

Application Brief:

Selecting the Appropriate Fuse Rating When Installing the 120A SI ACR

When installing Blue Sea Systems 120A SI ACR, PN 7610, use this chart to select the appropriate wire size and fuse rating.

Wire sizing and fuse rating chart (AWG)		
Charging Amps	Minimum wire size*	Fuse rating
60	#6	80 Amps
80	#4	110 Amps
100	#2	150 Amps
120	#1	175 Amps

Wire sizing and fuse rating chart (Metric)		
Charging Amps	Minimum wire size*	Fuse rating
50	10mm ²	75/80 Amps
70	16 mm ²	80/90 Amps
90	25 mm ²	125/130 Amps
110	35 mm ²	150 Amps
120	50 mm ²	150/175 Amps

*Larger wire sizes may be required to minimize voltage drop in long wire runs.

Fuses installed between ACR terminals A and B, and each battery positive are to prevent a hazard if there is damage to the wires from the batteries to the ACR. Therefore, the fuses should be placed as close as possible to the batteries so that most of the wire is protected.

Since these fuses connect directly to batteries, choose fuse types that have sufficient AIC for your battery bank. Ideal fuses for this application are: ANL fuses 100A - PN 5125, 130A – PN 5126, 150A - PN 5127, and Terminal Fuses 90A – PN 5182, 100A - PN 5183, 125A – PN 5184, and 150A - PN 5185.

Typical 120 Amp SI Automatic Charging Relay Installation

