GNB®
INDUSTRIAL POWER
A Division of Exide Technologies

Industrial Batteries / Motive Power

2100 Chargers & Fleetmanagement

»For improved efficiency and durability«

2100

2100 SP and GNB TA (50Hz Chargers)

Cost efective charging

2100 SP

Incorporating the latest technology, these high frequency chargers are the ideal choice to recharge batteries on small electric vehicles, cleaning machines and pallet trucks. Suitable for flooded or valve regulated blocs and batteries, the design ensures reliability, safety, ease of use and optimal charging. These highly efficient chargers are reduced in size and weight, making them very easy to handle and install.

Your benefits:

> Efficiency optimisation:
  > GNB´s unique charger profiles and dv/dt charging time termination avoid any risk of under or over charge, therefore optimising battery usage and life
  > The charger ensures that the charging current and voltage remain constant during any mains fluctuations, guaranteeing a constant and optimised charging time
> Very high energy efficiency due to HF technology – small CO_2 footprint
> Modern charging technology at an affordable price
> Easy to use automatic start "plug & play"
> Small and light – requires less installation space
> Simple and comprehensible charging display (red-yellow-green)
> Integral wall mounting (2100 SP)
> Ready for fleet management 2100.NET (2100 SP)

GNB® TA (50Hz Chargers)

Cost effective solution

To fulfil customer needs in the low-budget sector, GNB® offers the TA chargers, the cost effective solution for single shift operation. They complement the range of High Frequency chargers from GNB®.

> With a GNB® unique charge algorithm thus avoiding over and under charge of the battery
> TA range of Taper chargers (50Hz) conforms to DIN41774.
> Simple operation plug and automatic recharge
> State of charge indicated by 5 LED's including one error LED
> Momentary on/off switch for safe disconnection of the battery
> Available in single phase 230V and three phase 400V 50Hz with other input voltages available
> Designed to recharge Marathon Classic batteries in 8 or 12 hours from 80% Depth Of Discharge.
> Output range 12V, 24V, 36V, 48V, 72V, 80V and 96V from 10 Amps to 180 Amps

2100 Battery Monitoring

Battery Monitoring – all important Battery Data at a Glance

The battery monitoring function ensures your access to all important data throughout the service life of the battery. There are no electronic devices on the battery. The battery plug has an RFID chip embedded in the plug which enables decisive battery identification for extensive reporting on individual batteries.

Battery

BattID

Charger

Monitored battery data

> Number of cycles
> Depth of discharge
> Deep discharge events
> Voltage, Current
> Ampere hours
> Optional: Temperature

Smart supporting functions

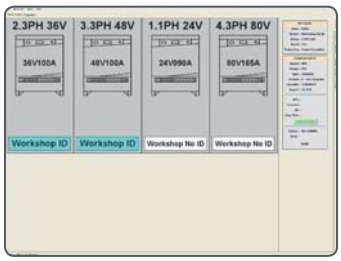
> State of health for batteries and fleets
> Detailed battery error recognition
> Electrolyte level (automatic watering)

Comprehensive reports (with 2100.net)

> Easy report generation over numerous time periods (daily, weekly, monthly, quarterly)
> Flexible data analysis on fleet, charger, and battery level
> Battery History
> Battery time related usage
> Battery life
> Battery related faults

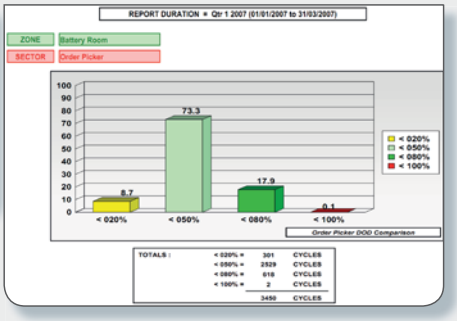
Data can be downloaded from the chargers in two ways:

> Manually using the charger battery interface software and the GNB® USB cable:
> Automatically using the 2100.*NET* software:



State of health of each battery

Depth of discharge summary



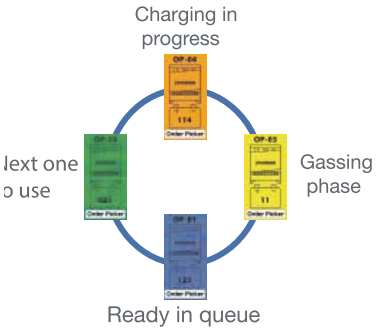
Charger history

2100.*NET*

The ultimate in remote customised computerised Fleet Management

Optimal utilisation and low operating costs

The innovative 2100.*NET* system from GNB® combines intelligent fleet management with comprehensive battery monitoring. With more than 120 years of experience in battery development, production and application, GNB® is your reliable partner for energy and cost-efficient customized solutions.



