

Disconnect switches
Non-fusible
Fusible
Enclosed

Low voltage disconnect switches from ABB

ABB is committed to offering high quality and innovative low voltage products. ABB's disconnect switch lines are no exception.

Modern materials and manufacturing technology coupled with advanced features allow ABB's disconnect switches to offer superior customer benefits – exceptional performance, easy installation, and ultimate protection – like no other. Through a broad range of product offerings, ABB sets the standard for disconnect switches industry-wide.

The disconnect switch is largely used in low voltage switchgear for distribution of power, for starting and stopping motors and for isolating loads during maintenance. ABB's range of disconnect switches are suitable for diverse applications, in motor control centers, in switchboards and as main switches in various equipment and machinery.

The disconnect product line ranges from standard 3-pole configurations to specialty combination switches for transfer, bypass and reversing. The comprehensive ABB range of Low Voltage Disconnect Switch products is the perfect choice for all switching applications.

Disconnect switches are integral to ABB's line of circuit protection devices to guard against equipment damage in multiple applications. ABB prides itself in being the Safety Pioneer for the low voltage electrical product industry as our products offer maximum protection of the electrical installation and the user. Designed to meet customer requirements for safety, ABB's disconnect switch lines feature:

Fingerproof construction – IP 20

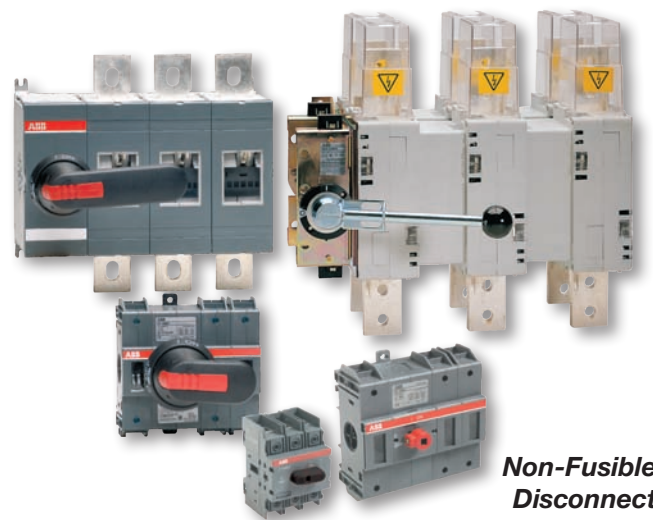
Dead-front construction plus terminal shrouds reduce the risk of touching live parts.

Padlockable mechanisms & handles

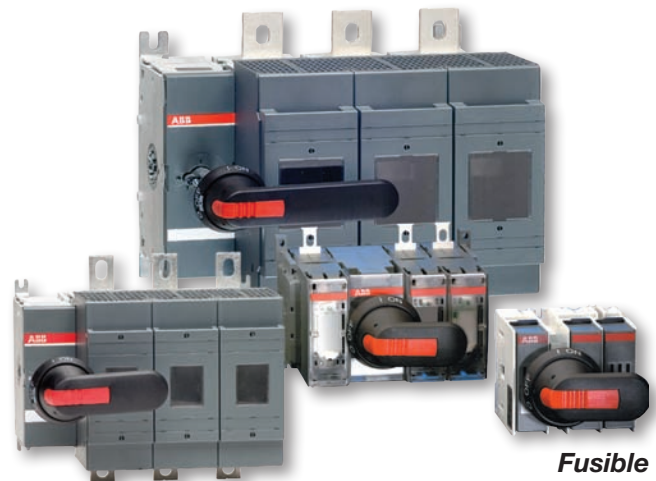
Handles can be padlocked in the OFF position with up to three padlocks. Additionally, the switch mechanism can be directly padlocked in the OFF position when the door is open.

