

STANDBY BATTERIES

**Faure-X Cells
FCP and FHP**



PRODUCT AND SERVICE BENEFITS

- **Locally-Manufactured Range**

Manufactured by a South African company, proven under South African conditions.

- **Premier Quality**

Conforms to BS 6290 1984 and SANS IEC 60896-11:2002 standards and manufactured to ISO 9001: 2015 - Quality and ISO 14001: 2015 - Environmental standards.

- **Nationwide After-Sales Support**

Countrywide network of branches and agencies, with access to information to ensure sound technical backup.

- **Proven Reliability**

Some cells were still operating and tested to have full capacity nearly 30 years after their introduction in 1974.

- **Customer Care**

Every standby cell carries a comprehensive product warranty backed by the industry leader and supported by a national distributor network.

DESIGN FEATURES

Designed for all standby duties including power stations, telephone exchanges, switchgear operation, telecommunications, emergency lighting and diesel starting.

Noteworthy advantages of these cells are:

- A simple hydrometer reading indicates the state of charge, facilitating inspection, test and maintenance.
- Float charge operation, always ready for use.
- Life expectancy of 15 years.

POSITIVE PLATE

Are constructed of 5mm industrial grids pasted with a long-life paste formulation, suitable for float charge and cycling applications.

NEGATIVE PLATE

Are of industrial pasted grid construction, for balanced performance and life.

SEPARATORS

Made of microporous rubber, for exceptionally long life and have high degree of porosity, ensuring minimum internal resistance

CELL PILLARS AND CONNECTORS

Specially designed to give minimum resistance – maximum current flow.

Also available with Copper Inserts for high rate discharges.

TECHNICAL DETAILS

FLOAT CHARGING

As these cells are designed for standby applications they should be float charged to ensure that they remain fully charged, ready for instant use, at all times. Correct float voltage settings may vary depending upon operational differences but as a guideline 2.25 volts per cell at 25°C may be used as a level of charge which will minimise the need for equalising charges whilst providing acceptable life. The installation and maintenance manual should be read for further information.

SPECIFIC GRAVITY

A simple hydrometer reading indicates the state of charge. A fully charged cell will have a specific gravity of 1.250.

VOLTAGE

The nominal voltage is 2 volts per cell, i.e. a nominal 110V battery will have 55 cells. On discharge, the recommended final voltage at which the discharge should be terminated depends on the discharge rate. It is not recommended to continue discharging the cells once the final voltage has been reached as the voltage will fall away at an increasing rate with minimal gain of discharge duration and the risk of over-discharge.

CAPACITY

The capacity of these cells is normally rated at the 10hour rate of discharge although the capacity which can be taken from a cell will vary according to the discharge rate, as indicated in the capacity table. Capacity is also affected by temperature.

INSTALLATION

These cells can be connected either edge to edge or face to face. The standard method of connection is to follow the shortest distance between two terminals.

RECHARGING

The cell's ampere hour efficiency is 90%. To fully recharge the cells the amount of charge required is equal to the amount of discharge in ampere hours plus 11%.

TRANSPARENT CONTAINERS

Moulded from transparent styrene acrylonitrile (SAN) to provide optimum transparency and very high insulating qualities, eliminating the need for separate cell insulators.

CELL LIDS

Moulded from opaque SAN. Are permanently sealed to the container.

VENT PLUGS

Are of a special design which effectively returns all acid spray to the cell, but allows free exit of oxygen and hydrogen gasses.