Your benefits:

> Chargers are linked together in a network, giving access to the status of each charger and battery in the charging room and any other charging stations in the warehouse
> Remote monitoring of up to 500 chargers with a central PC for maximum control and labour savings
> Optimum utilisation of both the fleet and time giving real cost savings
> Prioritized rotation control ensuring full utilisation of your battery fleet
> The complete battery fleet at a glance
> Reduces time consuming visits to remote locations
> Enables remote identification of faulty batteries

Enhanced reporting when combined with the battery monitoring BattID

> Battery picks
> Charger history
> Network history
> Power group
> Depth of discharge summary
> State of health of each battery
> Site operation

Battery picks

2100 HP & 2100 LP

24V charger selection table

Battery Technology		Flooded		Flooded		Flooded		Gel Cells PzV		Single phase			Three phase		
Charge Curve/Profile Recharge Time (h):		S & L 12*		S & L 8*		F 6*		D 12 - 14*		Input current @230V +/- 10%	Cubicle Size	Weight Kg	Input current @400V +/- 10%	Cubicle Size	Weight Kg
Charge Curve/Profile Recharge Time (h):		H & G 11*		H & G 7*											
Charger model		Capacity Range. C5 rated Ah													
Voltage	Current	min	max	min	max	min	max	max	min						
24	20	189	250	141	175	95	118	130	167	2.9	H1	25	1.1	H1	24
24	25	251	304	176	210	119	147	167	208	3.7	H1	25	1.3	H1	24
24	30	305	375	211	250	148	173	200	250	4.4	H1	25	1.6	H1	24
24	35	376	416	251	281	174	197	233	292	5.1	H1	25	1.9	H1	24
24	40	417	471	282	320	198	223	267	333	5.9	H1	25	2.1	H1	24
24	45	472	527	321	360	224	249	300	375	6.6	H1	25	2.4	H1	24
24	50	528	582	361	400	250	276	333	417	7.4	H1	25	2.7	H1	24
24	55	583	638	401	440	277	302	367	458	8.1	H1	25	2.9	H1	24
24	60	639	700	441	500	303	328	400	500	8.8	H1	25	3.2	H1	24
24	65	701	749	501	518	329	355	433	542	9.6	H1	25	3.5	H1	24
24	70	750	804	519	557	356	381	467	583	10.3	H1	25	3.7	H1	24
24	75	805	860	558	595	382	407	500	625	11.0	H1	25	4.0	H1	24
24	80	861	916	596	634	408	434	533	667	11.8	H1	25	4.2	H1	24
24	85	917	971	635	672	435	460	567	708	12.5	H1	25	4.5	H1	24
24	90	972	1027	673	711	461	486	600	750	13.2	H1	25	4.8	H1	24
24	95	1028	1082	712	749	487	513	633	792	14.0	H1	25	5.0	H1	24
24	100	1083	1166	750	800	514	552	667	833	14.7	H1	25	5.3	H1	24
24	110	1167	1277	801	880	553	605	733	917	16.2	H2	61	5.8	H1	26
24	120	1278	1388	881	960	606	657	800	1000	17.7	H2	61	6.4	H1	26
24	130	1389	1499	961	1038	658	710	867	1083	19.1	H2	61	6.9	H1	26
24	140	1500	1610	1039	1115	711	763	933	1167	20.6	H2	61	7.4	H1	26
24	150	1611	1721	1116	1192	764	815	1000	1250	22.1	H2	61	8.0	H1	26
24	160	1722	1832	1193	1268	816	868	1067	1333	23.5	H2	61	8.5	H2	60
24	170	1833	1943	1269	1345	869	921	1133	1417	25.0	H2	61	9.0	H2	60
24	180	1944	2054	1346	1422	922	973	1200	1500	26.5	H2	61	9.6	H2	60
24	190	2055	2166	1423	1499	974	1026	1267	1583	28.0	H2	61	10.1	H2	60
24	200	2167	2277	1500	1600	1027	1111	1333	1667	29.4	H2	61	10.6	H2	60
24	210	2278	2388	1601	1680	1112	1135	1400	1750				11.2	H2	64
24	220	2389	2499	1681	1760	1136	1189	1467	1833				11.7	H2	64
24	230	2500	2610	1761	1840	1190	1243	1533	1917				12.2	H2	64
24	240	2611	2721	1841	1920	1244	1297	1600	2000				12.7	H2	64
24	250	2722	2832	1921	2000	1298	1351	1667	2083				13.3	H2	64
24	260	2833	2943	2001	2080	1352	1405	1733	2167				13.8	H2	64
24	270	2944	3054	2081	2160	1406	1459	1800	2250				14.3	H2	64
24	280	3055	3166	2161	2240	1460	1514	1867	2333				14.9	H2	64
24	290	3167	3277	2241	2320	1515	1568	1933	2417				15.4	H2	64
24	300	3278	3388	2321	2400	1569	1622	2000	2500				15.9	H2	64

