Technical Data

Allen-Bradley

Molded Case Circuit Breaker Specifications

Bulletin Number 140U-D

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Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

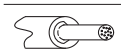
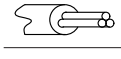
You can view or download publications at http://www.rockwellautomation.com/literature/. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Frame Reference	**D-Frame**
Max. Current I_n	30 A
Current Range	0.5…30 A
Thermal Magnetic	✓
Rotary Operators	✓
Internal Control Modules (Field installed)	✓
Standards Compliance (For information regarding specific breakers, please consult www.ab.com. Standards compliance varies by catalog number.)	
UL 489	✓
UL File Nos.	E334037, E33916
CSA C22.2, No. 5	✓
IEC 60947-2	✓
CE	✓

General Data

Attribute		140U-D
Number of Poles		2 and 3
Rated Insulation Voltage U_i		
IEC / EN	[V]	690
UL, CSA	[V]	600
Ratings		HACR
Suitable for continuous operation at 100 percent of rating only if used in cubicle space for		0.5…10 A, cubicle space 250 x 175 x 150 mm (10 x 7 x 6 inches).
Rated Impulse Withstand Voltage U_{imp}		
Pollution degree		3
Main circuits U_{imp} /Overvoltage Category		6 kV/III
Auxiliary circuits U_{imp} /Overvoltage Category		6 kV/III
Safe separation between main and auxiliary circuits		up to 400V
Rated Frequency	[Hz]	50/60
Utilization Category		
IEC 60947-2 (Circuit breaker)		A
Life Span		
Mechanical	[operations]	100 000
Electrical (I_e max.)	[operations]	10 000
Switching Frequency	[operations/h]	max. 25
Ambient Temperature		
Storage	[°C]	-40…+80
Operation	[°C]	-25…+60 (70 with 15 % I_n current reduction)
Climatic resistance		
Moisture change climate (600068-2-30)		23 °C / 83 % relative humidity and 40 °C / 92 % relative humidity, 56 cycles
Dry heat (60086-2-2)		100 °C, relative humidity <50 %, 7 days
Moisture heat (60068-2-3)		40 °C, relative humidity 93 %, 56 days
Site Altitude	[m]	to 2000 N.N.
Protection Class		IP2X, when wired
Resistance to Shock, Transport (60068-2-27)		30 g, 11 ms, all axes
Resistance to Vibration, Opertion (60068-2-6)		18 g
Overload Protection	[°C]	Yes acc. IEC/EN 60947-2, UL489, CSA 22.2, Ambient Temperature Compensation -25…+60
Phase-loss Protection		No phase loss protection
Short circuit protection (Magnetic)		fixed setting 15…20 x I_n
Total Power loss P_v		
@ I_n max.	[W]	7.5
Main Disconnect Switch Application		Yes, with accessories
Application Conditions		For utilization outside North America, Assemblies (of products) shall comply to the IEC61439-1 requirements
		140U circuit breakers are intended for use in closed areas without hazardous operating conditions such as dust or explosive or corrosive gases. Enclosures of appropriate manner need to be in place to protect devices in such environments.
Standards		UL489; CSA C22.2 No. 5; IEC / EN 60947-1, -2
Certifiactions		CE; cULus listed Circuit Breaker, File No. E334037 and E33916 (accessories)

Terminal Specifications 140U-D

Attribute		140U-D…
Use 75°C Cu wire only		
Terminal Parts Type of terminals		
Screwdriver		Pozidriv No. 2 / Blade No. 3
 1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/— 1…4/—
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/— 1…6/—
 1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	—/No. 18…10 —/No. 18…10
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/No. 18…10 1…6/No. 18…10
Tightening torque	[N•m]/[lb•in]	2…2.5/18…22

