

Breakers and Switches

Switches for PV applications

Switch-disconnectors

OTDC - UL - types

Power and productivity
for a better world™





Two and four pole DC disconnect switches 100 to 200 Amperes, 1000 VDC 100 to 180 Amperes, 2×1000 VDC

Optimal design for DC applications

OTDC disconnect switches from 100 to 200 Amperes have been specifically designed for DC applications. These switches are the only ones in the market to achieve 1000 VDC with only two poles.

Optimal design

The design of the arc plates has been carefully optimized for DC applications. Thanks to dual magnetic breaking, breaking power is balanced for all current levels.

- ▶ Breaking power optimized across the entire current range

As a result of a symmetric design, the connections are independent of polarity. The switch works in both ways.

- ▶ Simplicity in installation
- ▶ No problem with reverse feed

Modularity

The mechanism can be located between the poles or on the side of the switch. Four pole versions (2×1000 VDC) are suitable for double circuit applications.

- ▶ Flexibility to use in diverse applications

Designed for safety

OTDC is the only DC switch in the market that has visible contacts. The operation of the switch is not vulnerable to voltage peaks and it is independent of the user (quick make-quick brake).

- ▶ Safe and reliable operation



Ordering information

Switch-disconnectors up to 1000 VDC



OTDC100...200US02



OTDC100...200U02



OTDC100...200US11



OTDC100...200U11

Ordering information DC disconnect switches, base mounting, up to 1000 VDC

Including terminal bolt kit, the handle and shaft have to be ordered separately. OTDC100...200US types are equipped with a short circuit link.

Mechanism at the left end of the switch, includes the short circuit link

Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
2	100	1	1.2	OTDC100US02
2	200	1	1.2	OTDC200US02

Mechanism at the left end of the switch

Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
2	100	1	1.2	OTDC100U02
2	200	1	1.2	OTDC200U02

Mechanism between the poles, includes the short circuit link

Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
2	100	1	1.2	OTDC100US11
2	200	1	1.2	OTDC200US11

Mechanism between the poles

Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
2	100	1	1.2	OTDC100U11
2	200	1	1.2	OTDC200U11

Included as standard with switch

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OTDC100...250U_	-	-	M8x25

Technical data

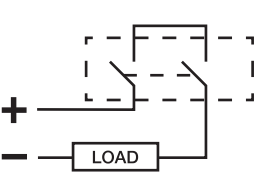
Switch-disconnectors up to 1000 VDC

Technical data in accordance to UL98B for switch-disconnectors OTDC100 and OTDC200

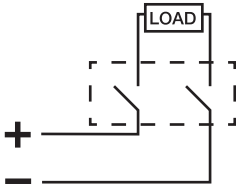
Suitable for use in photovoltaic systems in accordance with article 690 of the NEC.

Switch size	Voltage rating	Current rating	Rated ambient temperature	Short circuit rating	Class of fuse	Mechanical endurance	Wire range
	DC	A	°C	at 1000VDC kA		Oper.	MCM
OTDC100	1000	100	-20...+50	5	Circuit breaker	4000 (2000 cycles)	#4...300
OTDC200	1000	200	-20...+50	5	Circuit breaker	4000 (2000 cycles)	#4...300

Connecting diagrams



OTDC100US_, OTDC200US_



OTDC100U_, OTDC200U_

Ordering information

Switch-disconnectors up to 2x1000 VDC



OTDC100...180U22



OTDC100...180US22

Ordering information DC disconnect switches, base mounting, up to 2x 1000 VDC

Including terminal bolt kit, the handle and shaft have to be ordered separately. OTDC100...180US22 types are equipped with a short circuit link.

Mechanism between the poles				
Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
4	100	1	2.3	OTDC100U22
4	180	1	2.3	OTDC180U22

Mechanism between the poles, includes the short circuit link				
Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
4	100	1	2.5	OTDC100US22
4	180	1	2.5	OTDC180US22

Included as standard with switch

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OTDC100...250U_	-	-	M8x25

Technical data

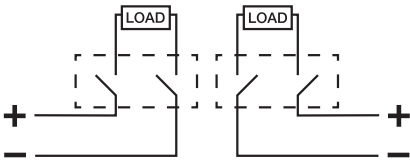
Switch-disconnectors up to 2×1000 VDC

Technical data in accordance to UL98B for switch-disconnectors OTDC100 and OTDC180

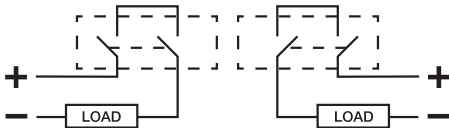
Suitable for use in photovoltaic systems in accordance with article 690 of the NEC.

