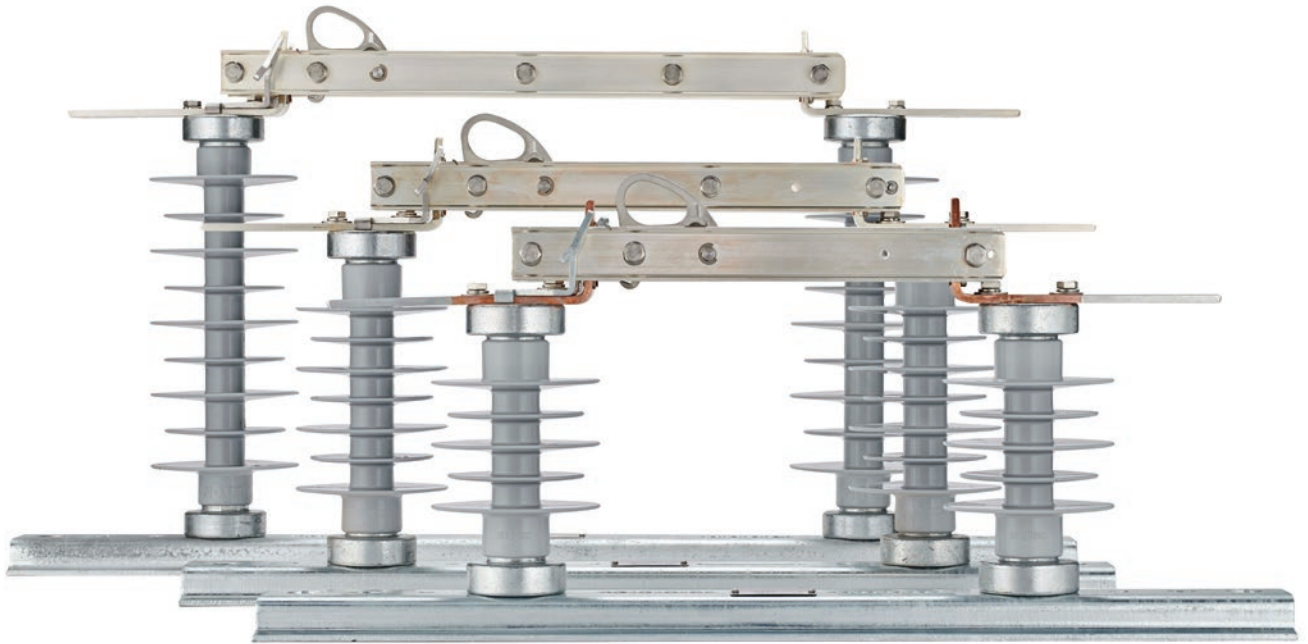


# D-73P disconnect and bypass switches



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*Powering Business Worldwide*

## D-73P disconnect switch

Eaton has set the new standard of excellence for polymer distribution-class disconnect switches with the introduction of its Cooper Power™ series UltraSIL™ polymer-insulated disconnect switches. Eaton's Cooper Power series D-73P distribution-class, single throw disconnect switch provides a durable, rugged light weight switch for line sectionalizing or isolating equipment on distribution circuits up to 38 kV. These switches are quality constructed to ensure stable high current capability and full thermal capacity under the required duties of today's load and short circuit conditions.

## Features and detailed description

## Application

The D-73P disconnect switch is a single-phase hookstick-operated switch to sectionalize or isolate overhead lines on electrical distribution systems up to 38 kV. The switch can be mounted in a vertical, underhung, pole-mounted, or single/double cross arm configuration. A variety of terminal connections are available to customize this switch to fit the user's needs. Contact your Eaton representative for more information.

**Minimum Current Interchanges:** Uniform conductivity is assured through utilization of hard drawn copper bar in forming one piece stationary contacts and terminal pads. Design reduces current interchange points to a minimum.

**Contacts:** High pressure line type, both clip and hinge ends.

**Loadbreak Hooks (Standard):** Galvanized steel hooks to be used with portable loadbreak tool.

**Blade Design:** Silver-plated copper in truss-type construction with cross braces in front and back of contacts provides secure force on contacts, as well as, superior rigidity, thus minimizing side deflection and maintaining positive alignment when closing the switch. The blade and latch design provides for positive latch.

**Parallel Groove Clamp:** Two-bolt tinned bronze clamp secured with two galvanized steel bolts. Conductor range: #6 solid to 397.5 MCM ASCR, 500 MCM Copper or 556 MCM Aluminum.

**90 Degree Stop Pin:** Pin included as standard option to provide blade opening stop at 90 degrees. Pin able to be removed in field for 180° opening.

**150 Degree Latch:** Optional positive stop for providing blade latch at 150° opening.

**Insulators:** Available in light weight UltraSIL silicone rubber polymer, 2.25 B.C., characteristics available upon request. Porcelain, and cycloaliphatic insulators also available.

**Captive Bolts:** Two captive stainless steel carriage bolts. 1-3/4" long bolts, accepts compression terminals.

**Terminal Pad:** NEMA® two hole terminal pad. Capable of accepting wide selection of connectors. See Table 1 for standard offering. 600 A ratings have tin-plated pads to accommodate either bronze or aluminum terminals. 900 A switch has silver plated contacts.

**Switch Base:** Base and backstrap is rugged, hot dipped galvanized 7 gauge steel that have a dead-ending hole for conductor at each end. Rigidity of base prevents distortion/twisting when bolting down. Standard base offering comes equipped with 1" diameter hole for dead-ending conductors.

**Vertical or Underhung Mounting:** Easily adaptable to single or double crossarm construction.

**Back-strap:** 15" backstrap with two mounting bolts, washers, lockwashers, and nuts standard. Optional full length (25.25") backstrap also available with two or four mounting bolts.

Figure 1. D-73P disconnect switch with features.

