

Non-fusible Disconnect switches



Non-fusible disconnect switches

16A – 3150A, 600VAC

200-600A, 1000VDC

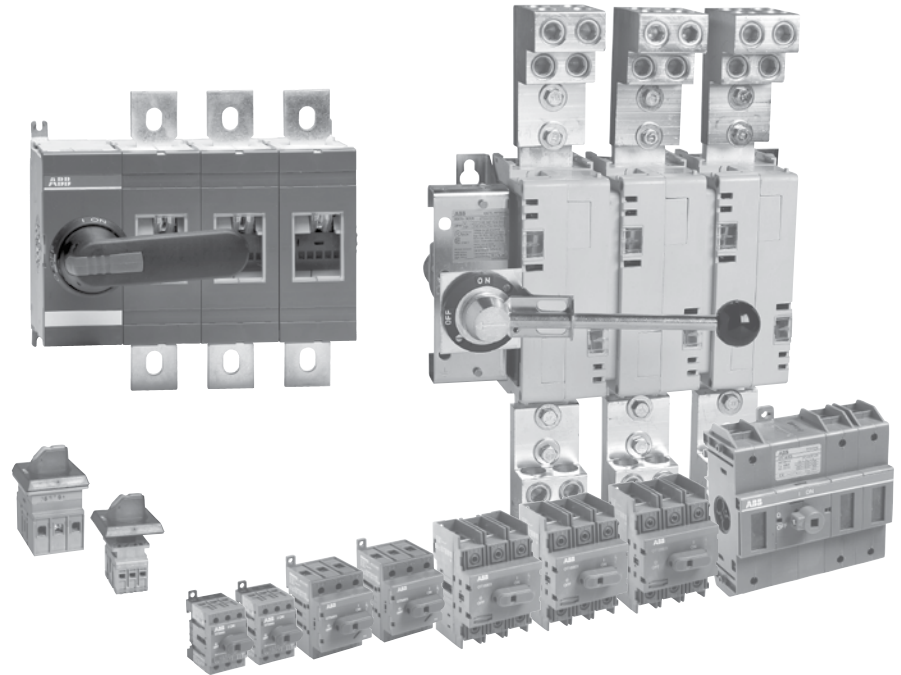


ABB SwitchLine includes 16 different amperage sizes from 16A to 3150A. The basic construction provides flexibility, safety, and high performance in an extremely compact size. ABB SwitchLine is a perfect choice for all switching applications from industrial motor control to construction safety switches.

International acceptance

UL listed, CSA approved, IEC rated, CE marked, and most other international standards.

UL98 (CSA 22.2 No.4) – UL File # E101914, CSA File #LR58077

For OT30, OT60, OT100, OT200, OT400, OT600, OT800, OT1200

OETL-NF1600 – OETL-NF2000 switches, OH_ pistol grip handles

Suitable for use as motor disconnects or industrial control panel disconnects on service entrance equipment, panelboards, switchboards, industrial control equipment, motor control centers, etc. and are horsepower rated and ampere rated.

UL508 (CSA 22.2 No. 14) – UL File # E63822, CSA File #LR58247

For OT16 – OT80 switches, OH_ selector handles

Suitable for use in equipment or machinery as motor controllers & motor disconnects and are horsepower and ampere rated.

IEC

Tested in accordance to IEC 947-1 and 3, IEC 664, IEC 269, and IEC 204

CE

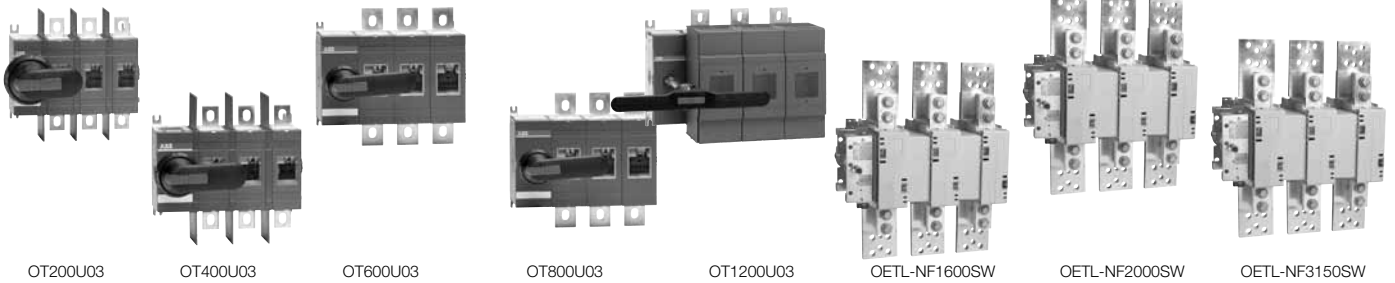
Compliance with the European Machine Directive IEC 204 (EN 60204)