Switch size	Voltage rating [DC]	Current rating [A]	Rated ambient temperature [°C]	Short circuit rating at 1000VDC [kA]	Class of fuse	Mechanical endurance [Oper.]	Wire range [MCM]
OTDC100	1000	2x 100	-20...+50	5	Circuit breaker	20000 (10000 cycles)	#4...300
OTDC180	1000	2x 180	-20...+50	5	Circuit breaker	20000 (10000 cycles)	#4...300

Connecting diagrams



OTDC100...180U22



OTDC100...180US22

Ordering information

Accessories



OH_B_



OH_Y_

Pistol type handles

Padlockable with three padlocks in OFF position, door interlock in ON position. Screw fixing from the back side of the handle. No screws on the front ensures double insulation.

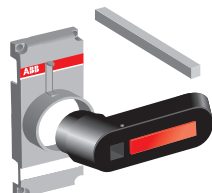
NEMA 1, 3R, 12, OH_ handles for 6mm diameter shafts, indication in types OHB and OHY: I-O, ON-OFF

Colour	Handle length [mm]	Suitable for switch type	Weight/ Unit [kg]	Type
Black	65	OTDC100...200_	0.12	OHB65J6
Yellow-red	65	OTDC100...200_	0.12	OHY65J6
Black	80	OTDC100...200_	0.14	OHB80J6
Yellow-red	80	OTDC100...200_	0.14	OHY80J6

NEMA 4, 4X, OH_ handles for 6mm diameter shafts, indication in types OHB and OHY: I-O, ON-OFF

Number of poles	Rated current [A] UL98B, 1000 V	Delivery batch [pcs]	Weight/ Unit [kg]	Type
Black	65	OTDC100...200_	0.12	OHB65L6
Yellow-red	65	OTDC100...200_	0.12	OHY65L6
Black	80	OTDC100...200_	0.14	OHB80L6
Yellow-red	80	OTDC100...200_	0.14	OHY80L6

Door interlocking in ON-position means that the door can not be opened, when the handle is in ON-position. This can be defeated in IP65 types to allow authorized personnel access for inspection. Handles padlockable in all positions available on request.



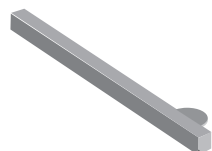
OT_V_

Handles for direct mounting

Padlockable with three padlocks in OFF position. Includes shaft and mechanism cover

Indication TEST-OFF-ON / TEST-O-I

Colour	Handle length [mm]	Suitable for switch type	Weight/ Unit [kg]	Type
Black	65	OTDC100...200_	0.10	OTDV250EK
Red-yellow	65	OTDC100...200_	0.10	OTDVY250EK



OX_S6X_

Extended shafts

The type and ordering numbers are for 1 piece

For pistol type handles (suitable for OTDC100...250_, shaft diameter 6 mm) ¹⁾

Shaft Length [mm]	H [mm]	Weight/ Unit [kg]	Type
130	109...174	0.04	OX_P6X130
150	129...194	0.05	OX_P6X150
161	140...205	0.05	OX_P6X161
210	189...254	0.06	OX_P6X210
290	269...334	0.08	OX_P6X290

¹⁾ Longer shafts on request

Ordering information

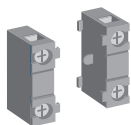
Accessories



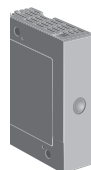
OEZXY91



OTDCB250/6



OA1G, OA3G01



OEA28

Mounting accessories

Short-circuit link (included as standard with type OTDC100...200US)

Suitable for switches	Type
OTDC100...200_	OEZXY91

Phase separators (included as standard with type OTDC100...200U)

Suitable for switches	Type
OTDC100...200_	OTDCB250/6

Terminal lugs (Cu/Al - #4 - 300kcmil)

Suitable for switches	Type
OTDC100...200_ (6 lugs per pack)	OZXA-200

Terminal shrouds (not suitable for use with short-circuit link OEZXY91)