Welded contact protection

Positive opening operation safeguards users in case of welded contacts due to an extreme overcurrent situation. The ABB switch design cannot reach the OFF position unless the contacts are truly open. This safeguards the user by alerting them of the problem, maintains door interlock safety and does not allow a padlock to be inserted.



**Non-Fusible
Disconnect
Switches**



**Fusible
Disconnect
Switches**

Track resistant material

Excellent track resistant material reduces the risk of flashover between phases even in the most severe circumstances.

Door Interlock

The handle and shaft provide door interlock so that the door cannot be opened when the switch is in the ON position.

Clear position indication

All ABB disconnect switches and handles are clearly marked with ON and OFF designations, which allow for quick position identification whether the door is open or closed.

Disconnect switch accessories

Customize your ABB switch with our extensive line of disconnect switch accessories. From handles to power poles, our accessory line follows the same superior craftsmanship as the switches themselves.

Selector handles

The design of the ABB selector handles incorporates quick and easy mounting, ergonomic and uniform design as well as safety in application. The selector handle range offers base mounting and door mounting options with screw and snap-on features. ABB selector handles provide door interlock in the ON position and when padlocked in the OFF position.

Pistol handles

Robust construction coupled with stunning high torque allows the use of plastic handles even in a very large current area of switches. ABB pistol handles are easy to install as mounting hardware fastens to brass inserts in the back of the handle.

Pistol handles are available in a variety of lengths from 65mm to 275mm for 6mm and 12mm shaft diameters. Black/Red and Red/Yellow plastic as well as 316L stainless steel versions are available for use with non-fusible and fusible disconnects.

Shafts

A full range of 6 and 12mm shafts coordinate with selector and pistol grip handles for all disconnect switches. Shafts are offered in a variety of lengths in order to meet customer mounting depth specifications.

Flange operators

Flange operated disconnect switches are available as rigid shaft or flexible cable designs. The cable operated version allows installation of the disconnect anywhere in the enclosure depending on the length of the cable. Cables are available in lengths from 36 to 84 inches. Along with optional direct mount rotary handles, ABB's full flange offering provides compliance with

NFPA79 and UL508A requirements for industrial machinery operation handles.

Conversion mechanisms

Convert a standard non-fusible ABB disconnect to a custom solution by installing one of the available conversion mechanisms.

- 6 or 8 pole mechanism - operates 2 switches with a single handle.
- Transfer mechanism - manually transfers between 2 power sources.
- Bypass mechanism - operates 3 switches (2 in a series and 1 transfer switch to provide bypass).
- Mechanical interlock - prevents 2 switches from simultaneously being in the ON position.

Other common accessories

- Motor operators
- Terminal shrouds
- Additional power poles
- Additional terminal poles (neutrals and grounds)
- Electro-mechanical interlocks
- Auxiliary contacts



