

# Protect and Disconnect

Complete circuit and load protection solutions



MOTOR PROTECTION CIRCUIT BREAKERS  
MOLDED CASE CIRCUIT BREAKERS  
MINIATURE CIRCUIT BREAKERS  
RESIDUAL CURRENT DEVICES  
DISCONNECT SWITCHES

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# CONTENT



<b>Product</b>	<b>140M</b> Motor Protection Circuit Breaker	<b>140M</b> Motor Circuit Protector	<b>140UE</b> Molded Case Circuit Breaker	<b>140U</b> Molded Case Circuit Breaker
<b>Function &amp; Applications</b>	Function: Protection of motor load and motor starters in case of overload, short circuit and phase loss (MPCB only)  For disconnect means apply lockable actuator.  Application : Machine control panels, Motor Control Centers; enclosed starters for protection of single motor. Basic motor overload protection for Pumps, Conveyors, Fans, etc.		Function: Protection of circuits against overload, short circuit and ground fault.  Application: As both main and branch circuit protection device in panelboards, switchboards, bus-bar trunking tap-offs, individual enclosures.	
<b>Standards</b>	<ul style="list-style-type: none"> <li>• IEC/EN 60947-1; -2; -4</li> <li>• UL489 <sup>1)</sup></li> <li>• CSA 22.2 No.5 <sup>1)</sup></li> <li>• CCC</li> <li>• CE</li> </ul> <p><sup>1)</sup> for 140M-C/D/F and 140M-CMN                  UL 508, CSA 22.2 No 14                  for detailed information refer to technical documentation</p>		<ul style="list-style-type: none"> <li>• IEC/EN 60947-2</li> <li>• KEMA-KEUR</li> <li>• CE</li> </ul>	<ul style="list-style-type: none"> <li>• IEC/EN 60947-2</li> <li>• UL489</li> <li>• CSA 22.2 No.5</li> <li>• KEMA-KEUR</li> <li>• CCC</li> <li>• CE</li> </ul>
<b>Key Features</b>	<ul style="list-style-type: none"> <li>• Compact design</li> <li>• Interrupting capacity from 18 to 100 kA</li> <li>• Common accessories (field-fit) 140M-C/D/F and for 140M/U/UE - H/J/L frame</li> <li>• Electronic trip unit available from 20 to 2500 Amps</li> <li>• Wide range of operating mechanisms to fit with a variety of panel configurations</li> <li>• Rotary variable-depth operating mechanism with internal handle to comply with NFPA79 requirements (available for 140U/140M molded case circuit breakers)</li> </ul>			
<b>Key Benefits</b>	<ul style="list-style-type: none"> <li>• Current limiting features prevent contactor oversizing when Type 2 coordination is required.</li> <li>• Eliminates the need for separate overload relays, saving panel space and wiring time.</li> </ul>	<ul style="list-style-type: none"> <li>• Accurate magnetic trip setting for the best possible protection of the motor against short circuit current and nuisance tripping during starting phase</li> </ul>	<ul style="list-style-type: none"> <li>• Broad interrupting capacity range allows a single unit to address many applications, thereby reducing number of different products to be stocked</li> <li>• Simplification of the panel design thanks to common accessories through 630 Amps</li> <li>• Time savings and flexibility through field installable accessories</li> <li>• Significant panel space savings based on compact housing design (e.g. 125 &amp; 250 Amp frame size)</li> </ul>	



<b>1492-SP</b> Miniature Circuit Breaker	<b>1489</b> Miniature/Industrial Circuit Breaker	<b>1492-RCD</b> Residual Current Device	<b>140U/140UE</b> Molded Case Switches	<b>194E</b> Disconnect Switch	<b>194R</b> Fused and Non-Fused Disconnect Switches
<p>Function: Protection of control circuitry and load components against overload and short circuit</p> <p>Application: Protection of solenoids, test equipment, controller I/O points, relays and contactor coils, computers, transformers, power supplies, control instrumentation, etc</p>		<p>Function: Detection and interruption of earth leakage</p> <p>Application: Protection of personnel and machinery against potentially hazardous earth leakage</p>	<p>Function: Disconnection and isolation of the circuit or part of a circuit or single load</p> <p>Application: As main disconnecting device in machine tool control panel, panelboards, switchboards</p>		<p>Function: Disconnection and protection against short circuit (fused type) of the circuit or part of a circuit</p> <p>Application: As main disconnecting device in machine tool control panel, panelboards, switchboards</p>
<ul style="list-style-type: none"> <li>• “Miniature Circuit Breaker” for IEC applications</li> <li>• IEC/EN 60898</li> <li>• IEC/EN 60947-2</li> <li>• Recognized as supplementary protectors UL1077</li> <li>• UL File No. E6513</li> </ul>	<ul style="list-style-type: none"> <li>• “Industrial Circuit Breaker” for North American applications</li> <li>• UL489</li> <li>• IEC/EN 60947-2</li> <li>• UL File No. E197878</li> </ul>	IEC/EN 61008	<p>140U:</p> <ul style="list-style-type: none"> <li>• UL489</li> <li>• CSA 22.5 No5</li> </ul> <p>140U &amp; 140UE:</p> <ul style="list-style-type: none"> <li>• IEC/EN 60947-2</li> <li>• KEMA-KEUR</li> <li>• CE</li> </ul>	<ul style="list-style-type: none"> <li>• IEC/EN 60947-1</li> <li>• IEC/EN 60947-3</li> <li>• IEC207</li> <li>• UL508 (At-Motor Disconnect Switch)</li> </ul>	<ul style="list-style-type: none"> <li>• IEC/EN 60947-1</li> <li>• IEC/EN 60947-3</li> <li>• IEC207</li> <li>• UL98 (service entrance disconnecting means)</li> <li>• UL508 (At-Motor Disconnect Switch)</li> </ul>
<ul style="list-style-type: none"> <li>• From 0,5 to 63 Amps (40 Amps for 1489)</li> <li>• DIN rail mounting</li> <li>• Positively trip-free mechanism</li> <li>• 10'000 Amps interrupting capacity</li> <li>• Energy limiting design</li> <li>• Field mountable accessories</li> <li>• AC and DC voltage ratings</li> <li>• 3 trip curves (B, C and D) for 1492-SP</li> <li>• 2 trip curves (C and D) for 1489</li> </ul>		<ul style="list-style-type: none"> <li>• Rated tripping current 30, 100, 300, 500 mA</li> <li>• DIN rail mounting</li> <li>• Undelayed tripping time</li> <li>• Auxiliary and signal contacts available</li> <li>• AC/DC pulse current version available</li> </ul>	<ul style="list-style-type: none"> <li>• Self-protected Isolation</li> <li>• Disconnect High-breaking capacity</li> <li>• All accessories of 140U/UE range can be installed (field mountable)</li> </ul>		<ul style="list-style-type: none"> <li>• 16...315 Amps</li> <li>• IP66 Operating Handles</li> <li>• IP2LX on terminals</li> <li>• 3 &amp; 6 pole version</li> <li>• 4 pole version with add-on module</li> <li>• Door &amp; DIN mounting</li> </ul>
<ul style="list-style-type: none"> <li>• 10'000 Amps interrupting capacity covers most applications</li> <li>• Longer component life through energy limiting design</li> <li>• Reversible line and load connections simplify wiring</li> <li>• Quick and flexible installation granted by the wide range of field mountable accessories and commoning links</li> </ul>			<ul style="list-style-type: none"> <li>• Disconnect functionality up to 1250 Amps</li> <li>• Many options in mounting and various operating mechanisms allow installation in all types of cabinets</li> </ul>		<p>194E:</p> <ul style="list-style-type: none"> <li>• Disconnecter according IEC</li> <li>• At-Motor-Disconnect according UL/CSA</li> </ul> <p>194R:</p> <ul style="list-style-type: none"> <li>• Disconnecter according UL/CSA and IEC with Non-Fused types</li> <li>• Disconnecter and Short-Circuit/Overload protection with Fused types</li> <li>• Wide range of interchangeable fuse covers for various UL and IEC fuse types</li> <li>• Add-on 4th-pole, add-on auxiliary contacts</li> <li>• Optical Blown-fuse indicator as option</li> <li>• Test position</li> </ul>

## Broad Selection of Quality Products

Rockwell Automation offers a full line of Allen-Bradley circuit breakers and motor protection devices to meet most global application needs. They have a wide current range (0.5...2500 A) and a large variety of functions. These components are accompanied by a full range of accessories and operating/mounting options to satisfy a range of installation needs. From miniature circuit breakers to molded case circuit breakers and fused disconnect switches, there is a complete Allen-Bradley power control solution for you whether you are building panels or machines, in local installations or for the global market.