Suitable for switches	Type
OTDC100...200_ (2 shrouds per pack)	OTDCS250G1S/2

Auxiliary contact blocks, IP20

Suitable for switches	Function	Mounting possibility	Weight/ Unit [kg]	Type
OTDC100...200	1 NO	Left side of switch ⁽¹⁾	0.03	OA1G10
OTDC100...200	1 NC	Under mechanism ⁽²⁾	0.03	OA3G01
OTDC100...200	1 NO	Left side of switch ⁽¹⁾	0.03	OA1G10
OTDC100...200	1 NC	Under mechanism ⁽²⁾	0.03	OA3G01

(1) Requires the OEA28 module. Max. 8 auxiliary contact blocks.

(2) Max. 4 test contacts or 2 test contacts + 2 test indication contacts. The test contacts can also be used as standard auxiliary contacts. See below for contact numbering. (OEA28 module not required)

Module for auxiliary contacts (screw mounting on left side of the switch)

Suitable for switches	Type
OTDC100...200_	OEA28

Contact numbering:

(83) (43) (53) 13 21 (61) (31) (71)
(84) (44) (54) 14 22 (62) (32) (72)

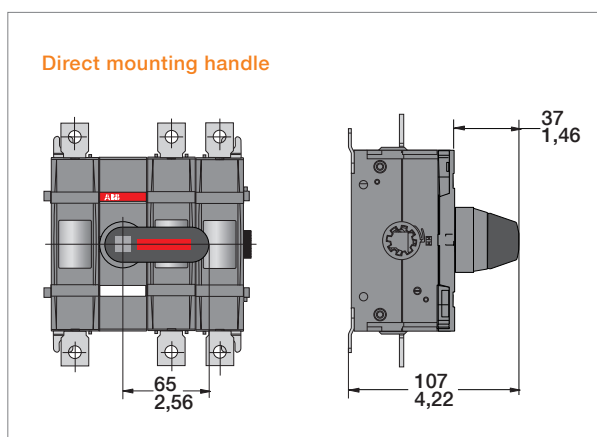
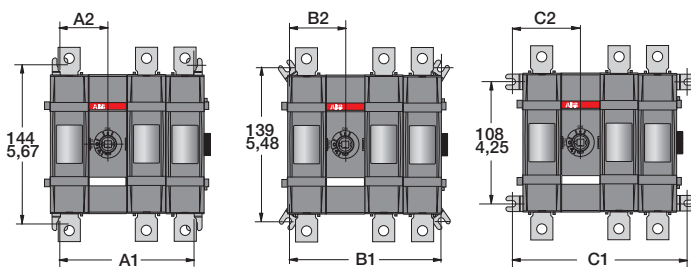
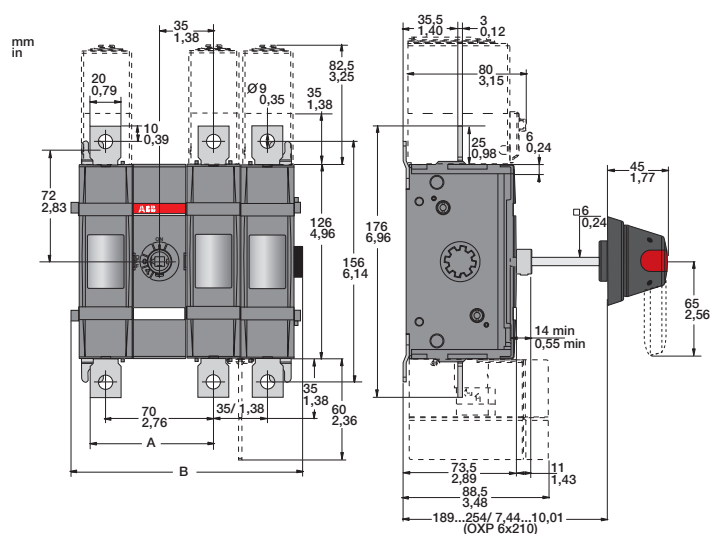
Early break type auxiliary contacts means that in the switches, the NO aux.contacts break before the main contacts open.