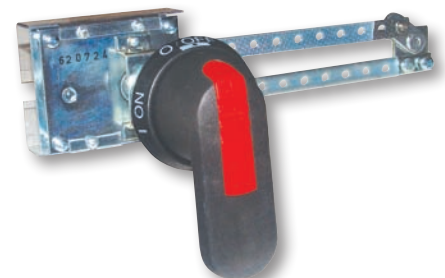
Selector handles



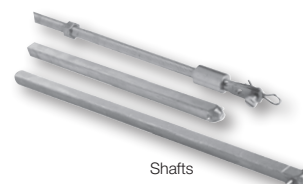
Auxiliary contacts



Pistol handles



Double throw mechanism



Shafts

Non-fusible disconnect switches



Standard catalog number	3 pole	OT16F3	OT25F3	OT40F3	OT63F3	OT80F3	OT30F3	OT60F3	OT100F3	OT160E3
Amp rating	A	16	25	40	60	80	30	60	100	125
Approvals										
2 pole		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CSA C22.2 No.4
3 pole		CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.4	CSA C22.2 No.4	CSA C22.2 No.4	CSA C22.2 No.4
4 pole		CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.14	CSA C22.2 No.4	CSA C22.2 No.4	CSA C22.2 No.4	CSA C22.2 No.4
Technical ratings – UL, CSA										
Max operating voltage	V	600	600	600	600	600	600	600	600	600
Max horsepower rating										
Three phase										
240 V	HP	5	7.5	10	15	20	10	20	30	40
480 V	HP	10	15	20	30	40	20	40	50	75
600 V	HP	10	20	25	30	40	30	40	50	100
Single phase										
120 V		1	1.5	2	2	2	2	3	5	7.5
240 V		2	3	5	5	5	5	7.5	15	20
Technical ratings – IEC										
Rated insulation and operational voltage, AC20 and DC20	V	750	750	750	750	750	750	750	750	750
Rated thermal current, I _{th}										
AC 20/DC 20 open	A	32	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 ≤500 V	A	25	25	32	63	80	40	63	100	160
≤690 V	A	16	25	32	63	80	40	63	100	160
Rated operational power AC23										
400/415 V	kW	7.5	9	11	22	37	15	18.5	37	75
690 V	kW	7.5	9	11	15	18.5	15	15	37	75
Short circuit interrupting capacity										
Fuse type CC	kA	10	—	10	—	—	—	—	—	—
Fuse type J	kA	10	10	10	10	100	—	50	50	100
Fuse type T	kA	10	10	10	10	100	—	50	50	—
Fuse type RK1	kA	10	—	10	—	—	—	—	—	—
Fuse type RK5	kA	5	5	5	5	10	5	—	—	—
Fuse type L	kA	—	—	—	—	—	—	—	—	—
Fuse type H	kA	—	—	—	—	5	5	—	—	—
Maximum fuse size	A	30	60 ②	30	60 ②	100	150	60	150	200
Physical characteristics										
Weight ① 3 pole	kg	0.11	0.11	0.11	0.27	0.27	0.36	0.36	0.36	1.1
Dimensions 3 pole										
H mm		68	68	68	91	91	100	100	100	127
W mm		35	35	35	53	53	70	70	70	126
D mm		56	56	56	72	72	70	70	70	74

① Switch only.

② Fuse size 70 A for RK5.

ABB's non-fusible disconnect switches are designed to offer maximum versatility to meet specific customer requirements. All sizes are compact, heavy duty, 600 V disconnect switches. The basic construction provides flexibility, safety, and high performance in an extremely compact size.

The non-fusible switch line includes 16 amperage sizes ranging from 16 A to 3150 A, and includes both CSA C22.2 No.4 and No.14 and IEC switches.

ABB non-fusible disconnects are also customizable in that they are available in a number of special premium configurations.

- Side operated
- Maintenance bypass
- Flange operated
- Double throw
- Multiple poles, (2, 3, 4 & 6)
- Motor operators