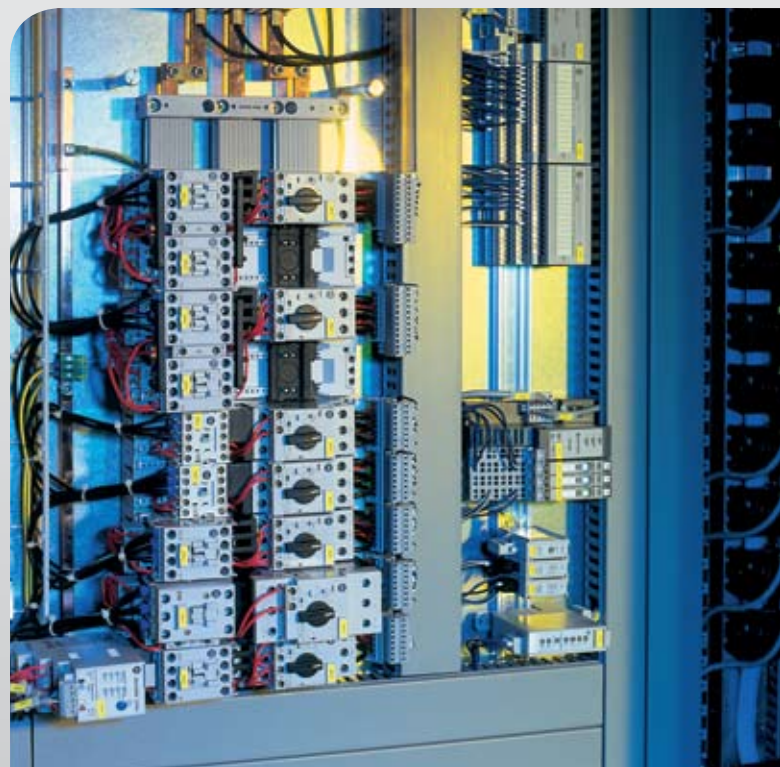
## Global Solutions and Faster Time-to-Market

"Protect and Disconnect" from Rockwell Automation conform to IEC and North American standards, making them a truly global solution. As a result, panel- and machine-builders can design and ship standardized products worldwide, significantly reducing time-to-market.

## Modularity and flexibility to simplify installation

Flexible mounting options (DIN rail, on-panel, plug-in or modular mounting system) combined with multiple connection possibilities (lugs, bus bars, commoning links or modular wiring system) make installation of Allen-Bradley circuit and load protection devices extremely quick and simple.

In addition, field-installed accessories allow you to customize or modify the product configuration on-site and still maintain the UL Listing.





## Proven, reliable motor protection

Rockwell Automation offers more than 30 years of expertise and proven performance in circuit breaker and motor starter technologies. Short circuit coordinations are available for motors from 0.1 to 630 kW, fault currents up to 100 kA, and operational voltages up to 690 V.

IEC Type 2 rating and high Short Circuit Current Ratings are also possible thanks to efficient and reliable motor protection circuit breakers designed with sophisticated current limiting technology.

## Maximize panel space

The compact size of Allen-Bradley protection and disconnection devices provides significant panel space savings – up to 30 % in 125 & 250 Amps molded case circuit breaker frames, for example. Plus, these modular products, in conjunction with installation by the 141A modular mounting system makes panel design extremely simple with intuitive cabinet layout.



## One-Stop Supplier with Worldwide Support

In Rockwell Automation you get the complete portfolio of Industrial Control and Integrated Architecture products you need, wherever and whenever you need them. As your one-stop shop, we can simplify the purchasing process and assure product availability thanks to our distributor partners in more than 80 countries. Plus, our global network of technical support and service specialists are available to assist in the selection, operation and maintenance of your Allen-Bradley solutions.



# 140M - Motor Protection Circuit Breakers (Thermal-Magnetic)

- Current range 0.1...630 A
- UL Listed for motor loads
  - Short Circuit protection
  - Overload protection
- Visible trip indication
- Accessories for field installation



Frame		C - 32	D - 32	F - 45	CMN - 90	I - 205	J - 250	L - 630
<b>Catalog Number</b>		<b>140M-C2E</b> <sup>1)</sup>	<b>140M-D8E</b> <sup>1)</sup>	<b>140M-F8E</b> <sup>1)</sup>	<b>140-CMN</b>	<b>140M-I8E</b>	<b>140M-J8E</b>	<b>140M-L8E</b>
IEC Breaking Capacity Icu/Ics [kA]	230 V/50 Hz	100/100 <sup>1)</sup>	100/100 <sup>1)</sup>	100/100 <sup>1)</sup>	100/100 <sup>1)</sup>	100/100	100/100	100/100
	400 V/50 Hz	100/100 <sup>1)</sup>	65/25 <sup>1)</sup>	65/50 <sup>1)</sup>	50/25 <sup>1)</sup>	70/70	70/70	70/70
	500 V/50 Hz	50/50 <sup>1)</sup>	50/25 <sup>1)</sup>	50/50 <sup>1)</sup>	25/13 <sup>1)</sup>			
	690 V/50 Hz	4/4 <sup>1)</sup>	6/4 <sup>1)</sup>	10/6 <sup>1)</sup>	6/6 <sup>1)</sup>	14/7	14/7	25/13
UL498 Inverse Time CB Interrupting rating [kA]	480V/60Hz	-	-	-	-	65	65	65
	600V/60Hz	-	-	-	-	30	25	35
UL508 Man. Motor Controller Interrupting Rating [kA]	480V/60Hz	65 <sup>1)</sup>	65 <sup>1)</sup>	65 <sup>1)</sup>	35 <sup>1)</sup>	-	-	-
	600V/60Hz	30 <sup>1)</sup>	30 <sup>1)</sup>	30 <sup>1)</sup>	10 <sup>1)</sup>	-	-	-
Number of Poles		3	3	3	3	3	3	3
Standard Trip Unit		T/M	T/M	T/M	T/M	T/M	T/M	T/M
Thermal Trip Setting		Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable
Thermal Trip Class		10	10	10	10	5, 10, 15 or 20	10, 15, 20 or 30	10, 15, 20 or 30
Short Circuit Trip Setting		Fix (13 xle) <sup>1)</sup>	Fix (13 xle) <sup>1)</sup>	Fix (13 xle) <sup>1)</sup>	Fix (13 xle)	Fix (12...15 xle)	Fix (12...15 xle)	Fix (12...15 xle)
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	Rated Current							
	0.16 A	<b>-A16</b>						
	0.25 A	<b>-A25</b>						
	0.40 A	<b>-A40</b>						
	0.63 A	<b>-A63</b>						
	1 A	<b>-B10</b>						
	1.6 A	<b>-B16</b>						
	2.5 A	<b>-B25</b>	<b>-B25</b>					
	4 A	<b>-B40</b>	<b>-B40</b>					
	6.3 A	<b>-B63</b>	<b>-B63</b>					
	10 A	<b>-C10</b>	<b>-C10</b>	<b>-C10</b>				
	16 A	<b>-C16</b>	<b>-C16</b>	<b>-C16</b>				
	20 A	<b>-C20</b>	<b>-C20</b>	<b>-C20</b>				
	25 A	<b>-C25</b>	<b>-C25</b>	<b>-C25</b>	<b>-2500</b>			
	29A	<b>-C29</b>	<b>-C29</b>	<b>-C29</b>				
	32 A	<b>-C32</b>	<b>-C32</b>	<b>-C32</b>				
	45 A (40 A/50 A)			<b>-C45</b>	<b>-4000</b>		<b>-C50</b>	
	63 A				<b>-6300</b>			
	80 A					<b>-C80E</b> <sup>7)</sup>		
	90 A/100 A				<b>-9000</b>	<b>-D10E</b> <sup>7)</sup>	<b>-D10</b>	
160 A					<b>-D16E</b> <sup>7)</sup>	<b>-D16</b>		
205 A					<b>-D20E</b> <sup>7)</sup>			
250 A						<b>-D25</b>	<b>-D25</b>	
400 A							<b>-D40</b>	
630 A							<b>-D63</b>	

