Electrochem Power Solutions

Oceanographics

Reliable - Powerful - Extreme

Reliability, performance and safety are critical to the successful deployment of ocean studies. Today's cost sensitive oceanographic industry places demanding requirements on power sources. Lithium batteries used in a wide variety of marine applications power many of the mission critical data collection, telemetry and operational functions, typically over long time periods and for multiple deployments. Electrochem® batteries provide dependable power on demand, extremely high reliability and peak performance in the harshest of environments. Across the world's oceans, many premier research organizations and OEM equipment suppliers rely on the Electrochem® brand to insure their vital research objectives are successfully achieved.

Extensive engineering and design allows Electrochem® batteries to deliver optimized performance with level rate capabilities across a wide temperature range, from –55°C to +93°C. Individual cell capacities range up to an incredible 40 ampere-hours. Advanced cell construction insures Electrochem® products will continue to be regarded as the benchmark for safety and quality. Contact Electrochem® Power Solutions - *"The Power to do Great Things"* in today's oceanographic research and monitoring applications.

Custom Power Solutions

- Custom engineered packs tailored for product-life cycle requirements
- Wide range of cells with a variety of terminations
- Specialized field instrumentation and tool set available for easy pack qualification testing
- Built-in, internal safety features
- International network of authorized value-added resellers

Extremely High Reliability

- Engineered for demanding ocean surveying applications
- Enhanced bromine chloride – thionyl chloride chemistries
- Surface-mount fuse and diode protection standard
- Comprehensive qualification testing available
- UN and DOT certified for transportation
- ISO 9001:2000 certified facility

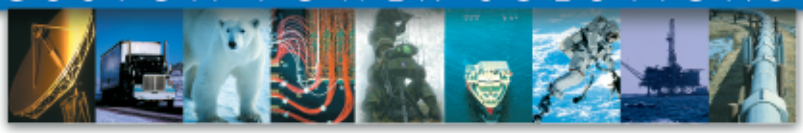
Wide Temperature Range

- Wide temperature performance from -55°C to +93°C
- Proprietary construction and electrolyte chemistries for optimized restart
- Level rate performance over whole temperature range

Electrochem POWER SOLUTIONS *The power to do great things®*

Tel: 716-759-6901 • Fax: 716-759-2562

CUSTOM POWER SOLUTIONS



High Rate Technology

Product	PMX 150 & 165	MWD 150	BCX 85	CSC 93
Chemical System	Chlorinated Sulfuryl Chloride	Enhanced Thionyl Chloride	Bromine Chloride Thionyl Chloride	Chlorinated Sulfuryl Chloride
OCV	3.9 V	3.6 V	3.9 V	3.9
Rate Capability	Moderate	Moderate	Moderate to High	Moderate to High
Temperature	-40°C to +150 and -40°C to +165°C	0°C to +150°C	-55°C to +85°C	-20°C to +93°C
Applications	Moderate to high temperatures Downhole Petroleum Seismic applications	High shock & vibration capable Downhole Petroleum Pipeline applications	Capability Oceanographic, Military, Telemetry, Pipeline	Capability Oceanographic, Military, Telemetry, Industrial

Moderate Rate Anode Technology

Product	150 MR Series	165 MR Series	180 MR Series	200 MR Series
Chemical System	Thionyl Chloride	Thionyl Chloride	Thionyl Chloride	Thionyl Chloride
OCV	3.6 V	3.6 V	3.6 V	3.6 V
Rate Capability	Moderate	Moderate	Moderate	Moderate
Temperature	-40°C to +150°C	-40°C to +165°C	+50°C to +180°	+70°C to +200°C
Applications	Moderately high temperatures Downhole Petroleum	High temperature Downhole Petroleum	High temperature Downhole Petroleum	High temperature Downhole Petroleum

Bobbin Technology

Product	QTC Series	100 Series	150 Series	180 Series	200 Series
Chemical System	Thionyl Chloride	Thionyl Chloride	Thionyl Chloride	Thionyl Chloride	Thionyl Chloride
OCV	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V
Rate Capability	Low	Low	Low	Low	Low
Temperature	-40°C to +85°C	-40°C to +100°C	-40°C to +150°C	+50°C to +150°C	+70°C to +200°C
Applications	Memory backup	Telemetry, Industrial, Military, Medical	Temperatures Downhole Petroleum	Downhole Petroleum	Downhole Petroleum

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