

PRODUCT-DETAILS

OTDC320UFV11

OTDC320UFV11 PV Disconnect Switch



General Information

Extended Product Type	OTDC320UFV11
Product ID	1SCA158190R1001
EAN	6417019872957
Catalog Description	OTDC320UFV11 PV Disconnect Switch
Long Description	<p>A fully optimized two-pole DC switch-disconnector for 1500V utility-scale photovoltaic power plants covering 315-630A current range. The new design offers both a size reduction and an increase in efficiency and performance to help manufacturers adapt to the industry's rapid adoption of 1500V DC solutions.</p> <p>The two-pole 1500V DC concept helps manufacturers improve system efficiency, reducing switch losses by up to 35 percent. Measuring just 150mm wide and 122mm high, the OTDC range of 1500V DC switches is also up to 30 percent smaller than conventional solutions. The compact size of the new OTDC range makes it possible for manufacturers to reduce the size of combiner boxes and inverters.</p> <p>Main characteristics for this particular OTDC type: Disconnect single PV circuit, 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	1SCC301247D0201

Declaration - EPD

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 - Achieved
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 - Achieved
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
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
Rated Operational Current DC-21B (I_{θ})	(1500 V) 400 A
Rated Operational Current DC-22B	(1500 V) 400 A
Rated Operational Current DC-PV1	(1500 V) 400 A
Rated Operational Current	(1500 V) 400 A

DC-PV2

Conventional Free-air Thermal Current (I_{th})	$\Theta = 40\text{ °C}$ 400 A
Conventional Thermal Current (I_{the})	Fully Enclosed 400 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) 10 kA
Rated Short-time Withstand Current Low Voltage (I_{cw})	(1500 V DC) 10 kA for 1 s 10 kA
Protection Type	Circuit breaker
Power Loss	at Rated Operating Conditions per Pole 12...13 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 30 ... 44 N·m Cable Lug 266 ... 390 lbf·in
Mechanical Durability	10000 cycle
Utilization	Photovoltaic
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	320A, 1500Vdc, UL98B
Short-Circuit Current Rating (SCCR)	Any UL Listed Fuses or Circuit-Breakers 10 kA
Tightening Torque	Cable Lug 30 ... 44 N·m Cable Lug 266 ... 390 lbf·in

Environmental

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

Certificates and Declarations (Document Number)

CCC Certificate	CQC2019010302206498
Declaration of Conformity - CE	1SCC301227D2701
Declaration of Conformity - UKCA	1SCC301313D0201
DNV GL Certificate	1SCC301231D0201
Environmental Product Declaration - EPD	1SCC301247D0201
Instructions and Manuals	1SCC301099M0201 9AKK107492A6191
REACH Declaration	1SCC301240D0201
RoHS Information	1SCC301239D0201
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	6417019872957

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