## Connections and Accessories

Terminal lugs		Standard			Standard	Standard	140U-J-TLS1	140U-L-TL6A1
Terminal shield		140M-C-WS	140M-F-WS	140U-H-TS	140U-I-TS1	140U-J-TS	140U-J-TS	
Phase Barriers		140M-C-TE1	140M-F-TE	-	140-I-PB	140-J-PB	140-K-PB	
Auxiliary Contact Front-Mounted	1 NO	140M-C-AFA10			-	140U-I-EA1L <sup>4)</sup> (1 C/O - internal mounting)	140U-H-EA1 (1 C/O - internal mounting)	
	1 NC	140M-C-AFA01			-			
	1 NO + 1 NC	140M-C-AFA11			140-CA11			
	2 NO	140M-C-AFA20			140-CA20	140U-I-EA2L <sup>4)</sup> (2 C/O - internal m.)	140U-H-EA2 (2 C/O internal mounting)	
2 NC	140M-C-AFA02			140-CA02				
Auxiliary Contact Right Side Mounted	2 NO	140M-C-ASA20			-	-	-	-
	2 NC	140M-C-ASA02			-	-	-	-
	1 NO + 1 NC	140M-C-ASA11			-	-	-	-
Trip Contact Front Mounted	2 NO	140M-C-AFAR10A10			140-CT10-10	140U-ER1L <sup>4)</sup> (1 C/O - internal m.)	140U-J-ER1 (1 C/O EM/LB - internal mounting)	
	1 NO + 1 NC	140M-C-AFAR10A01			140-CT10-01			
Trip Contact Right Side Mounted	2 NO	140M-C-ASAR10M10			-	140U-I-EA1R1L <sup>4)</sup> (1 C/O aux. + 1 C/O trip internal mount.)	-	-
	1 NO + 1 NC	140M-C-ASAR10M01			-		No	No
	2 NC	140M-C-ASAR01M01			-		No	No
Shunt Trip <sup>2)</sup>		140M-C-SN ▲ (left-side mounted)			140-CRT-▲ (front)	140U-I-SN▲L <sup>4)</sup>	140U-H-S▲ (internal mounting)	
Undervoltage Trip <sup>2)</sup>		140M-C-UX▲ (left-side mounted)			140-CUV-▲ (front)	140U-I-U▲L <sup>4)</sup>	140U-H-U▲ (internal mounting)	
Door Coupling Handle - Black		140M-C-DN66			140-CDN66	140U-I-RCB	140U-J-RVM12B	140U-L-RVM12
Door Coupling Handle - Red/Yellow		140M-C-DRY66			140-CDRY66	140U-I-RCR	140U-J-RVM12R	140U-L-RVM12R
Extension Shaft		140M-C-DS (250 mm); 140M-C-DSL (400 mm)				<sup>3)</sup>	<sup>5)</sup>	
IP65 Plastic Enclosure	Black Handle	198E-AYTG2	-	-	-	No	No	No
	Red/Yellow Handle	198E-AYTJ2	-	-	-	No	No	No
Motor Operator	110...240 Vac/dc					No	140U-J-EOPD	140U-L-EOPD
	24 Vdc					No	140U-J-EOPZ	140U-L-EOPZ

# 140M - Motor Circuit Protectors (Magnetic-Trip only)

- Current range 0.16...1200 A
- UL Listed/Recognized for motor loads
  - Short Circuit protection (Overload protection must be provided separately)
- Visible trip indication
- Accessories for field installation



Frame		C - 25	D - 32	F - 45	H - 100	J - 250	L - 630	N - 1200
<b>Catalog Number</b>		<b>140M-C2N</b>	<b>140M-D8N</b>	<b>140M-F8N</b>	<b>140M-H8P</b>	<b>140M-J8P</b>	<b>140M-L8P</b>	<b>140M-N8P</b>
IEC Breaking Capacity Icu/Ics [kA]	230 V/50 Hz	100/100 <sup>1)</sup>	100/100 <sup>1)</sup>	100/100 <sup>1)</sup>	<sup>9)</sup>	100/100	100/100	<sup>9)</sup>
	400 V/50 Hz	100/100 <sup>1)</sup>	50/25 <sup>1)</sup>	65/50 <sup>1)</sup>	<sup>9)</sup>	70/70	70/70	<sup>9)</sup>
	500 V/50 Hz	100/100 <sup>1)</sup>	25/25 <sup>1)</sup>	50/50 <sup>1)</sup>	<sup>9)</sup>	50/30	50/25	<sup>9)</sup>
	690 V/50 Hz	8/8 <sup>1)</sup>	6/4 <sup>1)</sup>	10/6 <sup>1)</sup>	<sup>9)</sup>	14/7	25/13	<sup>9)</sup>
UL498 Inverse Time CB Interrupting rating [kA]	480V/60Hz	-	-	-	65 <sup>9)</sup>	65 <sup>9)</sup>	65 <sup>9)</sup>	65 <sup>9)</sup>
	600V/60Hz	-	-	-	25 <sup>9)</sup>	25 <sup>9)</sup>	25 <sup>9)</sup>	35 <sup>9)</sup>
UL508 Man. Motor Controller Interrupting Rating [kA]	480V/60Hz	65 <sup>1)</sup>	30 <sup>1)</sup>	65 <sup>1)</sup>	-	-	-	-
	600V/60Hz	30 <sup>1)</sup>	30 <sup>1)</sup>	18 <sup>1)</sup>	-	-	-	-
Number of Poles		3	3	3	3	3	3	3
Standard Trip Unit		MAG only	MAG only	MAG only	MAG only	MAG only	MAG only	MAG only
Thermal Trip Setting		No	No	No	No	No	No	No
Thermal Trip Class		-	-	-	-	-	-	-
Short Circuit Trip Setting		Fixed (13 xle)	Fixed (13 xle)	Fixed (13 xle)	Adj (3...10 xle)	Adj (3...10 xle)	Adj (3...10 xle)	Adj (2...8 xle)
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	Rated Current							
	0.16 A	<b>-A16</b>						
	0.25 A	<b>-A25</b>						
	0.40 A	<b>-A40</b>						
	0.63 A	<b>-A63</b>						
	1 A	<b>-B10</b>						
	1.6 A	<b>-B16</b>						
	2.5 A/3 A	<b>-B25</b>	<b>-B25</b>		<b>-B30</b>			
	4 A		<b>-B40</b>					
	6.3 A/7 A		<b>-B63</b>		<b>-B70</b>			
	10 A		<b>-C10</b>					
	15 A/16 A		<b>-C16</b>		<b>-C15</b>			
	25 A		<b>-C25</b>	<b>-C25</b>				
	30 A/32 A		<b>-C32</b>	<b>-C32</b>	<b>-C30</b>			
	40 A/45 A/50 A			<b>-C45</b>	<b>-C50</b>			
	70 A				<b>-C70</b>			
	100 A				<b>-D10</b>	<b>-D10</b>		
	125 A					<b>-D12</b>		
	150 A					<b>-D15</b>		
	175 A					<b>-D17</b>		
	200 A					<b>-D20</b>		
225 A					<b>-D22</b>	<b>-D22</b>		
250 A					<b>-D25</b>	<b>-D25</b>		
300 A						<b>-D30</b>		
350 A						<b>-D35</b>		
400 A						<b>-D40</b>		
450 A						<b>-D45</b>		
500 A						<b>-D50</b>		
630 A						<b>-D63</b>		
800 A							<b>-D80</b>	
1200 A							<b>-E12</b>	
<b>Connections and Accessories</b>		Please refer to accessories shown on page 6, "140M-Motor-Protection Circuit Breakers"			Please refer to accessories shown on page 10, "140UE Molded Case Circuit Breakers"			

### Notes

- <sup>1)</sup> Interrupting capacity varies according to Amp rating. Please consult on-line catalog for more details
- <sup>2)</sup> For voltage suffix ▲ please consult the Product Selection Guide or the Industrial Control Catalog
- <sup>3)</sup> Rotary Operating Mechanism, Shaft and Handle to be ordered individually, please consult the Industrial Control Catalog
- <sup>4)</sup> These options to be ordered factory installed
- <sup>5)</sup> Shaft 300 mm included in Door Coupling Handle, for 500 mm replace 12 with 21
- <sup>6)</sup> Rating Plug required, please consult On-Line or Industrial Control Catalog
- <sup>7)</sup> Catalog-numbers ending with "E" refer to IEC rated breakers, for global certified types (UL and IEC) remove the E, e.g. 140M-I8E-D20
- <sup>8)</sup> Non Metallic Handle, IP 66, Cable length 1.8 meters. For different handle types and cable length, please consult On-Line or Industrial Control Catalog
- <sup>9)</sup> Rating dependent on configuration with Contactor and Overload Relay, refer to Coordination Tables
- <sup>10)</sup> Not compliant with IEC 60947-2, did comply with IEC 157-1
- <sup>11)</sup> For motors with increased starting current, use devices 140M-xyT-zzz (Short Current Trip Setting = 16...20 x le). For further information refer to technical documentation

# 140UE - Molded Case Circuit Breakers - IEC Rated

- Protection against overload and short circuit
- Electronic trip unit available from 250 A frame size
- 3-4 poles versions available
- IEC 60947-2, CE, KEMA-KEUR
- Internal accessories for field installation



Frame		H - 160				J - 250		
Thermal/Magn. Trip Unit	Cat. No. - 3 poles	140UE-H1C3	140UE-H2E3	140UE-H4E3	140UE-H7E3	140UE-J2F3	140UE-J4F3	140UE-J7F3
	Cat. No. - 4 poles	-	140UE-H2E4	140UE-H4E4	140UE-H7E4	140UE-J2F4	140UE-J4F4	140UE-J7F4
Electronic Trip Unit ⊙ = poles 3 or 4	LS Cat. No.	-				140UE-J2L⊙	140UE-J4L⊙	140UE-J7L⊙
	LSI Cat. No.	-				140UE-J2H⊙	140UE-J4H⊙	140UE-J7H⊙
	LSG Cat. No.	-				140UE-J2G⊙	140UE-J4G⊙	140UE-J7G⊙
	LSIG Cat. No.	-				140UE-J2I⊙	140UE-J4I⊙	140UE-J7I⊙
Breaking Capacity Icu/Ics [kA]	230 V/50 Hz	25/13	35/18	85/43	100/50	65/65	85/85	100/100
	400 V/50 Hz	18/9	25/13	40/30	70/35	25/25	40/40	70/70
	500 V/50 Hz	-	-	25/18	35/18	20/12	35/20	42/20
	690 V/50 Hz	-	-	4/3	6/3	12/6	12/6	14/7
Number of Poles		3	3 or 4	3 or 4		3 or 4	3 or 4	3 or 4
Trip Unit		T/M	T/M	T/M		T/M	Electronic	
Thermal Trip Setting		Fixed	Adj. (0.8...1 xle)	Adjustable (0.8...1 xle)		Adjustable (0.8...1 xle)		Adjustable (0.4...1 xle)
Short Circuit Trip Setting		Fixed (10 xle)	Fixed (10 xle)	Fixed (10 xle)		Adjustable (5...10 xle)		Adjustable (2...10 xle)
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	16 A	-C16						
	20 A	-C20	-C20		-C20			
	25 A	-C25	-C25		-C25			
	32 A	-C32	-C32		-C32			
	40 A	-C40	-C40		-C40			
	50 A	-C50	-C50		-C50			-C50
	63 A	-C63	-C63		-C63			
	80 A	-C80	-C80		-C80	-C80		
	100 A	-D10	-D10		-D10	-D10		-D10
	125 A	-D12	-D12		-D12	-D12		
	160 A	-D16	-D16			-D16		-D16
200 A					-D20			
250 A					-D25		-D25	

