MULTILIN

INSTRUCTIONS

MDP4720001CA

NEW TIME OVERCURRENT CURVES TIME DIAL IS MULTIPLIED BY 7.

INTRODUCTION

These instructions, GEK105575 together with GEK-100682, constitute the complete instructions for the above relays.

DESCRIPTION

This relay has the following differences from the standard MDP relay described in GEK-100682. The Very inverse and Extremely inverse time overcurrent curves are multiplied by SEVEN. This change shifts the curves up in time, yielding long time characteristics for these curves. The available curves are on the following drawings:

Figure 1: MDP Inverse time curve, GE drawing number 0286A4858.
Figure 2: MDP 7X Long time Very Inverse curve, GE drawing number 0358AI101.
Figure 3: MDP 7X Long time Extremely Inverse curve, GE drawing number 0358AII02.
Figure 4: MDP Long time Inverse curve, GE drawing number 0286A4861.

The time calculations for the new long time curves are now made by multiplying the time dial by SEVEN all other parts of the equations in instruction book GEK-100682 are the same. For example, The nameplate time dial is set to 0.5 therefore the true setting is 0.35 for a 5 Amp rated relay. Placing the true dial setting in the equation for the Long time Extremely Inverse curve result in the following equation:

$$T = \left\{\frac{58.132}{P^{2.135}-1} + 0.166\right\} * \left(\frac{0.5}{10}\right) * (7) + 0.018$$

for 1.1 to 30 times the pickup TOC. If the pickup P=2, then the operating time would be 6.055 sec.

For reference to this equation and its use see the section on inverse time unit in GEK-100682.

