

Circuit Breaker – 460v 3 ph

#203UP-K(x) x = amp rating

S200 UL 489 Series
Miniature Circuit Breakers

ABB

S200
UL 489 Series



Description

The S200 Series miniature circuit breaker offers a compact solution for protection requirements. The S200U AND S200UP devices are UL 489 tested current limiting and DIN rail mounted.

The S200U and S200UP is available with application-specific trip characteristics to provide maximum circuit protection.

The breakers offer thermal-magnetic trip protection according to K and Z characteristics.

For the worldwide market, the breakers carry UL, CSA, IEC, CE and many other agency approvals and certifications.

Features

- UL current limiting
- Fast breaking time (2.3 – 2.5 ms)
- Bus connection system
- Wide range of accessories
- Available with variable depth handle mechanism
- CE certified and marked
- DIN rail mounting
- Finger safe terminals
- Multi-function terminals
- Suitable for reverse feed
- UL 489 Listed - branch circuit protective device. UL File #E212323

	S200UP
Amperage	0.2 – 25
Voltage	480Y/277VAC
Poles	1, 2, 3, 4
Trip characteristics	K, Z
Interrupting ratings	Up to 25 kA: IEC 60947-2 10 kA: UL 489 10 kA: CSA 22.2 No. 5
Auxiliary contacts	Yes
Bell alarm	Yes
Shunt trip	Yes
Bus bar	Yes

Tripping characteristic K

UL 489

480Y/277 VAC

10 kA

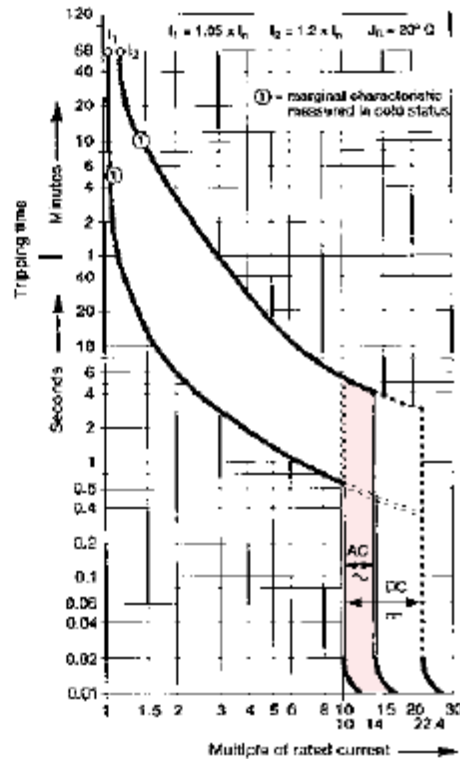
Inductive loads

- K Curve
- Designed for allowing higher in-rush currents during system start up
- Example: motors, transformers

Accessories & technical data

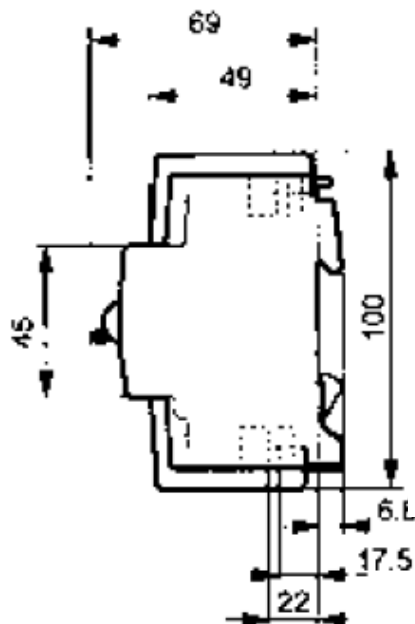
Accessories – See page 15.7

Technical data – See page 15.76 - 15.82



Approximate dimensions in mm

S203UP - K ()



Technical data

		S200UP
Specifications:	UL 489, CSA C 22.2 No. 5, IEC 60 947-2	
UL File-Number:	E 212323, UL, Current limiting series ratings	
No. of poles:	1, 2, 3 & 4	
Tripping characteristics:	K, Z	
Rated current:	0.2 (K) 0.5 (Z) ... 25 A	
Rated voltage:	Single pole: 277VAC Multi pole: 480Y/277VAC	
Short circuit capacity:	10 kA	
Frequency:	50/60 Hz	
Degree of protection:	IP 20	
Mounting position:	Vertical and horizontal	
Fixing:	35 mm DIN rail	
Clamps only for Cu:	18-4 AWG (0.75 ... 25 mm ²)	
Service life, mech. and at rated load:	20,000 operations	
Tightening torque:	25 in. lbs (2.8 Nm)	
Ambient temperature:	- 25 °C ... + 55 °C/- 13 °F ... + 131 °F	
Shock resistance:	30 g at least 2 impacts shock, duration 13 ms	



