



ELM

Low-Maintenance Railroad Signal Batteries

EnerSys Ironclad Type ELM Low-Maintenance Railroad Signal Batteries provide the power you need for reliable signal control at highway crossings and other critical railway signal locations. The ELM employs a carefully engineered combination of plate surface area, plate thickness and wet electrolyte volume for optimum discharge performance, providing longevity that can exceed conventional maintenance-free VRLA batteries when used in similar railway signal applications.



Features

- Proven EnerSys Ironclad quality, designed for 20 year life expectancy. *
- Low maintenance, extended watering intervals.*
- Extra reserve electrolyte over top of plates.
- Capacities from 80 to 710 AH nominal.
- Dual-action bayonet flame-arresting vent plug / with integral electrolyte level indicator.
- Rugged, hi-impact Polypropylene construction.
- Convenient lifting handles for maneuverability
- Nationwide service network to provide you with quality service backup.

The technology behind the Type ELM Series is backed by more than 50 years of development. All active materials are locked inside the EnerSys exclusive square tubular design positive plates to provide outstanding cycling capability, long life and high energy density. The unique square tube positive plate offers 60% greater surface area for holding active material and exposing it to electrolyte.

The negative plates feature extremely low self-discharge rates and promote low float current. Because our manufacturing facility is ISO9001; 2000 certified, you are ensured of the highest standards for quality and performance.

Construction

- **Specific Gravity:** Full Charge @ 77°F, 1.210 – 1.220sg.
- **Cover/Jar Material:** Hi-impact Polypropylene
- **Plates (Positive):** Square tubular, w/ low antimony alloy spines.
- **Plates (Negative):** Flat plate, pasted, w/ calcium alloy grid.
- **Connector:** Lead-plated copper connections with stainless steel hardware.
- **Float Voltage:** Recommended 2.18 VPC @ 77°F with temperature-compensated charging.
- **Maximum Charge Voltage:** 2.40 VPC @ 77°F
- **Separators:** High porosity micro-porous polyethylene sleeve.
- **Posts:** 2 for 80AH to 240AH; 4 for 340AH to 710AH.

Can be used in close proximity to sensitive electronics.



* Based on recommended float voltages with temperature-compensated charging in 77°F operating temperature. Battery life will vary depending on operating temperature and number of crossings per day.

Specifications

Catalog Numbers	Type	Plates Per Cell	Nom. Cap. at 8hr. Rate 77°F	Unit Dimensions (in inches)			Unpacked Weight
				L	W	H *	
403760-CW	ELM-80	7	80	6.63	5.42	13.56	20
403761-CW	ELM-120	9	120	6.63	5.42	13.56	25
403762-CW	ELM-160	7	160	6.63	5.42	18.85	35
403763-CW	ELM-200	9	200	6.63	5.42	18.85	40
403764-CW	ELM-240	11	240	6.63	5.42	18.85	45
403765-CW	ELM-340	15	340	6.69	8.42	18.85	65
403766-CW	ELM-425	19	425	6.69	8.42	18.85	80
403767-CW	ELM-500	21	500	7.00	8.68	19.16	95
403768-CW	ELM-710	29	710	7.00	12.50	19.16	125

* Over flame arresting dome.

Discharge Currents to 1.75 VPC @ 77°F, 1.210-1.220 Specific Gravity							
Type	Capacity	8 hr.	5 hr.	3 hr.	1 hr.	30 min.	15 min.
ELM-80	104.0	13.0	17.0	24.0	43.0	61.0	77.0
ELM-120	120.0	15.0	21.0	29.0	54.0	76.0	94.0
ELM-160	168.0	21.0	27.9	41.0	75.0	99.0	126.0
ELM-200	209.0	26.1	36.5	51.5	95.0	127.0	160.5
ELM-240	250.0	31.2	45.0	62.0	115.0	155.0	195.0
ELM-340	363.0	45.4	64.9	88.5	162.6	217.0	275.7
ELM-425	449.0	56.1	81.0	111.6	207.0	279.0	351.0
ELM-500	500.0	62.4	90.0	124.0	230.0	310.0	390.0
ELM-710	710.0	88.7	128.0	175.0	322.0	434.0	546.0

Discharge Currents to 1.90 VPC @ 77°F, 1.210-1.220 Specific Gravity							
Type	Capacity	8 hr.	5 hr.	3 hr.	1 hr.	30 min.	15 min.
ELM-80	72.0	9.0	11.3	14.5	23.0	29.3	31.0
ELM-120	84.0	10.5	13.3	17.3	29.0	36.5	39.0
ELM-160	124.8	15.6	20.1	26.7	42.0	49.0	52.0
ELM-200	152.8	19.1	25.1	32.9	53.5	64.0	68.5
ELM-240	180.0	22.5	30.0	39.0	65.0	79.0	85.0
ELM-340	264.0	33.0	44.0	56.0	91.0	109.0	118.0
ELM-425	324.0	40.5	54.0	70.2	117.0	142.2	153.0
ELM-500	360.0	45.0	60.0	78.0	130.0	158.0	170.0
ELM-710	504.0	63.0	84.0	109.2	182.0	221.2	238.0

Warranty Warranted for 20 years. One year full coverage plus 19 years pro-rata against defects in materials and workmanship.



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