Non-fusible disconnect switches



		OT200U03	OT400U03	OT600U03	OT800U03	OT1200U03	OETL-NF1600SW	OETL-NF2000SW	OETL-NF3150SW
Catalog number	3 pole	OT200U03	OT400U03	OT600U03	OT800U03	OT1200U03	OETL-NF1600	OETL-NF2000	OETL-NF3150
General purpose amp rating	A	200	400	600	800	1200	1600	2000	3150
Approvals ①									
2 pole		N/A	N/A	C22.2 No.4	C22.2 No.4	C22.2 No.4	C22.2 No.4	C22.2 No.4	IEC
3 pole		CSA C22.2 No.4	CSA C22.2 No.4	C22.2 No.4	C22.2 No.4	C22.2 No.4	C22.2 No.4	C22.2 No.4	IEC
4 pole		CSA C22.2 No.4	CSA C22.2 No.4	C22.2 No.4	IEC	IEC	IEC	IEC	IEC
Technical ratings – UL, CSA									
Max operating voltage	V	600	600	600	600	600	600	600	600
Max horsepower rating									
Three phase									
240 V	HP	75	125	200	15	—	—	—	—
480 V	HP	150	250	400	30	—	—	—	—
600 V	HP	200	350	500	30	—	—	—	—
Single phase									
120 V		—	—	—	—	—	—	—	—
240 V		—	—	—	—	—	—	—	—
Technical ratings – IEC									
Rated insulation and operational voltage, AC20 and DC20	V	1000	1000	1000	1000	1000	1000	1000	1000
Rated thermal current, I _{th}									
AC 20/DC 20 open	A	250	400	800	1250	1600	2500	2500	3150
AC 20/DC 20 enclosed	A	250	400	720	1250	1600	2300	2500	2600
AC 21A ≤500 V	A	250	400	800	1250	1600	2500 ②	2500 ②	3150 ②
≤690 V	A	250	400	800	1250	1600	2500 ②	2500 ②	3150 ②
Rated operational power AC23									
400/415 V	kW	132	220	355	400	400	400	400	400
690 V	kW	240	355	355	—	—	—	—	—
Short circuit interrupting capacity									
Fuse type CC	kA	—	—	—	—	—	—	—	—
Fuse type J	kA	100	100	100	—	—	—	—	—
Fuse type T	kA	—	—	100	—	—	—	—	—
Fuse type RK1	kA	—	—	—	—	—	—	—	—
Fuse type RK5	kA	—	—	100	—	—	—	—	—
Fuse type L	kA	—	—	—	100	100	100	100	—
Fuse type H	kA	—	—	—	—	—	—	—	—
Maximum fuse size	A	350	600	600	1200	1200	2000	2000	—
Physical characteristics									
Weight ① 3 pole	kg	1.2	2.2	5.2	15.2	15.2	37	37	37
Dimension 3 pole									
H mm		170	220	250	372	372	636	636	636
W mm		170	221	266	334	334	468	468	468
D mm		84	105	139	141	141	271	271	271