Disconnect Switches Fusible Non-fusible Enclosed Cam switches

ABB AP

AC1240

DiSCo NNECT Swi TCHES

Catalogue No. AC1240

Printed in Canada (March 2010)
Subject to modification.



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Overview

Non-fusible disconnect switches OT16F3 – OT100F3



OT16F3 OT25F3 OT40F3



OT63F3 OT80F3



OT30F3 OT60F3 OT100F3

Catalog number	3 pole	OT16F3	OT25F3	OT40F3	OT63F3	OT80F3	OT30F3	OT60F3	OT100F3
General purpose amp rating	A	16	25	40	60	80	30	60	100
Catalog reference	Page #	1.10	1.10	1.10	1.10	1.10	1.11	1.11	1.11
Approvals ^①									
	2 pole	—	—	—	—	—	—	—	—
	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
	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
Technical ratings									
CSA,UL^②									
Max operating voltage	V	600	600	600	600	600	600	600	600
Max horsepower rating									
Three phase									
208V	HP	3	7.5	10	15	20	10	20	25
240V	HP	5	7.5	10	15	20	10	20	30
480V	HP	10	15	20	30	40	20	40	50
600V	HP	10	20	25	30	40	30	40	50
Single phase									
120V	HP	1	1.5	2	2	2	2	3	5
240V	HP	2	3	5	7.5	10	5	7.5	15
Technical ratings									
IEC^③									
Rated insulation and operational voltage. AC20 and DC20 ^④	V	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
AC 20/DC 20 enclosed	A	25	32	40	63	80	40	63	115
AC 21A ≤ 500V	A	16	25	40	63	80	40	63	100
690V	A	16	25	40	63	80	40	63	100
Rated operational power AC23									
400/415V	kW	7.5	9	11	22	37	15	18.5	37
690V	kW	7.5	9	11	15	18.5	15	15	37
Physical characteristics									
Weight ^⑤ 3 pole	Kg	0.11	0.11	0.11	0.27	0.27	0.36	0.36	0.36
Dimension 3 pole									
H mm		68	68	68	91	91	100	100	100
W mm		35	35	35	53	53	70	70	70
D mm		56	56	56	72	72	75	75	75
Accessories									
Terminal lug kit		Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral
Terminal shroud		•	•	•	•	•	•	•	•
Auxiliary contact		•	•	•	•	•	•	•	•
Handle CSA/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

CSA approved, UL listed, IEC rated, CE marked

- ① CSA 22.2 No.4 (UL98) —CSA File #LR58077, UL File # E101914, CSA 22.2 No. 14 (UL508) —CSA File #LR58247, UL File # E63822
 ② For complete technical information please see page 1.28 – 1.35.
 ③ 1000V, IEC 408.
 ④ Switch only

General information : 1.1 – 1.7	Complete Non-fusible switches: 1.8 – 1.9	Components: 1.10 – 1.26	Technical information: 1.28– 1.35	Dimensions: 1.36 – 1.53
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30A – 125A

Non-fusible disconnect switches

Base & DIN rail mounted, door mounted



For a complete assembly,
please select one of each:

- 1 switch
- 1 handle
- 1 shaft^①



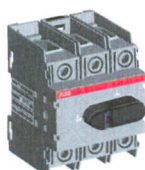
OT160E3



OXF6X210



OHB65J6



OT100F3

Base and DIN rail mounted, 30 – 100 Amp switches, 600V, 3 pole^②

CSA general purpose amp rating	CSA standard C22.2 No.	Maximum horsepower rating						Terminal lugs		Catalog number	List price
		Single phase		Three phase							
		120V	240V	200V	240V	480V	600V	Wire size	Wire type		
30	4	2	5	10	10	20	30	#14 – #4	Cu	OT30F3	
60	4	3	7.5	20	20	40	40	#14 – #4		OT60F3	
100	4	5	15	25	30	50	50	#8 – 1/0		OT100F3	

