

## PRODUCT-DETAILS

# TAL16-40-00 77-143V DC

## TAL16-40-00 77-143V DC Contactor



### General Information

|                       |                                  |
|-----------------------|----------------------------------|
| Extended Product Type | TAL16-40-00 77-143V DC           |
| Product ID            | 1SBL183261R6200                  |
| EAN                   | 3471522317629                    |
| Catalog Description   | TAL16-40-00 77-143V DC Contactor |

#### Long Description

TAL16 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC and 440 V DC. The contactors can also be used for many other applications such lighting... The TAL... series 4-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 4 N.O. main poles, front and side-mounted add-on auxiliary contact blocks - Control circuit: DC operated with solid core magnet circuit. The polarity on the coil terminals (A1+ and A2-) must be respected - Accessories: a wide range of accessories is available. TAL... contactors are fitted with low consumption DC coils and offer a large coil voltage range.

### Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SNC001003C0202 |
| Instructions and Manuals          | 1SBC101003M5501 |
| Dimension Diagram                 | FPTE307872      |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 44 mm   |
| Product Net Depth / Length | 97 mm   |
| Product Net Height         | 78 mm   |
| Product Net Weight         | 0.52 kg |

## Technical

|                                                    |                                                                                                                                                                                                                                |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 4                                                                                                                                                                                                                              |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                              |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                                                                                              |
| Number of Auxiliary Contacts NC                    | 0                                                                                                                                                                                                                              |
| Rated Operational Voltage                          | Main Circuit 690 V                                                                                                                                                                                                             |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors $q = 40^\circ\text{C}$ 30 A                                                                                                                                                             |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) $40^\circ\text{C}$ 30<br>(690 V) $55^\circ\text{C}$ 27<br>(690 V) $70^\circ\text{C}$ 23                                                                                                                                |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) $55^\circ\text{C}$ 17 A<br>(440 V) $55^\circ\text{C}$ 16 A<br>(500 V) $55^\circ\text{C}$ 14 A<br>(690 V) $55^\circ\text{C}$ 10 A<br>(380 / 400 V) $55^\circ\text{C}$ 17 A<br>(220 / 230 / 240 V) $55^\circ\text{C}$ 17 |
| Rated Operational Power AC-3 ( $P_e$ )             | (380 / 400 V) 7.5 kW                                                                                                                                                                                                           |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x $I_e$ AC-3                                                                                                                                                                                                                 |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x $I_e$ AC-3                                                                                                                                                                                                                |
| Short-Circuit Protective Devices                   | gG Type Fuses 32 A                                                                                                                                                                                                             |
| Maximum Breaking Capacity                          | $\cos \phi=0.45$ ( $\cos \phi=0.35$ for $I_e > 100$ A) at 440 V 250 A<br>$\cos \phi=0.45$ ( $\cos \phi=0.35$ for $I_e > 100$ A) at 690 V 100 A                                                                                 |
| Maximum Electrical Switching Frequency             | (AC-1) 600 cycles per hour<br>(AC-2 / AC-4) 300 cycles per hour<br>(AC-3) 1200 cycles per hour                                                                                                                                 |
| Rated Insulation Voltage ( $U_i$ )                 | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                                                                                                      |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )      | 8 kV                                                                                                                                                                                                                           |
| Mechanical Durability                              | 10 million                                                                                                                                                                                                                     |
| Maximum Mechanical Switching Frequency             | 3600 cycles per hour                                                                                                                                                                                                           |
| Rated Control Circuit Voltage ( $U_c$ )            | DC Operation 77 ... 143 V                                                                                                                                                                                                      |
| Coil Consumption                                   | Holding DC ( $U_{min}$ / $U_{max}$ ) 2.5 / 8.5 W<br>Pull-in DC ( $U_{min}$ / $U_{max}$ ) 2.5 / 8.5 W                                                                                                                           |
| Operate Time                                       | Between Coil De-energization and NO Contact Opening 10 ... 17 ms<br>Between Coil Energization and NO Contact Closing 50 ... 100 ms                                                                                             |
| Connecting Capacity Main Circuit                   | Flexible with Cable End 0.75 ... 2.5 mm <sup>2</sup><br>Rigid Cable 1 ... 4 mm <sup>2</sup>                                                                                                                                    |
| Connecting Capacity                                | Flexible with Cable End 0.75 ... 2.5 mm <sup>2</sup>                                                                                                                                                                           |

