

# Fibre Plate Ni-Cad Batteries

Flooded Nickel Cadmium Cells for Engine Starting Applications

The Nickel Fibre matrix used for the fibre plate allows 90% of the electrode volume for holding the active material. The three dimensional fibre structure also provides good conductivity to ensure excellent electrical performance. In addition, the Nickel Cadmium Fibre plate technology uses active material free from graphite and iron. Elimination of graphite ensures that the electrolyte does not get carbonated and the elimination of iron reduces water consumption and extends life.

SBS's fibre plate batteries are supplied with the electrolyte, intercell connectors, related hardware and accessories required for normal operation and maintenance.



## Features

- Excellent cycle life: 3000+
- Operating temp: -22° F to 131° F
- Low internal resistance
- High energy density
- Quick charge capability
- Low water consumption
- Very resistant to electrical and mechanical abuse
- No emission of corrosive gases
- Flame-arresting vent protection

Fibre Plate Cell Series	Plates Information	Typical Back-Up	Typical Applications
X-tra High Rate KFX series	Very thin plates to provide an ultra high rate discharge performance	Below 10 min	Generator starting

## Technical Data

Part No.	5 Hr Ah Rate to 1.00 Vpc	Voltage (V)	Battery Dimensions L x W x H (in.)	Weight (lbs.)	I.R. (mOhms)	Short Circuit Amps
KFX11P	11	1.2	2.4 x 3.4 x 9.0	3.3	2.36	511
KFX16P	16	1.2	1.7 x 5.3 x 9.4	4.0	1.62	744
KFX25P	25	1.2	2.3 x 5.3 x 11.4	7.3	1.12	1150
KFX38P	38	1.2	2.9 x 5.3 x 14.7	11.0	0.73	1748
KFX45P	45	1.2	2.9 x 5.3 x 14.7	12.1	0.62	2070
KFX60P-2	60	2.4	7.2 x 7.7 x 13.7	38.7	0.50	2700
KFX75P-2	75	2.4	7.2 x 7.7 x 13.7	40.0	0.40	3375
KFX90P-2	90	2.4	7.2 x 7.7 x 13.7	40.3	0.33	4050
KFX100P	100	1.2	4.2 x 6.3 x 16.4	23.1	0.30	4500
KFX120P	120	1.2	4.2 x 6.3 x 16.4	23.8	0.25	5400

## Performance Data

Part No.	Discharge currents in Amperes at 20 ± 5° C for a fully charged cell																			
	to ECV 1.00 V/cell						to ECV 0.85 V/cell						to ECV 0.65 V/cell							
	1 sec	5 sec	10 sec	30 sec	1 min	5 min	1 sec	5 sec	10 sec	30 sec	1 min	5 min	10 min	1 sec	5 sec	10 sec	30 sec	1 min	5 min	10 min
KFX11P	262	227	207	172	145	90	367	324	296	275	234	104	53	480	435	405	345	280	108	54
KFX16P	380	330	300	250	211	131	534	471	431	400	340	152	77	750	640	590	520	440	157	78
KFX25P	594	500	450	375	330	205	835	736	673	550	475	237	120	1050	972	908	790	690	245	123
KFX38P	898	760	684	570	501	312	1269	1119	1023	836	722	360	182	1600	1480	1380	1220	1050	372	186
KFX45P	1042	882	794	662	581	369	1505	1325	1211	1019	855	427	216	2040	1800	1680	1470	1250	441	221
KFX60P-2	1237	1147	1045	880	750	474	1653	1493	1402	1231	1112	552	282	2320	2230	2120	1840	1560	570	294
KFX75P-2	1503	1280	1157	972	861	593	2066	1867	1753	1539	1389	690	353	2800	2650	2500	2100	1840	713	368
KFX90P-2	1770	1498	1347	1123	987	711	2479	2240	2103	1847	1667	828	423	3480	3300	3100	2720	2260	855	441
KFX100P	1883	1594	1434	1196	1050	790	2755	2489	2337	2052	1853	920	470	3800	3620	3410	3000	2450	950	490
KFX120P	2124	1797	1618	1349	1185	948	3306	2987	2804	2462	2223	1104	564	4500	4300	4000	3600	2900	1140	588

# Engine Start Intelligent Battery Chargers

12 & 24 Vdc / 10 or 20 Amp

The SBS Engine Start Chargers are specifically designed for engine starting applications, and when combined with our KFX batteries, SBS offers a highly-reliable and long life starting system.

