

Enercon ETSM & ETGM

Manual Transfer Switches

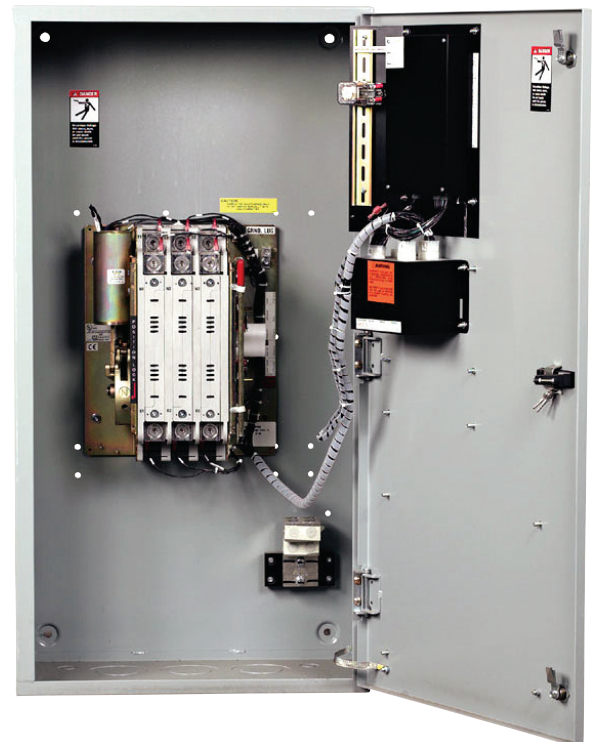
Introduction

Some emergency power installations require multiple automatic transfer switches, each feeding a specific load. In many installations where non-critical loads are being served, specifications may call for manual or non-automatic transfer switches. This method is used because operating personnel are present and the loads are not of a critical nature requiring unattended automatic operation.

Because of the less critical function of this equipment, no specific industry requirements have been established. As a result, devices such as double throw disconnect switches have been used. Since the non-automatic transfer switches are part of the emergency power supply system, they should have the same UL 1008 electrical ratings as the automatic transfer switches feeding critical loads. In the event of a short circuit, the non-automatic transfer switches must have the same withstand current ratings as the automatic transfer switches and they must be as rugged and dependable.

Features and Benefits

To meet this need, Enercon has developed the Enercon ETSM and ETGM Series electrically operated, mechanically held non-automatic transfer switches. These units feature the same construction as the Enercon ETS and ETG Series of automatic transfer switches and are supplied with the same electrical ratings and mechanical features. The manual series is electrically operated by means of push buttons mounted on the switch enclosure or at a remote location. Unlike the above mentioned handle-



operated disconnect switches, the Enercon ETSM and ETGM Series offers additional protection by incorporating Source 1 and Source 2 voltage sensing relays which will not permit the switch to be manually transferred unless the source to which it is being transferred is at 90% of its rated voltage. In addition, the Enercon ETSM and ETGM Series are tested and listed per UL 1008 standards. Manual handle-operated, double throw disconnect switches are not listed to this critical standard.

Features

- UL, CSA and IEC Listed
- Amperage sizes: 40, 80, 100, 150, 200², 225, 260, 400, 600, 800, 1000, 1200, 1600, 2000, 2600¹, 3000, 4000²
- Poles: 2, 3 or 4
- Available for operation on all standard voltage systems
- Enercon ETSM Withstand Current Ratings: Same as Enercon ETS Series automatic transfer switches
- Enercon ETGM Withstand Current Ratings: Same as Enercon ETG Series automatic transfer switches
- Available in standard, delayed and closed transition versions²
- Bypass-Isolation units (Enercon EBTS Series) also available²
- May be supplied in NEMA 1, 3R, 4, 4X, 12 enclosures or open type
- Third-party Seismic Certification to IBC 2006, 3.2g @ Ip = 1.5 (operation during event)

Optional Accessories for Enercon ETSM

- A** Auxiliary Contact
- A1** Operates on Source 1 failure (SPDT)
 - A1E** Operates on Source 2 failure (SPDT)
- K** Frequency Meter
- M** Meters:
- M1** Ammeter: Single phase
 - M2** Ammeter: Three phase with phase selector switch
- S1** Three-position selector switch (Stop/Test/Automatic)

Optional Accessories for Enercon ETGM

- E** Engine Start Contact
- P1** Time Delay to Engine Start: Standard setting 3 seconds, adjustable 0-10 seconds
- U** Time Delay for Engine Cool Down: Allows engine to run unloaded after switch retransfer to Source 1; standard setting 5 minutes, adjustable 0-5 minutes

NOTES:

¹ Available on Enercon ETGM Series Only

² Available on Enercon ETSM Series Only

Standard Accessories

- A** Auxiliary Contacts:
- A3** Closed when switch is in Source 2 position
 - A4** Closed when switch is in Source 1 position
- L** Indicating LED Pilot Lights:
- L1** Indicates switch in Source 2 position
 - L2** Indicates switch in Source 1 position
 - L3** Indicates Source 1 available
 - L4** Source 2 available

YE/YN Single Pushbutton to Source 1 and 2

Suggested Specifications

Please refer to Enercon's complete series of transfer switch specifications for your exact configuration. The following is a suggested addendum to those guide specs.

The manual (non-automatic) transfer switch(es) shall be of the same electrical ratings, withstand current ratings and main contact construction as the automatic transfer switch(es).

Switch(es) shall be _____ amp, _____ volt, _____ poles as indicated on the drawings.

Accessory features shall include: (*refer to list above*). Switch(es) shall be UL 1008 listed and shall be Enercon ETSM Series (or ETGM as applicable) or approved equal.

Many additional accessories are available to meet installation requirements. Consult your Enercon representative with your project needs.

For UL 1008 withstand and closing ratings, dimensions and weights and external power connection size and quantity, please refer to the appropriate Enercon publication.



Enercon Engineering, Inc.
201 Altorfer Lane, E. Peoria, IL 61611 USA
800.218.8831 www.enercon-eng.com

