

Type ELC Current Limiter Attachment



**Contents**

<i>Description</i>	<i>Page</i>
Product Overview . . . . .	<b>V4-T2-220</b>
Standards and Certifications . . . . .	<b>V4-T2-221</b>
Quick Reference . . . . .	<b>V4-T2-222</b>
G-Frame (15–100 Amperes) . . . . .	<b>V4-T2-225</b>
F-Frame (10–225 Amperes) . . . . .	<b>V4-T2-239</b>
J-Frame (70–250 Amperes) . . . . .	<b>V4-T2-257</b>
K-Frame (70–400 Amperes) . . . . .	<b>V4-T2-265</b>
L-Frame (125–600 Amperes) . . . . .	<b>V4-T2-289</b>
M-Frame (300–800 Amperes) . . . . .	<b>V4-T2-315</b>
N-Frame (400–1200 Amperes) . . . . .	<b>V4-T2-326</b>
R-Frame (800–2500 Amperes) . . . . .	<b>V4-T2-341</b>
Motor Circuit Protectors (MCP) . . . . .	<b>V4-T2-360</b>
Motor Protection Circuit Breakers (MPCB) . . . . .	<b>V4-T2-371</b>
Type ELC Current Limiter Attachment (Size 0–4) . . . . .	<b>V4-T2-374</b>
Current Limiting Circuit Breaker Module . . . . .	<b>V4-T2-377</b>
Internal Accessories . . . . .	<b>V4-T2-377</b>
External Accessories . . . . .	<b>V4-T2-410</b>

**Type ELC Current Limiter Attachment (Size 0–4)**


**Product Description**

Eaton’s Type ELC current limiter attachment for the MCP is designed to provide increased interrupting capacity. The combination may be used for the application up to 200,000 A symmetrical at 600 Vac, making the MCP suitable for use in network distribution systems or other applications where unusually high fault currents are available. The current limiter connects to the load end of the MCP and is provided with terminals suitable for copper or aluminum conductors. (See table at right.)

Limiters are coordinated with the MCP so that normal fault currents are interrupted automatically by the MCP without any damage to the limiter. Only the rare very high fault is opened by the limiter. Faults that are interrupted by the limiter also magnetically trip the MCP, opening all three poles, preventing single-phase operation.

Each of the three poles of the Type ELC limiter is equipped with an indicator that extends when a fault is interrupted by the limiter.

**Product Selection**

<b>Type ELC Current Limiter Attachment</b>	<b>ELC Current Limiter Attachment</b>	
	<b>MCP Rating (Amperes)</b>	<b>Catalog Number</b>
	3	<b>ELC3003R</b>
	7	<b>ELC3007R</b>
	15	<b>ELC3015R</b>
	30	<b>ELC3030R</b>
	50	<b>ELC3050R</b>
	100	<b>ELC3100R</b>
	150	<b>ELC3150R</b>

**Technical Data and Specifications**

**Type ELC Current Limiter Terminal Wire Sizes** ①

<b>Type ELC Current Limiter Maximum Amperes</b>	<b>Wire Range AWG</b>	<b>Metric (mm<sup>2</sup>)</b>
<b>Standard Aluminum Terminals</b>		
50	14–2	2.5–35
100	1–4/0	50–95
150	1–4/0	50–95
<b>Non-Standard Terminals (Steel)</b>		
50	14–2 <sup>②</sup>	2.5–35
100	—	—
150	—	—

**Notes**

- ① Terminal wire connectors are UL listed for standard stranded wire sizes as defined in UL 486A or UL 486B.
  - ② Optional on special order for copper cable only.
- All HMCP 800 A and 1200 A come without terminals. For terminals, see **Page V4-T2-321**.

#### Current Limiting Circuit Breaker Module

2



### Contents

<i>Description</i>	<i>Page</i>
Product Overview . . . . .	<b>V4-T2-220</b>
Standards and Certifications . . . . .	<b>V4-T2-221</b>
Quick Reference . . . . .	<b>V4-T2-222</b>
G-Frame (15–100 Amperes) . . . . .	<b>V4-T2-225</b>
F-Frame (10–225 Amperes) . . . . .	<b>V4-T2-239</b>
J-Frame (70–250 Amperes) . . . . .	<b>V4-T2-257</b>
K-Frame (70–400 Amperes) . . . . .	<b>V4-T2-265</b>
L-Frame (125–600 Amperes) . . . . .	<b>V4-T2-289</b>
M-Frame (300–800 Amperes) . . . . .	<b>V4-T2-315</b>
N-Frame (400–1200 Amperes) . . . . .	<b>V4-T2-326</b>
R-Frame (800–2500 Amperes) . . . . .	<b>V4-T2-341</b>
Motor Circuit Protectors (MCP) . . . . .	<b>V4-T2-360</b>
Motor Protection Circuit Breakers (MPCB) . . . . .	<b>V4-T2-371</b>
Type ELC Current Limiter Attachment (Size 0–4) . . . . .	<b>V4-T2-373</b>
Current Limiting Circuit Breaker Module	
Product Selection . . . . .	<b>V4-T2-375</b>
Technical Data and Specifications . . . . .	<b>V4-T2-376</b>
Dimensions and Weights . . . . .	<b>V4-T2-376</b>
Internal Accessories . . . . .	<b>V4-T2-377</b>
External Accessories . . . . .	<b>V4-T2-410</b>

### Current Limiting Circuit Breaker Module

#### Product Overview

Power demand continues to grow in new and existing facilities. To meet increased demand, larger utility supplies, spot networks and large facility transformers are installed. The increased capacity of the electrical source results in increased fault currents in excess of 100 kA short-circuit protection. Eaton manufactures non-fused current limiting modules with interrupting capacities up to 200 kA at 600 Vac. Unlike fused current limiters with a one-time use, a current limiter module provides an automatic reset of the module after a short-circuit event. Resetting the molded-case circuit breaker is the only action required to restore critical power to the system; there is no time wasted with sourcing the correct replacement fuses or module to bring the system back online.

#### Product Description

The current limiting breaker modules use a unique contact design to enhance the system protection similar to that of the circuit breaker. When high short-circuit current is flowing through the contacts of these modules, the design results in very high interrupting capacities and improved current limiting characteristics.

#### Application Description

High-performance breakers are most commonly applied when very high fault levels are available and with applications where the current limiting capability is used upstream of the final load to limit current. Typical loads include lighting, power distribution, and motor control applications.

#### Features and Benefits

Superior system protection:

- Auto reset improves system uptime and eliminates the need for finding replacement parts
- No fuses to replace, reducing the overall cost of ownership and the waste created by fuses
- Overloads, by using inverse time current tripping characteristics of the molded-case circuit breaker
- Low-level short circuits, by using instantaneous and/or short-time delay tripping characteristics of the molded-case circuit breaker
- High-level short circuits, by using ultra-high-speed, blow-apart contacts of the current limiting module in series with the circuit breaker contacts
- Let-through currents, by improved opening speed of the contacts, the resultant rapid rise of arc voltage introduces impedance into the system

#### Standards and Certifications

- UL 489
- CSA C22.2

