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Технические характеристики на никель-кадмиевые аккумуляторы для железных дорог серии MSX

THE RAIL BATTERY EXPERT

In an ever-connected world, rail services are vital to keep the world running for passengers and freight. For decades, has been at the forefront of providing a wide range of safe and sustainable onboard battery solutions for the rail industry.

With , operators can expect reliable and predictable battery performance over a long service life.

PASSENGER SAFETY



- Security lighting
- Door control & communication networks
- Emergency or depot traction backup

PASSENGER COMFORT



- Onboard signaling
- Ventilation
- Air-conditioning
- Lighting
- Wi-Fi

FAIL-SAFE TRAIN START-UP



- Pantograph lift-up
- Computers
- Electronics

MSX COMPACT HIGH-POWER FOR RAIL

Electric trains and trams require a variety of backup support services. These include **full load backup, emergency or depot traction backup** for limited distances, magnetic braking (especially at low voltage) and short duration backup at **low temperatures**. MSX can also support DMU and diesel locomotive applications in a light weight, space-saving and low maintenance module.



WIDE TEMPERATURE RANGE

- Operating temperatures from **-30°C to +50°C**
- Resistance to extreme temperatures from **-50°C to +70°C**



WIDE CAPACITY RANGE

- Optimized sizing from **70 to 260 Ah**
- Optimized integration from **3 to 10 cells per block**



ROBUST

- Designed for continuous discharge currents up to **5 times the rated cell capacity** (5C₅ Ah) and for peak discharge up to **10 times the rated capacity** (10C₅ Ah)



PREDICTABLE SERVICE LIFE

- Service life (20 years)*, **without risk of sudden death**



LOW MAINTENANCE

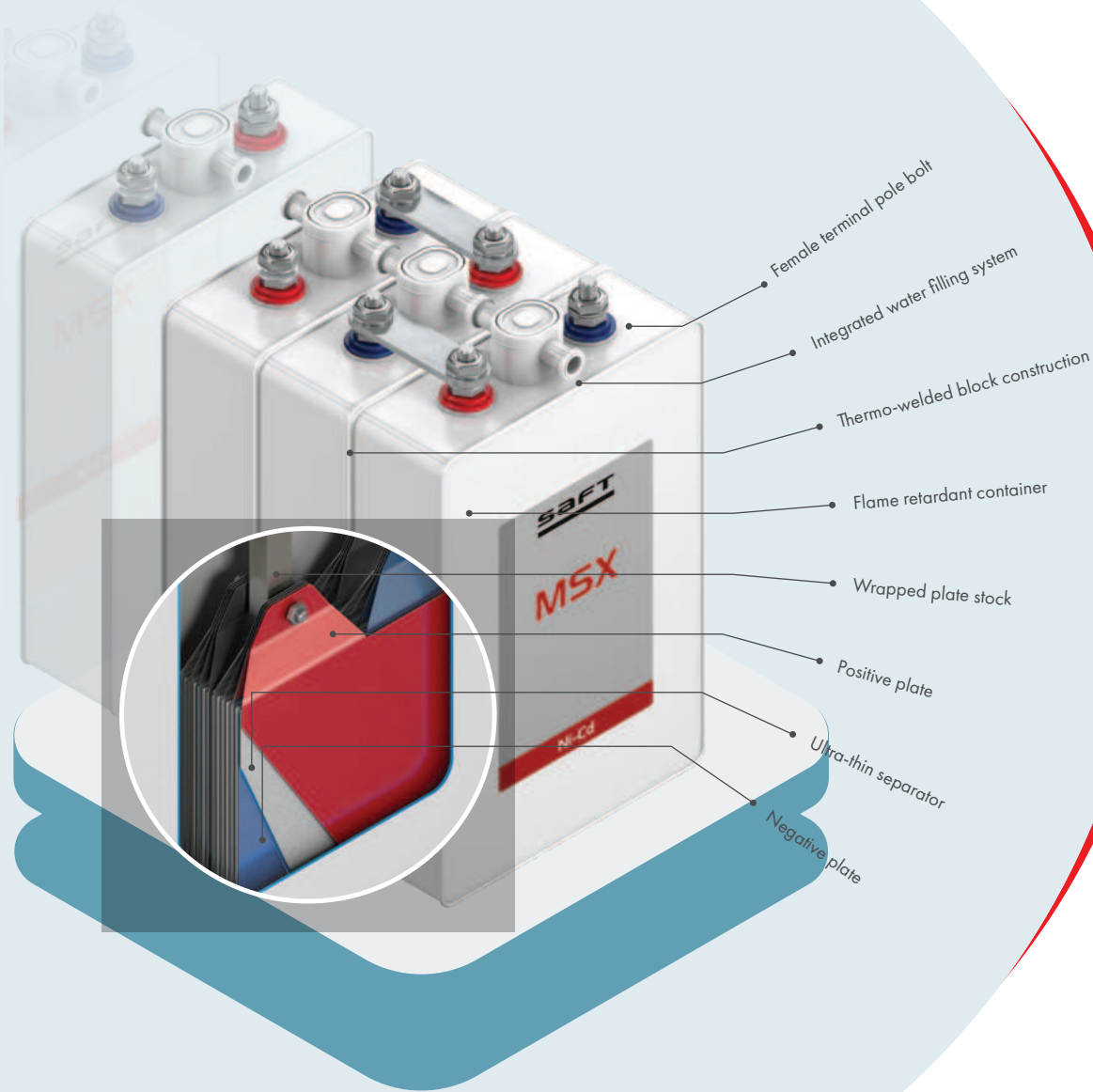
- Topping-up intervals of up to **6 years**
- Built-in water filling vents for topping up in less than **10 minutes**