Faure-X, Capacities, Weights and Dimensions

| Type | * Capacity in amp hours at 25°C when discharged in | | | | Initial Charge Current | Weight (± 3%) | | Approx Quantity of filling acid 1.235sg | External dimensions of cell container | | | Overall height of cells | Centres of cells | Width of single row stillage or stand | Width of double row stillage or stand | |
|---------------|--|---------|---------|--------|------------------------|--------------------|---------------------------|---|---------------------------------------|-------|--------|-------------------------|------------------|---------------------------------------|---------------------------------------|----|
| | 10 Hours | 5 Hours | 3 Hours | 1 Hour | | Cell compl. filled | Filling acid only 1.235sg | | Length | Width | Height | | | | | |
| Final Voltage | 1.80 | 1.80 | 1.80 | 1.75 | Amps | Kg | Kg | Litres | mm | mm | mm | mm | mm | mm | mm | mm |
| FCP 5 | 64 | 53.5 | 46 | 32 | 3.8 | 11.5 | 6.7 | 5.4 | 134 | 203 | 349 | 423 | 140 | 400 | 710 | |
| FCP 7 | 96 | 80.5 | 69 | 48 | 5.8 | 12.9 | 6.4 | 5.2 | 134 | 203 | 349 | 423 | 140 | 400 | 710 | |
| FCP 9 | 128 | 107 | 92 | 64 | 7.7 | 14.2 | 6.1 | 5.0 | 134 | 203 | 349 | 423 | 140 | 400 | 710 | |
| FCP 11 | 160 | 134 | 115 | 80 | 9.6 | 15.6 | 5.9 | 4.8 | 134 | 203 | 349 | 423 | 140 | 400 | 710 | |
| FCP 13 | 192 | 160.5 | 138 | 96 | 11.5 | 17.0 | 5.6 | 4.6 | 134 | 203 | 349 | 423 | 140 | 400 | 710 | |
| FCP 15 | 224 | 187.5 | 161 | 112 | 13.4 | 20.8 | 7.7 | 6.3 | 172 | 203 | 349 | 423 | 178 | 400 | 710 | |
| FCP 17 | 256 | 214 | 184 | 128 | 15.4 | 22.2 | 7.5 | 6.1 | 172 | 203 | 349 | 423 | 178 | 400 | 710 | |
| FCP 19 | 288 | 241 | 207 | 144 | 17.3 | 23.5 | 7.3 | 5.9 | 172 | 203 | 349 | 423 | 178 | 400 | 710 | |
| FCP 21 | 320 | 267.5 | 230 | 160 | 19.2 | 27.4 | 9.4 | 7.6 | 210 | 203 | 349 | 423 | 209 | 406 | 662 | |
| FCP 23 | 352 | 294.5 | 253 | 176 | 21.1 | 28.7 | 9.1 | 7.4 | 210 | 203 | 349 | 423 | 209 | 406 | 662 | |
| FCP 25 | 384 | 321 | 276 | 192 | 23.0 | 33.0 | 11.3 | 9.1 | 248 | 203 | 349 | 423 | 209 | 426 | 742 | |
| FCP 27 | 416 | 348 | 299 | 208 | 25.0 | 34.3 | 11.0 | 8.9 | 248 | 203 | 349 | 423 | 209 | 426 | 742 | |
| FCP 29 | 448 | 374.5 | 322 | 224 | 26.9 | 35.7 | 10.8 | 8.8 | 248 | 203 | 349 | 423 | 209 | 426 | 742 | |
| FCP 31 | 480 | 401.5 | 345 | 240 | 28.8 | 39.7 | 12.9 | 10.5 | 286 | 203 | 349 | 423 | 209 | 464 | 818 | |
| FCP 33 | 512 | 428 | 368 | 256 | 30.7 | 41.0 | 12.7 | 10.3 | 286 | 203 | 349 | 423 | 209 | 464 | 818 | |
| FCP 35 | 544 | 455 | 391 | 272 | 32.6 | 45.6 | 14.9 | 12.1 | 362 | 203 | 349 | 423 | 209 | 542 | 974 | |
| FCP 37 | 576 | 481.5 | 414 | 288 | 34.6 | 47.0 | 14.7 | 11.9 | 362 | 203 | 349 | 423 | 209 | 542 | 974 | |
| FCP 39 | 608 | 510 | 437 | 304 | 36.5 | 48.3 | 14.4 | 11.7 | 362 | 203 | 349 | 423 | 209 | 542 | 974 | |
| FCP 41 | 640 | 535 | 460 | 320 | 38.4 | 49.7 | 14.2 | 11.5 | 362 | 203 | 349 | 423 | 209 | 542 | 974 | |
| FCP 43 | 672 | 560 | 483 | 336 | 40.3 | 51.1 | 14.0 | 11.3 | 362 | 203 | 349 | 423 | 209 | 542 | 974 | |
| FHP 13 | 810 | 655 | 558 | 353 | 48.6 | 75.8 | 35.7 | 28.9 | 230 | 368 | 592 | 682 | 240 | 370 | 969 | |
| FHP 15 | 950 | 765 | 651 | 412 | 57.0 | 80.0 | 34.8 | 28.2 | 230 | 368 | 592 | 682 | 240 | 370 | 969 | |
| FHP 17 | 1080 | 875 | 744 | 470 | 64.8 | 84.2 | 33.9 | 27.2 | 230 | 368 | 592 | 682 | 240 | 370 | 969 | |