|                                                                 |                                                              |
|-----------------------------------------------------------------|--------------------------------------------------------------|
| Auxiliary Circuit                                               | Rigid Cable 1 ... 4 mm <sup>2</sup>                          |
| Degree of Protection                                            | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Connecting Terminals<br>(delivered in open position) Main Poles | M 3.5 (+,-) pozidriv 2 screw with cable clamp                |
| Terminal Type                                                   | Screw Terminals                                              |

## Environmental

|                                            |                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                    | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... +55 °C                                                                                                                                                                                                                      |
| Climatic Withstand                         | acc. to IEC 60068-2-30 and 60068-2-11 - UTE C 63-100 specification II                                                                                                                                                                                                                                                         |
| Maximum Operating Altitude Permissible     | 3000 m                                                                                                                                                                                                                                                                                                                        |
| Resistance to Shock acc. to IEC 60068-2-27 | Closed, Shock Direction: A 20 K40<br>Closed, Shock Direction: B1 15 K40<br>Closed, Shock Direction: C1 20 K40<br>Closed, Shock Direction: C2 14 K40<br>Open, Shock Direction: A 10 K40<br>Open, Shock Direction: B1 5 K40<br>Open, Shock Direction: C1 8 K40<br>Open, Shock Direction: C2 8 K40<br>Shock Direction: B2 10 K40 |
| RoHS Status                                | Following EU Directive 2011/65/EU                                                                                                                                                                                                                                                                                             |

## Certificates and Declarations (Document Number)

|                                 |                          |
|---------------------------------|--------------------------|
| CB Certificate                  | CB_FR_617239E            |
| CQC Certificate                 | CQC2012010304534830      |
| CSA Certificate                 | CSA_1041746              |
| Declaration of Conformity - CCC | 2020980304001613         |
| Declaration of Conformity - CE  | 1SBD250804U1000          |
| EAC Certificate                 | EAC_RU C-FR ME77 B01010  |
| Environmental Information       | 1SBD250121E1004          |
| GOST Certificate                | GOST_POCCFRME77B07175    |
| Instructions and Manuals        | 1SBC101003M5501          |
| RoHS Information                | 1SBD250804U1000          |
| UL Certificate                  | UL_20160205-E312527-10-2 |
| UL Listing Card                 | UL_E312527               |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 1 piece       |
| Package Level 1 Width          | 86 mm         |
| Package Level 1 Depth / Length | 141 mm        |
| Package Level 1 Height         | 51 mm         |
| Package Level 1 Gross Weight   | 0.52 kg       |
| Package Level 1 EAN            | 3471522317629 |
| Package Level 2 Units          | box 28 piece  |
| Package Level 2 Width          | 300 mm        |
| Package Level 2 Depth / Length | 245 mm        |
| Package Level 2 Height         | 308 mm        |
| Package Level 2 Gross Weight   | 14.56 kg      |

Package Level 3 Units

336 piece

Classifications

|                       |                                           |   |
|-----------------------|-------------------------------------------|---|
| Object Classification |                                           | Q |
| Code                  |                                           |   |
| ETIM 4                | EC000066 - Magnet contactor, AC-switching |   |
| ETIM 5                | EC000066 - Magnet contactor, AC-switching |   |
| ETIM 6                | EC000066 - Power contactor, AC switching  |   |
| ETIM 7                | EC000066 - Power contactor, AC switching  |   |
| eClass                | V11.0 : 27371018                          |   |
| UNSPSC                | 39121529                                  |   |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