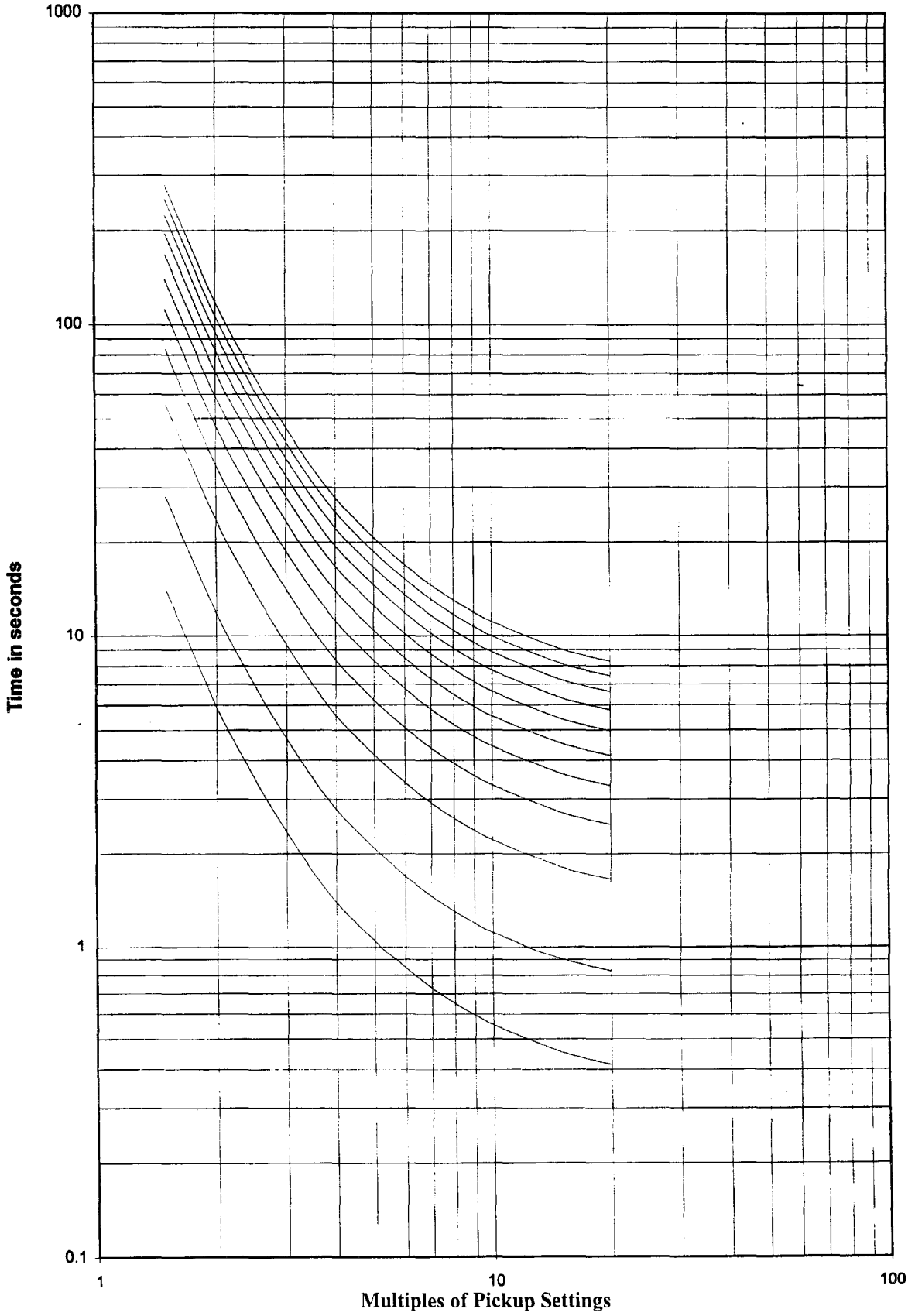

Figure 2 (0385A1101) Long Time Very Inverse Curve

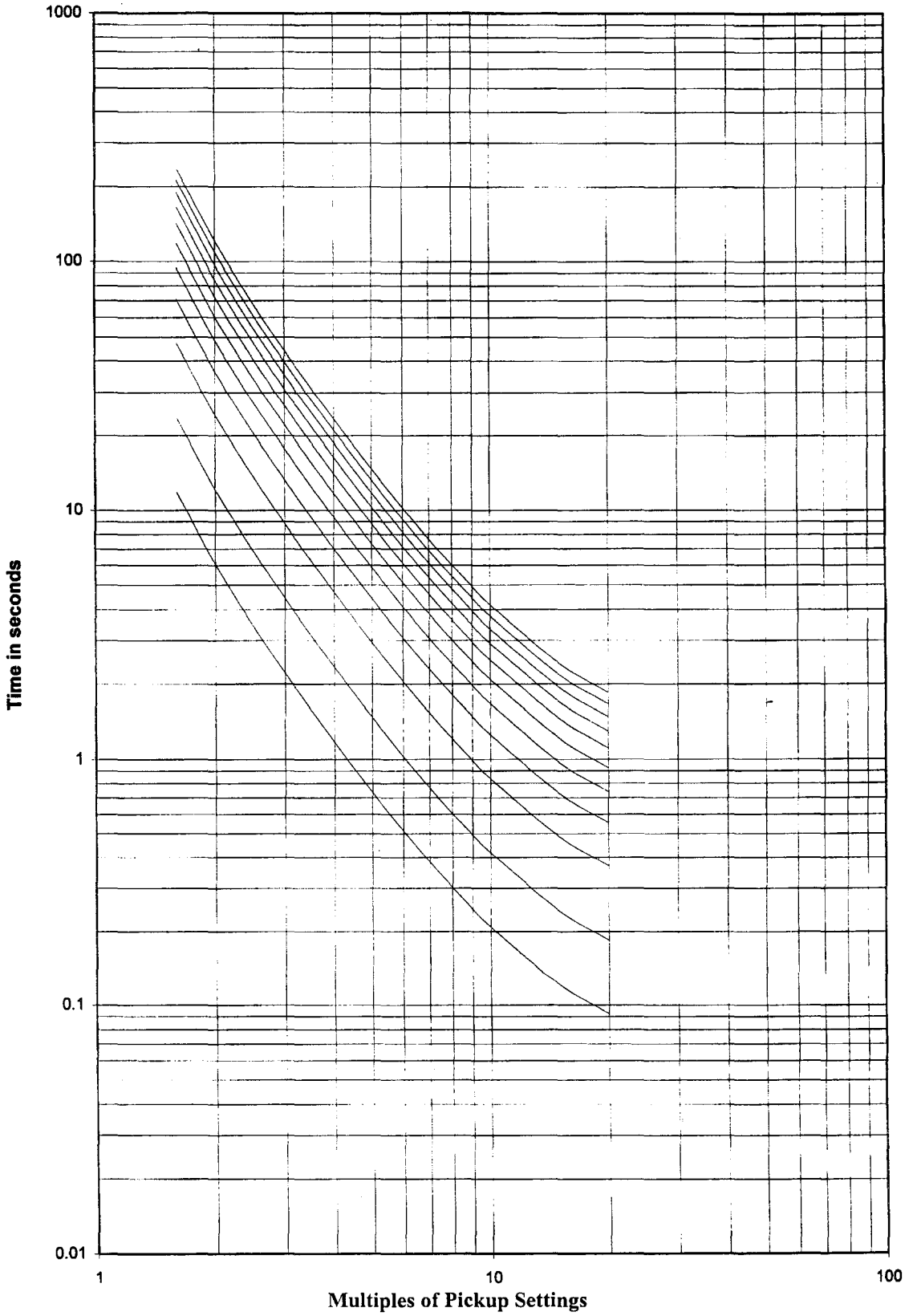

Figure 3 (0385A1102) Long Time Extremely Inverse Curve

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