

## PRODUCT-DETAILS

# TAL16-30-01 50-90V DC

## TAL16-30-01 50-90V DC Contactor



### General Information

|                       |                                 |
|-----------------------|---------------------------------|
| Extended Product Type | TAL16-30-01 50-90V DC           |
| Product ID            | 1SBL183061R5501                 |
| EAN                   | 3471522316554                   |
| Catalog Description   | TAL16-30-01 50-90V DC Contactor |

#### Long Description

TAL16 contactors are mainly used for controlling 3-phase motors and generally for controlling power circuits up to 690 V AC or 220 V DC. The contactors can also be used for many other applications such as isolation, capacitor switching, lighting. The TAL... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, 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                               | 3                                                                                                                                                |
| Number of Main Contacts NC                               | 0                                                                                                                                                |
| Number of Auxiliary Contacts NO                          | 0                                                                                                                                                |
| Number of Auxiliary Contacts NC                          | 1                                                                                                                                                |
| Rated Operational Voltage                                | Auxiliary Circuit 690 V<br>Main Circuit 690 V                                                                                                    |
| Rated Frequency (f)                                      | Supply Circuit 50 60 Hz                                                                                                                          |
| Conventional Free-air Thermal Current (I <sub>th</sub> ) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 30 A<br>acc. to IEC 60947-5-1, q = 40 °C 16 A                                                   |
| Rated Operational Current AC-1 (I <sub>e</sub> )         | (690 V) 40 °C 30<br>(690 V) 55 °C 27<br>(690 V) 70 °C 23                                                                                         |
| Rated Operational Current AC-3 (I <sub>e</sub> )         | (415 V) 55 °C 17 A<br>(440 V) 55 °C 16 A<br>(500 V) 55 °C 14 A<br>(690 V) 55 °C 10 A<br>(380 / 400 V) 55 °C 17 A<br>(220 / 230 / 240 V) 55 °C 17 |
| Rated Operational Power AC-3 (P <sub>e</sub> )           | (415 V) 9 kW<br>(440 V) 9 kW<br>(500 V) 9 kW<br>(690 V) 9 kW<br>(380 / 400 V) 7.5 kW<br>(220 / 230 / 240 V) 4 kW                                 |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1       | 8 x I <sub>e</sub> AC-3                                                                                                                          |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1         | 10 x I <sub>e</sub> AC-3                                                                                                                         |
| Rated Operational Current AC-15 (I <sub>e</sub> )        | (500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(380 / 400 V) 3 A                                                         |
| Short-Circuit Protective Devices                         | Auxiliary Circuit - gG Type Fuses 10 A<br>gG Type Fuses 32 A                                                                                     |
| Maximum Breaking Capacity                                | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 250 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 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 Operational Current DC-13 (I <sub>e</sub> )        | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 2 / 144 A<br>(125 V) 1.1 / 138 A<br>(250 V) 0.55 / 138 A                                    |
| Rated Insulation Voltage (U <sub>i</sub> )               | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                        |
| Rated Impulse                                            | 8 kV                                                                                                                                             |

Withstand Voltage ( $U_{imp}$ )

|                                                              |                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mechanical Durability                                        | 10 million                                                                                                                                                                                                                                                              |
| Maximum Mechanical Switching Frequency                       | 3600 cycles per hour                                                                                                                                                                                                                                                    |
| Rated Control Circuit Voltage ( $U_c$ )                      | DC Operation 50 ... 90 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 NC Contact Closing 16 ... 27 ms<br>Between Coil De-energization and NO Contact Opening 10 ... 17 ms<br>Between Coil Energization and NC Contact Opening 20 ... 70 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 Auxiliary Circuit                        | Flexible with Cable End 0.75 ... 2.5 mm <sup>2</sup><br>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 (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 Fitted with Thermal O/L Relay -25 ... +55 °C<br>Close to Contactor without Thermal O/L Relay -40 ... +55 °C<br>Close to Contactor for Storage -60 ... +80 °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_617239B            |
| CCC Certificate                 | CCC_2012010304534830     |
| 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            | 3471522316554 |
| 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 Code | Q                                         |
| 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