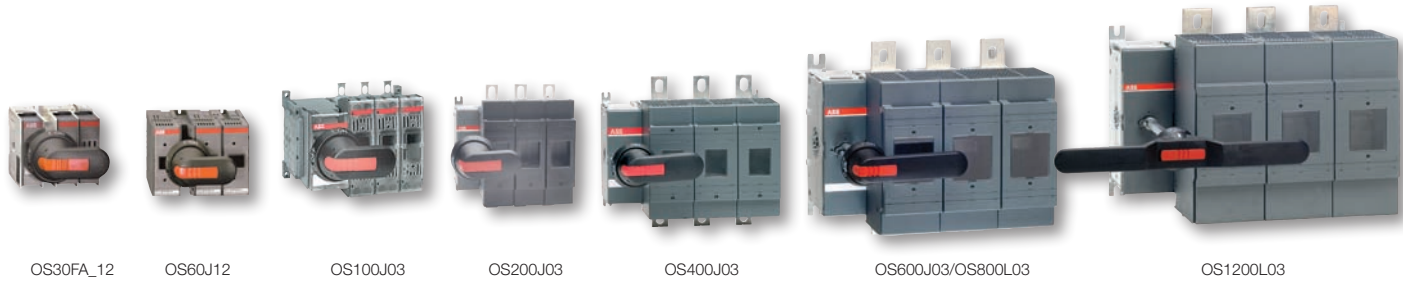
① Switch only

② IEC 947-3 Utilization Category B, Infrequent operation

Components for base & DIN rail mounted switches with pistol handles

Complete switches catalog number	Switch		Handle ②				Shaft		Terminal lugs ②		
	Catalog number	NEMA type	Marking	De-feat-able	Catalog number	Mounting depth ⁴ (mm)	Length (mm)	Catalog number	Wire size	Wire type	Catalog number
OT16F3P	OT16F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	175 – 190	170	OSP6X210	#18 – #8	Cu	Integral
OT25F3P	OT25F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	175 – 190	170	OSP6X210	#18 – #8	Cu	Integral
OT40F3P	OT40F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	175 – 190	170	OSP6X210	#18 – #8	Cu	Integral
OT63F3P	OT63F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	195 – 205	170	OSP6X210	#14 – #1	Cu	Integral
OT80F3P	OT80F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	195 – 205	170	OSP6X210	#14 – #1	Cu	Integral
OT30F3P	OT30F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	197.5 – 205	170	OSP6X210	#14 – #4	Cu	Integral
OT60F3P	OT60F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	197.5 – 205	170	OSP6X210	#14 – #4	Cu	Integral
OT100F3P	OT100F3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	197.5 – 205	170	OSP6X210	#8 – 1/0	Cu	Integral
OT160E3P	OT160E3	1,3R,12	O/I & OFF/ON	Y	OHB65J6	185 – 215	210	OSP6X210	#8 – 1/0	Cu	Integral
OT200U03P	OT200U03	1,3R,12	O/I & OFF/ON	Y	OHB80J6	220 – 320	210	OSP6X210	#6 – 300 kcmil	Cu/Al	OZXA-200
OT400U03P	OT400U03	1,3R,12	O/I & OFF/ON	Y	OHB145J12	260 – 370	280	OSP12X280	#2 – 600 kcmil	Cu/Al	OZXA-400
OT600U03P	OT600U03	1,3R,12	O/I & OFF/ON	Y	OHB145J12	260 – 370	280	OSP12X280	(2)#2 – 600 kcmil	Cu/Al	OZXA-800
OT800U03P	OT800U03	1,3R,12	O/I & OFF/ON	Y	OHB200J12P	295 – 390	280	OSP12X280	(4)#2 – 600 kcmil	Cu/Al	OZXA-1200
OT1200U03P	OT1200U03	1,3R,12	O/I & OFF/ON	Y	OHB200J12P	295 – 390	280	OSP12X280	(4)#2 – 600 kcmil	Cu/Al	OZXA-1200
OETL-NF1600P	OETL-NF1600	1,3R,4,4X,12	OFF/ON	—	YASDA-8	340 – 585	325	OSP12X325	(4)#1/0 – 750 kcmil	Cu/Al	OZXA-28
OETL-NF2000P	OETL-NF2000	1,3R,4,4X,12	OFF/ON	—	YASDA-8	340 – 585	325	OSP12X325	(6)#1/0 – 750 kcmil	Cu/Al	OZXA-28/2

Fusible disconnect switches



OS30FA_12 OS60J12 OS100J03 OS200J03 OS400J03 OS600J03/OS800L03 OS1200L03


Catalog number	3 pole	OS30FACC12	OS30FAJ12	OS60J12	OS100J03	OS200J03	OS400J03	OS600J03	OS800L03	OS1200U03
Standard amp rating	A	30	30	60	100	200	400	600	800	1200
Approvals										
2 pole		N/A	N/A	N/A	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4
3 pole		CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4
4 pole		CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4	CSA C22.2No.4
Technical ratings – UL,CSA										
Max operating voltage	V	600	600	600	600	600	600	600	600	600
Max horsepower rating										
Three phase										
240 V	HP	7.5	7.5	15	30	60	125	200	250	—
480 V	HP	15	15	30	60	125	250	400	500	—
600 V	HP	20	20	50	75	150	350	500	600	—
Single phase										
120 V	HP	2	2	—	—	—	—	—	—	—
240 V	HP	3	3	—	—	—	—	—	—	—
UL fuse class	CC	J	J	J	J	J	J	J	L	L
Technical ratings – IEC										
Rated insulation and operational voltage. AC20 and DC20	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated thermal current, I _{th}										
AC 20/DC 20 open	A	32	32	63	160	200	400	630	800	1250
AC 20/DC 20 enclosed	A	32	32	63	160	200	400	630	720	1250
AC 21A ≤500 V	A	32	32	63	160	200	400	630	800	1250
≤690 V	A	32	32	63	160	200	400	630	800	1250
Rated operational power AC23										
400/415 V	kW	14/15	14/15	30	80/90	110	210/230	315/340	350/380	560
690 V	kW	25	25	60	132	200	330	540	600	1000
Short circuit interrupting capacity	kA	200	200	200	200	200	200	200	200	200
UL Fuse size	A	30	30	60	100	200	400	600	800	1200
UL Fuse type	CC	J	J	J	J	J	J	J	L	L
Physical characteristics										
Weight										
3 pole	3 pole Kg	0.7	0.7	1.3	1.5	2.6	5.7	11.5	11.5	29
4 pole	4 pole Kg	0.9	0.9	1.6	1.8	3.2	6.9	14	14	36
Dimension (3 pole)										
H mm		97	97	100	143	200	200	290	290	287
W mm		100	100	145	223	262	285	373	373	429
D mm		107	107	128	131	199	206	234	234	294