## Connections

Terminal Lugs	Supplied as Standard (Stainless Steel, 2.5...95 mm <sup>2</sup> )				140U-J-TS1 (Stainless Steel, 25...185 mm <sup>2</sup> )				
					140U-J-TLA1 (Al, 25...185 mm <sup>2</sup> )				
Multi Tap Terminals	140U-H-MTL3A (Al, 3 x 2.5...35 mm <sup>2</sup> )				140U-J-MTL3A (Al, 3 x 2.5...25 mm <sup>2</sup> )				
	140U-H-MTL6A (Al, 6 x 2.5...10 mm <sup>2</sup> )				140U-J-MTL6A (Al, 6 x 2.5...10 mm <sup>2</sup> )				
Phase Barriers [3 poles]	140U-H-PB				140U-J-PB				
Terminal Shields	3 poles	140U-H-TS				140U-J-TS			
	4 poles	140U-H-TS4				140U-J-TS4			
End Cap Kit	140U-H-ECM				140U-J-ECM				
Bolt on	-				Through Hole 8.5 mm Ø				
Plug-In [base adapter - ⊙ = poles]	140U-H-PAD⊙				140U-J-PAD⊙				

## Accessories

Ground Fault Protection Module ⊙ = poles 3 or 4	-				140U-J-ELP160⊙ (up to 160 A)				
					140U-J-ELP250⊙ (up to 250 A)				
Auxiliary Contact	1 C/O	140U-H-EA1				140U-H-EA1			
	2 C/O	140U-H-EA2				140U-H-EA2			
Alarm Contact	1 C/O (EM/LB)	140U-H-ER1				140U-J-ER1			
Auxiliary/Alarm Contact	1 C/O + 1 C/O	140U-H-EA1R1				140U-J-EA1R1			
Shunt Trip	140U-H-S▲ <sup>2)</sup>				140U-H-S▲ <sup>2)</sup>				
Undervoltage Release	140U-H-U▲ <sup>2)</sup>				140U-H-U▲ <sup>2)</sup>				
Rotary Handle, Direct, Black	140U-H-RCB				140U-J-RCB				
Rotary Handle, Direct, Red/Yellow	140U-H-RCR				140U-J-RCR				
Rotary Handle, Var-Depth, Black	140U-H-RVM12B (300 mm), 140U-H-RVM21B (500 mm)				140U-J-RVM12B (300 mm), 140U-J-RVM21B (500 mm)				
Rotary Handle, Var-Depth, Red/Yellow	140U-H-RVM12R (300 mm), 140U-H-RVM21R (500 mm)				140U-J-RVM12R (300 mm), 140U-J-RVM21R (500 mm)				
Motor Operator	140U-H-EOPD (110...240 Vac); 140U-H-EOPZ (24 Vdc)				140U-J-EOPD (110...240 Vac); 140U-J-EOPZ (24 Vdc)				



# 140UE - Molded Case Circuit Breakers - IEC Rated

- Protection against overload and short circuit
- Electronic trip unit available from 250 A frame size
- 3-4 poles versions available
- IEC 60947-2, CE, KEMA-KEUR
- Internal accessories for field installation



Frame		L - 630			M - 800		N - 1250	
Thermal/Magn. Trip Unit	Cat. No. - 3 poles	140UE-L3F3	140UE-L5F3	140UE-L7F3	140UE-M5D3	140UE-M7D3	-	-
	Cat. No. - 4 poles	140UE-L3F4	140UE-L5F4	140UE-L7F4	-	-	-	-
Electronic Trip Unit ⊙ = poles 3 or 4	LS Cat. No.	140UE-L3L⊙	140UE-L5L⊙	140UE-L7L⊙	140UE-M5L3	140UE-M7L3	140UE-N7L⊙	140UE-N0L⊙
	LSI Cat. No.	140UE-L3H⊙	140UE-L5H⊙	140UE-L7H⊙	140UE-M5H3	140UE-M7H3	140UE-N7H⊙	140UE-N0H⊙
	LSG Cat. No.	140UE-L3G⊙	140UE-L5G⊙	140UE-L7G⊙	140UE-M5G3	140UE-M7G3	140UE-N7G⊙	140UE-N0G⊙
	LSIG Cat. No.	140UE-L3I⊙	140UE-L5I⊙	140UE-L7I⊙	140UE-M5I3	140UE-M7I3	140UE-N7I⊙	140UE-N0I⊙
Breaking Capacity Icu/Ics [kA]	230 V/50 Hz	65/65	85/85	100/100	65/65	100/100	100/100	200/100
	400 V/50 Hz	35/35	50/50	70/70	50/50	70/50	70/50	100/50
	500 V/50 Hz	18/ 8	25/25	35/35	25/25	35/13	35/18	65/33
	690 V/50 Hz	12/9	20/10	25/13	20/10	25/13	25/13	35/18
Number of Poles		3 or 4	3 or 4	3 or 4	3	3	3 or 4	
Standard Trip Unit		T/M		Electronic	T/M	Electronic	Electronic	
Thermal Trip Setting		Adjustable (0.8...1 xle)		Adjustable (0.4...1 xle)	Fixed	Adj. (0.4...1 xle)	Adjustable (0.5...1 xle)	
Short Circuit Trip Setting		Adjustable (5...10 xle)		Adjustable (2...10 xle)	Adj. (5...10 xle)	Adj. (2...10 xle)	Adjustable (2...8 xle)	
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	250 A	-D25						
	300/320 A	-D32			-D30			
	350 A				-D35			
	400 A	-D40			-D40			
	450 A				-D45			
	500 A	-D50			-D50			
	600/630 A	-D63		-D63	-D60			
	700 A				-D70			
	800 A				-D80	-D80		
	1250 A						-E12	-E12
<b>Connections</b>								
Terminal Lugs		140U-L-TL4A1 (Al, 35...240 mm <sup>2</sup> )			-		-	
		140U-L-TL6A1 (Al, 240...300 mm <sup>2</sup> )						
Multi Tap Terminals		140U-L-TL6A2 (Al, 2 x 35...240 mm <sup>2</sup> )			140U-M-TLA2 (Al, 2 x 50...240 mm <sup>2</sup> )		140U-N-TLA2 (Al, 2 x 50...240 mm <sup>2</sup> )	
					140U-M-TLA3 (Al, 3 x 95...185 mm <sup>2</sup> )		140U-N-TLA3A (Al, 3 x 300...440 mm <sup>2</sup> )	
Phase Barriers [3 poles]		140U-K-PB			140U-M-PB		140U-N-PB	
Terminal Shields	3 poles	140U-L-TS			-		-	
	4 poles	140U-L-TS4			-		-	
End Cap Kit		140U-L-ECM			-		-	
Bolt on		Through Hole 12.5 mm ⊙			Thread ½" SAE		Thread M12 (2x)	
Plug-In [base adapter - ⊙ = poles]		140U-L-PAD⊙			-		-	
<b>Accessories</b>								
Ground Fault Protection Module ⊙ = poles 3 or 4		140U-L-ELP400⊙ (up to 400 A)			-		-	
		140U-L-ELP600⊙ (up to 630 A)						
Auxiliary Contact	1 C/O	140U-H-EA1			140U-M-EA1		140U-N-EA1	
	2 C/O	140U-H-EA2			140U-M-EA2		140U-N-EA2	
Alarm Contact	1 C/O (EM/LB)	140U-J-ER1			140U-M-ER1		140U-N-ER1	
Auxiliary/Alarm Contact	1 C/O + 1 C/O	140U-J-EA1R1			140U-M-EA1R1		140U-N-EA1R1	
Shunt Trip		140U-H-SN▲ <sup>2)</sup>			140U-M-SN▲ <sup>2)</sup>		140U-N-SN▲ <sup>2)</sup>	
Undervoltage Release		140U-H-U▲ <sup>2)</sup>			140U-M-U▲ <sup>2)</sup>		140U-N-U▲ <sup>2)</sup>	
Rotary Handle, Direct, Black		140U-L-RMX			-		-	
Rotary Handle, Direct, Red/Yellow		-			-		-	
Rotary Handle, Var-Depth, Black		140U-L-RVM12B (300 mm), 140U-L-RVM21B (500 mm)			140U-M-RVM21B (500 mm)		140U-N-RM12B (300 mm)	
Rotary Handle, Var-Depth, Red/Yellow		140U-L-RVM12R (300 mm), 140U-L-RVM21R (500 mm)			140U-M-RVM21R (500 mm)		-	
Motor Operator		140U-L-EOPD (110...240 Vac); 140U-L-EOPZ (24 Vdc)			-		140U-N-EOPA (230...240 Vac)	