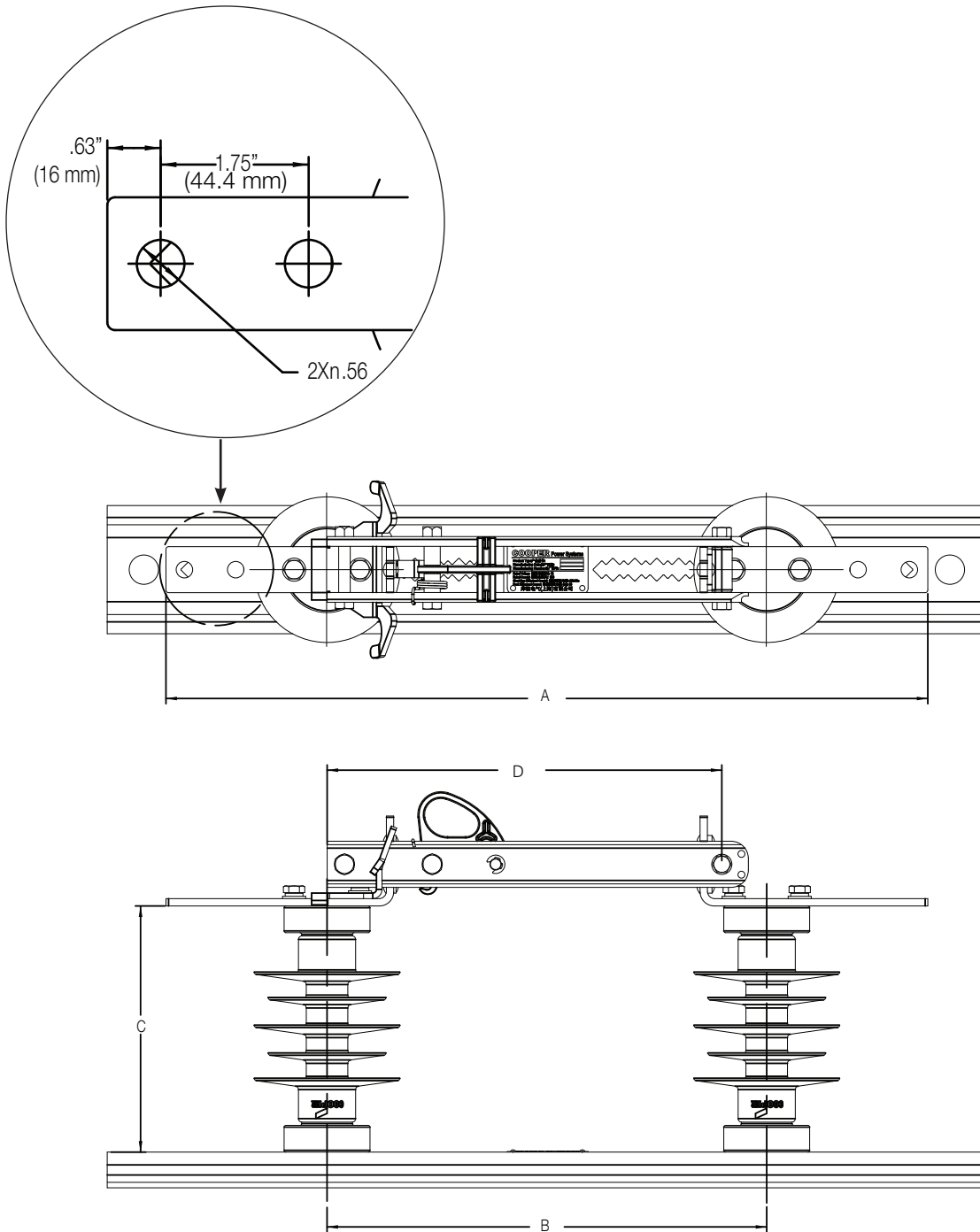


Figure 2. D-73P dimensional data.

Table 1. D-73P Disconnect Switch Ratings

Insulation Material	Ratings*			Catalog Number		Dimensional Data in. (mm)					Insulator Mechanical Ratings			
	kV Max. Design	BIL kV	Mom. kA	600 A	900 A	A	B	C	D	Creep	Switch Weight lb.	Cantilever	Tension, pounds	Torsion ft - lbs
UltraSIL Polymer	15.5	110	40	D73P16S0	D73P19S0	26 (660)	15 (381)	8.4 (213)	14.38 (365)	20.2 (513)	26.5	1350	5000	350
UltraSIL Polymer	27	125	40	D73P26S0	D73P29S0	26 (660)	15 (381)	8.4 (213)	14.38 (365)	20.2 (513)	26.5	1350	5000	350
UltraSIL Polymer	27	150	40	D73P36S0	D73P39S0	29 (737)	18 (457)	10.8 (274)	16.75 (425)	28 (711)	33	1350	5000	350
UltraSIL Polymer	38	150	40	D73P46S0	D73P49S0	29 (737)	18 (457)	10.8 (274)	16.75 (425)	28 (711)	33	1350	5000	350
UltraSIL Polymer	38	200	40	D73P56S0	D73P59S0	34 (859)	23 (580)	15.0 (381)	21.3 (542)	38 (965)	45	1350	5000	350

\* Meets IEEE Std C37.30.1™-2011 standard. Test reports available upon request.

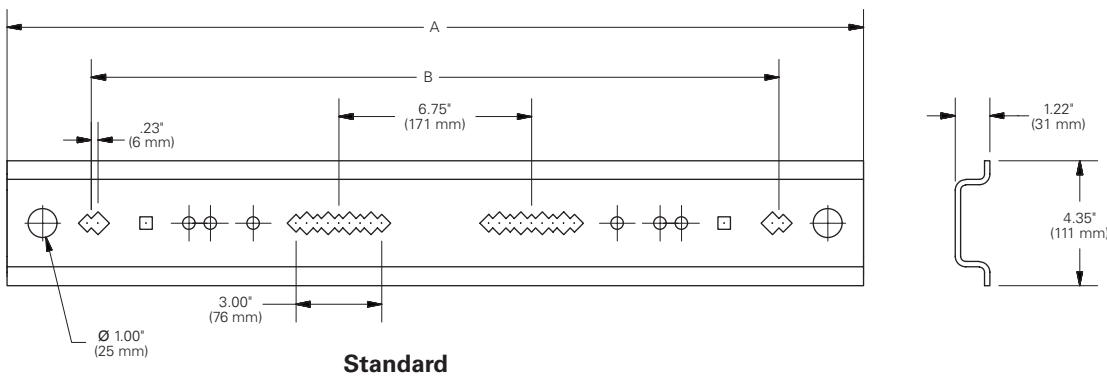
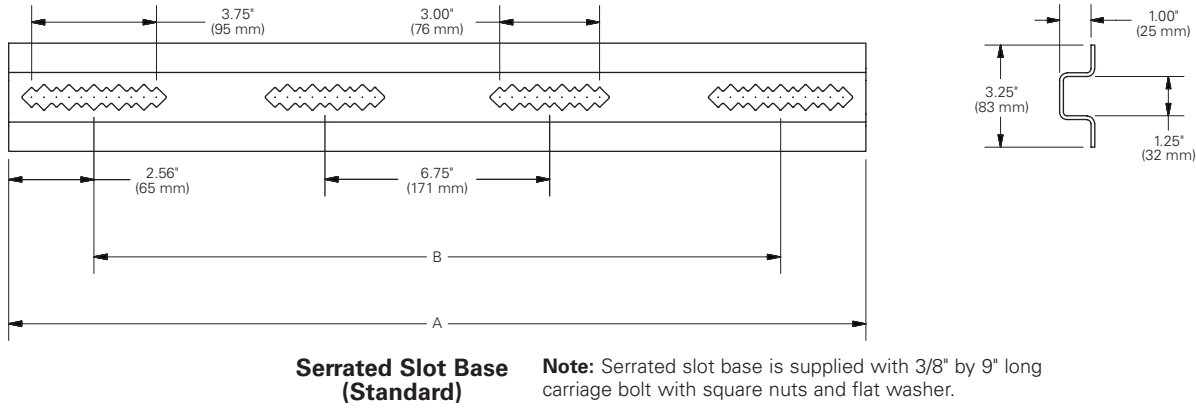


Figure 3. D-73P optional bases.

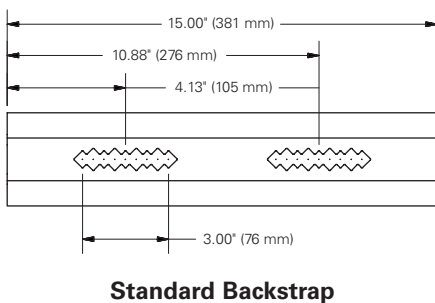
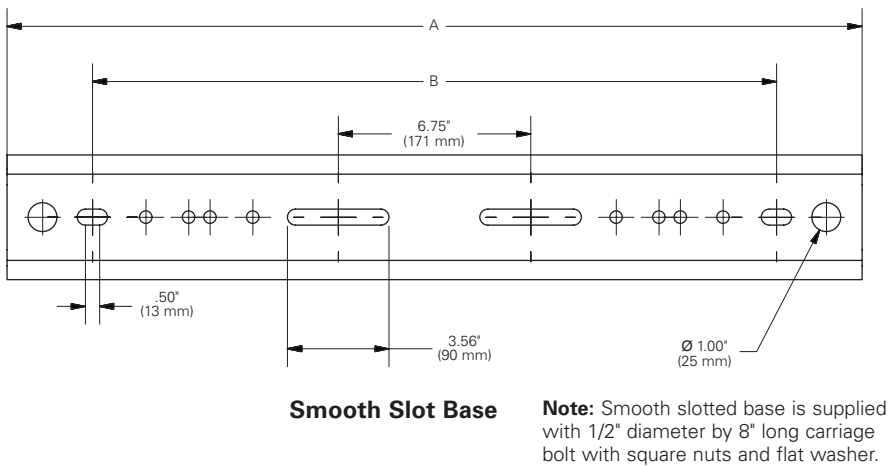


Figure 4. D-73P backstraps.

