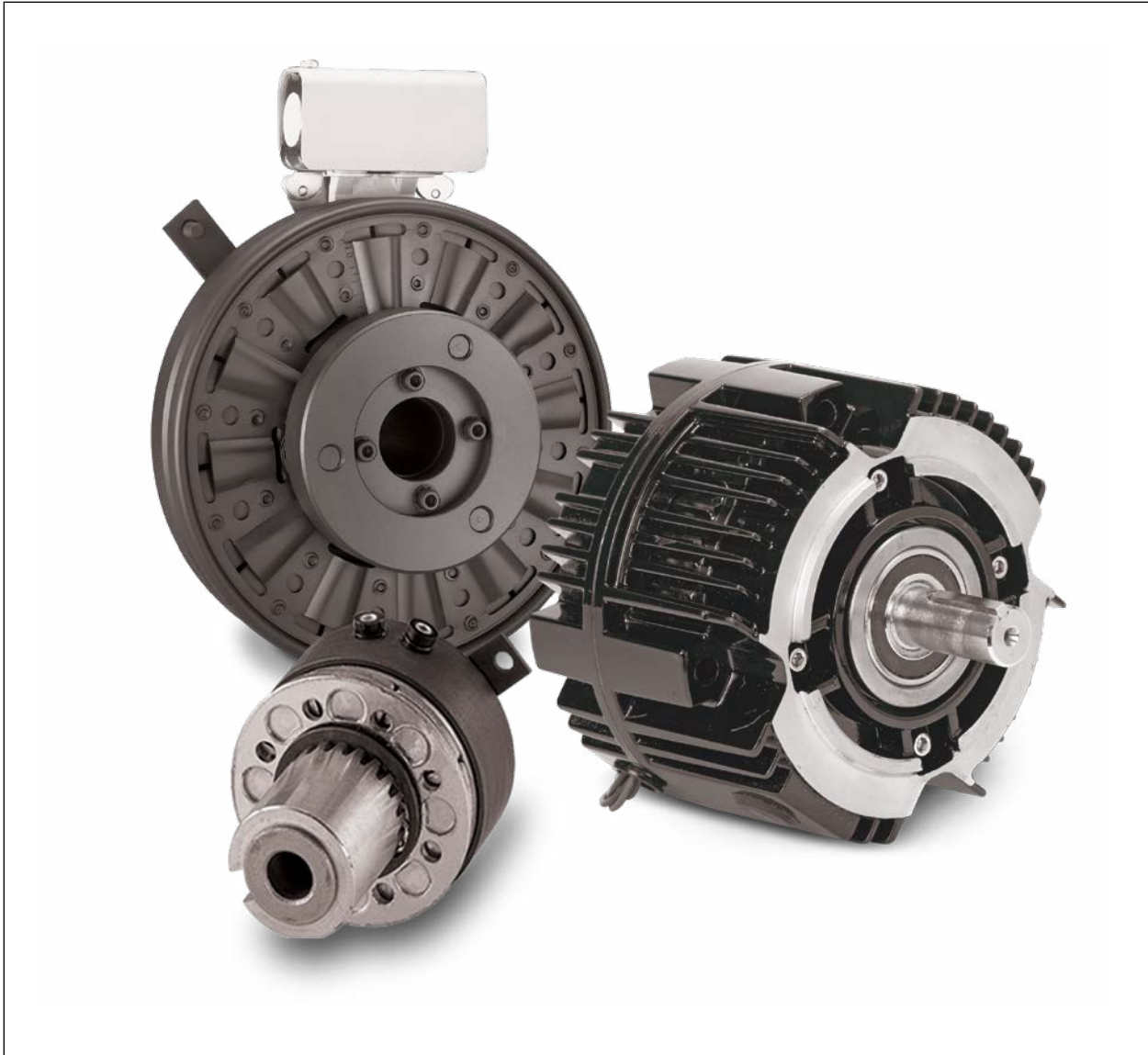


Recommended Electrical Installation Procedure for Warner Electric Clutches and Brakes