30 – 100 Amp switches- 600V, 6 pole

CSA general purpose amp rating	CSA standard C22.2 No.	Maximum horsepower rating						Terminal lugs		Catalog number	List price
		Single phase		Three phase				Wire size	Wire type		
		120V	240V	200V	240V	480V	600V				
30	4	2	5	10	10	20	30	#14 – #4	Cu	OT30F6	
60	4	3	7.5	20	20	40	40	#14 – #4		OT60F6	
100	4	5	15	25	30	50	50	#8 – 1/0		OT100F6	

30 – 100 Amp switches- 600V, 3 pole change-over switches

CSA general purpose amp rating	CSA standard C22.2 No.	Maximum horsepower ratings						Terminal lugs		Catalog number	List price
		Single phase		Three phase				Wire size	Wire type		
		120V	240V	200V	240V	480V	600V				
30	4	2	5	10	10	20	30	#14 – #4	Cu	OT30F3C	
60	4	3	7.5	20	20	40	40	#14 – #4		OT60F3C	
100	4	5	15	25	30	50	50	#8 – 1/0		OT100F3C	

Door mounted, 30 – 100 Amp switches, 600V, 3 pole^{①②}

CSA general purpose amp rating	CSA standard C22.2 No.	Maximum horsepower rating						Terminal lugs		Catalog number	List price
		Single phase		Three phase							
		120V	240V	200V	240V	480V	600V	Wire size	Wire type		
30	4	2	5	10	10	20	30	#14 – #4	Cu	OT30FT3	
60	4	3	7.5	20	20	40	40	#14 – #4		OT60FT3	
100	4	5	15	25	30	50	50	#8 – 1/0		OT100FT3	

Base & DIN rail mounted, 125 Amp switches, 600V

CSA general purpose amp rating	CSA standard C22.2 No.	Maximum horsepower rating						Terminal lugs		Catalog number	List price
		Single phase		Three phase							
		120V	240V	200V	240V	480V	600V	Wire size	Wire type		
2 pole 125	—	—	—	—	—	—	—	#8 – 1/0	Cu	OT160E2	
3 pole 125	4	7.5	20	30	40	75	100	#8 – 1/0	Cu	OT160E3	

125 Amp Door mounted switch, 600V, 3 pole

CSA general purpose amp rating	CSA standard	Maximum horsepower rating						Terminal lugs		Catalog number	List price
		Single phase		Three phase				Wire size	Wire type		
		120V	240V	200V	240V	480V	600V				
C22.2 No.											
125	4	7.5	20	30	40	75	100	#8 – 1/0	Cu	OT160ET3-2	

- ① Door mounted switches do not require shafts, except OT160ET3-2
② A snap on fourth pole may be added — please reference accessories pg 1.14.

General information : 1.1 – 1.7

Complete Non-fusible switches: 1.8 – 1.9

Components: 1.10 – 1.26

Technical information: 1.28– 1.35

Dimensions: 1.36 – 1.53

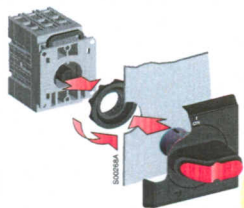


Handles

for 16A – 125A non-fusible disconnect switches
Base & DIN rail mounted



OHBS3_



OHBS2_



OZ371_P



OZ371P



OHBS_



SS handles



OHBS2PJEH

Selector handles — for use with shafts (□ 6 x 6 mm)

NEMA type	IEC type	Color	Marking	Defeatable	Padlockable	Dim. (mm ²)	Catalog number	List price
All marked both O/I & Off/On								
1	IP54	Blk	O/I & OFF/ON	—	Yes	48	OHBS3AH1 ^①	
1	IP54	Red/Yel	O/I & OFF/ON	—	Yes	48	OHYS3AH1 ^①	
1, 3R, 12	IP65	Blk	O/I & OFF/ON	Yes	Yes	65	OHBS2AJ	
1, 3R, 12	IP65	Grey	O/I & OFF/ON	Yes	Yes	65	OHGS2AJ	
1, 3R, 12	IP65	Red/Yel	O/I & OFF/ON	Yes	Yes	65	OHYS2AJ	
1, 3R, 12	IP65	Blk	I / O / II	Yes	Yes	65	OHBS2AJE011	
1, 3R, 12	IP65	Red/Yel	I / O / II	Yes	Yes	65	OHYS2AJE011	
1, 3R, 12	IP65	SS HASP	O/I & OFF/ON	Yes	Yes	65	OHBS2AJEH	

Round Padlockable handles

Padlockable in 0-position, max 3 padlocks with max 8 mm hasp diameter.

