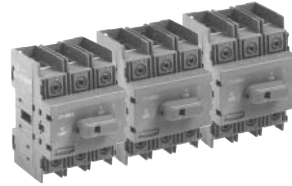


for Non-Fusible Disconnect Switches

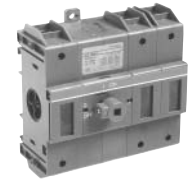
CDNF16 – CDFN160



CDNF16 CDFN25 CDFN32



CDNF30 CDFN60 CDFN100



CDNF160

Catalog number	3 pole	CDNF16	CDNF25	CDNF32	CDNF45	CDNF63	CDNF30	CDNF60	CDNF100	CDNF160
General purpose amp rating	A	16	25	40	60	80	30	60	100	125
Approvals ^①										
	2 pole	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	UL98
	3 pole	UL508	UL508	UL508	UL508	UL508	UL98	UL98	UL98	UL98
	4 pole	UL508	UL508	UL508	UL508	UL508	UL98	UL98	UL98	UL98
Technical ratings										
UL, CSA^②										
Max operating voltage	V	600	600	600	600	600	600	600	600	600
Max horsepower rating										
Three phase										
200 – 208V	HP	3	7.5	10	15	20	10	20	25	—
240V	HP	5	7.5	10	15	20	10	20	25	30
480V	HP	10	15	20	30	40	20	40	50	60
600V	HP	10	20	25	20	40	30	40	40	75
Single phase										
120V	HP	1/2	3/4	1	2	2	2	3	5	7.5
240V	HP	1.5	2	3	5	5	5	7.5	15	20
Technical ratings										
IEC^③										
Rated insulation and operational voltage. AC20 and DC20 ^④	V	750	750	750	750	750	750	750	750	750
Rated thermal current, I _{th}										
AC 20/DC 20 open	A	25	32	40	63	80	40	63	115	200
AC 20/DC 20 enclosed	A	25	32	40	63	80	40	63	115	160
AC 21A 500V	A	16	25	32	63	80	40	63	100	160
AC 21A 690V	A	16	25	32	63	80	40	63	100	160
Rated operational power AC23										
400/415V	kW	7.5	9	11	22	37	15	18.5	37	75
690V	kW	7.5	9	11	15	18.5	15	15	37	75
Physical characteristics										
Weight ^④	3 pole lb	0.24	0.24	0.24	0.59	0.59	0.79	0.79	0.79	2.42
Dimension	3 pole H in	2.68	2.68	2.68	3.60	3.60	3.94	3.94	3.94	5.00
	W in	1.38	1.38	1.38	2.07	2.07	2.76	2.76	2.76	4.96
	D in	2.20	2.20	2.20	2.85	2.85	2.95	2.95	2.95	2.93
Accessories										
Terminal lug kit		Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	integral
Terminal shroud		•	•	•	•	•	•	•	•	•
Auxiliary contact		•	•	•	•	•	•	•	•	•
Handle UL/NEMA type										
Type 1, 3R, 12		•	•	•	•	•	•	•	•	•
Type 1, 3R, 4, 4X, 12		•	•	•	•	•	•	•	•	•
Handle type										
Selector		•	•	•	•	•	—	—	—	—
Pistol		•	•	•	•	•	•	•	•	•
Conversion kits										
6 pole		•	•	•	•	•	•	•	•	•
Transfer		•	•	•	•	•	•	•	•	•
Bypass		•	•	•	•	•	•	•	•	•
Mechanical interlock		•	•	•	•	•	•	•	—	•
Electrical interlock		—	—	—	—	—	—	—	—	—

• = Available
 — = Not available

UL listed, CSA approved, IEC rated, CE marked

- ① UL listed switches are also CSA approved.
- ② For complete technical information please see page 58 & 59.
- ③ 1000V, IEC 408.
- ④ Switch only

Fusible

Non-Fused

Enclosed Fused

Enclosed Non-Fused

for Non-Fusible Disconnect Switches
Base & DIN Rail Mounted

For a complete assembly,
 please select one of each:

- 1 switch
- 1 handle
- 1 shaft



CDNF63



CDS85S



CDH3S

16 – 100 Amp switches, 600V, 3 pole^①

UL general purpose amp rating	IEC AC21 amp rating	Maximum horsepower rating						Terminal lugs		Catalog number
		Single phase		Three phase				Wire size	Wire type	
		120V	240V	200V	240V	480V	600V			
16	16	1/2	1.5	3	5	10	10	#18 – 8	Cu	CDNF16
25	25	3/4	2	7.5	7.5	15	20	#18 – 8	Cu	CDNF25
40	40	1	3	10	10	20	25	#18 – 8	Cu	CDNF32
60	63	2	5	15	15	30	20	#14 – 4	Cu	CDNF45
80	80	2	5	20	20	40	40	#14 – 1	Cu	CDNF63
30	40	2	5	10	10	20	30	#14 – 4	Cu	CDNF30
60	63	3	7.5	20	20	40	40	#14 – 4	Cu	CDNF60
100	115	5	15	25	25	50	40	#8 – 1/0	Cu	CDNF100



CDNF16
 CDNF25
 CDNF32



CDNF30
 CDNF60
 CDNF100



CDH1S



CDH15S



CDH6S



CDS_S

Selector handles — for use with shafts \square .20 x .20" (\square 5x5mm)

NEMA type	IEC type	Color	Defeatable	Padlockable	Weight (lbs)	Catalog number
All marked both O/I & Off/On						
1	IP54	Black	—	—	0.09	CDH1S ^②
1	IP54	Red/Yel	—	—	0.09	CDH2S ^②
1	IP54	Black	—	Yes	0.12	CDH15S ^②
1	IP54	Red/Yel	—	Yes	0.12	CDH16S ^②
1,3R,12	IP65	Black	—	Yes	0.16	CDH3S
1,3R,12	IP65	Red/Yel	—	Yes	0.16	CDH4S
1,3R,12	IP65	Black	Yes	Yes	0.16	CDH5S
1,3R,12	IP65	Red/Yel	Yes	Yes	0.16	CDH6S

Shafts — for use with CDH selector handles \square .20 x .20" (\square 5x5mm)

Shaft length inches/mm	Mounting depth ^③ in inches						Weight (lbs)	Catalog number
	CDNF16 CDNF25 CDNF32		CDNF45 CDNF63		CDNF30 CDNF60 CDNF100			
	CDH1S, CDH2S CDH15S, CDH16S	CDH3S, CDH4S CDH5S, CDH6S	CDH1S, CDH2S CDH15S, CDH16S	CDH3S, CDH4S CDH5S, CDH6S	CDH3S, CDH4S CDH5S, CDH6S	CDH3S, CDH4S CDH5S, CDH6S		
3.3/85	4.2 – 5.0	3.6 – 4.3	4.9 – 5.6	4.4 – 5.0	3.9 – 4.9	0.04	CDS85S	
4.1/105	5.0 – 5.8	4.4 – 5.1	5.7 – 6.4	5.1 – 5.8	4.7 – 5.7	0.04	CDS105S	
4.7/120	5.6 – 6.4	5.0 – 5.8	6.3 – 7.0	5.7 – 6.4	5.3 – 6.3	0.05	CDS120S	
5.1/130	6.0 – 6.7	5.4 – 6.1	6.7 – 7.4	6.1 – 6.8	5.6 – 6.7	0.05	CDS130S	
7.1/180	7.1 – 8.7	7.4 – 8.1	8.6 – 9.4	8.1 – 8.7	7.6 – 8.6	0.08	CDS180S	
9.8/250	10.7 – 11.5	10.1 – 10.8	11.4 – 12.1	10.9 – 11.5	10.4 – 11.4	0.10	CDS250S	
13/330	13.8 – 14.6	13.3 – 14.0	14.6 – 15.3	14.0 – 14.7	13.5 – 14.5	0.14	CDS330S	

① A snap on fourth pole may be added
 ② Not suitable for use with CDNF30, 60, 100.
 ③ Mounting depth is the distance from the outside of door to the disconnect switch mounting plate. Shaft can be cut to desired length.