Terminal specification 140U-D

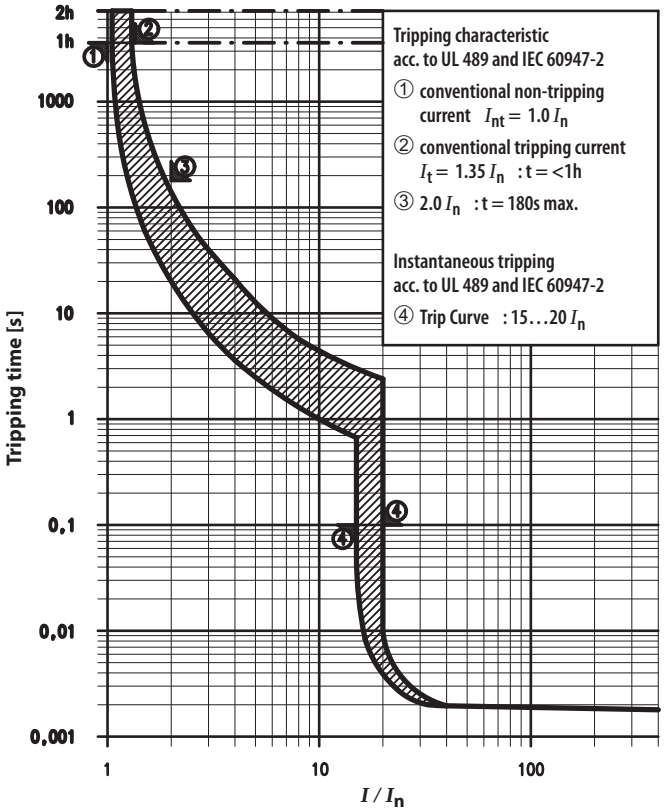
Cat. No.		140U-D…
Use 75°C Cu wire only		
Terminal Parts Type of terminals		
Screwdriver		Pozidriv No. 2 / Blade No. 3
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/— 1…4/—
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/— 1…6/—
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	—/No. 18…10 —/No. 18…10
1. conductor 2. conductor	[mm^2]/[AWG] [mm^2]/[AWG]	1…6/No. 18…10 1…6/No. 18…10
Tightening torque	[N•m]/[lb•in]	2…2.5/18…22

Cat. No.		140U-D-WTE	140U-D-W
Use 75°C Cu wire only			
Rated Thermal Current I_{th}	[A]	64	64
1. conductor	[mm^2]/[AWG]	2.5…25/14…4	—
1. conductor	[mm^2]/[AWG]	2.5…25/14…4	—
1. conductor	[mm^2]/[AWG]	2.5…25/14…4	—
1. conductor	[mm^2]/[AWG]	2.5…25/14…4	—
Tightening torque	[N•m]/[lb•in]	3…3.5/27…31	—

Weights

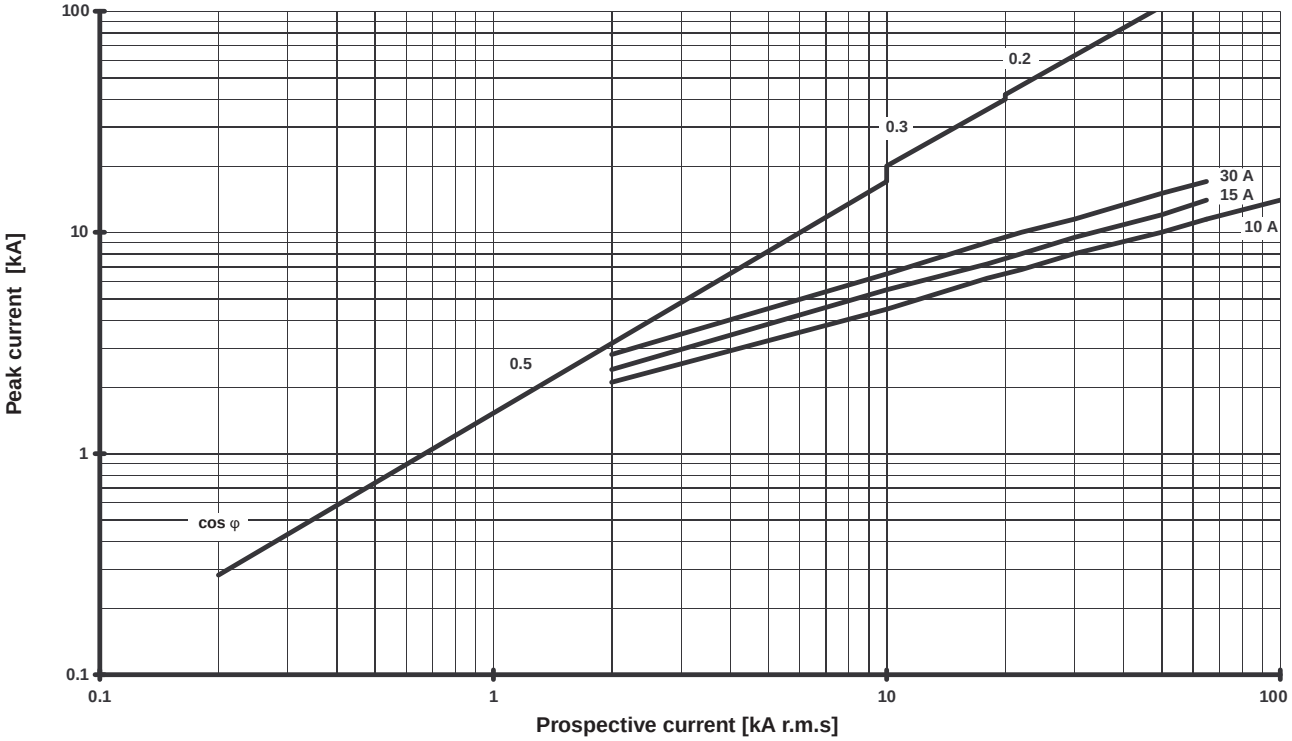
Description	Weight [g]	Cat.No.
Circuit Breakers	395	140U-D…