Installation Instructions

P-1390-WE
819-0188



 **Warner**[®]
Electric

An **Altra Industrial Motion** Company

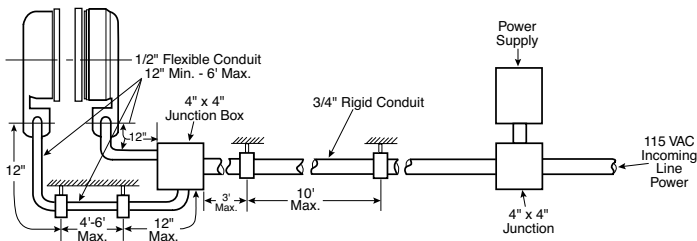
Warner Electric clutches and brakes conform to UL (Underwriters Laboratories) and CSA (Canadian Standards Association) requirements. All packaged products come with conduit boxes or are enclosed in housings with provision for electrical conduit connection. UL Listed/CSA Certified fittings must be used in making connections. All SF clutch fields and brake magnets, in size 400 and larger, accept UL and CSA conforming conduit boxes available from Warner Electric. UL Listed/CSA Certified fittings must be used in making connections.

The National Electrical Code (NEC) requires conductors subject to physical damage be adequately protected. When electrical conduit is used, a minimum of 12" of 1/2" flexible conduit is to be used between each brake and/or clutch and its box. This construction will prevent improper bearing loading in bearing mounted units and ease field and magnet assembly and disassembly. Refer to the information below for proper installation practices and wire sizes.

Notwithstanding the above recommendations, all electrical installations should conform to NEC and/or other governing electrical codes.

Recommended wire size versus maximum distance.

Fractional Horsepower Sizes 170-400				Integral Horsepower Sizes 500-1525		
Wire Size AWG	Distance (feet)			Distance (feet)		
	6 volt	24 volt	90 volt	6 volt	24 volt	90 volt
18	20	280	1000	4	65	700
16	30	430		6	95	
14	50	720		10	160	
12	75	720		10	160	
10	125			25	400	
8	200			40		



General construction wire type MTW or THW recommended. #6 terminal screws (size 400 and smaller) torque to 15 in-lb. #8 terminal screws (size 500 and larger) torque to 20 in-lb.

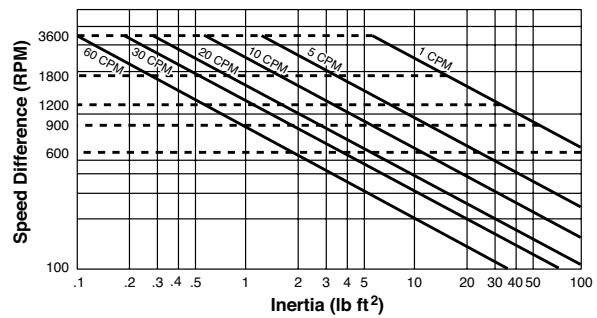
Cycle Rates

The performance curves on this page and the following page meet current UL Listing and Recognition coil temperature limitations, which are class A or 105° C. Consult Warner Electric's Catalog, P-1234 or P-1264, for performance characteristics for applications not subject to UL listings.

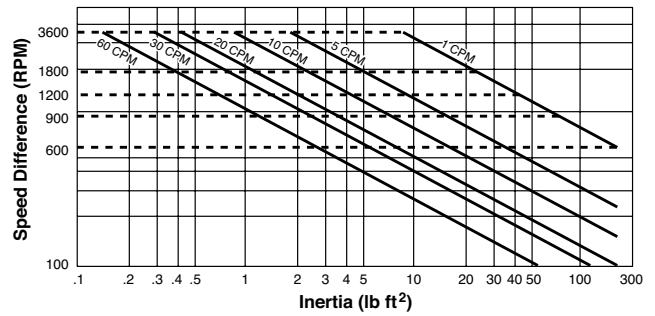
AT Models

Select the chart for the appropriate size AT clutch or brake. The intersection of the reflected inertia (lb. ft.) and speed difference (RPM) lines will indicate the maximum cycle rate for that size unit.

