A circuit breaker is an automatically operated electrical switch designed to protect a load or an electrical circuit from damage caused by overload or short circuit. The basic function is to detect a fault condition and then interrupt the current flow.

To choose the correct circuit breaker amperage rating for you winch, you need to know the current draw at full load (refer to manual / technical data).

You have to choose a circuit breaker that will allow full load current draw for a set period of time. The circuit breaker manufacturer will provide a curve-diagram similar to the one below. The opening of a circuit breaker is not determined only by the winch amperage rating, but by the amount of time and the percentage over its amperage rating at which it is being operated. The higher the percent of the load current to amperage rating, the faster the circuit protector will trip. The chart is for SEATEC WATERPROOF circuit breaker. For other types you should refer to the circuit breaker's curve for the specific one you are considering.