Time-Current Characteristic



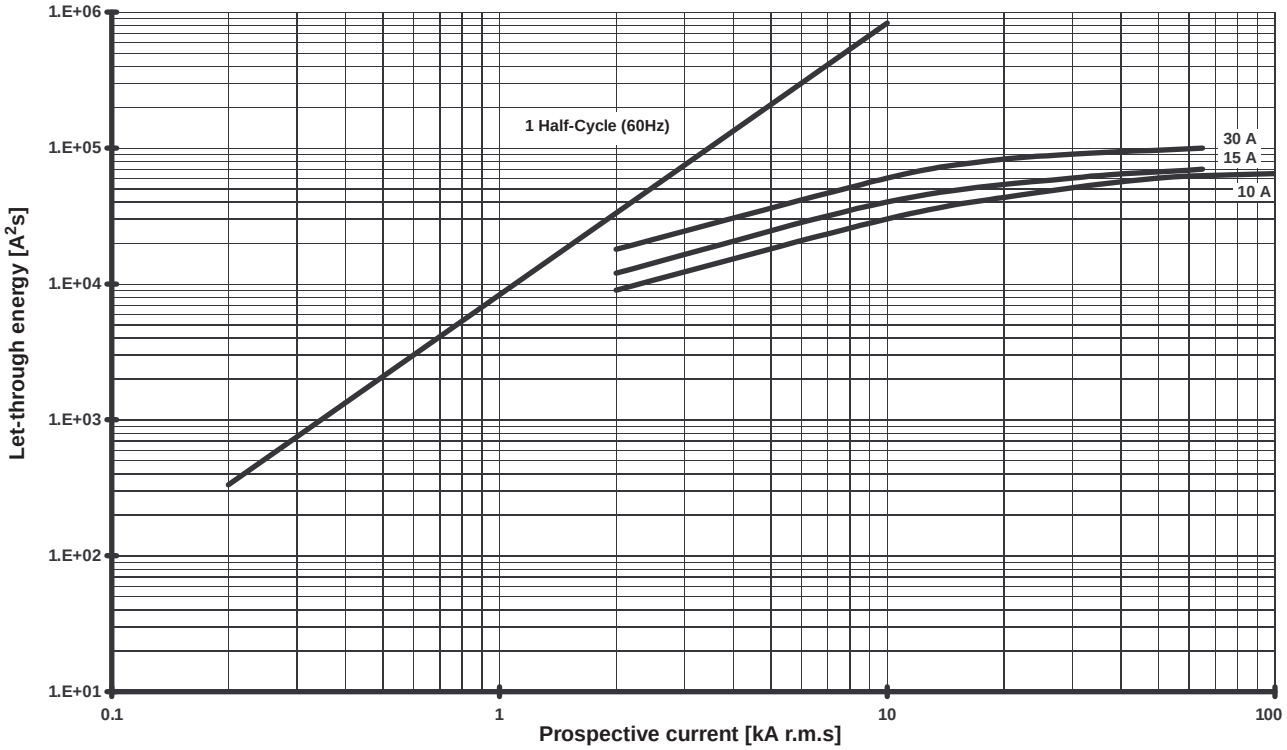
Bulletin 140U-D Molded Case Circuit Breakers (Maximum Cut-Off Current)

140U-D6D…
Max. Cut-Off Current, U_e = 480V at 60 Hz

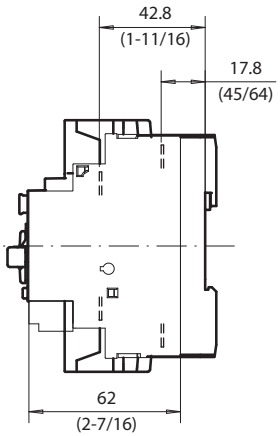


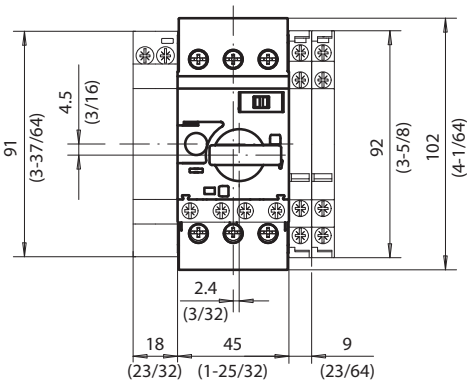
Bulletin 140U-D Molded Case Circuit Breakers (Maximum Let-Through-Energy)

