Co. KG
Factory I: Münsterstr. 135-137
Factory II: Robert-Bosch-Str. 20
46397 BOCHOLT
Tel.: +49 (0) 28 71 / 93-0
Fax: +49 (0) 28 71 / 9 32 97
E-mail: info@benning.de

Great-Britain

Benning Power Electronics (UK) Ltd.
Oakley House, Hogwood Lane
Finchampstead
BERKSHIRE
RG 40 4QW
Tel.: +44 (0) 1 18 / 9 73 15 06
Fax: +44 (0) 1 18 / 9 73 15 08
E-mail: info@benninguk.com

Greece

Benning Hellas
Chanion 1, Lykovrisi 141 23
ATHENS
Tel.: +30 (0) 2 10 / 5 74 11 37
Fax: +30 (0) 2 10 / 5 78 25 54
E-mail: info@benning.gr

Hungary

Benning Kft.
Power Electronics
Rákóczi út 145
2541 LÁBATLAN
Tel.: +36 (0) 33 / 50 76 00
Fax: +36 (0) 33 / 50 76 01
E-mail: benning@benning.hu

Italy

Benning Conversione di Energia S.r.L
Via 2 Giugno 1946, 8/B
40033 CASALECCHIO DI RENO (BO)
Tel.: +39 0 51 / 75 88 00
Fax: +39 0 51 / 6 16 76 55
E-mail: info@benningitalia.com

Netherlands

Benning NL
branch of Benning Vertriebsges. mbH
Peppelkade 42
3992 AK HOUTEN
Tel.: +31 (0) 30 / 6 34 60 10
Fax: +31 (0) 30 / 6 34 60 20
E-mail: info@benning.nl

Poland

Benning Power Electronics Sp. z o.o.
Korzunkowa 30
05-503 GŁOSKÓW
Tel.: +48 (0) 22 / 7 57 84 53
Fax: +48 (0) 22 / 7 57 84 52
E-mail: biuro@benning.biz

P. R. China

Benning Power Electronics (Beijing) Co., Ltd.
No. 6 Guangyuan Dongjie
Tongzhou Industrial Development Zone
101113 BEIJING
Tel.: +86 (0) 10 / 61 56 85 88
Fax: +86 (0) 10 / 61 50 62 00
E-mail: info@benning.cn

Russian Federation

000 Benning Power Electronics
Domodedovo town,
microdistrict Severny,
"Benning" estate, bldg.1
142000 MOSCOW REGION
Tel.: +7 4 95 / 9 67 68 50
Fax: +7 4 95 / 9 67 68 51
E-mail: benning@benning.ru

Slovakia

Benning Slovensko, s.r.o.
Šenkvičká 3610/14W
902 01 PEZINOK
Tel.: +421 (0) 2 / 44 45 99 42
Fax: +421 (0) 2 / 44 45 50 05
E-mail: benning@benning.sk

South East Asia

Benning Power Electronics Pte Ltd
85, Defu Lane 10
#05-00
SINGAPORE 539218
Tel.: +65 / 68 44 31 33
Fax: +65 / 68 44 32 79
E-mail: sales@benning.com.sg

Spain

Benning Conversión de Energía S.A.
C/Pico de Santa Catalina 2
Pol. Ind. Los Linares
28970 HUMANES, MADRID
Tel.: +34 91 / 6 04 81 10
Fax: +34 91 / 6 04 84 02
E-mail: benning@benning.es

Sweden

Benning Sweden AB
Box 990, Hovslagarev. 3B
19129 SOLLENTUNA
Tel.: +46 (0) 8 / 6 23 95 00
Fax: +46 (0) 8 / 96 97 72
E-mail: power@benning.se

Switzerland

Benning Power Electronics GmbH
Industriestrasse 6
8305 DIETLIKON
Tel.: +41 (0) 44 / 8 05 75 75
Fax: +41 (0) 44 / 8 05 75 80
E-mail: info@benning.ch

Turkey

Benning GmbH Turkey Liaison Office
19 Mayıs Mah. Kırkkçi Sokak No:16/A
34736 KOZYATAGI
KADIKÖY / ISTANBUL
Tel.: +90 (0) 2 16 / 4 45 71 46
Fax: +90 (0) 2 16 / 4 45 71 47
E-mail: info@benning.com.tr

UAE

Benning Power Systems
Middle East / Office: 918,
9th Floor, AYA Business Center
ADNIC Building, Khalifa Street
ABU DHABI
Tel.: +971 (0) 2 / 4 18 91 50
E-mail: benningme@benning.fr

Ukraine

Benning Power Electronics
3 Sim'yi Sosninykh str.
03148 KYIV
Tel.: 0038 044 501 40 45
Fax: 0038 044 273 57 49
E-mail: info@benning.ua

U.S.A.

Benning Power Electronics, Inc.
1220 Presidential Drive
RICHARDSON, TEXAS 75081
Tel.: +1 2 14 / 5 53 14 44
Fax: +1 2 14 / 5 53 13 55
E-mail: sales@benning.us