REA BACKSTRAP		
BIL	DIMENSION	INCHES (mm)
	A	B
110,125,150	25.75 (654)	20.63 (524)
200	33.60 (853)	31.94(811.27)

TABLE FOR BASE CHANNELS			
	BIL	DIMENSION	INCHES (mm)
		A	B
STANDARD	110, 125,150	30.00 (762)	24.09 (612)
	200	37.85 (961)	31.94 (811)
SLOTTED	110,125,150	30.00 (762)	24.00 (610)
	200	31.94 (811)	31.90(810)

### D-73P3 bypass switch

Eaton provides an economical way for bypassing and disconnecting pole-mounted distribution-class reclosers and regulators, permitting maintenance without disturbing continuity of service with its Cooper Power series UltraSIL polymer-insulated D-73P3 bypass switch.

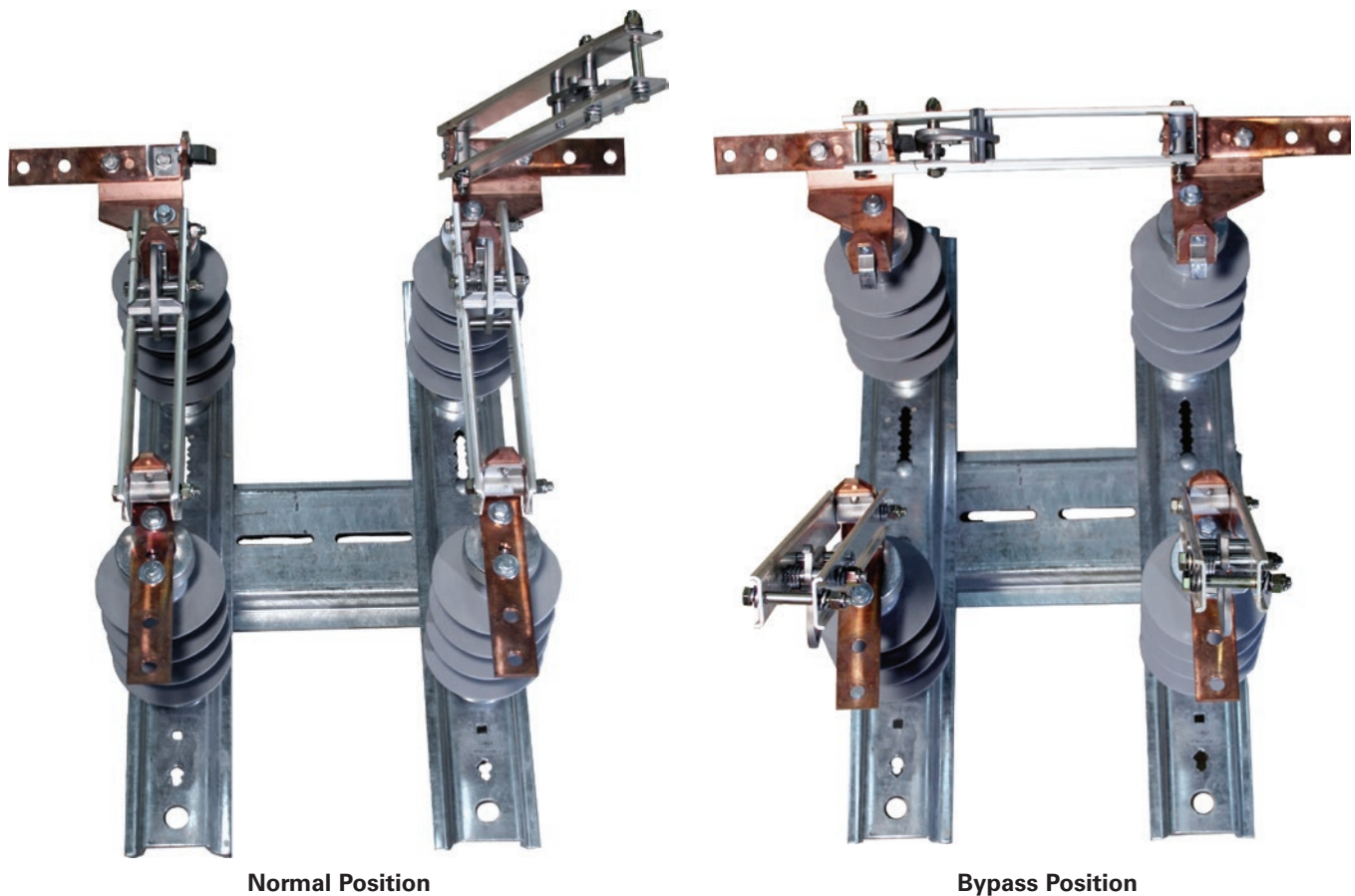


Figure 5. D-73P3 3-pull regulator/recloser bypass switch.

### Application

The D-73P3 bypass switch incorporates all the advanced design features of the D-73P switch into a compact 3-pull bypass unit. It consists of two hookstick-operated disconnect switches mounted on a galvanized channel with a bypass blade connected across the top terminals of each switch. The bypass blade can be arranged for either right-hand (standard) or left-hand operation (optional).

One mounting channel supports the entire switch for ease of installation and uncluttered appearance. The channel can be either cross arm mounted with a backstrap or bolted directly to a galvanized pole mounting bracket.

All switches have a positive blade lock to prevent opening under high momentary current. Easy opening and closing is assured by bolted braces providing consistent forces behind and in front of front latch mechanism.

The bypass blade is offset 30 degrees from the plane of the disconnect blades, so that the bypass switch can be operated when the switch is mounted vertically.

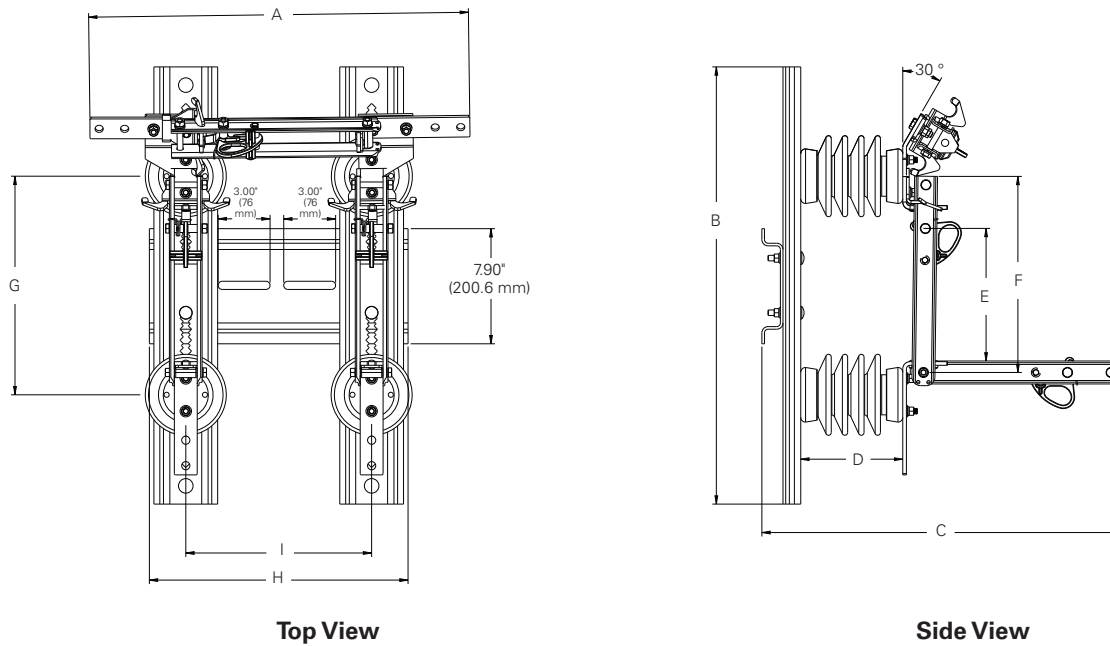


Figure 6. D-73P3 top and side view with dimensional data.