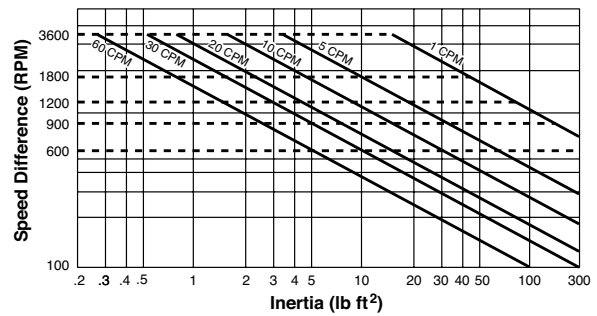
AT 25



AT 55



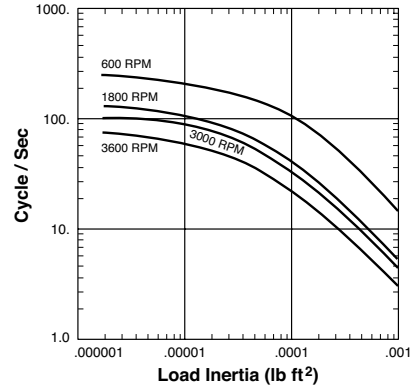
AT 115



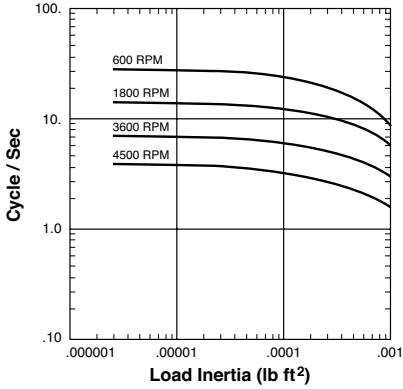
Packaged and Basic Products, Sizes 120-1525

To determine maximum allowable cycle rate, select the chart which covers your size clutch or brake, refer to the horizontal "Load Inertia" axis and project vertically until intersecting the applicable RPM line. Then project horizontally to the left to intersect the vertical cycle / second axis. This is the maximum cycle rate allowable for class A operation.

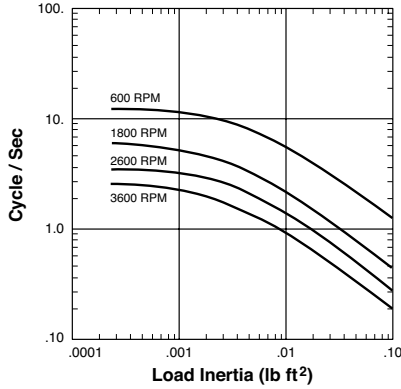
Size 120



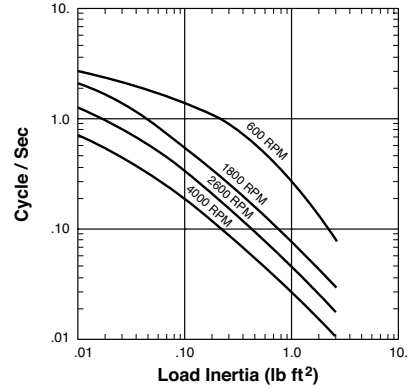
Size 170



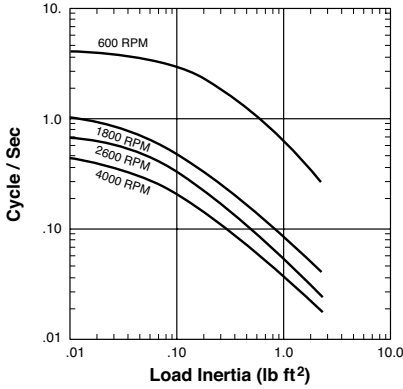
Size 250



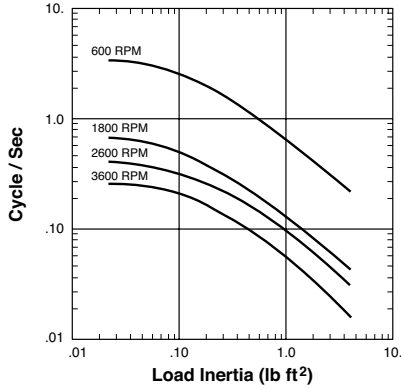
Sizes 375 & 400 (EM/UM 50)