NEMA type	IEC type	Color	Marking	Defeatable	Padlockable	Dim. (mm ²)	Catalog number	List price
NEMA 4X	IP65	Black	OFF/ON	Yes	Yes	66x66	OZ331PB	
NEMA 4X	IP65	Red/Yel	OFF/ON	Yes	Yes	66x66	OZ331PRY	
Handles with door coupling in ON-position, Shaftalignment ring for OZ371P_handle								
NEMA 4X	IP65	Black	OFF/ON	No	Yes	66x66	OZ371PB	
NEMA 4X	IP65	Red/Yel	OFF/ON	No	Yes	66x66	OZ371PRY	

Selector handles, Door mounted switches

NEMA type	IEC type	Color	Marking	Defeatable	Padlockable	Dim. (mm ²)	Catalog number	List price
All marked both O/I & Off/On								
Snap-on mounting — for use on OT16FT3 – OT40FT3								
1	IP54	Blk	O/I & OFF/ON	—	Yes	48	OHBS3PH	
1	IP54	Red/Yel	O/I & OFF/ON	—	Yes	48	OHYS3PH	
1, 3R, 12	IP65	Blk	O/I & OFF/ON	—	Yes	65	OHBS2PJ	
1, 3R, 12	IP65	Red/Yel	O/I & OFF/ON	—	Yes	65	OHYS2PJ	
1, 3R, 12	IP65	SS HASP	O/I & OFF/ON	—	Yes	65	OHBS2PJEH	

Screw mounting — for use on OT16FT3 – OT80FT3

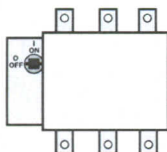
NEMA type	IEC type	Color	Marking	Defeatable	Padlockable	Dim. (mm ²)	Catalog number	List price
1	IP54	Blk	O/I & OFF/ON	—	Yes	48	OHBS3RH	
1	IP54	Red/Yel	O/I & OFF/ON	—	Yes	48	OHYS3RH	
1, 3R, 12	IP65	Blk	O/I & OFF/ON	—	Yes	65	OHBS2RJ	
1, 3R, 12	IP65	Red/Yel	O/I & OFF/ON	—	Yes	65	OHYS2RJ	

Pistol handles — for use with shafts (□ 6 x 6 mm) ^② padlockable with three padlocks in OFF-position, door interlock in ON-position.

NEMA type	IEC type	Color	Marking	Defeatable	Padlockable	Shaft size (mm ²)	Catalog number	List price
1, 3R, 12	IP65	Black	O/I & Off/On	Yes	Yes	6	OHBS45J6	
		Red/Yel	O/I & Off/On	Yes	Yes	6	OHYS45J6	
		Black	O/I & Off/On	Yes	Yes	6	OHBS65J6	
		Grey	O/I & Off/On	Yes	Yes	6	OHGS65J6	
		Red/Yel	O/I & Off/On	Yes	Yes	6	OHYS65J6	
		Black	O/I & Off/On	Yes	Yes	6	OHBS80J6	
		Grey	O/I & Off/On	Yes	Yes	6	OHGS80J6	
1, 3R, 4, 4X, 12	IP66	Black	O/I & Off/On	Yes	Yes	6	OHBS65L6	
		Red/Yel	O/I & Off/On	Yes	Yes	6	OHYS65L6	
		Black	O/I & Off/On	Yes	Yes	6	OHBS80L6	
		Red/Yel	O/I & Off/On	Yes	Yes	6	OHYS80L6	
1, 3R, 4, 4X, 12	IP65	SS	O/I & Off/On	Yes	Yes	6	OHM65L6	
1, 3R, 12	IP65	Black	I / O / II	Yes	Yes	6	OHBS65J6E011	
1, 3R, 12	IP65	Red/Yel	I / O / II	Yes	Yes	6	OHYS65J6E011	
1, 3R, 4, 4x, 12	IP66	Black	I / O / II	Yes	Yes	6	OHBS65L6E011	
1, 3R, 4, 4x, 12	IP66	Red/Yel	I / O / II	Yes	Yes	6	OHYS65L6E011	