** Recharge time +/- 5%*
Charge Curve/Profile: S = MARATHON Classic, L = MARATHON Excell/Aqua,
D = Sonnenschein/drysafe, F = Fast MARATHON Classic,
H = MARATHON Excell/Aqua +Air, G = MARATHON Classic +Air

Cubicle	Width	Depth	Height
H1	413	369	515
H2	487	590	745

2100 SP

Charger selection table

The compact, high frequency chargers 2100 SP are specially adapted for efficient usage in smaller, electrically powered vehicles, such as cleaning machines and walkies.

2100 SP (High Frequency) charger selection table								
Battery Technology	Flooded		Flooded		Gel Cells PzV		Gel Bloc GiV	
Charge Profile: Recharge Time (h):	S & L 12*		S & L 8*		D 12 - 14*		D 11 - 14*	
Charge current	Capacity Range, C5 rated Ah							
Amps	min	max.	min	max	min	max	min	max.
8	80	99	56	69	53	68	44	67
10	100	119	70	84	67	84	56	83
12	120	149	85	105	80	107	67	100
15	150	188	106	140	100	129	83	125
20	189	250	141	175	130	167	111	167
25	251	304	176	210	167	208	139	208
30	305	375	211	250	200	250	167	250
35	376	416	251	281	233	292	194	292
40	417	471	282	320	267	333	222	333
45	472	527	321	360	300	375	250	375
50	528	582	361	400	333	417	278	417
55	583	638	401	440	367	458	306	458
60	639	700	441	500	400	500	333	500

** Recharge time +/- 5%*
Charge Curve/Profile: S = MARATHON Classic,
L = MARATHON Excell/Aqua, D = Sonnenschein/drysafe,

Available SP Chargers Model availability - Single phase only				
Charge current	Battery Voltage			
Amps	12V	24V	36V	48V
8	SP1	SP1		
10	SP1	SP1		
12	SP1	SP1		
15	SP1	SP1		SP2
20	SP1	SP1	SP2	SP2
25	SP1	SP1	SP2	SP2
30	SP1	SP1	SP2	SP2
35		SP2	SP2	
40		SP2	SP2	
45		SP2		
50		SP2		
55		SP2		
60		SP2		

Cubicle	Lenght	Depth	Height
SP1	272	161	101
SP2	471	161	101

GNB®
INDUSTRIAL POWER
A Division of Exide Technologies

Exide Technologies, with operations in more than 80 countries, is one of the world's largest producers and recyclers of lead-acid batteries. Exide Technologies provides a comprehensive and customized range of stored electrical energy solutions. Based on over 120 years of experience in the development of innovative technologies, Exide Technologies is an esteemed partner of OEMs and serves the spare parts market for industrial and automotive applications.

GNB Industrial Power – A division of Exide Technologies – offers an extensive range of storage products and services, including solutions for telecommunication systems, railway applications, mining, photovoltaic (solar energy), uninterrupted power supply (UPS), electrical power generation and distribution, fork lifts and electric vehicles.

Exide Technologies takes pride in its commitment to a better environment. An integrated approach to manufacturing, distributing and recycling of lead-acid batteries has been developed to ensure a safe and responsible life cycle for all of its products.

MXGCHTEPDF00516 Subjects to alterations

GNB® INDUSTRIAL POWER devises enduring energy concepts that convince with efficiency, flexibility and profitability.

www.gnb.com