

## PRODUCT-DETAILS

# OTDC400UFV11-ESS

## OTDC400UFV11-ESS PV Disconnect Switch



### General Information

Extended Product Type	OTDC400UFV11-ESS
Product ID	1SCA158216R1001
EAN	6417019873213
Catalog Description	OTDC400UFV11-ESS PV Disconnect Switch
Long Description	<p>ABB offers new OTDC Switch-disconnectors specially designed for reliable switching for ESS applications where higher performance is needed. They are durable and virtually maintenance-free, and offer easy installation for all imaginable situations.</p> <p>Depending on the ESS layout and the customer's wishes, the OTDC switch-disconnectors may be used in one or more sections of the overall setup, for the battery protection.</p> <p>Main characteristics of this particular OTDC type:  Rated conditional short circuit current with fuses is 30kA, 2-Pole, 1500Vdc, Approved according to UL98B and IEC 60947-1,-3</p>

### Circular Value

ABB EcoSolutions	Yes
Circular Design Principles Recyclability Rate	Design for Closing Resource Loops - Standard EN45555 - 59,09 %
Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
End of Life Instructions	1SCC301112M0201

Environmental Product Declaration - EPD	1SCC301247D0201
Group Waste to Landfill Target	Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility
Improved Resource Efficiency for Customers	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
REACH Declaration	1SCC301240D0201
RoHS Information	1SCC301239D0201

## Eco Transparency

Environmental Product Declaration - EPD	1SCC301247D0201
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## Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85353010
Country of Origin	Finland (FI)

## Popular Downloads

Data Sheet, Technical Information	1SCC301022C0201
Instructions and Manuals	1SCC301099M0201 9AKK107492A6191 9AKK108467A9503
Mechanical Drawings	OTDC250-600UFV11_stp OTDC250-600UFV11_igs 1SCC307658F0001 1SCC307659F0001
Wiring Diagram	1SCC301030K0201
Environmental Product Declaration - EPD	1SCC301247D0201
End of Life Instructions	1SCC301112M0201

## Dimensions

Product Frame Size	M
Product Net Width	157.5 mm 6.2 in
Product Net Height	211 mm 8.3 in
Product Net Depth / Length	135 mm 5.3 in
Product Net Weight	3.5 kg 7.7 lb

## Technical

Connection Configuration	Single circuit 2a, 2b
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Rated Operational Current DC-21B ( $I_g$ )	(1500 V) 500 A
Rated Operational Current DC-22B	(1500 V) 400 A
Rated Operational Current DC-PV1	(1500 V) 500 A
Rated Operational Current DC-PV2	(1500 V) 400 A
Conventional Free-air Thermal Current ( $I_{th}$ )	$\Theta = 40^\circ\text{C}$ 500 A
Conventional Thermal Current ( $I_{the}$ )	Fully Enclosed 500 A
Rated Impulse Withstand Voltage ( $U_{imp}$ )	12 kV
Rated Insulation Voltage ( $U_i$ )	1500 V
Rated Operational Voltage	1500 V
Rated Short-Circuit Making Capacity ( $I_{cm}$ )	(1500 V DC) 20 kA
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	(1500 V DC) 10 kA for 1 s 10 kA for 0.1 s 20 kA
Rated Conditional Short- Circuit Current ( $I_{nc}$ )	(1500 V DC) 50 kA
Protection Type	Fuselink max. 400A, ETI, Cat.no 004110 followed by 632, 637 or 642.
Power Loss	at Rated Operating Conditions per Pole 18...20 W
Pollution Degree	3
Handle Type	Handle and shaft not included
Positive Opening Operation Torque (Direct Opening Action)	11 ... 19 N·m
Shaft Diameter	12 mm 0.47 in
Switches Operating Mechanism	Mechanism Between the Poles 11 (Between the Poles)
Position of Line Terminals	Top In - Bottom Out Bottom In - Top Out
Operating Mode	Front Operated
Standards	UL98B and IEC 60947-1, -3
Special Functions	No
Mounting Type	Base mounting
Number of Circuits	1
Number of Poles	2
Degree of Protection	Front IP20
Terminal Type	Lug terminals
Terminal Width	30 mm 1.2 in
Tightening Torque	Cable Lug 50 ... 75 N·m Cable Lug 443 ... 664 lbf·in
Mechanical Durability	10000 cycle
Utilization	Energy Storage System (ESS)

Utilization Category	Switching of resistive loads, including moderate overloads - occasional actuation (DC-21B)
	Switching of mixed resistive and inductive loads, including moderate overloads (i.e. shunt motors) - occasional actuation (DC-22B)
	Switching of single PV string(s) without reverse and overcurrents (DC-PV1)
	Switching of several PV string(s) with reverse and overcurrents (DC-PV2)

## Technical UL/CSA

Maximum Operating Voltage	1500Vdc, UL 98B
Ampere Rating	400A, 1500Vdc, UL98B
Short-Circuit Current Rating (SCCR)	Any UL Listed Fuses or Circuit-Breakers 10 kA Fuse, see Catalog 30 kA
Tightening Torque	Cable Lug 50 ... 75 N·m Cable Lug 443 ... 664 lbf·in

## Environmental

RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
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## Certificates and Declarations

CCC Certificate	CQC2019010302206498
Declaration of Conformity - CE	1SCC301227D2701
Declaration of Conformity - UKCA	1SCC301313D0201
DNV GL Certificate	1SCC301231D0201
REACH Declaration	1SCC301240D0201
UL Certificate	UL certificate OTDC250-1000UF

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	220 mm 8.7 in
Package Level 1 Depth / Length	250 mm 9.8 in
Package Level 1 Height	210 mm 8.3 in
Package Level 1 Gross Weight	3.8 kg 8.3 lb
Package Level 1 EAN	6417019873213

## Classifications

Object Classification Code	Q
ETIM 5	EC000216 - Switch disconnecter
ETIM 6	EC000216 - Switch disconnecter

ETIM 7	EC000216 - Switch disconnecter
ETIM 8	EC000216 - Switch disconnecter
ETIM 9	EC000216 - Switch disconnecter (low voltage)
UNSPSC	39122233
IDEA Granular Category Code (IGCC)	5293 >> Switch disconnecter
eClass	V11.1 : 27371403
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

Categories

Low Voltage Products and Systems → Switches → DC Switch-Disconnectors