Dimension drawings

Switch-disconnectors

OTDC100...200U02

OTDC100...200U11

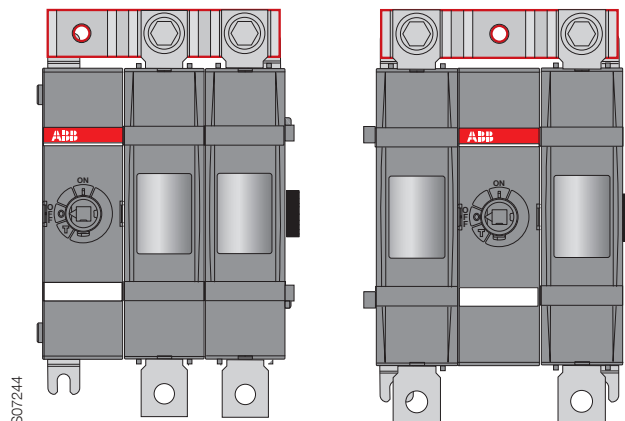
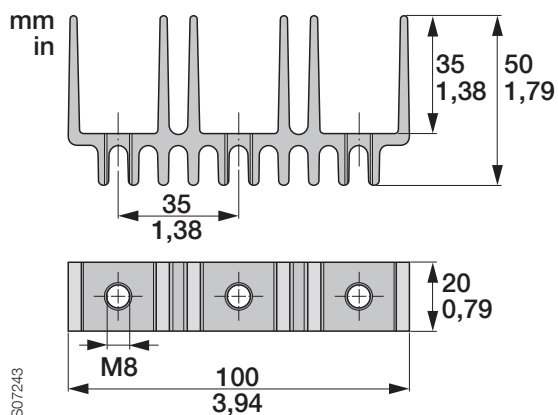


OTDC100,...200U02

OTDC100,...200U11

02/11	[mm/in]
A	80/3,15
B	115,5/4,55
A1	87/3,43
A2	43,5/1,71
B1	105/4,14
B2	52,5/2,07
C	123/4,85

OEZXY91



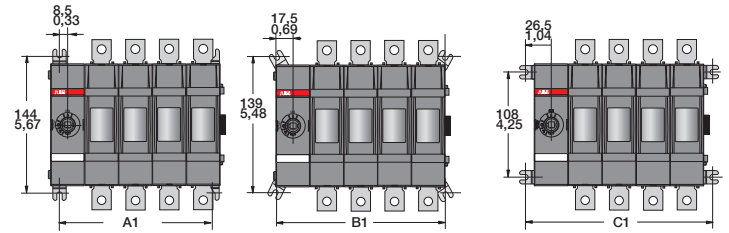
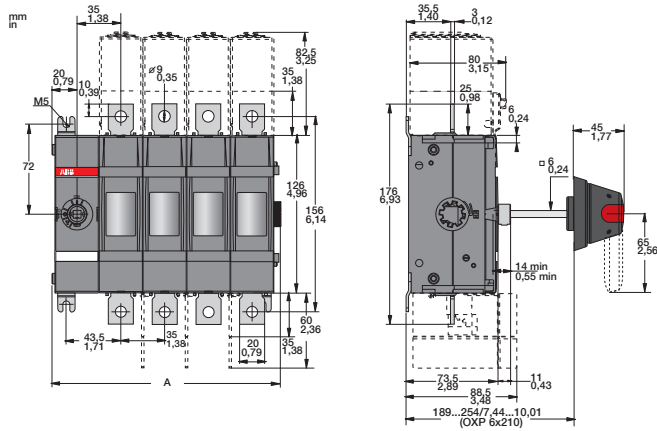
OS100...200US_-types

Dimension drawings

Switch-disconnectors

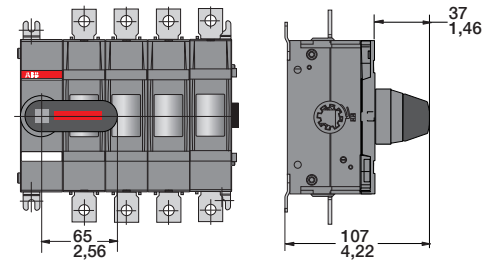
OTDC100...180U22

OTDC100...180U04

OTDC100...180U22OTDC100...180U04

22/04	[mm/in]
A	183/7,21
A1	157/6,18
B1	175/6,89
C1	193/7,6

Direct mounting handle



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