Fusible

Non-Fused

Enclosed Fused

Enclosed Non-Fused

for Non-Fusible Disconnect Switches
CDNF16 – CDNF160

UL & CSA

Catalog number		3 pole	CDNF16	CDNF25	CDNF32	CDNF45	CDNF63	CDNF30	CDNF60	CDNF100	CDNF160	
Approvals ^①		2 pole 3 pole 4 pole	N/A UL508 & IEC UL508 & IEC	N/A UL508 & IEC UL508 & IEC	N/A UL508 & IEC UL508 & IEC	N/A UL508 & IEC UL508 & IEC	N/A UL508 & IEC UL508 & IEC	N/A UL98 & IEC UL98 & IEC	N/A UL98 & IEC UL98 & IEC	N/A UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	
General purpose amp rating pf = 0.7 – 0.8		-40° to 40°C A	16	25	40	60	80	30	60	100	125	
Max. operating voltage		V	600	600	600	600	600	600	600	600	600	
Max. horsepower rating/motor FLA current, pf = 0.4 – 0.5												
Three phase	200V – 208V	HP/A	3/10.6	7.5/24.2	10/30.8	15/46.2	20/60.0	10/30.8	20/60.0	25/75.0	30/88.0	
	240V	HP/A	5/15.2	7.5/22.0	10/28.0	15/42.0	20/54.0	10/28.0	20/54.0	25/68.0	30/80.0	
	480V	HP/A	10/14.0	15/21.0	20/27.0	30/40.0	40/52.0	20/27.0	40/52.0	50/65.0	60/77.0	
	600V	HP/A	10/11.0	20/22.0	25/27.0	20/22.0	40/41.0	30/32.0	40/41.0	40/41.0	75/77.0	
	Single phase	120V	HP/A	0.5/9.8	0.75/13.8	1/16.0	2/24.0	2/24.0	2/24.0	3/34.0	5/56.0	7.5/80
		240V	HP/A	1.5/10.0	2/12.0	3/17.0	5/28.0	5/28.0	5/28.0	7.5/40.0	15/68.0	20/88.0
Short circuit rating with fuse												
Fuse type	CC	kA	10	10	10	100	100	50	50	50	100	
Fuse type	J	kA	10	10	10	100	100	50	50	50	100	
Fuse type	T	kA	10	10	10	100	100	50	50	50	100	
Fuse type	RK1	kA	10	10	10	—	—	—	—	—	—	
Fuse type	RK5	kA	5	5	5	5	10	—	—	—	—	
Fuse type	L	kA	—	—	—	—	—	—	—	—	—	
Fuse type	H	kA	—	—	—	5	5	—	—	—	—	
Fuse size		A	30	60	30	60	100	150	60	100	200	
Short circuit rating with MCCB		kA	—	—	—	—	—	—	—	—	25	
Endurances												
Min. Electrical endurance, pf = 0.75 – 0.80	operation cycles		6000	6000	6000	6000	6000	6000	6000	6000	6000	
Min. Electrical endurance, pf = 0.40 – 0.50	operation cycles		1000	1000	1000	1000	1000	⊙	⊙	⊙	⊙	
Mechanical endurance	operations		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	16,000	
Physical characteristics												
Weight, switches	3 pole	lb	0.24	0.24	0.24	0.59	0.59	0.79	0.79	0.79	2.42	
	4 pole	lb	0.33	0.33	0.33	0.77	0.77	1.10	1.10	1.10	2.86	
Dimension, switches	3 pole	H in	2.68	2.68	2.68	3.60	3.60	3.94	3.94	3.94	5.00	
		W in	1.38	1.38	1.38	2.07	2.07	2.76	2.76	2.76	4.96	
		D in	2.20	2.20	2.20	2.85	2.85	2.95	2.95	2.95	2.93	
Shaft size — square □	in		.20 x .20	.20 x .20	.20 x .20	.20 x .20	.20 x .20	.20 x .20	.20 x .20	.20 x .20	.24 x .24	
		mm	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	6 x 6	
Switch operating torque for rotary 3 pole switches	lb. in.		8.8	8.8	8.8	10.5	10.5	17.5	17.5	17.5	52.5	
Terminal lug kits			Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	
Wire range	AWG		#18 – 8	#18 – 8	#18 – 8	#14 – 4	#14 – 1	#14 – 4	#14 – 4	#8 – 1/0	#8 – 1/0	
Torque:												
Wire tightening	lb. in.		7	7	7	18	18	55	55	55	70	
Lug mounting	lb. in.		Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	
Auxiliary contacts			CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDEA_ _ _ _	
NEMA ratings, AC			A600	A600	A600	A600	A600	A600	A600	A600	A600	
AC rated voltage	VAC		600	600	600	600	600	600	600	600	600	
AC thermal rated current	A		10	10	10	10	10	10	10	10	10	
AC maximum volt-ampere making	VA		7200	7200	7200	7200	7200	7200	7200	7200	7200	
AC maximum volt-ampere breaking	VA		720	720	720	720	720	720	720	720	720	
NEMA ratings, DC			R300	R300	R300	R300	R300	R300	R300	R300	P600	
DC rated voltage	VDC		300	300	300	300	300	300	300	300	600	
DC thermal rated current	A		1	1	1	1	1	1	1	1	5	
DC maximum make-break	VA		28	28	28	28	28	28	28	28	138	
Torque:												
Wire tightening	lb. in.		7	7	7	7	7	7	7	7	7	
Wire range	AWG		#18 – 14	#18 – 14	#18 – 14	#18 – 14	#18 – 14	#18 – 14	#18 – 14	#18 – 14	#22 – 14	