Table 2. D-73P3 Bypass Switch Ratings

Insulation Material	Ratings			Catalog Number		Insulator Creep	Weight (lb.)	Dimensional Data inches (mm)								
	kV Max. Design	BIL kV	Mom. kA	600 A	900 A			A	B	C	D	E	F	G	H	I
UltraSIL Polymer	15.5	110	40	D73316S0	D73319S0	20.2 (513)	62	26 (660)	30 (762)	25.95 (659)	8.4 (213)	9.1 (231)	13.45 (342)	15 (381)	17.75 (451)	12.75 (324)
UltraSIL Polymer	27	125	40	D73326S0	D73329S0	20.2 (513)	62	26 (660)	30 (762)	25.95 (659)	8.4 (213)	9.1 (231)	13.45 (342)	15 (381)	17.75 (451)	12.75 (324)
UltraSIL Polymer	27	150	40	D73336S0	D73339S0	28 (711)	75	29 (660)	30 (762)	28 (711)	10.8 (274)	13 (330)	15.75 (400)	18 (457)	20.75 (527)	15.75 (400)
UltraSIL Polymer	38.0	150	40	D73346S0	D73349S0	28 (711)	75	29 (660)	30 (762)	28 (711)	10.8 (274)	13 (330)	15.75 (400)	18 (457)	20.75 (427)	15.75 (400)

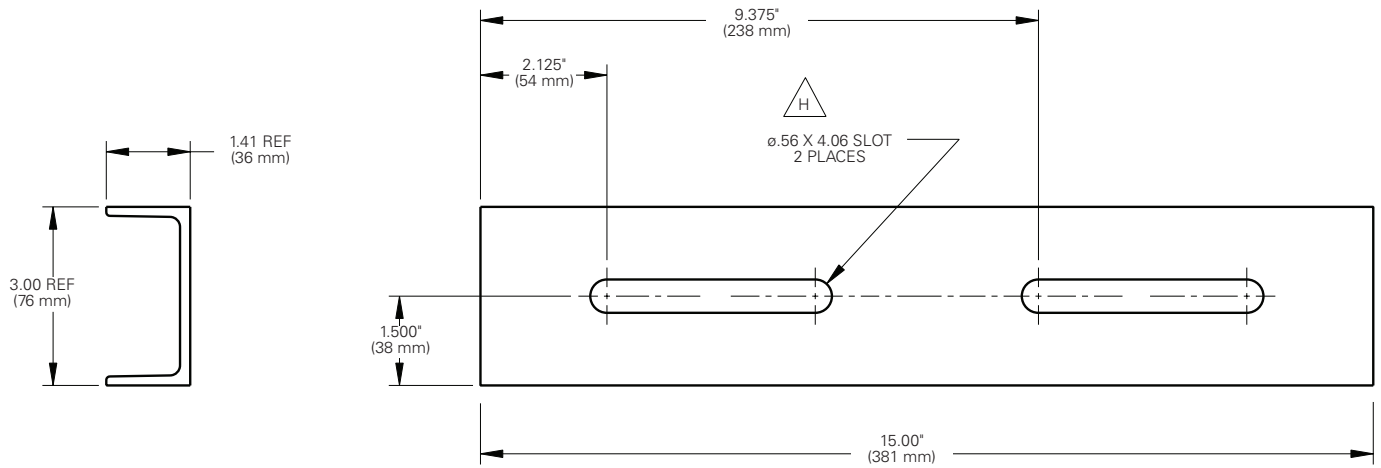


Figure 7. Standard cross arm mount.

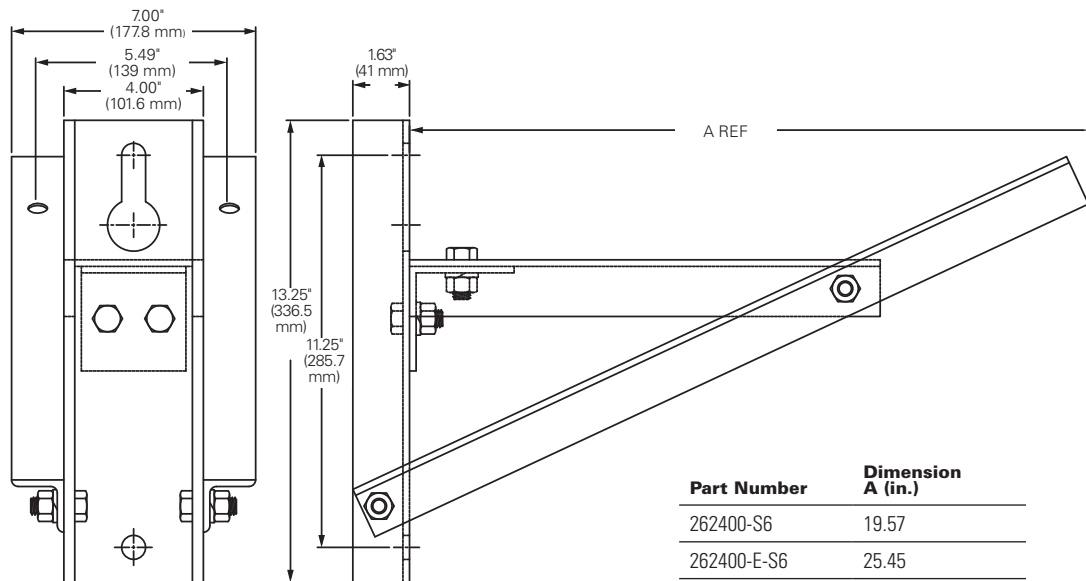


Figure 8. Pole-mounting bracket, catalog number 262400-S6 shown.

### Ordering information required

To order a D-73P disconnect or D-73P3 bypass switch use the catalog number noted in Table 3. Modify digits 4-9 to adapt the unit to the specific application.

**Table 3. Ordering Information**

1	2	3	4	5	6	7	8	9
<b>D</b>	<b>7</b>	<b>3</b>	<b>P</b>	<b>1</b>	<b>6</b>	<b>S</b>	<b>0</b>	<b>P</b>
BASE CATALOG NUMBER								
CODE	SWITCHTYPE			VOLTAGE BIL			CODE	BASE
<b>P</b>	<b>Distribution-Class Disconnect Switch (D-73P)</b>			<b>1</b>	<b>15 kV, 110 BIL</b>		<b>0*</b>	<b>Serrated Slot</b>
<b>3</b>	<b>Distribution-Class Recloser/Regulator Bypass Switch (D-73P3)</b>			<b>2</b>	<b>27 kV, 125 BIL</b>		<b>2</b>	<b>Smooth Slot</b>
				<b>3</b>	<b>27 kV, 150 BIL</b>		* Digit 8 always "0" for D-73P3	
				<b>4</b>	<b>38 kV, 150 BIL</b>		CODE      OPTIONS	
				<b>5*</b>	<b>38kV, 200 BIL</b>		<b>A</b>	<b>150 Degree Latch</b>
				*Digit 5 can only be "5" for D-73P			<b>B</b>	<b>Bypass Studs (D-73P only)</b>
				CODE      CURRENT			<b>C</b>	<b>Captive Bolts</b>
				<b>6</b>	<b>600 A</b>		<b>D</b>	<b>REA Backstrap (2-3/8" x 9" Bolts) (D-73P only)</b>
				<b>9</b>	<b>900 A</b>		<b>E</b>	<b>REA Backstrap (4-3/8" x 9" Bolts) (D-73P only)</b>
				CODE      INSULATOR MATERIAL			<b>L</b>	<b>Left-Hand Operation (D-73P3 only)</b>
				<b>S</b>	<b>Silicone Rubber</b>		<b>M</b>	<b>Pole-mount Bracket* (D-73P3 only)</b>
				<b>P</b>	<b>Porcelain</b>		<b>N</b>	<b>Without 90° Stop Pin</b>
							<b>P</b>	<b>Parallel Groove Clamp**</b>
							<b>R</b>	<b>No Backstrap</b>
							<b>S</b>	<b>Stainless Steel Loadbreak Hook</b>
							<b>X</b>	<b>Extended Pole-mount Bracket (D-73P3 only)</b>

\* 2-bolt backstrap standard for bypass switch  
\*\* Conductor range: #6 solid to 397.5 MCM ASCR, 500 MCM Copper or 556 MCM Aluminum  
**Note:** Leave digit 9 blank if no option is required.