^① Not suitable for use with OT30F3, OT60F3, OT100F3

^② Plastic pistol grip handle with stainless steel hasp, add suffix EH. ex.: OHBS65SJ6EH



CSA & UL Technical data for Non-fusible disconnect switches OT16F3 – OT160F3

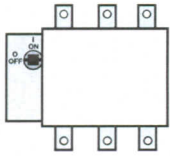


CSA & UL

Catalog number	3 pole	OT16F3	OT25F3	OT40F3	OT63F3	OT80F3	OT30F3	OT60F3	OT100F3	OT160E3
*Approvals ^①	2 pole 3 pole 4 pole	N/A CSA C22.2 No.14 CSA C22.2 No.14	N/A CSA C22.2 No.14 CSA C22.2 No.14	N/A CSA C22.2 No.14 CSA C22.2 No.14	N/A CSA C22.2 No.14 CSA C22.2 No.14	N/A CSA C22.2 No.14 CSA C22.2 No.14	N/A CSA C22.2 No.4 CSA C22.2 No.4	N/A CSA C22.2 No.4 CSA C22.2 No.4	N/A CSA C22.2 No.4 CSA C22.2 No.4	CSA C22.2 No.4 CSA C22.2 No.4 CSA C22.2 No.4
General purpose amp rating -40°C to 40°C pf = 0.7 – 0.8	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										
208V	HP/A	3/10.6	7.5/24.2	10/31	15/46	20/60	10/31	20/60	25/75	30/88
240V	HP/A	5/15.2	7.5/22	10/28	15/42	20/54	10/28	20/54	30/80	40/104
480V	HP/A	10/14	15/21	20/27	30/40	40/52	20/27	40/52	50/65	75/96
600V	HP/A	15/11	20/22	25/27	30/32	40/41	30/32	40/41	50/52	100/99
Single phase										
120V	HP/A	1/16	1.5/20	2/24	2/24	2/24	2/24	3/34	5/56	7.5/80
240V	HP/A	2/13	3/19	5/31	7.5/40	10/58	5/31	7.5/40	15/68	20/88
Short circuit rating with fuse										
Fuse type CC	kA	10	10	10	—	—	—	—	—	—
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	—
Fuse type RK1	kA	10	—	10	—	—	—	—	—	—
Fuse type RK5	kA	5	5	5	5	10	—	—	—	—
Fuse type L	kA	—	—	—	—	—	—	—	—	—
Fuse type H	kA	—	—	—	—	5	—	—	—	—
Fuse size	A	30	60	30	60	100	150	60	150	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	1000	②	②	②
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	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, switches										
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	75	75	75	74
Shaft size — square □	mm	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	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										
Wire range	AWG	Not required #18 – #8	Not required #18 – #8	Not required #18 – #8	Not required #14 – #1	Not required #14 – #1	Not required #14 – #4	Not required #14 – #4	Not required #8 – 1/0	Not required #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										
NEMA ratings, AC										
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										
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	25	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	#18 – #14

① CSA Approved switches are also UL Listed.

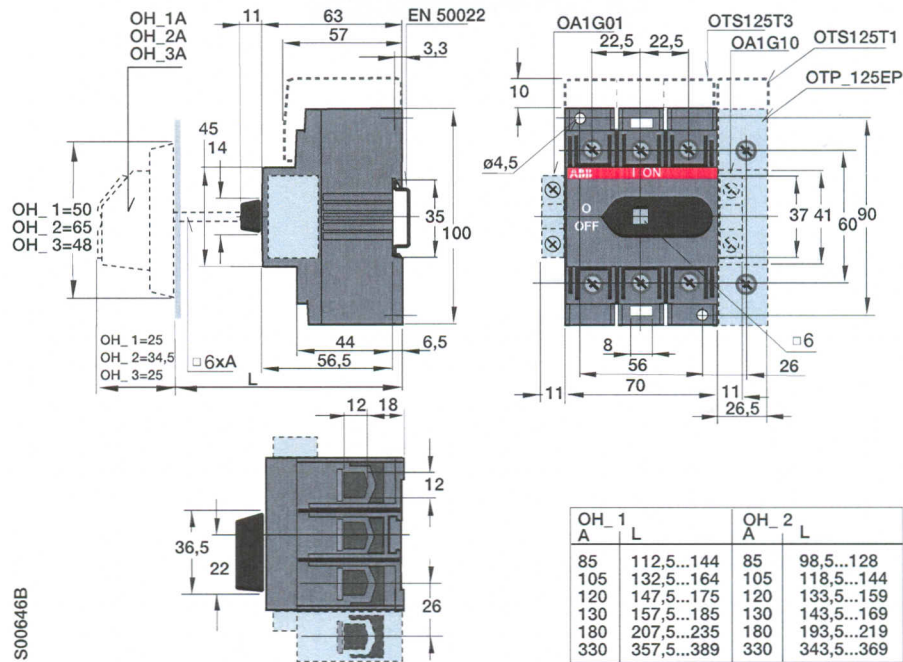
② UL98 overload test, 50 operations, pf 0.40 – 0.50 at 2x FLA.



