

**Application Engineering Bulletin****AE-1154-R3****June 15, 1977****COPELAND NAMEPLATE AMPERAGE RATING**

Effective June 1, 1977 the nameplate "Rated Load Amperage" values on Copelametic® compressors are being changed to comply with the applicable U.L. standards in accordance with the National Electric Code. Maximum continuous current values have been established by test for each compressor for each standard refrigerant and operating range. These values have been listed with U.L. and will be used to determine if U.L. listed compressor units, condenser units, and complete systems fall within the U.L. and N.E.C. requirement that the motor protection system must not permit a continuous current in excess of 156% of the established rated load current.

Although U.L. standards would permit a rated load amp rating at the minimum value necessary to permit compliance with the 156% rule, contactors are not subject to qualification tests to determine their acceptability under such conditions. Therefore in order to provide a reasonable margin of safety in contactor application, Copeland has established rated load amp ratings for all pilot circuit protected compressors at a value such that the maximum continuous current will not exceed 140% of the compressor nameplate rated load amps. The same criteria has been used on most internal inherent protected compressors, with a few exceptions where a slight change in the rated load amp rating would allow the use of a smaller contactor, in which case the rated load amp rating was established at a value such that the maximum continuous current would not exceed 150% of the compressor nameplate rated load amp rating.

Copeland compressors applied with the same refrigerant in two different ranges (for example high temperature R-12 and medium temperature R-12) have been tested at the high temperature range, and the maximum continuous current and rated load amp values established on the basis of the higher evaporator loading condition. These values can be used without further testing on lower temperature evaporating ranges.

Where a Copeland compressor is applied with different refrigerants in two ranges (for example, high temperature R-12 and low temperature R-502) separate maximum continuous current values have been established for each, but for Copelametic® nameplate purposes, only the highest rated load amp value is used.

Manufacturers have the option of using a rated load amp value on their unit nameplate either higher or lower than the Copelametic® nameplate value, providing it falls within the 156% rule and the rated load value on the compressor nameplate is obliterated. However on all Copeland compressors with pilot circuit protection, a minimum contactor selection based on Copeland's rated load amp nameplate value is required as a condition of the Copeland warranty.

The new Copeland maximum continuous current and rated load amp values are listed in Copeland Application Engineering Bulletin AE-1250.

Copelaweld® compressors presently have only locked rotor ampere values on the nameplate, and no change in this practice is anticipated.