# 140U - Molded Case Circuit Breakers - Globally Rated

- 15...2500 A Molded Case Circuit Breakers; globally rated for worldwide applications
- Thermal-Magnetic trip available from 15 to 800 A
- Electronic trip unit (LS, LSI, LSG, LSIG) available from 70 to 2500A
- Complies with UL489, CSA22.2 No.5, EN/IEC60947-2
- Factory or field-installable accessories



Frame		H-125				J - 250			K-400		
T/M trip Unit	T/M Cat. No.	140U-H2C3	140U-H3C3	140U-H6C3	140U-H0C3	140U-J3D3	140U-J6D3	140U-J0D3	140U-K3D3	140U-K6D3	140U-K0D3
Electronic Trip Unit	LS Cat. No.	-	-	-	-	140U-J3L3	140U-J6L3	140U-J0L3	140U-K3L3	140U-K6L3	140U-K0L3
	LSI Cat. No.	-	-	-	-	140U-J3H3	140U-J6H3	140U-J0H3	140U-K3H3	140U-K6H3	140U-K0H3
	LSG Cat. No.	-	-	-	-	140U-J3G3	140U-J6G3	140U-J0G3	140U-K3G3	140U-K6G3	140U-K0G3
	LSIG Cat. No.	-	-	-	-	140U-J3I3	140U-J6I3	140U-J0I3	140U-K3I3	140U-K6I3	140U-K0I3
Breaking Capacity UL/CSA [kA]	240 V/60 Hz	35	85	100	200	85	100	200	65	100	200
	480 V/60 Hz	25	35	65	100	35	65	100	35	65	100
	600 V/60 Hz	18	22	25	35	18	25	35	25	35	50
Interrupting Rating IEC Icu/Ics [kA]	230 V/50 Hz	35/35	85/43	100/100	200/200	85/85	100/100	200/200	(65/65) <sup>10)</sup>	(100/100) <sup>10)</sup>	(200/200) <sup>10)</sup>
	400 V/50 Hz	25/25	40/30	70/70	100/100	45/45	70/70	100/100	(40/40) <sup>10)</sup>	(70/70) <sup>10)</sup>	(100/100) <sup>10)</sup>
	500 V/50 Hz	22/17	25/18	25/13	35/18	18/12	25/13	35/18	(30/30) <sup>10)</sup>	(35/35) <sup>10)</sup>	(65/49) <sup>10)</sup>
	690 V/50 Hz	3/3	4/3	6/3	8/6	12/6	14/7	16/12	(10/5) <sup>10)</sup>	(13/6) <sup>10)</sup>	(18/9) <sup>10)</sup>
Current Limiting		-	-	Yes	Yes	-	Yes	Yes	-	-	Yes
Number Poles		3	3	3	3	3	3	3	3	3	3
Trip Unit		T/M		T/M		Thermal Magnetic		Electronic	Thermal Magnetic		Electronic
Thermal Trip Setting		Fixed		Fixed		Fixed		Adj. (0.4...1 x le)	Fixed		by Rating Plug (0.5...1 x le)
Short Circuit Trip Setting		Fixed (10 x le, min 500 A)		Fixed (10 x le, min 500 A)		Adj. (5...10 x le)		Adj. (2...14 x le)	Adj. (5...10 x le)		Adj. (2...8 x le)
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	15 A	-C15		-C15							
	20 A	-C20		-C20							
	25 A	-C25		-C25							
	30 A	-C30		-C30							
	35A	-C35									
	40 A	-C40		-C40							
	45 A	-C45		-C45							
	50 A	-C50		-C50				-C50			
	60 A	-C60		-C60							
	80 A	-C80		-C80							
	100 A	-D10		-D10		-D10		-D10	-D10		
	125 A	-D12		-D12		-D12			-D12		
	150/160 A					-D15		-D16	-D15		
	175 A					-D17			-D17		
	200 A					-D20			-D20		
	225 A					-D22			-D22		
250 A					-D25		-D25	-D25			
300 A								-D30			
350 A								-D35			
400 A								-D40		-D40 <sup>6)</sup>	

## Connections

Terminal Lugs	Supplied as Standard (Stainless Steel, 2.5...95 mm <sup>2</sup> )	140U-J-TLA1 (Aluminum)	140U-K-TLA1 (Al, 120...240 mm <sup>2</sup> )
MultiTap Terminal Lug Kit	140U-H-MTL3A (Al, 3 x 2.5...35 mm <sup>2</sup> )	140U-J-MTL3A (Al, 3 x 2.5...25 mm <sup>2</sup> )	140U-K-MTL3A (Al, 3 x 4...50 mm <sup>2</sup> )
	140U-H-MTL6A (Al, 6 x 2.5...10 mm <sup>2</sup> )	140U-J-MTL6A (Al, 6 x 2.5...10 mm <sup>2</sup> )	140U-K-MTL6A (Al, 6 x 2.5...50 mm <sup>2</sup> )
Phase Barriers	140U-H-PB	140U-J-PB	140U-K-PB
Terminal Cover [3 poles]	140U-H-TS	140U-J-TS	140U-K-TS
Plug-In	140U-H-PAD3	140U-J-PAD3	-

## Accessories

Ground Fault Protection Module	-	140U-J-GFP1503 (up to 150 A)	
	-	140U-J-GFP2503 (up to 250 A)	
Auxiliary Contact	1 C/O	140U-H-EA1	140U-K-EA1
	2 C/O	140U-H-EA2	140U-K-EA2
Alarm Contact	1 C/O (EM/LB)	140U-H-ER1	140U-K-ER1
Auxiliary/Alarm Contact	1/CO + 1C/O	140U-H-EA1R1	140U-K-EA1R1
Shunt Trip	140U-H-SN <sup>▲2)</sup>	140U-H-SN <sup>▲2)</sup>	140U-K-SN <sup>▲2)</sup>
Undervoltage Trip	140U-H-U <sup>▲2)</sup>	140U-H-U <sup>▲2)</sup>	140U-K-U <sup>▲2)</sup>
Rotary Handle, Direct, Black	140U-H-RCB	140U-J-RCB	140U-K-RCG
Rotary Handle, Direct, Red	140U-H-RCR	140U-J-RCR	140U-K-RCR
Rotary Handle, Var-Depth, Black	140U-H-RVM12B (300 mm), 140U-H-RVM21B (500 mm)	140U-J-RVM21B (500 mm)	140U-K-RVM21B (500 mm)
Rotary Handle, Var-Depth, Red/Yellow	140U-H-RVM12R (300 mm), 140U-H-RVM21R (500 mm)	140U-J-RVM21R (500 mm)	140U-K-RVM21R (500 mm)
Flex Cable Operating Mechanism	140U-H-FCX06 <sup>8)</sup>	140U-J-FCX06 <sup>8)</sup>	140U-K-FCX06 <sup>8)</sup>
Motor Operator	140U-H-EOPD (110...240 Vac)	140U-J-EOPD (110...240 Vac)	-
Metric Mounting Hardware	140U-H-MHM	140U-J-MHM	-

NEW: now available 140U-D-frame, small UL 489 Circuit Breaker Global Product, compliant with UL489 and IEC60497-2 Amp-rating: 0.5...30A, current limiting, 2- and 3-pole Breaking Capacity at 480/277V 60Hz >= 65kA

# 140U - Molded Case Circuit Breakers - Globally Rated

- 15...2500 A Molded Case Circuit Breakers; globally rated for worldwide applications
- Thermal-Magnetic trip available from 15 to 800 A
- Electronic trip unit (LS, LSI, LSG, LSI(G)) available from 70 to 2500A
- Complies with UL489, CSA22.2 No.5, EN/IEC60947-2
- Factory or field-installable accessories