**Example:** 600 A, 15 kV, D-73P disconnect switch in silicone rubber with standard base and parallel groove clamp = D73P16S0P



### D-73P-CD cutout disconnect switch

Eaton's Cooper Power series D-73P-CD single insulator cutout disconnect switch is single-phase hookstick-operated switch designed for operation at 600 A and 900 A on overhead distribution circuits rated up to 38 kV, 150 kV BIL. The cutout disconnect style switch is designed for riser pole applications where the switch is easily installed with included crossarm bracket much like a standard cutout. The lightweight switch package reduces the need of double crossarm mounting when using cutout bracket.

The cutout disconnect style switch combines Eaton's Cooper Power series Type L cutout and the live parts of D-73P disconnect switch to provide a rugged and reliable low cost switching device. The field proven blade design offers silver plated truss type construction with cross braces in front and in back of contacts to minimize deflection, maintain positive alignment, and ensure efficient current transfer between blade and contacts.

The D-73P-CD switch comes standard with a loadbreak hook to be used with the tool for opening the switch under load. Loadbreak hooks also act as a blade alignment guide to help in safe, reliable closing operation. The D-73P-CD switch is easy to install using cross arm mounting bracket in the same manner as a cutout. Use a D-73P-CD switch where a lightweight switch package is required.



Figure 8. D-73P-CD disconnect switch with features.

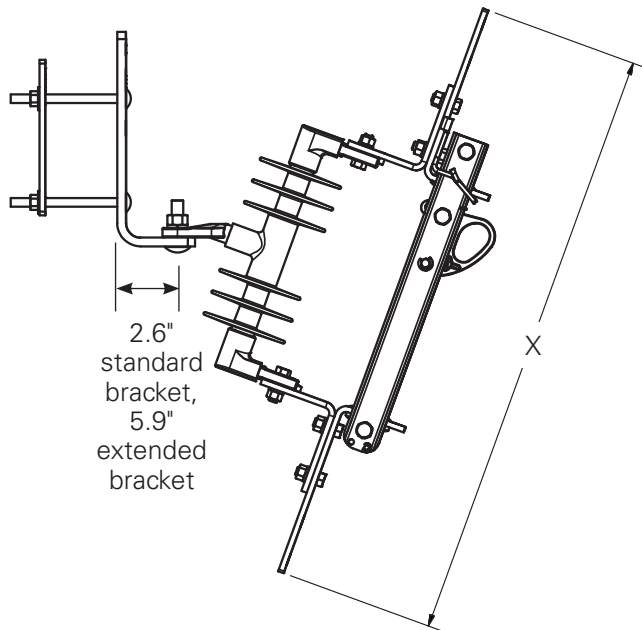


Figure 7. D-73P-CD disconnect switch with features.

Table 4. Ratings

Catalog Number	Ratings			Dimension	
	Max. Voltage (kV)	Amp (A)	BIL (kV)	Length "X" in. (mm)	Creep
D73CD16S0	15.5	600	110	26 (660)	14.2 (362)
D73CD19S0	15.5	900	110	26 (660)	14.2 (362)
D73CD26S0	27	600	125	26 (660)	14.2 (362)
D73CD29S0	27	900	125	26 (660)	14.2 (362)
D73CD36S0	27	600	150	29.5 (749)	22.3 (566)
D73CD39S0	27	900	150	29.5 (749)	22.3 (566)
D73CD46S0	38	600	150	29.5 (749)	22.3 (566)
D73CD49S0	38	900	150	29.5 (749)	22.3 (566)

X = total switch length

### D-73P-LT distribution-class line tap disconnect switch

Eaton's Cooper Power series D-73P-LT single insulator line tap disconnect switches are a single-phase hookstick-operated switch designed for operation at 600 A and 900 A on distribution circuits to 38 kV, 150 kV BIL.

Line tap style disconnect switches provide a rugged and reliable disconnect option for an assortment of cable-riser and crossover applications. The silver-plated copper truss-type blade assembly provides superior strength and smooth reliable latching mechanism. The D-73P-LT switch comes standard with load break hook to be used with tool for opening switch under load. Load break hooks also act as a blade alignment guide to help in safe, reliable closing operation.

Standard polymer insulators provide reduced weight and added durability for easier installation and enhanced ruggedness in the field. Many available options, accessories and hanging configurations make the D-73P-LT switch a flexible solution to any overhead line tap application.

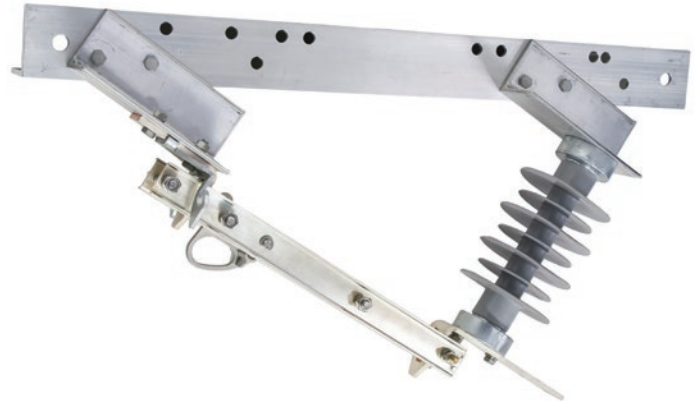
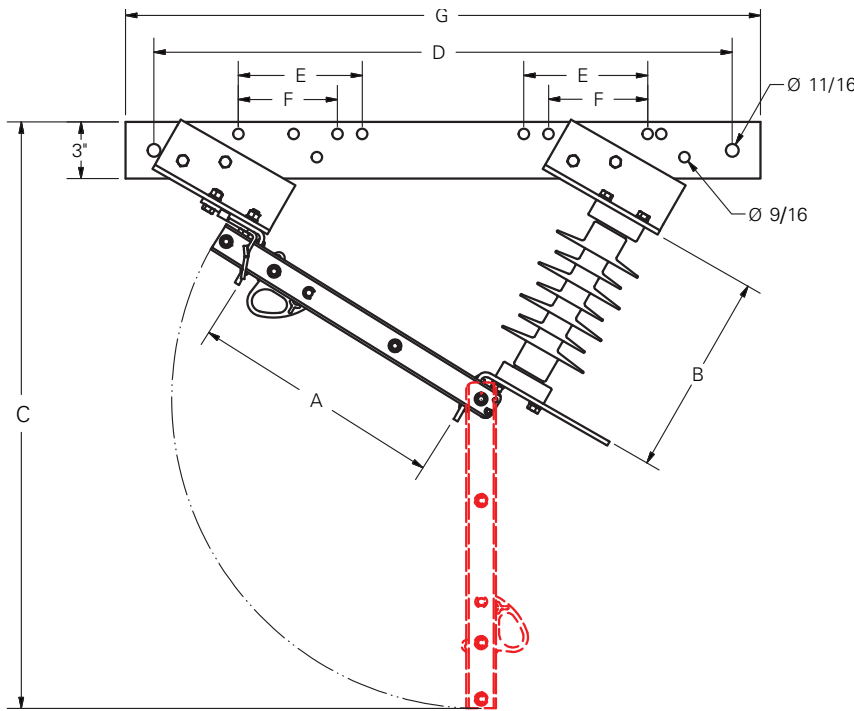
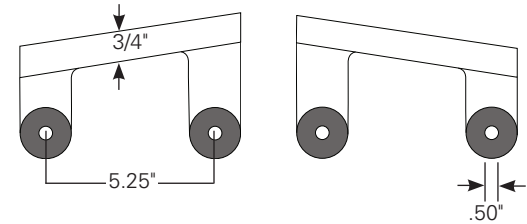


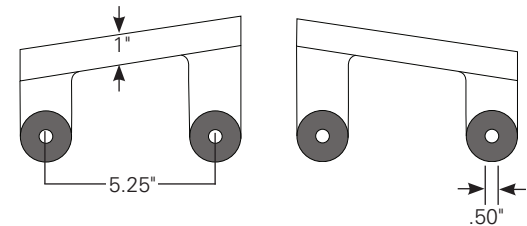
Figure 9. D-73P-LT disconnect switch with features.