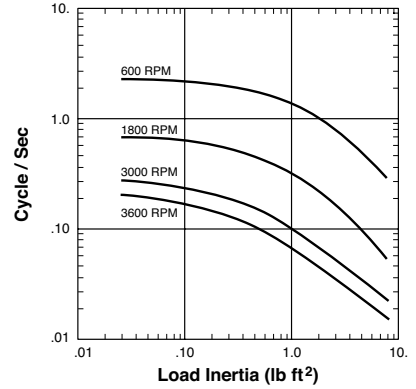
Sizes 475 & 500 (EM/UM 100/180)



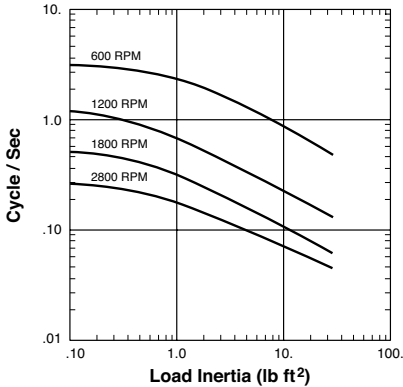
Size 650 (EM/UM 210/215)



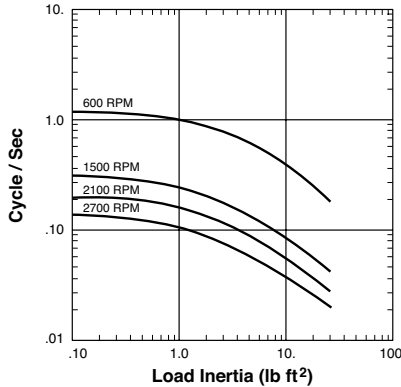
Size 825



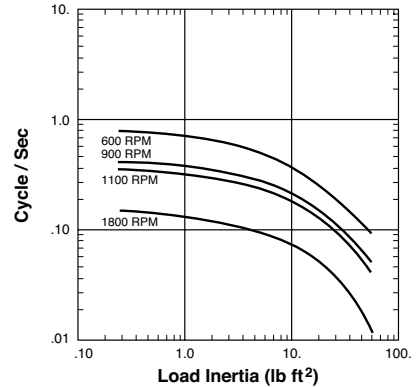
Size 1000



Size 1225



Size 1525



Warranty

Warner Electric LLC warrants that it will repair or replace (whichever it deems advisable) any product manufactured and sold by it which proves to be defective in material or workmanship within a period of one (1) year from the date of original purchase for consumer, commercial or industrial use.

This warranty extends only to the original purchaser and is not transferable or assignable without Warner Electric LLC's prior consent.

Warranty service can be obtained in the U.S.A. by returning any defective product, transportation charges prepaid, to the appropriate Warner Electric LLC factory. Additional warranty information may be obtained by writing the Customer Satisfaction Department, Warner Electric LLC, 449 Gardner Street, South Beloit, Illinois 61080, or by calling 815-389-3771.

A purchase receipt or other proof of original purchase will be required before warranty service is rendered. If found defective under the terms of this warranty, repair or replacement will be made, without charge, together with a refund for transportation costs. If found not to be defective, you will be notified and, with your consent, the item will be repaired or replaced and returned to you at your expense.

This warranty covers normal use and does not cover damage or defect which results from alteration, accident, neglect, or improper installation, operation, or maintenance.

Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Warner Electric LLC's obligation under this warranty is limited to the repair or replacement of the defective product and in no event shall Warner Electric LLC be liable for consequential, indirect, or incidental damages of any kind incurred by reason of the manufacture, sale or use of any defective product. Warner Electric LLC neither assumes nor authorizes any other person to give any other warranty or to assume any other obligation or liability on its behalf.

WITH RESPECT TO CONSUMER USE OF THE PRODUCT, ANY IMPLIED WARRANTIES WHICH THE CONSUMER MAY HAVE ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL CONSUMER PURCHASE. WITH RESPECT TO COMMERCIAL AND INDUSTRIAL USES OF THE PRODUCT, THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Changes in Dimensions and Specifications

All dimensions and specifications shown in Warner Electric catalogs are subject to change without notice. Weights do not include weight of boxing for shipment. Certified prints will be furnished without charge on request to Warner Electric.



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