Components for complete switches

Kit catalog number	Switch	Handle ^①				Shaft			Terminal lugs 2		
	Catalog number	NEMA type	Marking	De-feat-able	Handle catalog number	Mounting depth ⁴ (mm)	Length (mm)	Shaft catalog number	Wire size	Wire type	Catalog number
OS30FAJ12P	OS30FAJ12	1, 3R, 12	I/O, OFF/ON	Yes	OHB65J6	135 - 210	150	OSP6X150	#18 - #8	Cu	Integral
OS30FACC12P	OS30FACC12	1, 3R, 12	I/O, OFF/ON	Yes	OHB65J6	135 - 210	150	OSP6X150	#18 - #8	Cu	Integral
OS60J12P	OS60J12	1, 3R, 12	I/O, OFF/ON	Yes	OHB65J6	141 - 260	150	OSP6X161	#14 - #4	Cu	Integral
OS100J12P	OS100J12	1, 3R, 12	I/O, OFF/ON	Yes	OHB65J6	141 - 260	150	OSP6X161	#14 - 2/0	Cu/Al	OZXA-24
OS200J03P	OS200J03	1, 3R, 12	I/O, OFF/ON	Yes	OHB80J6	200 - 310	290	OSP6X210	#4 - 300kcmil	Cu/Al	OZXA-200
OS400J03P	OS400J03	1, 3R, 12	I/O, OFF/ON	Yes	OHB145J12	200 - 310	280	OSP12X280	#2 - 600kcmil	Cu/Al	OZXA-400
OS600J03P	OS600J03	1, 3R, 12	I/O, OFF/ON	Yes	OHB145J12	285 - 355	280	OSP12X280	(2) #2 - 600kcmil	Cu/Al	OZXA-800
OS800L03P	OS800L03	1, 3R, 12	I/O, OFF/ON	Yes	OHB145J12	285 - 355	280	OSP12X280	(2) #2 - 600kcmil	Cu/Al	OZXA-800
OS1200L03P	OS1200L03	1, 3R, 12	I/O, OFF/ON	Yes	OHB200J12	371 - 500	395	OSP12X395	(4) #2 - 600kcmil	Cu/Al	OZXA-1200

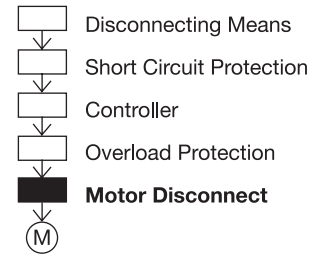
If other handles or shafts are desired, please refer to our catalogue AC1240.