General information

Selection guide

OT200 – OT1200 & OETL-NF1600 – OETL-NF3150

Disconnect
switches
Non-fusible



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 3 pole 4 pole	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC IEC	UL98 & IEC UL98 & IEC IEC	UL98 & IEC UL98 & IEC IEC	IEC IEC IEC
Technical ratings – UL, CSA ②									
Max operating voltage	V	600	600	600	600	600	600	480	600
Max horsepower rating									
Three phase									
240V	HP	75	125	200	250	—	—	—	—
480V	HP	150	250	450	500	—	—	—	—
600V	HP	200	350	500	600	—	—	—	—
Single phase									
120V	HP	—	—	—	—	—	—	—	—
240V	HP	—	—	—	—	—	—	—	—
Technical ratings – IEC ③									
Rated insulation and operational voltage. AC20 and DC20	V	1000	1000	1000	1000	1000	1000	1000	1000
Rated thermal current, I _m									
AC 20/DC 20 open	A	250	400	800	1250	1600	2500	2500	3150
AC 20/DC 20 enclosed	A	250	400	800	1250	1600	2300	2300	2600
AC 21A ≤500V	A	250	400	800	1250	1600	2500④	2500④	3150④
AC 21A ≤690V	A	250	400	800	1250	1600	2500④	2500④	3150④
Rated operational power AC23									
400/415V	kW	132	220	400	400	400	400	400	400
690V	kW	240	355	800	—	—	—	—	—
Physical characteristics									
Weight ⑤ 3 pole	lb	2.9	5.7	11.4	35.9	38.55	127.7	127.7	127.7
Dimension 3 pole									
H in		6.69	8.66	10	19.09	19.09	25.04	25.04	25.04
W in		6.67	8.7	10.64	14.29	14.29	18.43	18.43	18.43
D in		3.30	3.35	5.56	4.92	4.92	10.67	10.67	10.67
Accessories									
Terminal lug kit		OZXA-200	OZXA-400	OZXA-800	OZXA-1200	OZXA-1200	OZXA-28	OZXA-28/2	OZXA-28/2
Terminal shroud		•	•	•	•	•	—	—	—
Auxiliary contact		•	•	•	•	•	•	•	•
Shaft/handle diameter		6mm .24" x .24"	12mm .47" x .47"	12mm .47" x .47"	12mm .47" x .47"	12mm .47" x .47"	12mm .47" x .47"	12mm .47" x .47"	12mm .47" x .47"
Handle UL/NEMA type									
Type 1, 3R, 12		•	•	•	•	•	•	•	•
Type 1, 3R, 4, 4X, 12		•	•	•	•	•	•	•	•
Handle type									
Selector		—	—	—	—	—	—	—	—
Pistol		•	•	•	•	•	•	•	•
Recommended pistol handle length		65 - 80mm	125 - 175mm	125 - 175mm	125 - 175mm	125 - 175mm	125 - 175mm	125 - 175mm	125 - 175mm
Maximum recommended shaft length		290mm	595mm	595mm	595mm	595mm	595mm	595mm	595mm
Conversion kits									
6 pole		•	•	•	•	•	—	—	—
Transfer		•	•	•	•	•	—	—	—
Bypass		•	•	•	•	•	—	—	—
Mechanical interlock		•	•	•	•	•	•	•	•
Electrical interlock		•	•	•	•	•	•	•	•