| FHP 19 | 1220 | 985 | 834 | 529 | 73.2 | 88.4 | 33.0 | 26.8 | 230 | 368 | 592 | 682 | 240 | 370 | 969 | |
| FHP 21 | 1350 | 1095 | 927 | 588 | 81.0 | 92.6 | 32.1 | 26.0 | 230 | 368 | 592 | 682 | 240 | 370 | 969 | |
| FHP 23 | 1490 | 1205 | 1020 | 647 | 89.4 | 113.6 | 47.1 | 38.2 | 306 | 368 | 592 | 682 | 315 | 370 | 969 | |
| FHP 25 | 1620 | 1315 | 1113 | 706 | 97.2 | 118.0 | 46.2 | 37.4 | 306 | 368 | 592 | 682 | 315 | 370 | 969 | |
| FHP 27 | 1760 | 1425 | 1206 | 764 | 105.6 | 122.2 | 45.3 | 36.7 | 306 | 368 | 592 | 682 | 315 | 370 | 969 | |
| FHP 29 | 1890 | 1535 | 1299 | 823 | 113.4 | 126.4 | 44.4 | 36.0 | 306 | 368 | 592 | 682 | 315 | 370 | 969 | |
| FHP 31 | 2030 | 1645 | 1392 | 882 | 121.8 | 130.6 | 43.5 | 35.2 | 306 | 368 | 592 | 682 | 315 | 370 | 969 | |
| FHP 33 | 2160 | 1750 | 1485 | 941 | 129.6 | 146.3 | 53.3 | 43.1 | 357 | 368 | 592 | 682 | 366 | 360 | 969 | |
| FHP 35 | 2300 | 1860 | 1578 | 1000 | 138.0 | 150.4 | 52.4 | 42.4 | 357 | 368 | 592 | 682 | 366 | 360 | 969 | |
| FHP 37 | 2440 | 1970 | 1671 | 1058 | 146.4 | 154.7 | 51.5 | 41.7 | 357 | 368 | 592 | 682 | 366 | 360 | 969 | |
| FHP 39 | 2570 | 2080 | 1764 | 1117 | 154.2 | 158.9 | 50.6 | 40.9 | 357 | 368 | 592 | 682 | 366 | 360 | 969 | |
| FHP 41 | 2710 | 2190 | 1857 | 1176 | 162.6 | 163.1 | 49.7 | 40.2 | 357 | 368 | 592 | 682 | 366 | 360 | 969 | |
| FHP 43 | 2840 | 2300 | 1950 | 1235 | 170.4 | 183.5 | 64.7 | 52.4 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 | |
| FHP 45 | 2980 | 2410 | 2043 | 1294 | 178.8 | 187.7 | 63.8 | 51.6 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 | |
| FHP 47 | 3110 | 2520 | 2136 | 1352 | 186.6 | 191.9 | 62.9 | 50.9 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 | |
| FHP 49 | 3250 | 2630 | 2229 | 1411 | 195.0 | 196.1 | 62.0 | 50.2 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 | |
| FHP 51 | 3380 | 2740 | 2322 | 1470 | 202.8 | 200.3 | 61.1 | 49.4 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 | |
| FHP 53 | 3520 | 2845 | 2412 | 1529 | 211.2 | 221.5 | 76.0 | 61.6 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 | |
| FHP 55 | 3650 | 2955 | 2505 | 1588 | 219.0 | 225.7 | 75.1 | 60.8 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 | |
| FHP 57 | 3790 | 3065 | 2598 | 1646 | 227.4 | 229.9 | 74.2 | 60.0 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 | |
| FHP 59 | 3920 | 3175 | 2691 | 1705 | 235.2 | 234.1 | 73.3 | 59.0 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 | |
| FHP 61 | 4060 | 3285 | 2784 | 1764 | 243.6 | 238.3 | 72.4 | 58.7 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 | |
| FHP 63 | 4190 | 3395 | 2877 | 1823 | 251.4 | 261.2 | 87.6 | 71.0 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 | |
| FHP 65 | 4330 | 3505 | 2970 | 1882 | 259.8 | 265.4 | 86.7 | 70.2 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 | |
| FHP 67 | 4460 | 3615 | 3063 | 1940 | 267.6 | 269.6 | 85.8 | 69.5 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 | |
| FHP 69 | 4600 | 3725 | 3156 | 1999 | 276.0 | 273.8 | 84.9 | 68.8 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 | |

The length of a stand is n x cell centre where n is the number of cells in a row.

* Capacities published for the 10h, 5h, 3h and 1h discharges are applicable for lead post cell types. For discharge rates quicker than 1 hour, copper inserted posts are required.

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