Enclosed motor disconnect switches

 Meets CSA C22.2 No. 14
Non Fusible Switches Specification

Metallic Enclosure

NF40		3		
Amp Size	NEMA Rating	Poles	Handle Type	Contacts
16	3 = Type 3R	3 = 3 Pole	P = Pistol	01 = 0 n.o. 1 n.c.
25	1 = Type 1		S = Selector	10 = 0 n.c. 1 n.o.
40	2 = Type 12		— = No Handle	11 = 1 n.c. 1 n.o.
60	4 = Type 4, 12			22 = 2 n.c. 2 n.c.
80	4X = Type 4X			



CSA C22.2 No 14

NEMA 3R enclosure



Amp rating	HP 480V 600V	Catalog number	Terminal wire size	Lugs wire type	Amp rating	HP 480V 600V	Catalog number	Terminal wire size	Lugs wire type
16	10 10	NF163-3	#18 - #8	CU	60	30 30	NF603-3	#14 - #1	CU
40	20 25	NF403-3	#18 - #8	CU	80	40 40	NF803-3	#14 - #1	CU

Plastic Enclosure

EOT16U3P3-1PY

Switch Type
E OT= enclosed OT

Amperage
16 = 16 amps
32 = 40 amps
45 = 60 amps
63 = 80 amps

Ratings
U = CSA C22 2 No 14 / UL 508

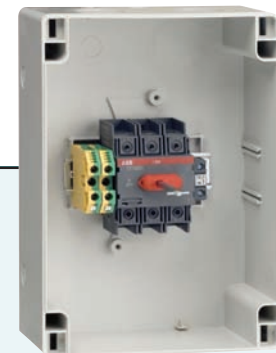
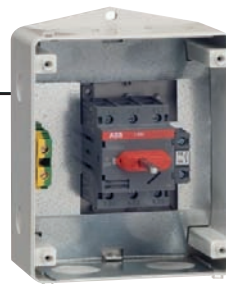
Number of Poles
3P = 3 poles

Color
Blank = Black handle
Y - Red & yellow handle

Handle Type / Auxiliary Contact
S = Selector Handle / -
1S = Selector Handle / 1NO
P = Pistol Handle / -
1P = Pistol Handle / 1NO

Enclosure Type
3 = Nema 3R/12
4 = Nema 4/4X

CSA C22.2 No 14



Amp rating	HP 480V 600V	Catalog number	Enclosure type	Aux. contact	Amp rating	HP 480V 600V	Catalog number	Enclosure type	Aux. contact	Amp rating	HP 480V 600V	Catalog number	Enclosure type	Aux. contact
16	10 10	EOT16U3P3-1S	3R, 12	1 NO	60	30 30	EOT45U3P3-1S	3R, 12	1 NO	80	40 40	EOT63U3P3-1S	3R, 12	1 NO
16	10 10	EOT16U3P3-S	3R, 12	—	60	30 30	EOT45U3P3-S	3R, 12	—	80	40 40	EOT63U3P3-S	3R, 12	—
16	10 10	EOT16U3P4-1P	4, 4X, 12	1 NO	60	30 30	EOT45U3P4-1P	4, 4X, 12	1 NO	80	40 40	EOT63U3P4-1P	4, 4X, 12	1 NO
16	10 10	EOT16U3P4-P	4, 4X, 12	—	60	30 30	EOT45U3P4-P	4, 4X, 12	—	80	40 40	EOT63U3P4-P	4, 4X, 12	—
40	20 25	EOT32U3P3-1S	3R, 12	1 NO										
40	20 25	EOT32U3P3-S	3R, 12	—										
40	20 25	EOT32U3P4-1P	4, 4X, 12	1 NO										
40	20 25	EOT32U3P4-P	4, 4X, 12	—										

Contact us

ABB Inc.
2117, 32e Avenue
Lachine, Qc H8T 3J1
Phone: 514-420-3100
Toll free: 1-800-567-0283
Fax: 514-420-3137
www.abb.ca

Catalogue No. ISXP300077B0202
Printed in Canada (March 2010)