

B25M Vseries

- Lightning impulse current and surge arresters type T1+T2.
- The products consist of gas discharge tube with high discharge ability.
- Installed at the boundaries of LPZ 0 LPZ 2, in TN-S, TT power supply systems and in a special design also in IT power supply system.
- Balance the potential between the N and PE conductors in 1+1, 3+1 connection modes.
- Ensures zero leakage current through the PE conductor.
- **M** indication specifies a type of construction with removable module.

| SystemTN-S, TTMaximum continuous operating voltage AC U_c 255 VImpulse discharge current for class I test (10/350) N/PE I_{mp} 25 kACharge (N/PE)Q12.5 AsSpecific energy for class I test (N/PE) VIR 156 kJ/QNominal discharge current for class II test (8/20) N/PE I_n 30 kAVoltage protection level at I_{mp} U_p <1.3 kVTemporary overvoltage test (TOV) for $t_T = 0.2$ s (N/PE) U_T 1 200 VResponse time (N/PE) t_a <100 nsFollow current interrupt rating I_n 0.1 kA_msLightning protection zoneILPZ 0-1, LPZ 1-2, LPZ 2-3Housing materialPolyamid PA6, UL94 V-0Degree of protectionIP20Operating temperature 9 $-40 + 70 °C$ Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S $6 mm^2 (L, N)$ (doesn't apply to , V' connection) for T1I6 md264-5-53:2022S $2.5 mm^2$ Clamp fastening range (solid conductor) $2.5 + 25 mm^2$ $2.5 + 25 mm^2$ Clamp fastening range (solid conductor) $2.5 + 25 mm^2$ $3 mm$ InstallationOn DIN rail 35 mmModular widthITEOperating positionAnySignalling at the device $OK -$ green targetFAULT - red targetRemote signalling $K -$ green targetRemote signalling $K -$ green target $K -$ green target | Туре | | B25M Vseries |
|--|--|------------------|----------------------------|
| Aximum continuous operating voltage AC U_c 25 V Impulse discharge current for class I test (10/350) N/PE I_{imp} 25 kA Charge (N/PE)Q 12.5 As Specific energy for class I test (N/PE)W/R 156 kJ/Q Nominal discharge current for class II test (8/20) N/PE I_n 30 kA Voltage protection level at I_{imp} U_p < 1.3 kV Temporary overvoltage test (TOV) for $t_T = 0.2 \text{ s}$ (N/PE) U_T 1200 V Response time (N/PE) t_k < 100 ns | Test class according to EN 61643-11:2012 (IEC 61643-11:2011) | | T1, T2 |
| Impulse discharge current for class I test (10/350) N/PEImp25 kACharge (N/PE)Q12.5 AsSpecific energy for class I test (N/PE)W/R156 k//QNominal discharge current for class II test (8/20) N/PEUp<1.3 kV | System | | TN-S, TT |
| Charge (N/PE)Q12.5 AsSpecific energy for class I test (N/PE)W/R156 kJ/QNominal discharge current for class II test (8/20) N/PEIn30 kAVoltage protection level at ImpUp<1.3 kV | Maximum continuous operating voltage AC | Uc | 255 V |
| NumberWR100 NotesSpecific energy for class I test (N/PE)WR156 kJ/ΩNominal discharge current for class II test (B/20) N/PEIn30 kAVoltage protection level at I_{imp} Up<1.3 kV | Impulse discharge current for class I test (10/350) N/PE | I _{imp} | 25 kA |
| Nominal discharge current for class II test (8/20) N/PEIn30 kAVoltage protection level at ImpUp<1.3 kV | Charge (N/PE) | Q | 12.5 As |
| Voltage protection level at I_{imp} Up a< 1.3 kVTemporary overvoltage test (TOV) for $t_T = 0.2 s$ (N/PE)UT T1 200 VResponse time (N/PE)t_A< 100 ns | Specific energy for class I test (N/PE) | W/R | 156 kJ/Ω |
| Temporary overvoltage test (TOV) for $t_T = 0.2 s$ (N/PE) U_T 1 200 VResponse time (N/PE) t_A < 100 ns | Nominal discharge current for class II test (8/20) N/PE | l _n | 30 kA |
| Response time (N/PE)t_A< 100 nsFollow current interrupt ratingIn0.1 kA,msLightning protection zoneLIPZ 0-1, LPZ 1-2, LPZ 2-3Housing materialPolyamid PA6, UL94 V-0Degree of protection9-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S6 mm² (L, N)(doesn't apply to ,V' connection) for T116 mm² (PE, PEN)16 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S2.5 mm² (L, N)(doesn't apply to ,V' connection) for T26 mm² (PE, PEN)6 mm² (PE, PEN)Clamp fastening range (solid conductor)2.5 ÷ 35 mm²2.5 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²2.5 m²Tightening momentModular widthOn DIN rail 35 mmModular widthITEAnyOperating positionAnyOpticImportance of local signalingOK - green target FAULT - red targetRemote signallingMo> 100 000 h | Voltage protection level at I _{imp} | Up | < 1.3 kV |