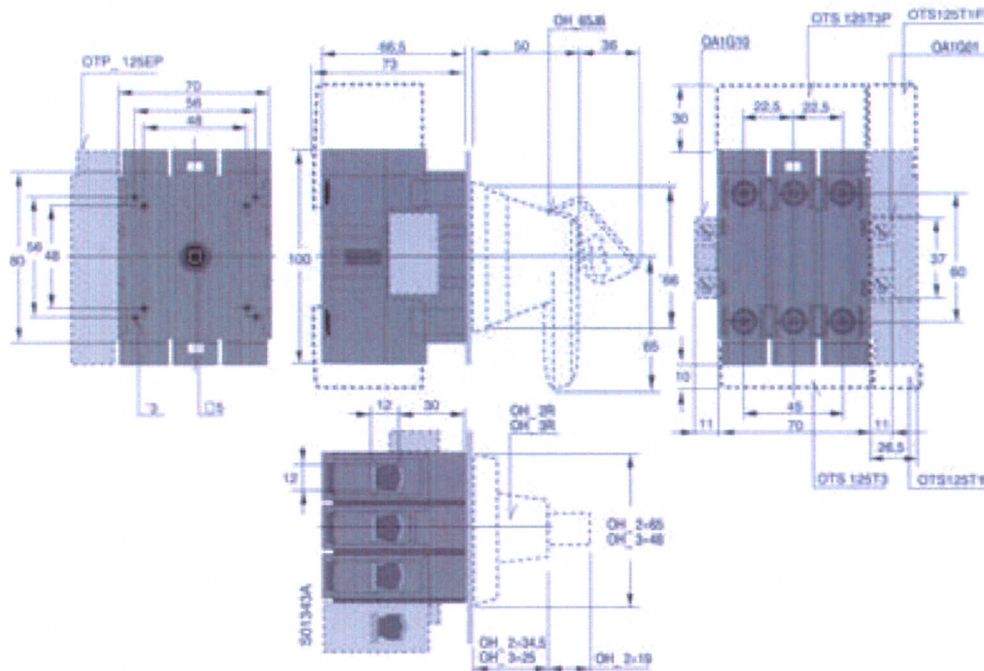
Approximate dimensions Non-fusible disconnect switches OT30 – OT100



OT30F3 – OT60F3 – OT100F3 – base & DIN rail mounted switch



OT30FT3 – OT60FT3 – OT100FT3 – door mounted switches



General information : 1.1 – 1.7

Complete Non-fusible switches: 1.8 – 1.9

Components: 1.10 – 1.23

Technical information: 1.24 – 1.29

Dimensions: 1.30 – 1.42

Discount schedule DS-H 1.39

Pump Contactor

US Breaker

Model NC1D-1810



NC1D Contactor Technical Data

NC1D Type			NC1-D18
Thermal Current Ith (AC-1 IEC) Amps	660V		32
Inductive Current (AC-3 IEC) Amps	380/400V		18
UL Power Rating 3 Phase (Hp)	240V		7.5
	460V		10
	600V		10
UL Power Rating 1 Phase (Hp)	120V		1
	240V		3
IEC Power Rating (KW)	380/400V		7.5
Operations (AC-3)	Elec.		1,000,000
	Mech.		10,000,000

NC1D Contactor Coil Data

NC1D Type			NC1-D18
Coil Power	Start-up (VA)		70
	Holding (VA)		8
Operation Range of Rated Voltage	Pick-up Voltage		85%-100%
	Drop-out Voltage		20%-85%
Coil Identification	AC Volts		110V
	Code		F7

Dimensions

