

## PRODUCT-DETAILS

# OTDC630FV11-ESS

## OTDC630FV11-ESS DC Switch-disconnector



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | OTDC630FV11-ESS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product ID            | 1SCA158251R1001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| EAN                   | 6417019873565                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Catalog Description   | OTDC630FV11-ESS DC Switch-disconnector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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. 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:<br/>Rated conditional short circuit current with fuses is 30kA, 2-Pole, 1500Vdc, Approved according to IEC 60947-1, -3</p> |

### 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<br>9AKK107492A6191 |

Mechanical Drawings

OTDC315-630FV11\_stp  
 OTDC315-630FV11\_igs  
 1SCC307658F0001  
 1SCC307659F0001

Wiring Diagram

1SCC301030K0201

## Dimensions

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

## Technical

|                                                          |                                                                     |
|----------------------------------------------------------|---------------------------------------------------------------------|
| Connection Configuration                                 | Single circuit 2a, 2b                                               |
| Rated Operational Current<br>DC-21B ( $I_e$ )            | (1500 V) 630 A                                                      |
| Rated Operational Current<br>DC-22B                      | (1500 V) 400 A                                                      |
| Rated Operational Current<br>DC-PV1                      | (1500 V) 500 A                                                      |
| Rated Operational Current<br>DC-PV2                      | (1500 V) 500 A                                                      |
| Conventional Free-air<br>Thermal Current ( $I_{th}$ )    | 630 A                                                               |
| Conventional Thermal<br>Current ( $I_{the}$ )            | Fully Enclosed 630 A                                                |
| Rated Impulse Withstand<br>Voltage ( $U_{imp}$ )         | 12 kV                                                               |
| Rated Insulation Voltage<br>( $U_i$ )                    | 1500 V                                                              |
| Rated Operational Voltage                                | 1500 V                                                              |
| Rated Short-Circuit<br>Making Capacity ( $I_{cm}$ )      | (1500 V DC) 20 kA                                                   |
| Rated Short-time<br>Withstand Current ( $I_{cw}$ )       | (1500 V DC) 10 kA<br>for 1 s 10 kA<br>for 0.1 s 20 kA               |
| Rated Conditional Short-<br>Circuit Current ( $I_{nc}$ ) | (1500 V DC) 100 kA                                                  |
| Protection Type                                          | Fuselink max. 400A, ETI, Cat.no 004110 followed by 632, 637 or 642. |
| Power Loss                                               | at Rated Operating Conditions per Pole 32 W                         |
| Pollution Degree                                         | 3                                                                   |
| Handle Type                                              | Handle and shaft not included                                       |
| Shaft Diameter                                           | 12 mm<br>0.47 in                                                    |
| Switches Operating<br>Mechanism                          | Mechanism Between the Poles<br>11 (Between the Poles)               |
| Position of Line Terminals                               | Top In - Bottom Out<br>Bottom In - Top Out                          |
| Operating Mode                                           | Front Operated                                                      |
| Standards                                                | 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<br>1.2 in                                                                                                                                                                                                                                                                                                                                                                            |
| Tightening Torque     | Cable Lug 30...40 N·m                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical Durability | 10000 cycle                                                                                                                                                                                                                                                                                                                                                                                |
| Utilization           | Energy Storage System (ESS)                                                                                                                                                                                                                                                                                                                                                                |
| Utilization Category  | Switching of resistive loads, including moderate overloads - occasional actuation (DC-21B)<br>Switching of mixed resistive and inductive loads, including moderate overloads (i.e. shunt motors) - occasional actuation (DC-22B)<br>Switching of single PV string(s) without reverse and overcurrents (DC-PV1)<br>Switching of several PV string(s) with reverse and overcurrents (DC-PV2) |

## Environmental

|             |                                   |
|-------------|-----------------------------------|
| RoHS Status | Following EU Directive 2011/65/EU |
|-------------|-----------------------------------|

## Certificates and Declarations (Document Number)

|                                   |                                    |
|-----------------------------------|------------------------------------|
| CCC Certificate                   | CQC2019010302206498                |
| Declaration of Conformity<br>- CE | 1SCC301227D2701                    |
| DNV GL Certificate                | 1SCC301231D0201                    |
| Instructions and Manuals          | 1SCC301099M0201<br>9AKK107492A6191 |
| RoHS Information                  | 1SCC301227D2701                    |

## Container Information

|                                   |                  |
|-----------------------------------|------------------|
| Package Level 1 Units             | box 1 piece      |
| Package Level 1 Width             | 220 mm<br>8.7 in |
| Package Level 1 Depth /<br>Length | 250 mm<br>9.8 in |
| Package Level 1 Height            | 210 mm<br>8.3 in |
| Package Level 1 Gross<br>Weight   | 3.8 kg<br>8.3 lb |
| Package Level 1 EAN               | 6417019873565    |

## Classifications

|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| Object Classification Code | Q                                                          |
| ETIM 5                     | EC000216 - Switch disconnecter                             |
| ETIM 6                     | EC000216 - Switch disconnecter                             |
| ETIM 7                     | EC000216 - Switch disconnecter                             |
| WEEE Category              | 5. Small Equipment (No External Dimension More Than 50 cm) |

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## Categories

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