Frame		L - 600			M - 800		N - 1250		R - 2500	
T/M trip Unit	<b>T/M Cat. No.</b>	140U-L3D3	140U-L6D3	140U-L0D3	140U-M5D3	140U-M6D3	-	-	-	-
Electronic Trip Unit	<b>LS Cat. No.</b>	140U-L3L3	140U-L6L3	140U-L0L3	140U-M5L3	140U-M6L3	140U-N6L3	140U-N0L3	140U-R6L3	140U-R0L3
	<b>LSI Cat. No.</b>	140U-L3H3	140U-L6H3	140U-L0H3	140U-M5H3	140U-M6H3	140U-N6H3	140U-N0H3	140U-R6H3	140U-R0H3
	<b>LSG Cat. No.</b>	140U-L3G3	140U-L6G3	140U-L0G3	140U-M5G3	140U-M6G3	140U-N6G3	140U-N0G3	140U-R6G3	140U-R0G3
	<b>LSIG Cat. No.</b>	140U-L3I3	140U-L6I3	140U-L0I3	140U-M5I3	140U-M6I3	140U-N6I3	140U-N0I3	140U-R6I3	140U-R0I3
Breaking Capacity UL/CSA [kA]	240 V/60 Hz	65	100	200	65	100	100	200	100	200
	480 V/60 Hz	35	65	100	50	65	65	100	65	100
	600 V/60 Hz	25	35	50	25	35	35	50	-	-
Interrupting Rating IEC lcu/lcs [kA]	230 V/50 Hz	85/85	100/100	200/200	65/65	100/100	200/100	200/100	100/100	200/100
	400 V/50 Hz	45/45	70/70	100/100	50/50	70/70	70/50	100/50	70/50	100/50
	500 V/50 Hz	25/13	35/18	50/25	50/25	70/50	50/25	65/33	-	-
	690 V/50 Hz	20/10	25/13	30/15	20/10	25/13	25/13	35/18	25/13	35/18
Current Limiting		-	Yes	Yes						
Number Poles		3	3	3	3	3	3	3	3	3
Trip Unit		T/M	Electronic		T/M	Electronic	Electronic		Electronic	
Thermal Trip Setting		Fix	Adj. (0.5..1 x Ie)		Fix	by Rating Plug. (0.5..1xIe)	by Rating Plug (0.5..1 x Ie)		by Rating Plug (0.5..1 x Ie)	
Short Circuit Trip Setting		Adj. (5..10 x Ie)		Adj. (2..10 x Ie)	Adj. 5..10Ie	Adj.(2..8xIe)	Adjustable (2..8 x Ie)		Adjustable (2..8 x Ie)	
Amp Rating (In) Add the suffix to the Catalog Number of the breaker	250 A	-D25	-D25							
	300 A	-D30			-D30					
	350 A	-D35			-D35					
	400 A	-D40	-D40		-D40					
	450 A				-D45					
	500 A	-D50			-D50					
	600 A	-D60	-D60		-D60					
	700 A				-D70					
	800 A				-D80	-D80 <sup>6)</sup>				
	1200 A						-E12 <sup>6)</sup>			
	1600 A								-E16 <sup>6)</sup>	
	2000 A								-E20 <sup>6)</sup>	
	2500 A								-E25 <sup>6)</sup>	
<b>Connections</b>										
Terminal Lugs		140U-L-TL6A1 (Al, 240...300 mm <sup>2</sup> )			-		-		-	
MultiTap Terminal Lug Kit		140U-L-TL6A2 (Al, 2 x 35...240 mm <sup>2</sup> )			140U-M-TLA2 (Al, 2 x 50...240 mm <sup>2</sup> )		140U-N-TLA2 (Al, 2 x 50...240 mm <sup>2</sup> )		140U-R-TLA4 (Al, 4 x 300...500 mm <sup>2</sup> )	
					140U-M-TLA3 (Al, 3 x 95...185 mm <sup>2</sup> )		140U-N-TLA4 (Al, 4 x 120...240 mm <sup>2</sup> )		140U-R-TLA6 (Al, 6 x 35...300 mm <sup>2</sup> )	
Phase Barriers		140U-K-PB			140U-M-PB		140U-N-PB		-	
Terminal Cover [3 poles]		140U-L-TS			-		-		-	
Plug-In		140U-L-PAD3			-		No		(Rear Connectors see Online Cat.)	
<b>Accessories</b>										
Ground Fault Protection Module		140U-L-GFP4003 (up to 400 A)			-		-		-	
		140U-L-GFP6003 (up to 600 A)			-		-		-	
Auxiliary Contact	1 C/O	140U-H-EA1			140U-M-EA1		140U-N-EA1		-	
	2 C/O	140U-H-EA2			140U-M-EA2		140U-N-EA2		140U-R-EA2	
Alarm Contact	1 C/O (EM/LB)	140U-J-ER1			140U-M-ER1		140U-N-ER1		-	
Auxiliary/Alarm Contact	1/CO + 1C/O	140U-J-EA1R1			140U-M-EA1R1		140U-N-EA1R1		140U-R-EA1R1	
Shunt Trip		140U-H-SN▲ <sup>2)</sup>			140U-M-SN▲ <sup>2)</sup>		140U-N-SN▲ <sup>2)</sup>		140U-R-SN▲ <sup>2)</sup>	
Undervoltage Trip		140U-H-U▲ <sup>2)</sup>			140U-M-U▲ <sup>2)</sup>		140U-N-U▲ <sup>2)</sup>		140U-R-UV▲ <sup>2)</sup>	
Rotary Handle, Direct, Black		140U-L-RMX			-		-		-	
Rotary Handle, Direct, Red		-			-		-		-	
Rotary Handle, Var-Depth, Black		140U-L-RVM21B (500 mm)			140U-M-RVM21B (500 mm)		140U-RM12B (300 mm)		140U-R-RM12B (300 mm)	
Rotary Handle, Var-Depth, Red/Yellow		140U-L-RVM21R (500 mm)			140U-M-RVM21R (500 mm)		-		-	
Flex Cable Operating Mechanism		140U-L-FCX06 <sup>8)</sup>			140U-M-FCX06 <sup>8)</sup>		140U-N-FCX06 <sup>8)</sup>		140U-R-FCX06 <sup>8)</sup>	
Motor Operator		140U-L-EOPD (110...240 Vac)			-		140U-N-EOPD (110 Vac)		-	
Metric Mounting Hardware		140U-L-MHM			140U-M-MHM		140U-MHM		-	

## 1492-SP - Miniature Circuit Breakers

- Energy limiting, thermal magnetic overcurrent protectors
- Positively trip-free mechanism - breaker operation cannot be defeated by holding the handle in the ON position
- Field mountable accessories for select applications
- Commoning Links for easy, time saving parallel wiring of line side
- Supplementary Protector per UL/CSA definition
- Certifications: CE-marked, VDE, GL (Marine), UL recognized, CSA certified, CCC certification



Trip Curve Type		C					D				
Typical applications		inductive loads, motors, industrial control circuits, heaters					highly inductive loads, transformers, power supplies, solenoids				
Short Circuit Trip Setting		Fix 5...10 x Ie					Fix 10...20 x Ie				
Thermal Trip setting		Fix = In					Fix = In				
Number of Poles		1	1+N	2	3	3+N	1	1+N	2	3	3+N
Rated Operational Voltage Ue IEC		240 Vac	240 Vac	415 Vac	415 Vac	415 Vac	240 Vac	240 Vac	415 Vac	415 Vac	415 Vac
Max Voltage DC		48 Vdc		125 Vdc			48 Vdc		125 Vdc		
Breaking Capacity Icu per IEC		10 kA					10 kA				
Max Voltage [Vac] UL/CSA		277 Vac	277 Vac	480/277 Vac	480/277 Vac	480/277 Vac	277 Vac	277 Vac	480/277 Vac	480/277 Vac	480/277 Vac
Short Circuit Current Rating per UL		In ≤ 32 A = 10 kA; 40, 50, 63 A = 5 kA					5 kA				
Number of Modules x 17.5 mm		1	2	2	3	4	1	2	2	3	4
Wire size line and load		1...25 mm <sup>2</sup> (# 18...4 AWG)					1...25 mm <sup>2</sup> (# 18...4 AWG)				
Standard packaging quantity [pcs]		2	1	1	1	1	2	1	1	1	1
Catalog number		1492-SP1C	1492-SP1C	1492-SP2C	1492-SP3C	1492-SP3C	1492-SP1D	1492-SP1D	1492-SP2D	1492-SP3D	1492-SP3D
Continuous Current Rating In  Complete the catalog number by adding suffix	0.5 A	005	005-N	050	005	005-N	050	005-N	050	050	005-N
	1 A	010	010-N	010	010	010-N	010	010-N	010	010	010-N
	2 A	020	020-N	020	020	020-N	020	020-N	020	020	020-N
	3 A	030	030-N	030	030	030-N	030	030-N	030	030	030-N
	4 A	040	040-N	040	040	040-N	040	040-N	040	040	040-N
	5 A	050	050-N	050	050	050-N	050	050-N	050	050	050-N
	6 A	060	060-N	060	060	060-N	060	060-N	060	060	060-N
	7 A	070	070-N	070	070	070-N	070	070-N	070	070	070-N
	8 A	080	080-N	080	080	080-N	080	080-N	080	080	080-N
	10 A	100	100-N	100	100	100-N	100	100-N	100	100	100-N
	13 A	130	130-N	130	130	130-N	130	130-N	130	130	130-N
	15 A	150	150-N	150	150	150-N	150	150-N	150	150	150-N
	16 A	160	160-N	160	160	160-N	160	160-N	160	160	160-N
	20 A	200	200-N	200	200	200-N	200	200-N	200	200	200-N
	25 A	250	250-N	250	250	250-N	250	250-N	250	250	250-N
	30 A	300	300-N	300	300	300-N	300	300-N	300	300	300-N
	32 A	320	320-N	320	320	320-N	320	320-N	320	320	320-N
40 A	400	400-N	400	400	400-N	400	400-N	400	400	400-N	
50 A	500	500-N	500	500	500-N	500	500-N	500	500	500-N	
63 A	630	630-N	630	630	630-N	630	630-N	630	630	630-N	

