



PRODUCT-DETAILS

OTDC400UF22

OTDC400UF22 PV Disconnect Switch



General Information	
Extended Product Type	OTDC400UF22
Product ID	1SCA158300R1001
EAN	6417019874050
Catalog Description	OTDC400UF22 PV Disconnect Switch
Long Description	A fully optimized four-pole DC switch-disconnector for 1000V 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.
	The four-pole 1000V DC Switch helps manufacturers improve system efficiency. The compact size of the new OTDC range makes it possible for manufacturers to reduce the size of combiner boxes and inverters.
	Main characteristics for this switch: Disconnect double PV circuit, Approved according to UL98B and IEC 60947-1,-3

ABB EcoSolutions	
ABB EcoSolutions	Yes
ABB Site Meeting Group Waste To Landfill Target	UL 2799 Zero Waste To Landfill Validation available
End Of Life Disassembling	1SCC301112M0201

Instructions

Environmental Product Declaration - EPD	1SCC301247D0201
Improved Energy Efficiency for Customers	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
Recyclability Rate of the Product acc. to EN45555	Design for Closing Resource Loops - Standard EN45555 - 59,09 %

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	1SCC301240D0201
RoHS Information	1SCC301239D0201
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	1SCC301321D0201

Popular Downloads

Data Sheet, Technical Information	1SCC301022C0201
Instructions and Manuals	1SCC301099M0201 9AKK107492A6191
Mechanical Drawings	OTDC250-600UFV22_stp OTDC250-600UFV22_igs 1SCC307664F0001 1SCC307665F0001
Wiring Diagram	1SCC301035K0201
Environmental Product Declaration - EPD	1SCC301247D0201

Environmental

Degree of Protection	Front IP20
Pollution Degree	3

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85363090
Country of Origin	Finland (FI)

Dimensions

Product Frame Size	M
Product Net Width	255.5 mm 10.1 in
Product Net Height	211 mm 8.3 in
Product Net Depth / Length	135 mm 5.3 in
Product Net Weight	7.5 kg 16.5 lb

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	270 mm 10.6 in
Package Level 1 Depth / Length	310 mm 12.2 in
Package Level 1 Height	200 mm 7.9 in
Package Level 1 Gross Weight	7.8 kg 17.1 lb
Package Level 1 EAN	6417019874050

Technical

Connection Configuration	Double circuit 4a, 4c
Conventional Free-air Thermal Current (I_{th})	$\Theta = 40\text{ }^{\circ}\text{C}$ 500 A
Conventional Thermal Current (I_{the})	Fully Enclosed 500 A
Degree of Protection	Front IP20
Handle Type	Handle and shaft not included
Mechanical Durability	10000 cycle
Mounting Type	Base mounting
Number of Circuits	2
Number of Poles	4P
Operating Mode	Front Operated
Pollution Degree	3
Position of Line Terminals	Top In - Bottom Out Bottom In - Top Out
Positive Opening Operation Torque (Direct Opening Action)	18 ... 30 N·m
Power Loss	at Rated Operating Conditions per Pole 18 ... 20 W
Protection Type	Circuit breaker
Rated Impulse Withstand Voltage (U_{imp})	12 kV
Rated Insulation Voltage (U_i)	1500 V
Rated Operational Current DC-21B (I_e)	(1000 V) 500 A
Rated Operational Current DC-22B	(1000 V) 400 A
Rated Operational Current DC-PV1	(1000 V) 500 A
Rated Operational Current DC-PV2	(1000 V) 400 A
Rated Operational Voltage	1000 V
Rated Short-Circuit Making Capacity (I_{cm})	(1000 V DC) 10 kA
Rated Short-time Withstand Current Low Voltage (I_{cw})	(1500 V DC) 10 kA for 1 s 10 kA
Shaft Diameter	12 mm 0.47 in

Special Functions	No
Standards	UL98B and IEC 60947-1, -3
Switches Operating Mechanism	Mechanism Between the Poles 22 (Between the Poles)
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
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	1000Vdc, UL 98B
Ampere Rating	400A, 1000Vdc, UL98B
Short-Circuit Current Rating (SCCR)	Any UL Listed Fuses or Circuit-Breakers 10 kA
Tightening Torque	Cable Lug 50 ... 75 N-m Cable Lug 443 ... 664 lbf-in

Certificates and Declarations

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

External Classifications and Standards

Object Classification Code	Q
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



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