S = Standard feature
• = Available
— = Not available

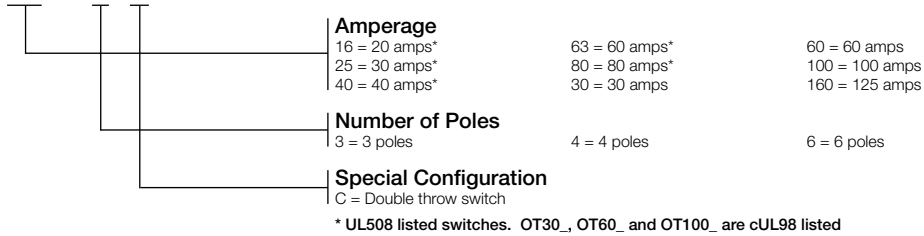
① UL listed switches are also CSA approved.
② For complete technical information please see page 19.55-19.71.
③ Switch only
④ IEC 947-3 Utilization Category B, Infrequent operation

Selection information

Standard part number designation ①

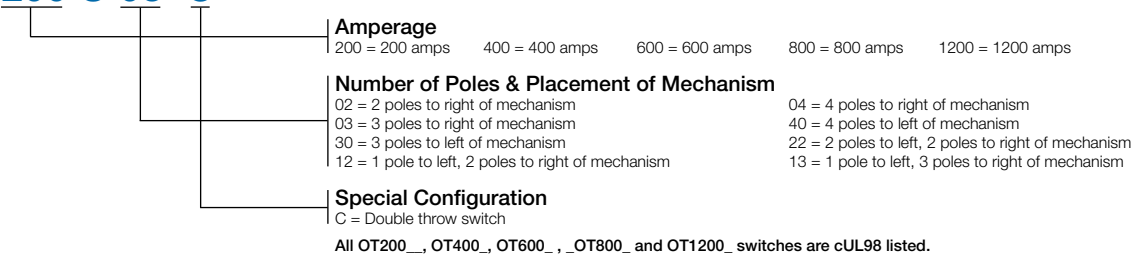
Non-Fusible OT Switches (16 to 100A)

OT 16 F 3 C



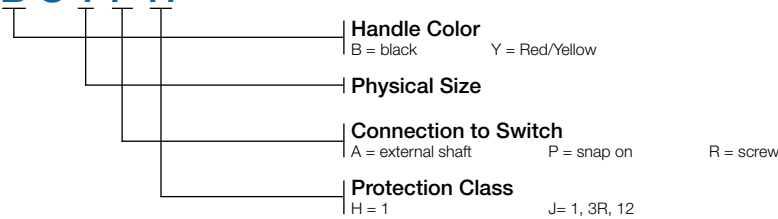
Non-Fusible OT Switches (200A and above)

OT 200 U 03 C



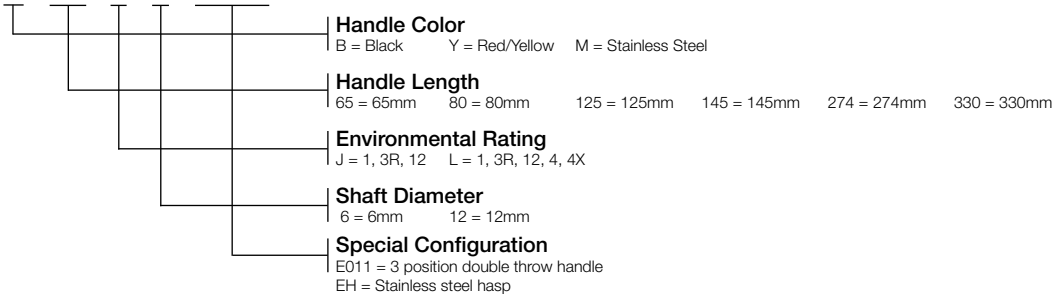
Selector Handles

OHB S 1 P H



Pistol Handles

OHB 65 J 6 E011



① Part designation keys are provided for reference only. Not all variations or configurations are available.