RELIABLE

- Proven resistance to heavy cycling
- Withstands railway shock and vibration

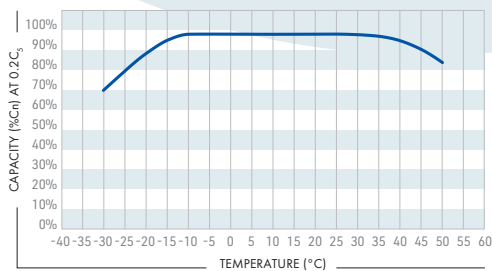
*Nominal value – actual results may vary depending on application conditions.



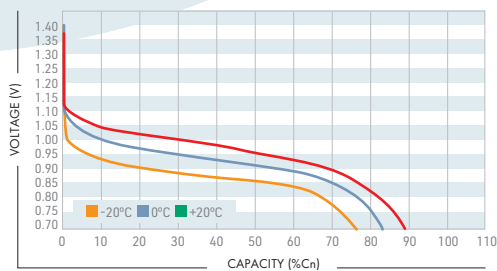
MSX battery offers a high-power backup solution with **optimal sizing and low maintenance**. It is ideally suited for a wide range of rolling stock applications.

MSX can provide both **starting and backup** duties from a single battery.

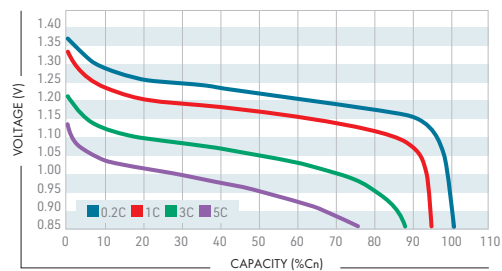
CHARGEABILITY WITH TEMPERATURE COMPENSATION



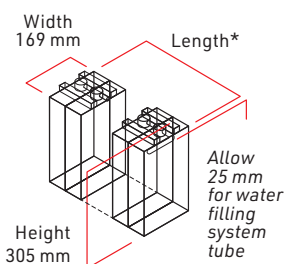
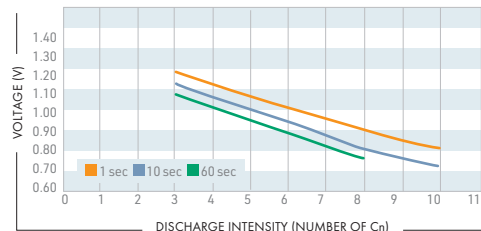
DISCHARGE 5C AT VARIOUS T°C



DISCHARGE AT +20°C



PEAK CURRENTS AT -20°C



Block type	Ah	Length (mm)**						Weight (kg)**					
		Nb of cells per block						Nb of cells per block					
		2	3	4	5	6	10	2	3	4	5	6	10
MSX 70	70			158	196		384			13	16		32
MSX 80	80			158	196		384			13	16		33
MSX 90	90			158	196					14	18		35
MSX 100	100		143	189	234	279		12	16	20	24		
MSX 115	115			189	234					18	21		
MSX 130	130		159	209	259			14	19	23			
MSX 145	145		234	309	384			22	27	32			
MSX 160	160		234	309	384			22	27	33			
MSX 180	180		234	309	384			22	29	35			
MSX 200	200	189	279	370				16	24	32			
MSX 230	230	189	279	370				17	25	34			
MSX 260	260	209	310	411				20	28	37			

*The data provided are nominal values and actual results may vary depending upon application conditions.

**Values are not contractual.

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