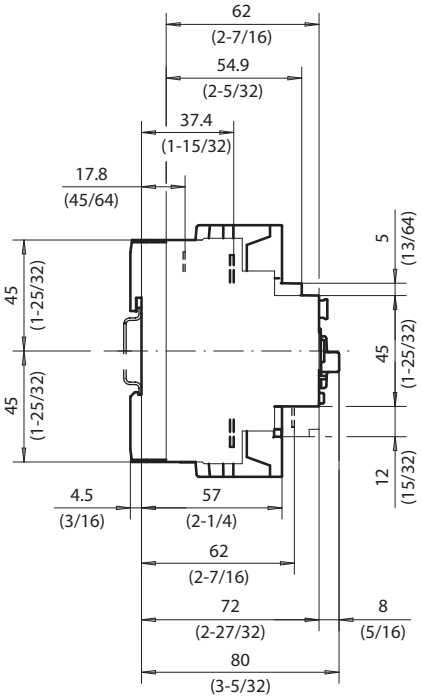
140U-D6D…
Max. Let-Through-Energy, U_e = 480V

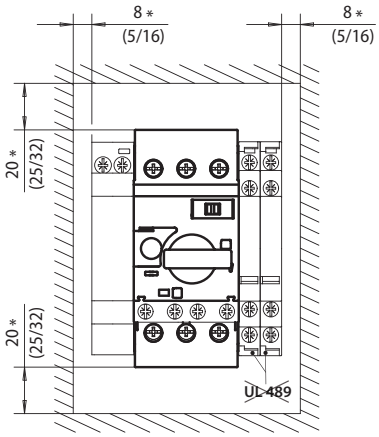


Dimensions are shown in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

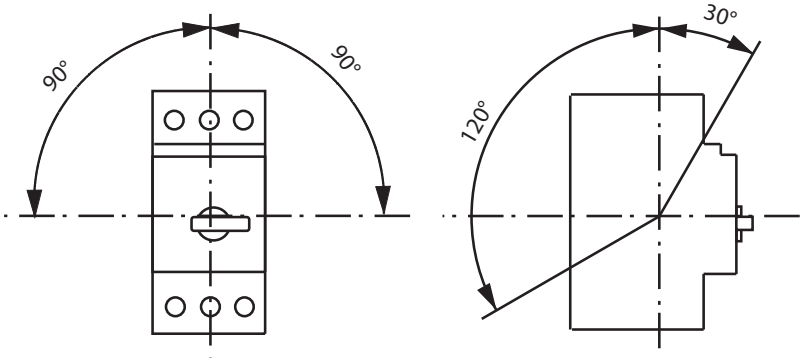




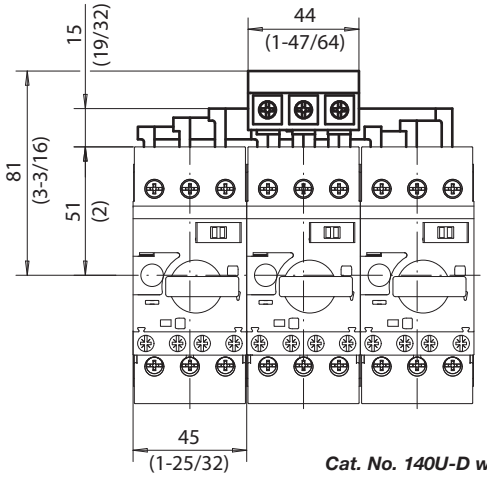




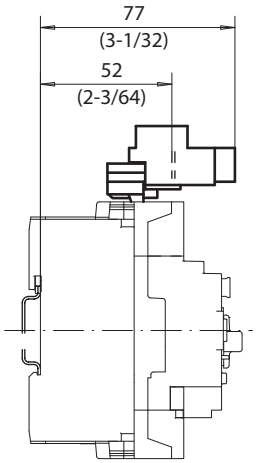
★ Minimum distance to grounded parts or walls

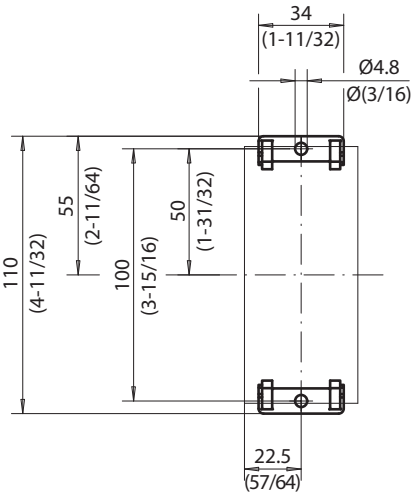


Mounting position



Cat. No. 140U-D with Busbar





Screw Adapter 140M-C-N45 for 140U-D

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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