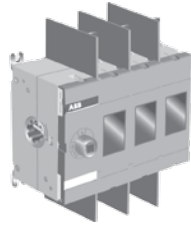
Base & DIN rail mounted ① 16A - 3150A

For a complete assembly,
please select one of each:

- 1 switch (page 19.11)
- 1 handle (page 19.30)
- 1 shaft (page 19.32)
- 1 terminal lug kit (page 19.34)

NOTE: For additional accessories, see
pages 19.29 - 19.42.

(Lug kits only necessary on switches 200A and above)



OT200U03



OXP6X210



OHB80J6



OZXA-200

UL only	UL general purpose amp rating	IEC AC21 amp rating	2 Pole	3 Pole	4 Pole ②	6 Pole ③				
			Catalog number	Catalog number	Catalog number	Catalog number				
UL 508	20	16	—	OT16F3	—	OT16F6				
	30	25	—	OT25F3	—	OT25F6				
	40	40	—	OT40F3	—	OT40F6				
	60	63	—	OT63F3	—	OT63F6				
	80	80	—	OT80F3	—	OT80F6				
UL 98	30	40	—	OT30F3	—	OT30F6				
	60	63	—	OT60F3	—	OT60F6				
	100	115	—	OT100F3	—	OT100F6				
	200	250	250	OT200U02	OT200U03 OT200U30 OT200U12	OT200U04 OT200U40 OT200U22	— — —			
				400	630	400	OT400U02	OT400U03 OT400U30 OT400U12	OT400U04 OT400U40 OT400U22	— — —
							600	800	600	OT600U02
	800	1250	800							OT800U02
				1200	1600	1200				OT1200U02
							1600	2500 ④	1600	OETL-NF16002SW
	2000	2500 ④	1600							OETL-NF20002SW
				-	3150 ④	1600				OETL-NF31502SW

Bulk packed 3 Pole, 600V Switches ⑤

UL only	UL general purpose amp rating	IEC AC21 amp rating	Bulk pack Quantity	Catalog number
UL508	20	16	50	OT16F3/B50
	30	25	50	OT25F3/B50
	40	40	50	OT40F3/B50
	60	63	50	OT63F3/B50
	80	80	50	OT80F3/B50
UL98	30	40	25	OT30F3/B25
	60	63	25	OT60F3/B25
	100	115	25	OT100F3/B25

① Above 100A, base mount with screws only.

② A snap on fourth pole may be added on 16-100A switches.

③ For a 6 or 8 pole switch 200 amp and above, a conversion mechanism accessory kit can be used with two 3 or 4 pole switches. See page 19.40.

④ Vertical busbar provided as standard on OETL-NF1600-OETL-NF3150 switches. For alternate back or edgewise mounting busbar, see page 19.38.

⑤ Order quantity is 1.