These chargers are universal and can work with any Lead-Acid or Ni-Cad battery system. All models include a comprehensive alarm system and have an observed MTBF of over 1 million hours.

## Features

- Can be used with both Lead-Acid and Ni-Cad systems
- Digital meter is selectable for output volts and amps
- Accuracy:  $\pm 2\%$  volts,  $\pm 5\%$  amps
- Field Selectable Input Voltage: 120 / 208 / 240 Vac
- Input Protection: 1-pole fuse, soft start, transient suppression
- Output Protection: 1-pole fuse, 105% current limit
- Digital Metering: NFPA 110 alarms and a battery fault alarm standard
- Temperature compensation built-in (can be disabled)
- All units are either C-UL listed or recognized
- Units include battery alarms and protection; LEDs and form C contacts
- Built-in lighting and voltage transient protection
- Aluminum NEMA 1 enclosure

## Alarm System Functions

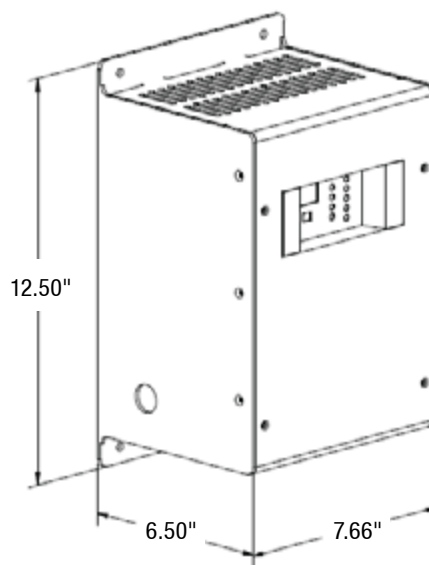
AC Good	LED
Float Mode	LED
Fast Charge	LED
Temp Comp Active	LED
AC Fail	LED & Form C contact
Low Battery Volts	LED & Form C contact
High Battery Volts	LED & Form C contact
Charger Fail	LED & Form C contact
Battery Fault	LED & Form C contact

Notes: Form C contacts rated 2A @ 26 Vdc

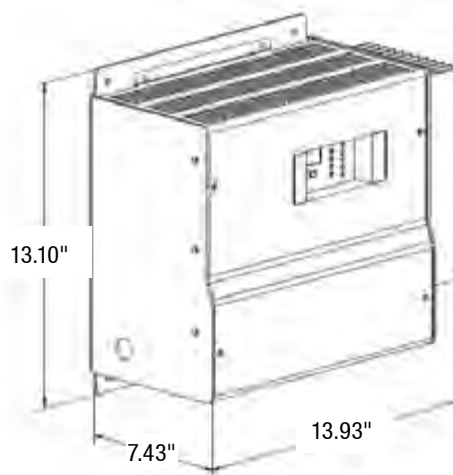
Battery fault alarm indicates: battery disconnected, polarity reversed, mismatched charger/battery voltage, open cell or high resistance between charger and battery

## Technical Data

Part No.	DC Output Voltage	Amps	AC Input Voltage	Weight (lbs.)
SBS12-10-RC	12	10	120/208/240 Vac, 60 Hz	26
SBS12-10-HC	12	10	120/208/240 Vac, 50/60 Hz	26
SBS12-20-RCLS	12	20	120/208/240 Vac, 60 Hz	45
SBS12-20-HCLS	12	20	120/208/240 Vac, 50/60 Hz	45
SBS24-10-RC	24	10	120/208/240 Vac, 60 Hz	26
SBS24-10-HC	24	10	120/208/240 Vac, 50/60 Hz	26
SBS24-20-RCLS	24	20	120/208/240 Vac, 60 Hz	45
SBS24-20-HCLS	24	20	120/208/240 Vac, 50/60 Hz	45



10A Chargers



20A Chargers