Angled Hanger Set 3/4" Diameter



Angled Hanger Set 1" Diameter



Straight Hanger Set 1" Diameter

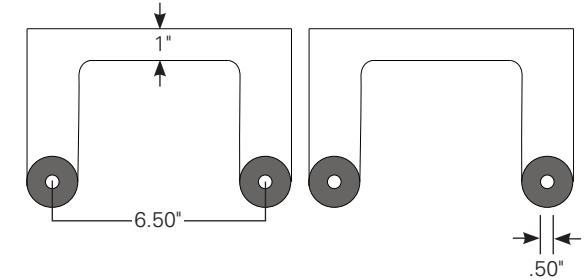


Figure 10. D-73P-LT disconnect switch with features.

Table 5. Catalog Numbers and Ratings

Catalog Number	Ratings			Dimensional Data in. (mm)						
	Max. Voltage (kV)	Amp (A)	BIL (kV)	"A"	"B"	"C"	"D"	"E"	"F"	"G"
D73LT16S0	15.5	600	110	10.5 (267)	8.375 (213)	28.0 (711)	27.25 (692)	-	5.25 (133)	30.25 (768)
D73LT19S0	15.5	900	110	10.5 (267)	8.375 (213)	28.0 (711)	27.25 (692)	-	5.25 (133)	30.25 (768)
D73LT26S0	27	600	125	10.5 (267)	8.375 (213)	28.0 (711)	27.25 (692)	-	5.25 (133)	30.25 (768)
D73LT29S0	27	900	125	10.5 (267)	8.375 (213)	28.0 (711)	27.25 (692)	-	5.25 (133)	30.25 (768)
D73LT36S0	27	600	150	13.5 (343)	10.75 (273)	31.0 (787)	30.625 (778)	6.50 (165)	5.25 (133)	33.625 (854)
D73LT39S0	27	900	150	13.5 (343)	10.75 (273)	31.0 (787)	30.625 (778)	6.50 (165)	5.25 (133)	33.625 (854)
D73LT46S0	38	600	150	13.5 (343)	10.75 (273)	31.0 (787)	30.625 (778)	6.50 (165)	5.25 (133)	33.625 (854)
D73LT49S0	38	900	150	13.5 (343)	10.75 (273)	31.0 (787)	30.625 (778)	6.50 (165)	5.25 (133)	33.625 (854)

**D-73P-VS distribution-class V-style crossarm switch**

Eaton designs its Cooper Power series D-73P-VS distribution-class V-style crossarm switches for operation at 600 A and 900 A on distribution circuits rated up to 38 kV, 150 BIL. Multiple available bases and mounting configurations make the D-73P-VS style switch a versatile switching option for vertical or inverted cross arm installations.

The silver-plated copper truss-type blade assembly provides superior strength and smooth reliable latching mechanism. The field proven blade design offers silver plated truss type construction with cross braces in front and in back of contacts to minimize deflection, maintain positive alignment, and ensure efficient current transfer between blade and contacts. D-73P-VS switches come standard with a loadbreak hook to be used with tool for opening switch under load. Loadbreak hooks also act as a blade alignment guide to help in safe, reliable closing operation. Standard polymer insulators provide reduced weight and added durability for easier installation and enhanced ruggedness in the field.



Figure 11. D-73P-VS disconnect switch with V-style base.



Figure 12. D-73P-VS disconnect switch with HOM-style base.

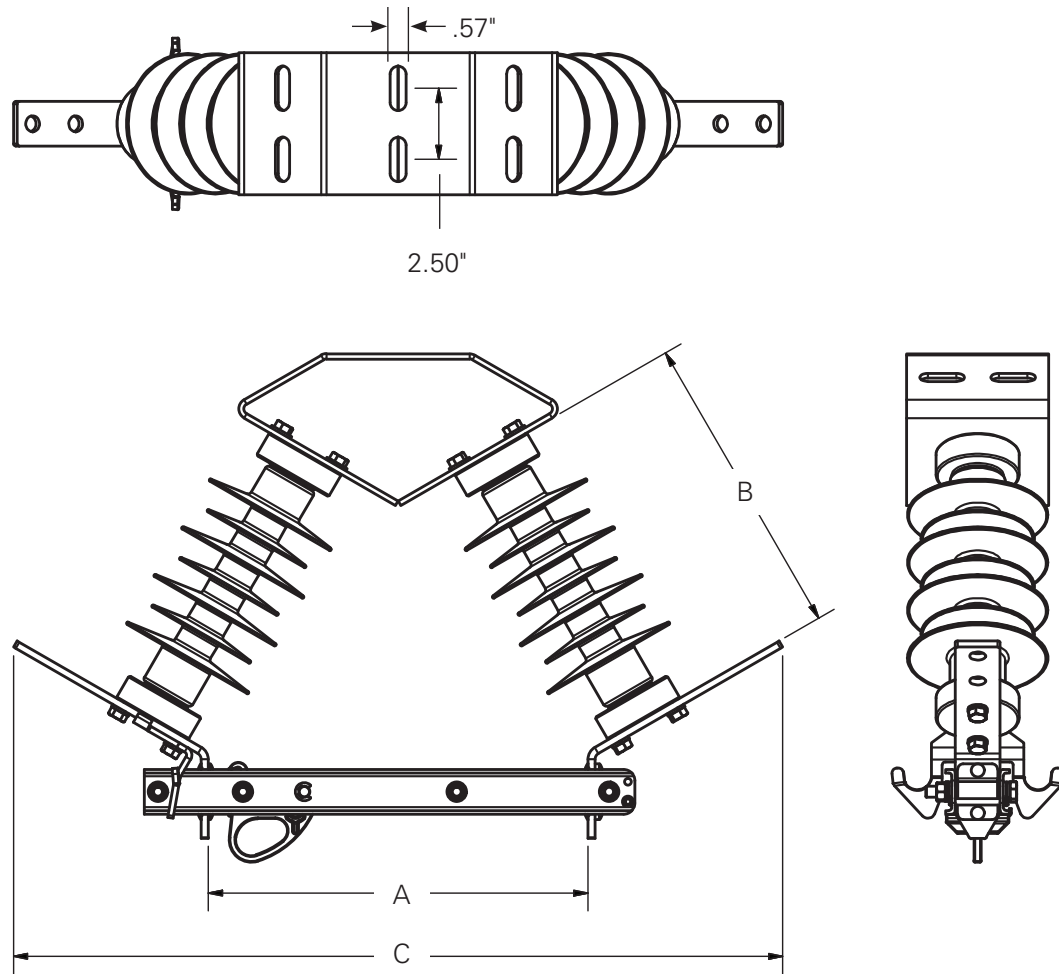


Figure 13. D-73P-VS disconnect switch with V-style base.