Technical data

OT200U03 – OETL-NF3150

UL & CSA

Disconnect
switches
Technical
data

UL & CSA

Catalog number	3 pole	OT200U03	OT400U03	OT600U03	OT800U03	OT1200U03	OETL-NF1600	OETL-NF2000	OETL-NF3150 ⑤
Approvals ^①	2 pole 3 pole 4 pole	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC UL98 & IEC	UL98 & IEC UL98 & IEC IEC	UL98 & IEC UL98 & IEC IEC	UL98 & IEC UL98 & IEC IEC	IEC IEC IEC
General purpose amp rating pf = 0.7 – 0.8	-40° to 40°C A	200	400	600	800	1200	1600	2000	3150
Max. operating voltage	V	600	600	600	600	600	600	480	—
Max. horsepower rating/Max. motor FLA current, pf = 0.4 – 0.5 Three phase									
	240V HP/A	75/192.0	125/312.0	200/480.0	200/602	—	—	—	—
	480V HP/A	150/180.0	250/302.0	450/515	500/590	—	—	—	—
	600V HP/A	200/192.0	350/336.0	500/472.0	500/472	—	—	—	—
Single phase	120V HP/A	—	—	—	—	—	—	—	—
	240V HP/A	—	—	—	—	—	—	—	—
Short circuit rating with fuse									
Fuse type CC	kA	—	—	—	—	—	—	—	—
Fuse type J	kA	200	100	—/100	—	—	—	—	—
Fuse type T	kA	—	—	100/—	—	—	—	—	—
Fuse type RK1	kA	—	—	—	—	—	—	—	—
Fuse type RK5	kA	—	—	100	—	—	—	—	—
Fuse type L	kA	—	—	—/100	100	100	100	100	—
Fuse type H	kA	—	—	—/100	—	—	—	—	—
Maximum fuse size	A	200	600	600/800	1200	1200	2000	2000	—
3 cycle short circuit current withstand rating ②	kA	14	30	50	50	50	65	65	—
Endurances									
Min. Electrical endurance, pf = 0.75 – 0.80 operation cycles		6000	1000	1000	500	500	500	500	400
Min. Electrical endurance, pf = 0.40 – 0.50 operation cycles		②	②	②	②	②	②	②	②
Mechanical endurance operations	20,000	20,000	10,000	6,000	6,000	6000	6000	6000	—
Physical characteristics									
Weight, switches	3 pole lb 4 pole lb	2.9 3.5	5.7 6.8	11.4 14.3	33.5 42.9	33.5 42.9	127.7 149.7	127.7 149.7	127.7 149.7
Dimension, switches	3 pole H in W in D in	6.69 6.67 3.27	8.66 8.70 4.15	9.84 10.48 5.47	14.65 13.78 5.20	14.65 13.78 5.20	21.5 18.11 10.67	21.5 18.11 10.67	21.5 18.11 10.67
Shaft set screw tightening torque	lb. in.	14 - 17.7	—	—	—	—	—	—	—
Shaft size — square □in	.24 x .24	.47 x .47	.47 x .47	.47 x .47	.47 x .47	.47 x .47	.47 x .47	.47 x .47	.47 x .47
	mm	6 x 6	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12
Switch operating torque for rotary 3 pole switches	lb. in.	62	142	184	575	575	438	438	438
Terminal lug kits									
Wire range	AWG	OZXA-200 #4-300kcmil ^③	OZXA-400 #2-600kcmil ^③	OZXA-800 (2)#2-600kcmil ^③	OZXA-1200 (4)#2-600kcmil ^③	OZXA-1200 (4)#2-600kcmil	OZXA-28 (4)#2-600kcmil	OZXA-28/2 (8)#2-600kcmil	OZXA-28/2 (8)#2-600kcmil
Torque:									
Wire tightening	lb. in.	200	375	375	500	500	375	375	375
Lug mounting	lb. in.	72	240	240	450-670	450-670	230	230	230
Auxiliary contacts									
NEMA ratings, AC		OA_G_ A600	OA_G_ A600	OA_G_ A600	OA_G_ A600	OA_G_ A600	OZXK-_ A600	OZXK-_ A600	OZXK-_ A600
AC rated voltage	VAC	600	600	600	600	600	600	600	600
AC thermal rated current	A	10	10	10	10	10	10	10	10
AC maximum volt-ampere making	VA	7200	7200	7200	7200	7200	7200	7200	7200
AC maximum volt-ampere breaking	VA	720	720	720	720	720	720	720	720
NEMA ratings, DC		P600	P600	P600	P600	P600	P600	P600	P600
DC rated voltage	VDC	600	600	600	600	600	600	600	600
DC thermal rated current	A	5	5	5	5	5	5	5	5
DC maximum make-break	VA	138	138	138	138	138	138	138	138
Torque: Wire tightening	lb. in	7	7	7	7	7	7	7	7
Wire range	AWG	#22 – #14	#22 – #14	#22 – #14	#22 – #14	#22 – #14	#22 – #14	#22 – #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.

③ Multi-tap lug available, please see page 19.34.

④ Fuse size 70A for RK5

⑤ IEC rated only.

⑥ When protected by any Listed fuse or Listed circuit breaker whose current rating does not exceed the maximum thermal current rating of the switch.