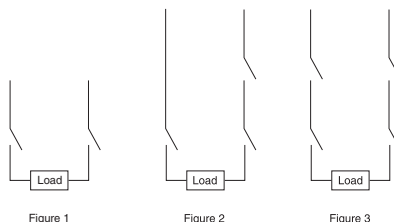
① UL Listed switches are also CSA Approved.
② UL98 overload test, 50 operations, pf 0.40 – 0.50 at 2x FLA.

for Non-Fusible Disconnect Switches

CDNF16 – CDFN160

IEC

Catalog number	3 pole		CDNF16	CDNF25	CDNF32	CDNF45	CDNF63	CDNF30	CDNF60	CDNF100	CDNF160
Rated insulation and operation voltage, AC20 and DC20 ^①	40°C	V	750	750	750	750	750	750	750	750	12
Rated impulse withstand voltage		kV	8	8	8	8	8	8	8	8	12
Rated thermal current, I _m											
AC 20/DC 20	open ^②	A	25	32	40	63	80	40	63	115	200
	40°C enclosed	A	25	32	40	63	80	40	63	115	160
	60°C enclosed	A	25	32	40	63	80	40	63	115	160
Rated operational currents											
AC 21A	≤500V	A	16	25	32	63	80	40	63	100	160^③
	≤690V	A	16	25	32	63	80	40	63	100	160 ^③
	≤1000V ^①	A	—	—	—	—	—	—	—	—	—
AC 22A	≤500V	A	16	25	32	63	80	40	63	100	160 ^③
	≤690V	A	16	25	32	63	80	40	63	100	160 ^③
	≤1000V ^①	A	—	—	—	—	—	—	—	—	—
AC 23A	≤415V	A	16	20	23	45	75	40	63	80	135
	≤500V	A	16	20	23	45	58	40	63	60	125
	≤690V	A	10	11	12	20	20	40	40	40	80
	≤1000V ^①	A	—	—	—	—	—	—	—	—	—
Rated operational currents/poles in series											
DC21A	48V	A	16/1	25/1	32/1	⊕	⊕	40/1	63/1	100/1	160/1
	110V	A	16/2	25/2	32/2	45/2	63/2	40/2	63/2	100/2	160/1
	220V	A	16/3	25/3	32/3	⊕	⊕	40/4	63/4	100/4	160/2
	440V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	160/3
	750V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	160/4
DC22A	48V	A	16/1	25/1	32/1	⊕	⊕	40/1	63/1	100/1	160/1
	110V	A	16/2	25/2	32/2	45/2	63/2	40/2	63/2	100/2	160/1
	220V	A	16/3	25/3	32/4	⊕	⊕	40/4	63/4	63/4	160/2
	440V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	160/3
	750V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
DC23A	48V	A	16/1	25/1	32/1	⊕	⊕	40/1	63/1	100/1	160/1
	110V	A	16/2	25/2	32/2	45/2	63/2	40/2	63/2	100/2	160/1
	220V	A	16/4	25/4	32/4	⊕	⊕	40/4	63/4	63/4	160/2
	440V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	160/3
	750V	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Rated operational power											
AC23A	230V	kW	3	4	5.5	11	22	7.5	11	22	45
	400/415V	kW	7.5	9	11	22	37	15	18.5	37	75
	500V	kW	7.5	9	11	22	37	15	18.5	37	75
	690V	kW	7.5	9	11	15	18.5	15	15	37	75
Short-circuit current		kA	50	50	50	50	50	50	50	50	50
with back-up fuses of size ^①		A	25	32	40	63	80	100	100	100	200