## 1489-A - Circuit Breakers

- Industrial Circuit Breakers for North American Applications
- Comply with North American requirements for Branch Circuit Protection
- Field mountable accessories for select applications
- Commoning Links for easy, time saving parallel wiring of line side
- Miniature Circuit Breaker per IEC
- Certifications: UL listed, CSA certified, HACR, SWD, CE-marked, VDE



Trip Curve Type		C			D		
Typical applications		inductive loads, motors, industrial control circuits, heaters			highly inductive loads, transformers, power supplies, solenoids		
Short Circuit Trip Setting		Fix 5...10 x Ie			Fix 10...20 x Ie		
Thermal Trip setting		Fix = In			Fix = In		
Number of Poles		1	2	3	1	2	3
Rated Operational Voltage Ue IEC		415 Vac	415 Vac	415 Vac	415 Vac	415 Vac	415 Vac
Max Voltage DC		48 Vdc		96 Vdc	48 Vdc		96 Vdc
Breaking Capacity Icu per IEC		10 kA			10 kA		
Max Voltage [Vac] UL/CSA		277 Vac			277 Vac		
Short Circuit Current Rating per UL		In ≤ 32 A = 10 kA; 40, 50, 63 A = 5 kA			5 kA		
Number of Modules x 17.5 mm		1	2	3	1	2	3
Wire size line and load		1...25 mm <sup>2</sup> (# 18...4 AWG)			1...25 mm <sup>2</sup> (# 18...4 AWG)		
Standard packaging quantity [pcs]		2	1	1	2	1	1
Catalog number		1489-A1C	1489-A2C	1489-A3C	1489-A1D	1489-A2D	1489-A3D
Continuous Current Rating In  Complete catalog number by adding suffix	0.5 A	005	050	005	050	050	050
	1 A	010	010	010	010	010	010
	1.5 A	015	015	015	015	015	015
	2 A	020	020	020	020	020	020
	3 A	030	030	030	030	030	030
	4 A	040	040	040	040	040	040
	5 A	050	050	050	050	050	050
	6 A	060	060	060	060	060	060
	7 A	070	070	070	070	070	070
	8 A	080	080	080	080	080	080
	10 A	100	100	100	100	100	100
	13 A	130	130	130	130	130	130
	15 A	150	150	150	150	150	150
	16 A	160	160	160	160	160	160
	20 A	200	200	200	200	200	200
	25 A	250	250	250	250	250	250
	30 A	300	300	300	300	300	300
32 A	320	320	320	320	320	320	
35 A	350	350	350	350	350	350	

# 1492-RCD - Residual Current Devices

- Earth leakage detectors for IEC applications (not applicable in North America)
- Personnel protection 30 mA, installation protection 30...500 mA
- 1-phase types (L+N) and 3-phase types (3L or 3L+N)
- For use in association with 1492-SP, form fits with 1492-SP
- Commoning Links and Auxiliary/Alarm-Contacts identical as for 1492-SP
- Sensitiv for detecting AC and pulsating DC fault currents



Incoming Line Type		L + N	L1, L2, L3 or L1, L2, L3 +N	L1, L2, L3 or L1, L2, L3 +N	
Number of Poles		2 P	4 P	4 P	
Features		for 1-phase standard applications, 30 mA type permissible for personnel protection	for 3-phase standard applications, 30 mA type permissible for personnel protection	specific trip characteristic for use with Variable Frequency Devices	
Rated Operational Voltage		230 V 50/60 Hz	400 V 50/60 Hz	400 V 50/60 Hz	
Number of Modules [x 17.5 mm]		2	4	4	
Standard packaging quantity [pcs]		1	1	1	
Rated Ground Fault Tripping Current	30 mA	16 A	1492-RCD2A16		
		25 A	1492-RCD2A25	1492-RCD4A25	
		40 A	1492-RCD2A40	1492-RCD4A40	
		63 A		1492-RCD4A63	
		80 A		1492-RCD4A80	
	100 mA	16 A			
		25 A	1492-RCD2B25	1492-RCD4B25	
		40 A	1492-RCD2B40	1492-RCD4B40	1492-RCD4B40D
		63 A		1492-RCD4B63	1492-RCD4B63D
		80 A			
	300 mA	16 A		1492-RCD4C16	
		25 A	1492-RCD2C25	1492-RCD4C25	
		40 A	1492-RCD2C40	1492-RCD4C40	1492-RCD4C40D
		63 A		1492-RCD4C63	1492-RCD4C63D
		80 A		1492-RCD4C80	
		16 A		1492-RCD4D16	
500 mA	25 A		1492-RCD4D25		
	40 A		1492-RCD4D40		
	63 A		1492-RCD4D63		
	80 A		1492-RCD4D80		

## Accessories for Bulletin

### 1492-SP

### 1492-RCD

### 1489-A

Auxiliary contact module (1C/O)	1492-ASPH3	1492-ASPH3	1489-ABH12 (1NO+1NC)
Dual Auxiliary contact module (2 C/O)	1492-ASPHH3	1492-ASPHH3	1489-AAHH3
Auxiliary/Signal alarm contact module (1C/O+1C/O)	1492-ASPHS3	1492-ASPHS3	1489-AAHS3
Undervoltage release (50...115 Vac)	1492-ASPU115	-	-
Undervoltage release (110...240 Vac)	1492-ASPU230	-	-
Shunt trip (12...110 Vac/12...60 Vdc)	1492-ASPA2	-	1489-AASTA2
Shunt trip (110...415 Vac/110...230 Vdc)	1492-ASPA1	-	1489-AASTA1
Lockout attachment	1492-ASPLOA	1492-ASPLOA	1489-AALOA

## Commoning Links for Bulletin

### 1492-SP and 1492-RCD

### 1492-SP and 1492-RCD

### 1489-A

Rated Operational End Feed current Ie		63 A	63 A	80 A	
Use of MCB and RCD		without Auxiliary Contact Module	with Auxiliary Contact Module	without Auxiliary Contact Module	
Connection (Parallel Wiring) of Miniature Breaker Type	2 or 1+N Connected number of Devices	2	1492-ASPCL102	1492-ASPCL1A02	
		1	1492-ASPCL106	1492-ASPCL1A06	1489-AACL106
		1		1492-ASPCL1A09	
		1	1492-ASPCL112		1489-AACL112
		1			1489-AACL118
		2	1492-ASPCL204	1492-ASPCL2A04	
		3	1492-ASPCL206	1492-ASPCL2A06	1489-AACL206
		5		1492-ASPCL2A10	
		6	1492-ASPCL212		1489-AACL212
		2			1489-AACL218
		3	1492-ASPCL306	1492-ASPCL3A06	1489-AACL306
		3	1492-ASPCL312	1492-ASPCL3A12	1489-AACL312
		3			1489-AACL318
		3+N	1492-ASPCL408	1492-ASPCL3AP06	
3+N	1492-ASPCL412	1492-ASPCL3AP09			
Incoming Terminal for 25 mm <sup>2</sup> Wire		1492-ASPCTL25	1492-ASPCTL25		
Incoming Terminal for 35 mm <sup>2</sup> Wire		1492-ASPCTL35	1492-ASPCTL35	1489-AACLT35	
Protective cover for unused termination		1492-ASPCLPS	1492-ASPCLPS	1489-AACLPS	

## 194E - Disconnect Switches

- Inductive Load Rated Switches; Current range 16...315 A
- Suitable as At-Motor-Disconnect Switch according UL508
- Positive-Guided Actuation
- Front/Door or Base/DIN-Rail Mounting Configurations
- Various Handles in Different Sizes, Colors, Lockable (padlock), Panel-Cutout
- Certifications: CE, UL listed, CSA certified, UL-File No. E14841



		Base mounting/DIN-Rail Mounting Switchbody		Front/Door mounting Switchbody		Enclosed with R/Y Actuator	
Typical Applications		Disconnect, Emergency Switch, Main Switch, Load Switch, Main Switch, Manual Motor Controller					At Site Motor Disconnect
Rated Operational Voltage IEC		690 V per IEC, 600 V per UL/CSA					
Number of Poles		3		4th Pole to add on		3	
Catalog Number	Rated Current						
	16 A	194E-A16-1753	194E-A16-NP	194E-E16-1753	194E-E16-NP	194E-Y16M-1753-6N	
	25 A	194E-A25-1753	194E-A25-NP	194E-E25-1753	194E-E25-NP	194E-Y25M-1753-6N	
	32 A	194E-A32-1753	194E-A32-NP	194E-E32-1753	194E-E32-NP	194E-Y32M-1753-6N	
	40 A	194E-A40-1753	194E-A40-NP	194E-E40-1753	194E-E40-NP	194E-Y40M-1753-6N	
	63 A	194E-A63-1753	194E-A63-NP	194E-E63-1753	194E-E63-NP	194E-Y63M-1753-6N	
	80 A	194E-A80-1753	194E-A80-NP	194E-E80-1753	194E-E80-NP	194E-Y80M-1753-6N	
100 A	194E-A100-1753	194E-A100-NP	194E-E100-1753	194E-E100-NP	194E-Y100M-1753-6N		
Number of Poles		3		4		3	
Catalog Number	125 A	194E-A125-1753	194E-A125-1754	194E-E125-1753	194E-E125-1754		
	160 A	194E-A160-1753	194E-A160-1754	194E-E160-1753	194E-E160-1754		
	250 A	194E-A250-1753	194E-A250-1754	194E-E250-1753	194E-E250-1754		
	315 A	194E-A315-1753	194E-A315-1754	194E-E315-1753	194E-E315-1754		