Technical data

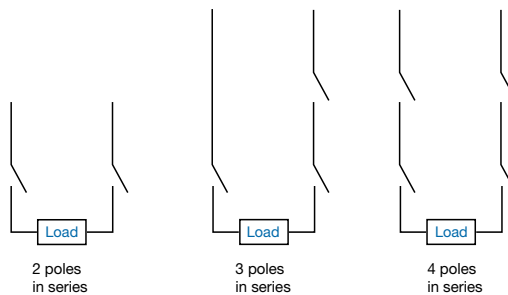
OT200U03 – OETL-NF3150

IEC

Disconnect
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IEC

Catalog number	3 pole	OT200U03	OT400U03	OT600U03	OT800U03	OT1200U03	OETL-NF1600	OETL-NF2000	OETL-NF3150
Rated insulation and operational voltage, AC20 and DC20	40°C V	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage	kV	12	12	12	8	8	8	8	8
Rated thermal current, I_{th}									
AC 20/DC 20	open ^① A	250	400	800	1600	1600	2500	3150	—
	40°C enclosed A	250	400	800	1600	1600	2300	2300	2600
	60°C enclosed A	—	—	—	—	—	1950	1950	2300
Rated operational currents									
AC 21A	≤500V A	250	400	800	1600	1600	2500 ^②	2500 ^②	3150 ^③
	≤690V A	250	400	800	1600	1600	2500 ^②	2500 ^②	3150 ^③
	≤1000V A	—	—	800	1600	1600	—	—	—
AC 22A	≤500V A	250	400	800	1600	1600	1600 ^②	1600 ^②	1600 ^②
	≤690V A	250	400	800	1600	1600	—	—	—
	≤1000V A	—	—	800	—	—	—	—	—
AC 23A	≤415V A	250	400	800	1250	1250	800 ^④	800 ^④	800 ^④
	≤500V A	250	400	800	1250	1250	800 ^④	800 ^④	800 ^④
	≤690V A	250	400	800	1250	1250	—	—	—
	≤1000V A	—	—	800	—	—	—	—	—
Rated operational currents/poles in series									
DC21A	48V A	250/1	630/2	800/2	—	—	2500/2	2500/2	3150/2
	110V A	250/2	630/2	800/2	—	—	2500/2	2500/2	3150/2
	220V A	250/2	630/2	800/2	—	—	2500/2	2500/2	3150/2
	440V A	250/3	630/3	800/3	—	—	2500/3	2500/3	3150/2
	750V A	250/4	—	—	—	—	—	—	—
DC22A	48V A	250/1	630/2	800/2	—	—	2500/2	2500/2	3150/2
	110V A	250/2	630/2	800/2	—	—	2500/2	2500/2	3150/2
	220V A	250/2	630/2	800/2	—	—	2500/2	2500/2	3150/2
	440V A	250/3	630/3	800/3	—	—	—	—	—
	750V A	250/4	—	—	—	—	—	—	—
DC23A	48V A	250/1	630/2	—	—	—	—	—	—
	110V A	250/2	630/2	—	—	—	—	—	—
	220V A	250/2	630/2	—	—	—	—	—	—
	440V A	250/3	—	—	—	—	—	—	—
	750V A	250/4	—	—	—	—	—	—	—
Rated operational power									
AC23A	230V kW	75	110	—	—	—	250	250	250
	400/415V kW	132/140	220/230	450	710	710	400	400	400
	500V kW	170	280	560	900	900	450	450	450
	690V kW	240	355	800	1200	1200	—	—	—
Short-circuit current	kA	100	100	100	50/50 ^⑤	50/50 ^⑤	50/63 ^⑥	50/63 ^⑥	50/63 ^⑥
with back-up fuses of size	A	400	800	800	—	—	—	—	—



① 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.

② IEC 947-3, utilization category B, infrequent operation.

③ Not available at time of printing, please consult factory.

