

Marine Electrician

ENDORSEMENT EXAM BREAKDOWN

The following table shows the number of questions per General Area of Competency (GAC) and Competency on the *Marine Electrician Endorsement Exam*.

Number of questions on each exam: 76

Endorsement Exam GAC/Competency	#
A. MARINE INDUSTRY KNOWLEDGE	10
A1. Use terminology related to ships	4
A2. Describe hazards in shipboard and shipyard work environments	4
A3. Apply regulations and standards	2
B. MARINE WIRING METHODS	15
B1. Install marine electrical cables and transits	4
B2. Terminate cable shielding specific to marine cables	2
B3. Install packing of transits and deck tubes	2
B4. Install wireways	3
B5. Install corrosion protection in a marine environment	4
C. POWER GENERATION	8
C1. Install and maintain prime mover controls	3
C2. Install and maintain power generator protective relays	3
C3. Describe main and auxiliary power generation and related controls	2
D. POWER DISTRIBUTION	19
D1. Describe shipboard power distribution	3
D2. Install and maintain switchboards, motor control centres, power distribution centres and panelboards	3
D3. Describe shore power systems	3
D4. Install and maintain power sources	4
D5. Install and maintain temporary services	1
D6. Install, maintain and troubleshoot lighting systems	5
E. SHIPBOARD SYSTEMS AND CONTROLS	15
E1. Describe marine control systems	2

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E2. Describe alarms and monitoring systems	3
E3. Describe marine communication systems	2
E4. Describe cathodic protection	2
E5. Describe marine navigation systems	3
E6. Install and maintain batteries	3
F. TESTING AND TROUBLESHOOTING	9
F1. Describe routine testing and certification	2
F2. Describe and perform insulation testing	4
F3. Describe and interpret schematics and wiring diagrams	3
Total:	76