Table 6. Catalog Numbers and Ratings

Catalog Number	Ratings				Dimensions in. (mm)		
	Max. Voltage (kV)	Amp (A)	BIL (kV)	Creep	"A"	"B"	"C"
D73VS16S3	15.5	600	110	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS19S3	15.5	900	110	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS26S3	27	600	125	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS29S3	27	900	125	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS36S3	27	600	150	28 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS39S3	27	900	150	28 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS46S3	38	600	150	28 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS49S3	38	900	150	28 (711)	13.50 (343)	10.75 (273)	27.00 (686)

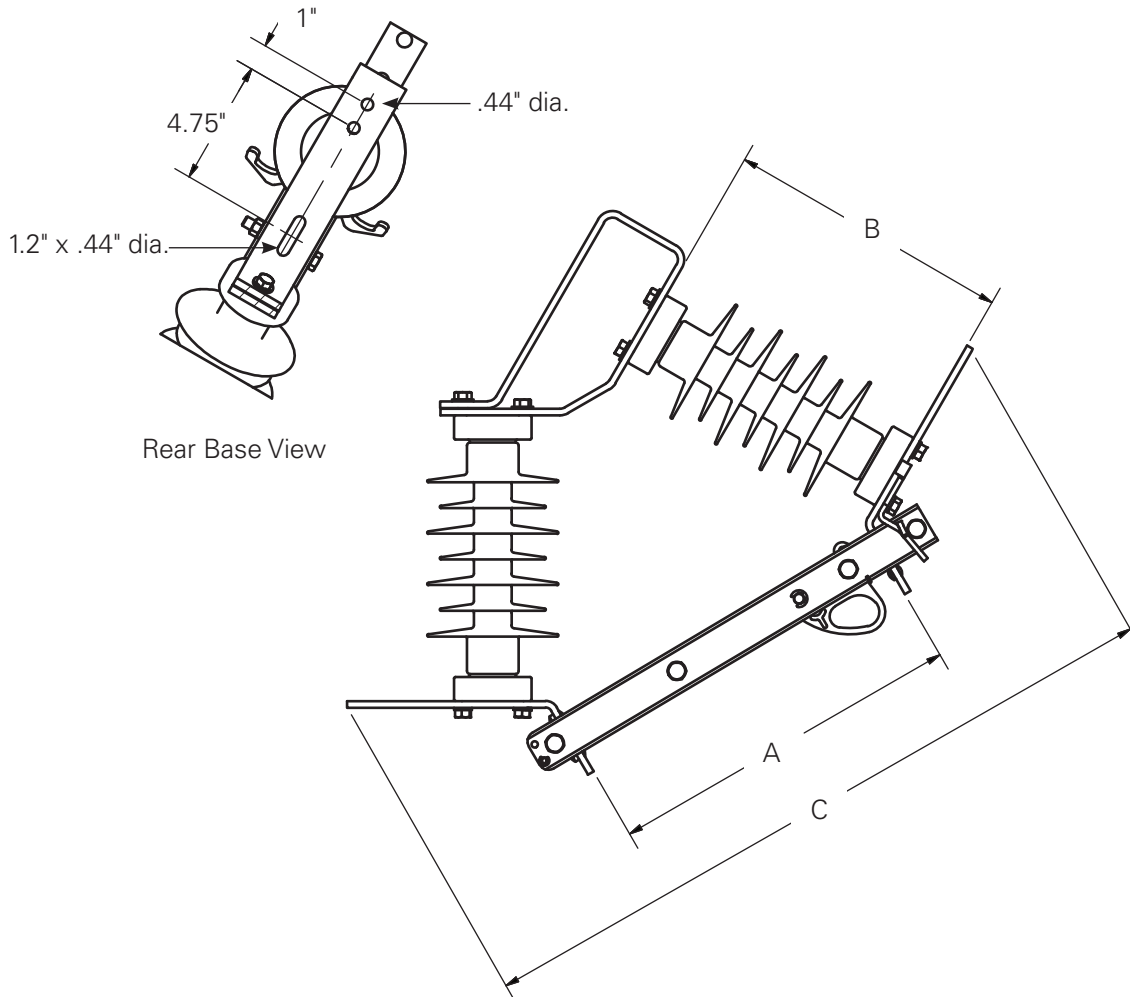


Figure 14. D-73P-VS disconnect switch with HOM-style base.

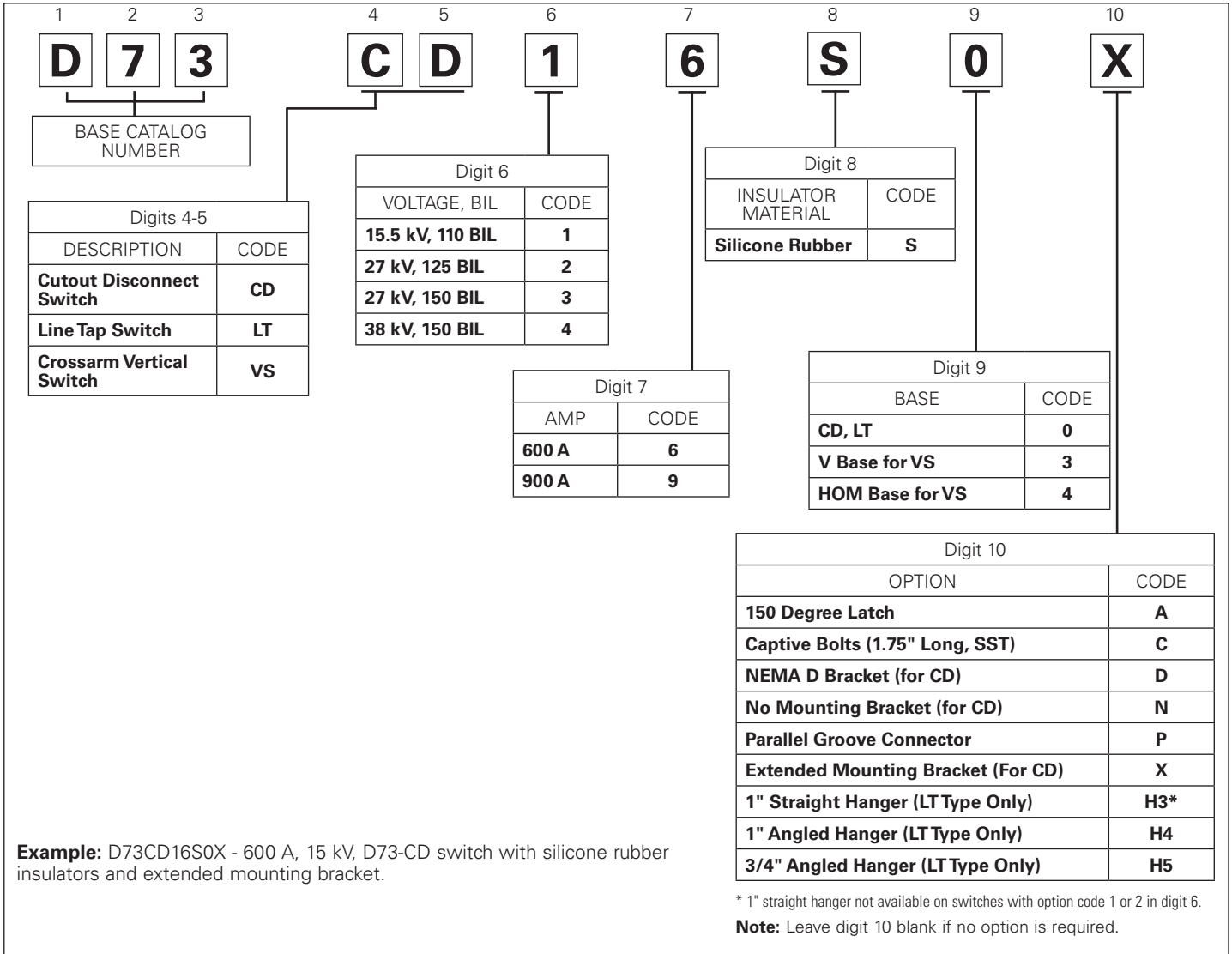
Table 7. Catalog Numbers and Ratings

Catalog Number	Ratings				Dimensions in. (mm)		
	Max. Voltage (kV)	Amp (A)	BIL (kV)	Creep	"A"	"B"	"C"
D73VS16S4	15.5	600	110	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS19S4	15.5	900	110	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS26S4	27	600	125	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS29S4	27	900	125	20.2 (513)	10.50 (267)	8.375 (213)	24.25 (616)
D73VS36S4	27	600	150	28.0 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS39S4	27	900	150	28.0 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS46S4	38	600	150	28.0 (711)	13.50 (343)	10.75 (273)	27.00 (686)
D73VS49S4	38	900	150	28.0 (711)	13.50 (343)	10.75 (273)	27.00 (686)

## Ordering information required

To order a D-73 disconnect switch use the catalog number noted in Table 8. Modify configuration digits 4-10, as required to adapt the unit to the specific application.