④ 690V / 500V

Technical data

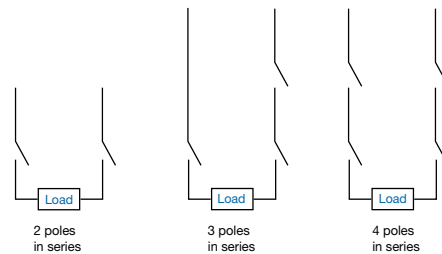
OT200U03 – OETL-NF3150

IEC

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IEC

Catalog number	3 pole	OT200U03	OT400U03	OT600U03	OT800U03	OT1200U03	OETL-NF1600	OETL-NF2000	OETL-NF3150
Rated short-circuit making capacity, prospective peak value, $I_{cm}500/690V$	kA	30	65	80	110	110	140/105	140/105	140/105
Rated short time withstand current,									
RMS I_{low} 0.25s, 690V	kA	15	28	36	50	50	—	—	—
RMS I_{low} 1.0s, 690V	kA	8	15	20	50 ②	50 ②	80 ②	80 ②	80 ②
AC breaking capacity									
pf = 0.35	≤415V A	2000	3200	5760	10,000	10,000	6400	6400	6400
	≤500V A	2000	3200	5600	10,000	10,000	6400	6400	6400
	≤690V A	2000	3200	5600	10,000 ③	10,000 ③	4800 ④	4800 ④	4800 ④
DC breaking capacity/poles in series									
L/R = 15ms, 3 pole in series									
48V	A	1000/2	①	①	①	①	①	①	①
110V	A	1000/2	①	①	①	①	①	①	①
220V	A	1000/2	1600/2	2000/2	—	—	2600/2	2600/2	2600/2
440V	A	1000/3	1600	2000/3	①	①	①	①	①
750V	A	1000/4	①	①	①	①	①	①	①
Physical characteristics									
Electrical endurance at rated operational current, pf = 0.65	operation cycles	1000	1000	1000	500	500	100 ⑤	100 ⑤	100 ⑤
Mechanical endurance	operations	20,000	16,000	10,000	6000	6000	6000	6000	6000
Weight	3 pole kg	1.2	2.2	5.2	15.2	15.2	37	37	37
	4 pole kg	1.6	2.6	6.5	19.5	19.5	47	47	47
Dimension 3 pole	H mm	162	250	372	372	372	546	546	546
	W mm	219	260	266	350	350	468	468	468
	D mm	92.5	130	139	132	132	271	271	271
Power loss per one pole	W	6.5	10	40	29	48	90	90	140
Shaft size — square □	mm	6 x 6	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12	12 x 12
Switch operating torque for rotary 3 pole switches	Nm	7	16	21	21	21	50	50	50
Suitable conductor cross section Cu	mm ²	—	—	—	—	—	—	—	—
Bolt size		8 x 25	10 x 30	12 x 40	12 x 60	12 x 60	12 x 60	12 x 60	12 x 60
Auxiliary contacts		OA_G_	OA_G_	OA_G_	OA_G_	OA_G_	OZ XK_ _	OZ XK_ _	OZ XK_ _
Ratings according to IEC 947-5-1									
Rated voltage, U	VAC	690	690	690	690	690	690	690	690
Thermal rated current, I_{th}	A	16	16	10	10	10	10	10	10
AC12/DC12 I_n , A U_n =									
120V	A	—	—	8/—	8/—	8/—	8/—	8/—	8/—
125V	A	—	—	—/1.1	—/1.1	—/1.1	—/1.1	—/1.1	—/1.1
240V	A	6/—	6/—	6/—	6/—	6/—	6/—	6/—	6/—
250V	A	—	—	—/0.55	—/0.55	—/0.55	—/0.55	—/0.55	—/0.55
400V	A	4/—	4/—	4/—	4/—	4/—	4/—	4/—	4/—
415V	A	—	—	4/—	4/—	4/—	4/—	4/—	4/—
440V	A	—	—	—/0.31	—/0.31	—/0.31	—/0.31	—/0.31	—/0.31
480V	A	—	—	3/—	3/—	3/—	3/—	3/—	3/—
500V	A	—	—	3/0.27	3/0.27	3/0.27	3/0.27	3/0.27	3/0.27
600V	A	—	—	—/0.2	—/0.2	—/0.2	—/0.2	—/0.2	2—/0.2
690V	A	2/—	2/—	2/—	2/—	2/—	2/—	2/—	2/—



- ① Not available at time of printing, please consult factory.
- ② Maximum distance between busbar support and switch terminal 70mm.
- ③ pf 0.95.
- ④ pf 0.65.
- ⑤ IEC 947-3, utilization category B, infrequent operation.