# EO-AB/UT/LED/20 - Socket

0804509

https://www.phoenixcontact.com/us/products/0804509

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Socket, with light indicator, Pin connector pattern type AB 20A, connection method: Screw connection, color: gray, nom. voltage: 125 V AC (60 Hz), nominal current: 20 A, for mounting on a DIN rail in the service interface or direct mounting, standards/specifications: UL 508, IEC 60884-1, Country marking: USA, Canada

## Commercial data

| | |
|---|---|
| Item number | 0804509 |
| Packing unit | 5 pc |
| Minimum order quantity | 5 pc |
| Sales key | BE76 |
| Product key | BE7613 |
| GTIN | 4055626396477 |
| Weight per piece (including packing) | 82.07 g |
| Weight per piece (excluding packing) | 82.07 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

## Technical data

### Notes

General

| | |
|---|---|
| Note | The nominal current does not apply for fuse versions. In this case, the current is determined by the fuse. |

### Product properties

| | |
|---|---|
| Product type | Socket |
| Country ID | USA |
| | Canada |

### Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 1.8 W |

### Connection data

| | |
|---|---|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.5 ... 0.6 Nm |
| Stripping length | 8 mm |
| Internal cylindrical gage | A3 |
| | B3 |
| Conductor cross-section rigid | 0.2 mm² ... 4 mm² |
| Cross section AWG | 24 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section, flexible [AWG] | 24 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.25 mm² ... 2.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve) | 0.2 mm² ... 4 mm² |
| Nominal current | 20 A |
| Nominal voltage | 125 V AC (60 Hz) |

### Signaling

| | |
|---|---|
| Status display | yes |

### Dimensions

| | |
|---|---|
| Width | 45 mm |
| Height | 75 mm |
| Depth | 58.9 mm |
| Depth on NS 35/7,5 | 60 mm |
| Depth on NS 35/15 | 67.5 mm |
| Hole diameter | 4.4 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 | V0 |
| Insulating material | PA |
| Contact material | CuZn38 |
| Static insulating material application in cold | -60 °C |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 |
| Surface flammability NFPA 130 (ASTM E 162) | passed |
| Specific optical density of smoke NFPA 130 (ASTM E 662) | passed |
| Smoke gas toxicity NFPA 130 (SMP 800C) | passed |

## Connector

| | |
|---|---|
| Type of plug | Pin connector pattern type AB 20A |

## Environmental and real-life conditions

### Oscillation/broadband noise

| | |
|---|---|
| Specification | DIN EN 50155 (VDE 0115-200):2022-06 |
| Spectrum | Long life test category 2, bogie-mounted |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 250 Hz |
| ASD level | 6.12 $(m/s^2)^2/Hz$ |
| Acceleration | 3.12g |
| Test duration per axis | 5 h |
| Test directions | X-, Y- and Z-axis |
| Result | Test passed |

### Shocks

| | |
|---|---|
| Specification | DIN EN 50155 (VDE 0115-200):2022-06 |
| Pulse shape | Half-sine |
| Acceleration | 30g |
| Shock duration | 18 ms |
| Number of shocks per direction | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
| Result | Test passed |

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -5 °C ... 40 °C (according to IEC 60884-1, average value over a period of 24 hours not above +35°C) |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |

| | |
|---|---|
| Permissible humidity (storage/transport) | 30 % ... 70 % |
| Resistance against air humidity | 95 % ... 48 h |

## Standards and regulations

Standards

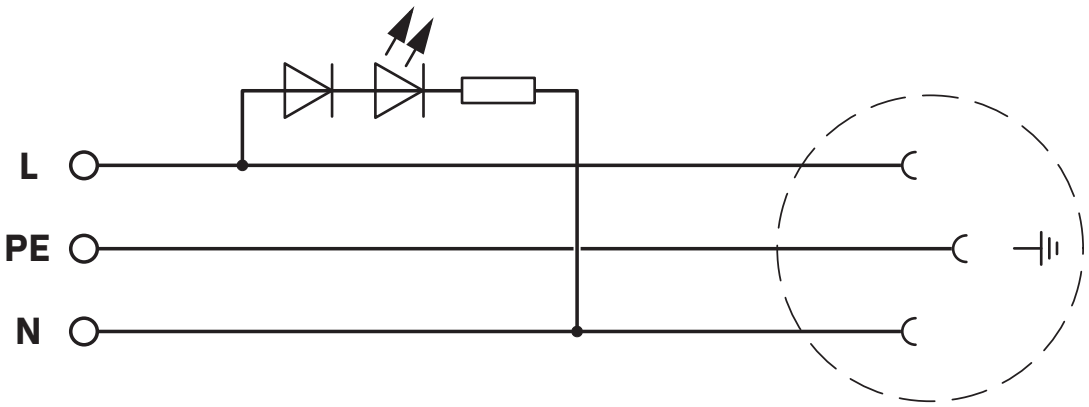
| | |
|---|---|
| Standards/regulations | UL 508 |
| | IEC 60884-1 |

## Mounting

| | |
|---|---|
| Mounting type | for mounting on a DIN rail in the service interface or direct mounting |

## Drawings

Circuit diagram



## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27142305 |
| ECLASS-15.0 | 27142305 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001663 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 56a32314-2065-462b-89a9-417ec1fb4256 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.66 kg CO2e |


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