

Breaker Specifications for AC Circuit Breaker for SSMG testing and Backup power

1. Will accept SHOF-500 cables on both the line and load sides of the breaker.
2. SHOF-500 cable connections to the breaker will be Thomas & Betts 600 KMIL (Die Code 94) 2 hole lugs. Each connector shall be capable of carrying 600 amps.
3. Will accept a minimum of 24 SHOF-500 cables on the line side of the breaker (8 A-phase, 8 B-phase, and 8 C-phase).
4. Will accept a minimum of 24 SHOF-500 cables on the load side of the breaker (8 A-phase, 8 B-phase, and 8 C-phase).
5. A schematic / wiring diagram for the control power will be included / attached.
6. **2,000A frame** with 600V AC rated insulation. The breaker will be used in a nominal 450VAC system.
7. The breaker will need to be able to be set at the following settings: instantaneous trip set high, long-time delay at 2,000A between 3 and 4 minutes and the ability of holding at 1,600A indefinitely. Under voltage trip device is **optional**, but set to low if installed on breaker. Under voltage trip (if installed), shall trip at a voltage under 400 VAC.
8. Breaker trip settings will be verified by the shipyard upon arrival.
9. NEMA rating of the enclosure will be 3R.
10. The enclosure cable entrance and exit point(s) will not prevent the full closure of any door(s) or access cover.
11. The enclosure will be free standing and not require any external means of support to prevent tipping when the all cables are installed. **Each breaker shall be housed in a separate enclosure.**
12. The enclosure will have a clean, unpainted, identified and easily accessible equipment ground.
13. The breaker will be capable of being used on an ungrounded system.
14. The circuit breaker must be able to be moved by forklift or crane. The weight (lbs.) and dimensions (inches) of each unit shall be clearly marked on the side.
15. The breaker will have a minimum interrupting capability of 62,000A.
16. The circuit breakers shall be new.

Specifications for one (1) MANUAL Transfer Switch

1. Will accept SHOF-500 cables at every connection point of the transfer switch.
2. SHOF-500 cable connections to the transfer switch will be either compression fittings or lugs (lugs are preferred). Transfer switch shall accept Thomas & Betts 600 KMIL (Die Code 94) 2 hole lugs (if lugs are used). Each connector shall be capable of carrying 600 amps.
3. Transfer switch will accept a minimum of 12 cables (4 A phase, 4 B phase and 4 C phase) on each of the 3 sides of the transfer switch NORMAL, EMERGENCY, and LOAD for a total of 36 cables.
4. **2,000A frame** with 600V AC rated insulation system. The breaker shall be used in a nominal 450VAC power system.
5. Transfer switch specifications will be verified by the shipyard upon arrival.
6. NEMA rating of the enclosure will be 3R.
7. Transfer switch is to have NORMAL, EMERGENCY, and OFF position (as well as the load).
8. The enclosure cable entrance and exit point(s) will not prevent the full closure of any door(s) or access cover.
9. The enclosure will be free standing and not require any external means of support to prevent tipping when the all cables are installed.
10. The enclosure will have a clean, unpainted, identified and easily accessible equipment ground.
11. The transfer switch will be capable of being used in an ungrounded system.
12. The transfer switch must be able to be moved by forklift or crane. The weight (lbs.) and dimensions (inches or feet and inches) of the unit shall be clearly marked on the side.
13. If the switch is fused, it should be fused at 2,000A (or higher) with slow blow fuses.
14. The transfer switches shall be new.