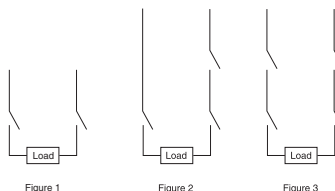


① 1000V, IEC 408.
 ② The ambient air temperature does not exceed +40°C and its average over a period of 24 hours does not exceed +35°C according to IEC 947.
 ③ IEC 947-3, utilization category B, infrequent operation.
 ④ Not available at time of printing, please consult factory.

for Non-Fusible Disconnect Switches
CDNF16 – CDNF160

IEC

Catalog number	3 pole	CDNF16	CDNF25	CDNF32	CDNF45	CDNF63	CDNF30	CDNF60	CDNF100	CDNF160
Rated voltage, U ^e	V/V	415	415	415	415	415	415	415	415	415/690
Rated conditional short-circuit current	kA	50	50	50	50	50	50	50	50	80/50
Max. allowed fuse size, type OFAA	A	16	32	40	63	80	100	100	100	160/250
Max. allowed cut-off current, peak value	kA	4	4.3	4.6	8.3	11	9.2	9.2	9.2	21.0/21.6
Rated short-circuit making capacity, prospective peak value, I ^{cm}	kA	0.7	0.7	1.4	1.4	3.6	3.6	3.6	12	
Rated short time withstand current, RMS I ^{CW}	0.2s kA	—	—	—	—	—	—	—	—	7
	1.0s kA	0.5	0.5	0.5	1	1	2.5	2.5	2.5	4
AC breaking capacity										
pf = 0.35										
≤415V	A	128	160	184	240	304	320	504	640	1080
≤500V	A	128	160	184	240	256	320	504	504	1000
≤690V	A	80	88	96	160	160	320	320	320	640
≤1000V ^①	A	—	—	—	—	—	—	—	—	—
DC breaking capacity/poles in series										
L/R = 15ms, 3 pole in series										
≤48V	A	64/1	100/1	128/1	180/1	252/1	160/1	252/1	400/1	640/1
≤110V	A	64/2	100/2	128/2	180/2	180/2	160/2	252/2	400/2	640/1
≤220V	A	64/3	100/4	128/4	180/4	180/4	160/4	252/4	252/4	640/2
≤440V	A	②	②	②	②	②	②	②	—	640/3
≤750V	A	②	②	②	②	②	②	②	—	—
Capacitor ratings	≤400/415V kVar	②	②	②	②	②	②	②	②	②
Rated capacitor duty	kA	②	②	②	②	②	②	②	②	②
Physical characteristics										
