Installation Instructions for 140U-I-Frame Current Limiter

WARNING

DO NOT ATTEMPTTO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. DEATH, SEVERE PERSONAL INJURY (INCLUDING BURN), OR SUBSTANTIAL PROPERTY DAMAGE CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.

ALLEN-BRADLEY IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF IT'S PRODUCTS.

The user is cautioned to observe all recommendations, warnings and cautions relating to the safety of personnel and equipment as well as all general and local health and safety laws, codes, and procedures.

The recommendations and information contained herein are based on Allen-Bradley experience and Judgement, but should not be considered to be all inclusive or covering every application or circumstance which may arise, contact Allen-Bradley for further information or instructions.

1. INTRODUCTION

Current limiter/circuit breaker or current limiter/MCP combinations are designed for maximum protection and coordination, and should be applied in accordance with the current limiter nameplate.

This noninterchangeability feature is make possible by combinations of molded projections and grooves and by several sizes of pierced and threaded terminals. Standard terminals are provided with the current limiter and are suitable for either copper or aluminum wire as shown in Table 1-1.

For this publication, the term circuit breaker shall also include motor circuit protector.

Table 1-1 Current Limiter Terminal Wire Sizes ①

Current Limiter Max. Amps.	Standard Aluminum Terminals		Nonstandard Terminals (Steel)	
	Wire Range AWG	(mm^2)	Wire Range AWG	(mm^2)
50	#14 - 2	(2.5 - 35)	#14 - 2②	(2.5 - 35)
100	#1 - 4/0	(50 - 95)		
150	#1 - 4/0	(50 - 95)		

① Terminal wire connectors are UL listed for standard wire sizes as defined in UL 486A or 486B
② Optional on special order for copper cable only

2. INSTALLATION

WARNING

IF REMOVING A CIRCUIT BREAKER INSTALLED IN AN ELECTRICAL SYSTEM, MAKE SURE THE CIRCUIT BREAKER IS SWITCHED TO THE OFF POSITION AND THERE IS NO VOLTAGE PRESENT WHERE WORK IS TO BE PREFORMED. SPECIAL ATTENTION SHOULD BE PAID TO REVERSE FEED APPLICATIONS. THE VOLTAGES IN ENERGIZED EQUIPMENT CAN CAUSE DEATH OR SEVERE PERSONAL INJURY.

Note: Before attempting to install the current limiter, check that the catalog number is correct and that the rating of the accessory satisfies job requirements.

A circuit breaker that is mounted in an electrical system must be removed to install the current limiter.

2-1. Remove terminals from load end of circuit breaker.

Note: During next step, molded projections of current limiter should fit inside the molded grooves in the circuit breaker.

2-2. Position threaded terminals of current limiter under circuit breaker terminals.

2-3. Secure current limiter to circuit breaker using the three short screws and lockwashers (Table 2-2)provided in the packing envelope. Torque load screws (Table 2-1).

2-4. Secure current limiter to mounting panel using long #8-32 screws provided in the packaging envelope.

2-5. Connect cables to current limiter. Table 1-1 shows available connector types.

Allen-Bradley assumes no responsibility for malfunctioning accessories installed by the customer.

A circuit breaker that is mounted in an electrical system must be removed to install the current limiter.

Table 2-1 Clamping Screw Torque Values and Usage

Current Limiter Amperes	Clamping Screw	Torque Value lb-in	(N•m)
1 - 15 (also LFB3070R)	#8-32	20	(2.26)
25 - 70	#12 - 24	40	(4.52)
100 - 150 (also LFB3150R)	1/4 - 20	60 to 80	(6.78 to 9.4)