### Handles and Accessories

Catalog Number	For use with 194E-	Standard Actuator	Disconnect Switch	Emergency Switch	Auxiliary Contact Block	Auxiliary Contact Block
		Black-Silver	Black-Grey lockable	Yellow-Red lockable	1 N.C. 1 N.O. (2 N.O.)	1 N.O. early break
Catalog Number	A16	194L-HE4A-175	194E-HE4G-175	194E-HE4N-175	194E-A-P11	194E-A16-PD10
	E16		194E-HE6G-175		194E-E-P11	194E-E16-PD10
	A25 ... A63			194E-HE6N-175	194E-A-P11	194E-A-PD10
	E25 ... E63	194E-E-P11	194E-E-PD10			
	A25...A100	194L-HE6A-175	194L-HE6G-175	194E-A-P11	194E-A-PD10	
	E25...E100			194E-E-P11	194E-E-PD10	
	A40...A100	194L-HE8A-175	194L-HE8G-175	194L-HE8N-175	194E-A-P11	194E-A-PD10
	E40...E100				194E-E-P11	194E-E-PD10
	A125/A160	194E-HE8A-175 194E-HE13A-175	194E-HE8G-175 194E-HE13G-175	194E-HE8N-175 194E-HE13N-175	194E-AB-P21-160	
	E125/E160				194E-EF-P21-160	
A250/A315	194E-AB-P21-315					
E250/E315	194E-EF-P21-315					

## 140U/140UE - Molded Case Switches

- Self Protected Disconnect Switch, Magnetic Trip 10 x le
- Current range 125/160...1250 A
- High interrupting ratings in compact housing
- Accessories and dimensions identical with MCCB 140UE/140U and MPCB 140M
- Certifications: CE-marked, UL listed, CSA certified, KEMA-KEUR; UL File-No. E197878 for 140U-Types



		IEC-rated Devices			Globally rated Devices	
Rated Operational Voltage		690 V			600 V/690 V	
Number of Poles		3			3	
Catalog Number	Rated Curr	Icu [kA] 400 V 50 Hz [kA]			Ir 480 V 60 Hz [kA]	
	125 A				65	140U-H653-D12
	160 A	25	140UE-H253-D16	140UE-H254-D16		
	250 A	70	140UE-J753D25	140UE-J754-D25	65	140U-J653-D25
	400 A				65	140U-K653-D40
	600/630 A	70	140UE-L753-D63	140UE-L754-D63	65	140U-L653-D60
	800 A				65	140U-M653-D80
1250 A	70	140UE-N753-E12	140UE-N754-E12	65	140U-N653-E12	

### Accessories

Catalog Number	Frame	Rotary Operating Mechanism	Rotary Door Coupling	Rotary Door Coupling	Auxiliary Contact	Auxiliary/Alarm Contact
		Breaker Mounted	Operating Mechanism	Operating Mechanism		
Catalog Number	H	Black-Grey lockable	Black-Grey lockable	Yellow-Red lockable	1 C/O	1C/O Aux + 1 C/O Alarm
	J	140U-H-RCB	140U-H-RVM21B	140U-H-RVM21R	140U-H-EA1	140U-H-EA1R1
	K	140U-J-RCB	140U-J-RVM21B	140U-J-RVM21R	140U-H-EA1	140U-JEA1R1
	L	140U-K-RCG	140U-K-RVM21B	140U-K-RVM21R	140U-K-EA1	140U-KEA1R1
	M	140U-L-RMX	140U-L-RVM21B	140U-L-RVM21R	140U-H-EA1	140U-JEA1R1
	N		140U-M-RVM21B	140U-M-RVM21R	140U-M-EA1	140U-MEA1R1
				140U-N-RM12B	140U-N-EA1	140U-NEA1R1

# 194R - Disconnect Switches

- Inductive Load Rated Switches; Current range 25..400 A
- Non-Fused Version and Various Fuse Types complying with UL, CSA, DIN, BS, NFC provides worldwide acceptance
- Suitable as Service-Entrance-Disconnect Means according to UL 98
- Suitable as At-Motor-Disconnect Means according to UL508
- 4th pole extension up to 63 A switches
- 6 (8) auxiliary contacts can be added
- Certifications: CE, UL listed, CSA certified, UL-File No. E14841



3 pole Disconnect Switches								
Catalog Number	Rated Current (A)	Non Fused Disc. Switch	IEC-Fused Disconnect Switch			UL/CSA Fused Disconnect Switch		
			DIN-NH fuse	BS Fuse	NFC-Fuse	CC-Fuse	J-Fuse	HRCII-C fuse
	20/25 A			194R-B20-1753	194R-F25-1753			
	30/32 A	194R-N30-1753 <sup>a)</sup>	194R-D32-1753	194R-B32-1753	194R-F32-1753	194R-C30-1753	194R-J30-1753	194R-H30-1753
	60/63 A	194R-N60-1753 <sup>b)</sup>	194R-D63-1753	194R-B63-1753	194R-F63-1753		194R-J60-1753	194R-H60-1753
			for optical blown fuse indication add S at the end of catalog number					
	100 A	194R-NN100P3					194R-NJ100P3	194R-NH100P3
	138 A		194R-ND138P3	194R-NA400P3				
	200 A	194R-NN200P3					194R-NJ200P3	194R-NH200P3
	245 A		194R-ND250P3	194R-NB200P3				
	300 A		194R-ND300P3	194R-NB400P3				
	400 A	194R-NN400P3					194R-NJ400P3	194R-NH400P3

<sup>a)</sup> IEC rating 40 A  
<sup>b)</sup> IEC rating 80 A

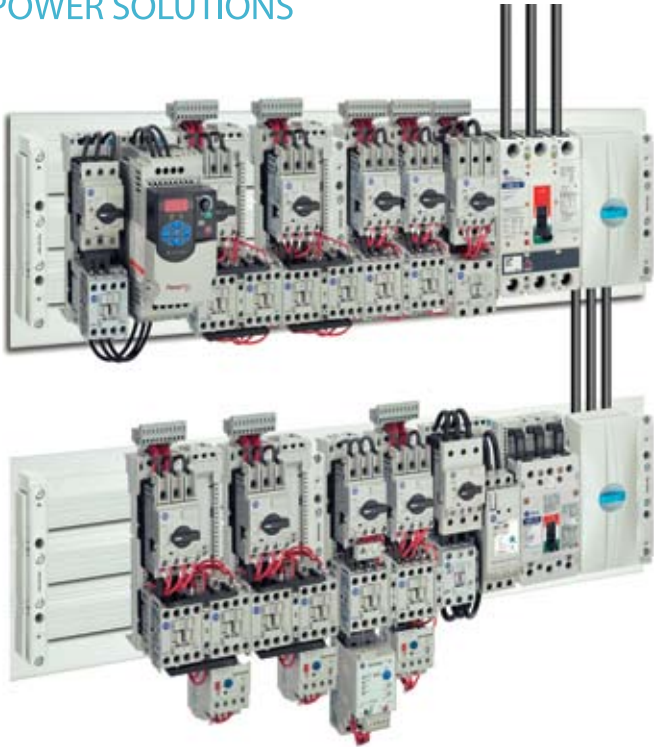
4th Pole Module to add on								
Catalog Number	For use with	Non Fused Disc. Switch	IEC-Fused Disconnect Switch			UL/CSA Fused Disconnect Switch		
			DIN-HN fuse	BS Fuse	NFC-Fuse	CC-Fuse	J-Fuse	HRCII-C fuse
	20/25 A			194R-20-NB	194R-25-NF			
	30/32 A	194R-30-NN <sup>a)</sup>	194R-32-ND	194R-32-NB	194R-32-NF	194R-30-NC	194R-30-NJ	194R-30-NH
	60/63 A	194R-60-NN <sup>b)</sup>	194R-63-ND	194R-63-NB	194R-63-NF		194R-60-NJ	194R-60-NH
			for optical blown fuse indication add S at the end of catalog number					

<sup>a)</sup> IEC rating 40 A  
<sup>b)</sup> IEC rating 80 A

Accessories								
Catalog Number	For use with	Auxiliary Contact	Operating Handle Black	Operating Handle Red/Yellow	Operating Shaft	Terminal Cover 3-pole	Terminal Cover 1-pole	Padlock Attachment
	30/32 A							
	60/63 A							
	100 A	195-GA11	194R-HM4	194R-HM4E	194R-R3 194R-R4	194R-LNC3		
	138 A					194R-LNC4		
	200 A							
	245 A				194R-LNC5			
	300 A				194R-R5 194R-R6	194R-LNC6		
	400 A							

# Line-to-Load

## POWER SOLUTIONS



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