Electrical endurance at rated operational current, pf = 0.65	operation cycles	3000	3000	3000	3000	3000	3000	3000	3000	1000
Mechanical endurance	operations	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	16,000
Weight	3 pole kg	0.11	0.11	0.11	0.27	0.27	0.36	0.36	0.36	1.1
	4 pole kg	0.15	0.15	0.15	0.35	0.35	0.5	0.5	0.5	1.3
Dimension 3 pole	H mm	68	68	91.5	91.5	100	100	100	127	
	W mm	35	35	35	52.5	52.5	70	70	70	126
	D mm	56	56	56	72.5	72.5	75	75	75	74.5
Power loss per pole	W	0.3	0.6	1	1.4	2.8	1	1.6	4	6.5
Shaft size — square □	mm	5 X 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	5 x 5	6 x 6
Switch operating torque for rotary 3 pole switches	Nm	1	1	1	1.2	1.2	2	2	2	6
Suitable conductor cross section Cu	mm ²	0.75 – 10	0.75 – 10	0.75 – 10	1.5 – 35	1.5 – 35	1.5 – 25	1.5 – 25	1.5 – 25	10 – 70
Bolt size		—	—	—	—	—	—	—	—	—
Auxiliary contacts		CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _	CDAUX_ _
Ratings according to IEC 9-47-5-1										
Rated voltage, U _i	VAC	690	690	690	690	690	690	690	690	690
Thermal current, I _m	A	16	16	16	16	16	16	16	16	10
AC12/DC12 I _e , A U _e =										
120V	A	—	—	—	—	—	—	—	—	8/—
125V	A	—	—	—	—	—	—	—	—	—/1.1
240V	A	6 ^③	6 ^③	6 ^③	6 ^③	6 ^③	6 ^③	6 ^③	6 ^③	6/—
250V	A	—	—	—	—	—	—	—	—	—/0.55
400V	A	4 ^③	4 ^③	4 ^③	4 ^③	4 ^③	4 ^③	4 ^③	4 ^③	4/—
415V	A	—	—	—	—	—	—	—	—	4/—
440V	A	—	—	—	—	—	—	—	—	—/0.31
480V	A	—	—	—	—	—	—	—	—	3/—
500V	A	—	—	—	—	—	—	—	—	3/0.27
600V	A	—	—	—	—	—	—	—	—	—/0.2
690V	A	2 ^③	2 ^③	2 ^③	2 ^③	2 ^③	2 ^③	2 ^③	2 ^③	2/—

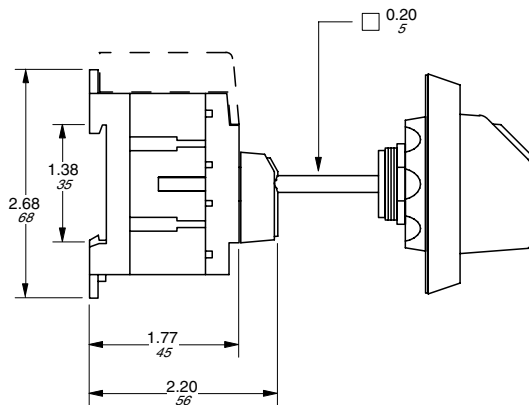
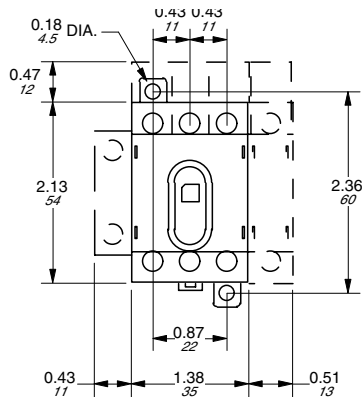


① 1000V, IEC 408.
② Not available at time of printing, please consult factory.
③ AC15, according to IEC947-5-1.