**Table 8. Ordering Information**



### D-73P-TS distribution-class in-line disconnect switch

Eaton's Cooper Power series D-73P-TS single insulator in-line tension switches are single-phase hookstick-operated manual switches designed for operation of overhead lines on distribution circuits of 15 kV through 38 kV, 150 kV BIL or 200 kV BIL. The D-73P-TS switches are rated at 600 A or 900 A continuous current and may be applied directly into the line wherever line sectionalizing is desired.

The in-line tension style switches provides a rugged and reliable disconnect option for line sectionalizing. The silver-plated D73 type copper truss-type blade assembly provides superior strength and smooth reliable latching mechanism. The switches come standard with loadbreak hook to be used with the appropriate tool for opening the switches under load. Loadbreak hooks also act as a blade alignment guide to help in safe, reliable closing operation.

UltraSIL silicone rubber polymer insulator with crimped end fittings provides reduced weight and added durability for easier installation and enhanced ruggedness in the field. The extra long creep makes the switch ideal for high pollution and coastal environments.

The switch is equipped with terminals providing NEMA® spacing in several different directions. This allows for increased flexibility during installation depending on the application requirements.



Figure 16. In-line tension switch in closed position..

Table 9. Catalog Numbers and Ratings

Base Catalog Number*	Continuous Current (A)	BIL (kV)	Power Frequency Dry 60 Sec (kV)	Momentary Current (rms kA)	Momentary Current (Peak kA)	Insulator Creep Distance		Rated Ultimate Tension Strength	
						(Inches)	(mm)	(LBS)	(N)
D73TS36S0	600	150	70	25	65	23.2	589	15,000	66,723
D73TS39S0	900								
D73TS56S0	600	200	95	25	65	38.9	988	15,000	66,723
D73TS59S0	900								

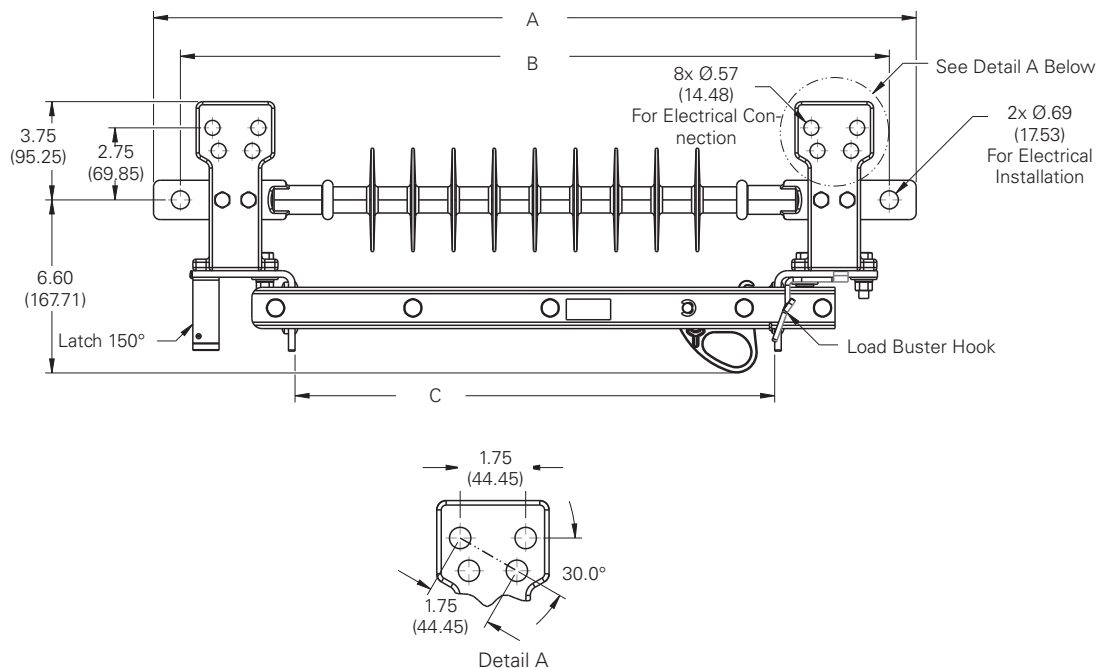


Figure 15. D-73P-TS in-line tension disconnect switch with features.

**Table 10. Dimensional Information**

Base Catalog Number*	Continuous Current (A)	BIL (kV)	Dimensional data in (mm)		
			"A"	"B"	"C"
D73TS36S0	600	150	24.1 (612)	22.1 (560)	13.3 (338)
D73TS39S0	900	150	24.1 (612)	22.1 (560)	13.3 (338)
D73TS56S0	600	200	29.1 (739)	27.1 (687)	18.3 (465)
D73TS59S0	900	200	29.1 (739)	27.1 (687)	18.3 (465)

**Ordering information**

To order a D-73P-TS in-line tension disconnect switch use the base catalog number noted in Table 10. Add options as required from Table 11.

**Table 11. Options**

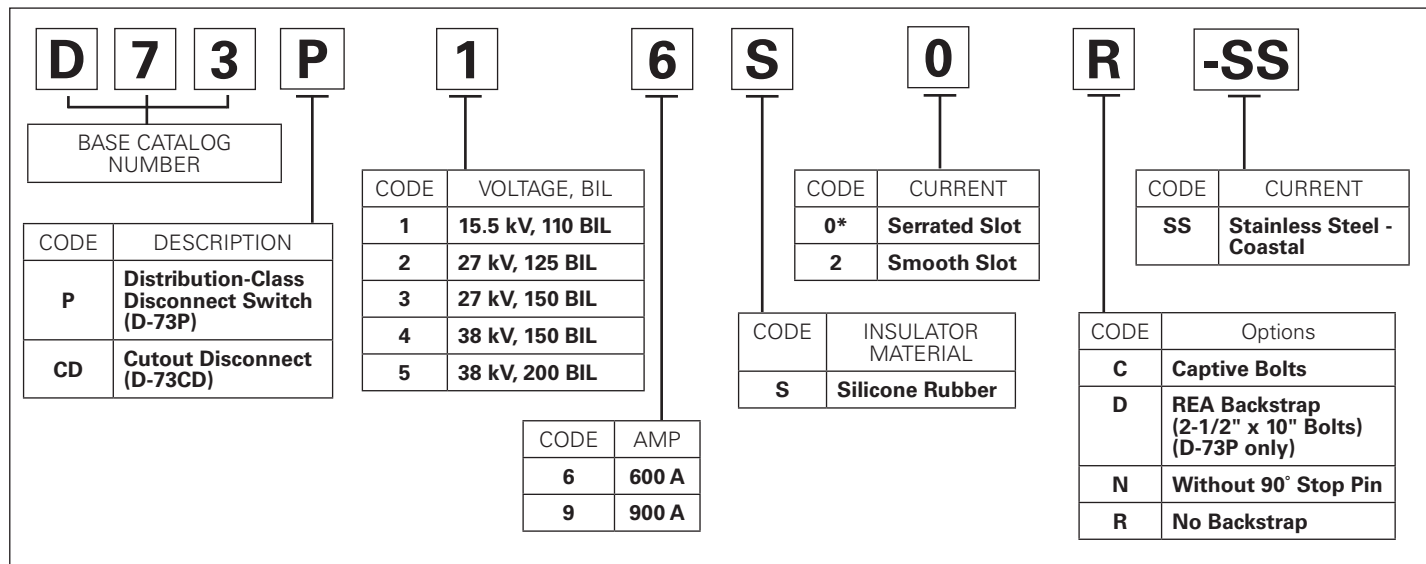
Code	Option
A	150 degree latch
P	Parallel groove connectors
Y	Four (4) SS Terminal Bolts with hardware

**Coastal - corrosion resistant switches**

Eaton offers a selection of our most popular switch styles improved for corrosion resistance. Switch styles with coastal corrosion resistance options:

- D-73P single-phase disconnect
- D-73CD single-phase cutout disconnect

Coastal versions of the D-73 single-phase switches incorporate a rugged stainless steel base, hardware and load-buster hooks that prevent pitting and corrosion in even the harshest environments.



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 Printed in USA  
 Publication No. CA008005EN  
 April 2020

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