



2019-12-11

Mr. David Hewitt
Siemens Industry Inc.
5400 Triangle Parkway, NW
Norcross, GA 30092

E-mail: Hewitt.David@siemens.com

Our Reference: File E82615, E82617, E160869 and E468786;
Project Number 4789229654

Subject: Siemens Breaker Types Used in Existing Murray
Equipment

Dear Mr. Hewitt:

At Siemen’s request, UL LLC reviewed the documentation associated with Siemens Circuit Breakers listed below and compared this documentation to the existing Murray Circuit Breakers listed below. These breakers are identical in construction except for type and catalog number. The correlation of the two breaker types is shown in the table below:

| Breaker Type (Marked on Murray Panelboard) | Siemens Breaker Type |
|---|---------------------------|
| MP-AT2 / MP-HAT2 / MP-MAT2 | QAF2 / QAFH2 / HQAF2 |
| MP-AT / MP-HAT | QAF / QAFH |
| MP-AT2 / MP-HAT2 / MP-MAT2 | QAF2 / QAFH2 / HQAF2 |
| MP-GAT2 / MP-HGAT2 / MP-MGAT2 | QFGA2 / QFGAH2 / HQFGA2 |
| MP-T | QP |
| MH-T | QT |
| MP-T | QP |
| MPP-T / MPP-HT / MPP-MT / MPP-PT | QPP / QPPH / HQPP / HQPPH |
| MP-GT2, MP-HGT2, MP-MGT2 | QPF2, QPHF2, HQPF2 |
| MP-ET2, MP-HET2 | QE2, QEH2 |

The comparison included a review of the following:

- Electrical and wiring spaces
- Housing dimensions of breaker with respect to the alignment with dead-fronts or other Circuit Breakers
- Accessibility of wiring terminals
- Equivalent ratings, including wiring terminal temperature ratings and field wiring conductor temperature ratings and types
- Identical applications of handle ties
- Verification that the interconnecting mechanism and breaker and the panelboard are identical between breaker types
- Interrupting rating and arc vent locations are equivalent

Based on UL LLC's review of the documentation, the "Siemens Types" are determined to have compatible construction and performance specifications to the corresponding Murray breakers listed in the table. The Siemens circuit breaker types may be used or are suitable replacements in Murray panelboards, or other products, designating the use of the Murray circuit breaker types. This comparison for replacement breakers includes evaluation as part of a Series Rating.

Sincerely,

Reviewed by:

Ken Feldhausen
Senior Engineering Associate
Kenneth.Feldhausen@ul.com
(847) 664-2798

Tom Skibbs
Senior Staff Engineering Associate