for Non-Fusible Disconnect Switches

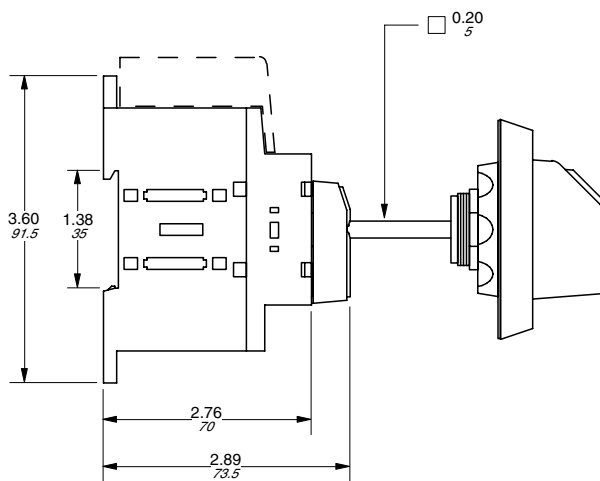
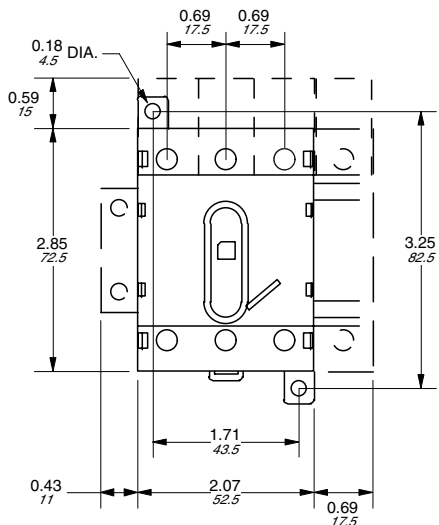
CDNF16 — CDNF100

CDNF16, CDNF25, CDNF32 — base & DIN rail mounted switch



Fusible

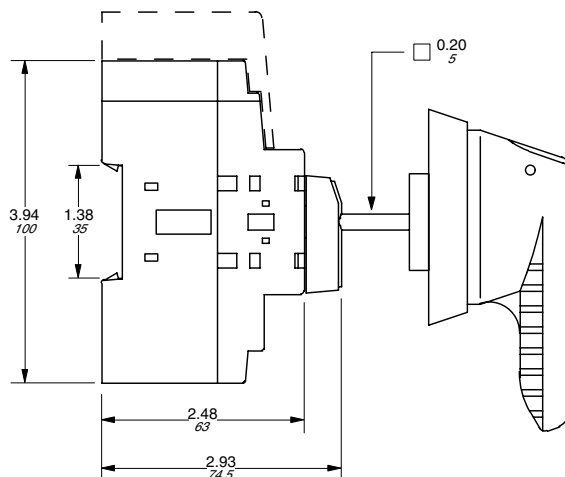
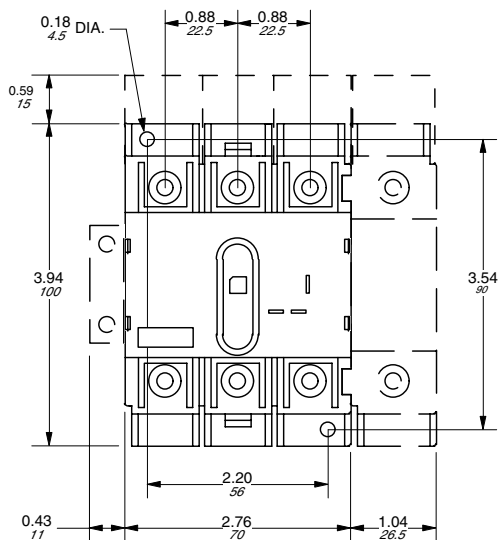
CDNF45, CDNF63 — base & DIN rail mounted switch



Non-Fused

Enclosed Fused

CDNF30, CDNF60, CDNF100 — base & DIN rail mounted switch



Enclosed Non-Fused