| Follow current interrupt ratingImm0.1 kArmsLightning protection zoneILPZ 0-1, LPZ 1-2, LPZ 2-3Housing materialPolyamid PA6, UL94 V-0Degree of protectionIP20Operating temperature9-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S(doesn't apply to "V" connection) for T1Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S(doesn't apply to "V" connection) for T2S(doesn't apply to "V" connection) for T2SClamp fastening range (solid conductor)2.5 ÷ 35 mm²Clamp fastening range (solid conductor)2.5 ÷ 25 mm²Tightening moment4 NmInstallationOn DIN rail 35 mmModular width1 TEOperating positionAnySignalling at the deviceOK - green target FAULT - red targetRemote signallingNoLifetime> 100 000 h | Temporary overvoltage test (TOV) for $t_T = 0.2 \text{ s} (N/PE)$ | U _T | 1 200 V |
| Lightning protection zoneLPZ 0-1, LPZ 1-2, LPZ 2-3Housing materialPolyamid PA6, UL94 V-0Degree of protection9-40 ÷ 70 °COperating temperature9-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,V" connection) for T1S6 mm² (L, N) 16 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,V" connection) for T2S2.5 mm² (L, N) 6 mm² (PE, PEN)Clamp fastening range (solid conductor) Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²2.5 ÷ 25 mm²Tightening moment InstallationOn DIN rail 35 mmModular width1 TEOperating positionManyAnyAnySignalling at the device Importance of local signalingOK – green target FAULT – red targetOK – green target FAULT – red targetRemote signalling> 100 000 h | Response time (N/PE) | t _A | < 100 ns |
| Housing materialPolyamid PA6, UL94 V-0Degree of protection9-40 ÷ 70 °COperating temperature9-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,,V" connection) for T1S6 mm² (L, N) 16 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,,V" connection) for T2S2.5 mm² (L, N) 6 mm² (PE, PEN)Clamp fastening range (solid conductor)22.5 ÷ 35 mm²2.5 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²2.5 mm²Tightening momentM4 NmInstallationOn DIN rail 35 mmModular widthIn TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK - green target FAULT - red targetRemote signallingMoLifetime> 100 000 h | Follow current interrupt rating | l _{fi} | 0.1 kA _{rms} |
| Degree of protectionIP20Operating temperature\$-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S6 mm² (L, N) 16 mm² (PE, PEN)(doesn't apply to ",V" connection) for T116 mon² (DE, PEN)52.5 mm² (L, N) 6 mm² (PE, PEN)(doesn't apply to ",V" connection) for T2S2.5 ÷ 35 mm²2.5 mm²(clamp fastening range (solid conductor)2.5 ÷ 35 mm²2.5 ÷ 35 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²3Tightening momentM4 NmInstallationOn DIN rail 35 mmModular width1 TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK – green target FAULT – red targetRemote signallingNoLifetime> 100 000 h | Lightning protection zone | | LPZ 0-1, LPZ 1-2, LPZ 2-3 |
| Operating temperature9-40 ÷ 70 °CMinimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S6 mm² (L, N)(doesn't apply to "V" connection) for T116 mm² (PE, PEN)16 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022S2.5 mm² (L, N)(doesn't apply to "V" connection) for T22.5 ÷ 35 mm²2.5 mm² (L, N)Clamp fastening range (solid conductor)2.5 ÷ 35 mm²2.5 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²3Tightening moment4 Nm4 NmInstallationOn DIN rail 35 mmModular width1 TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK - green target FAULT - red targetRemote signallingNoLifetime> 100 000 h | Housing material | | Polyamid PA6, UL94 V-0 |
| Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,,V" connection) for T1S6 mm² (L, N) 16 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,,V" connection) for T2S2.5 mm² (L, N) 6 mm² (PE, PEN)Clamp fastening range (solid conductor)2.5 ÷ 35 mm²2.5 ÷ 35 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²Tightening moment4 NmInstallationOn DIN rail 35 mmModular width1 TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK - green target FAULT - red targetRemote signalling> 100 000 h | Degree of protection | | IP20 |
| (doesn't apply to ,,V" connection) for T116 mm² (PE, PEN)Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to ,,V" connection) for T2S2.5 mm² (L, N) 6 mm² (PE, PEN)Clamp fastening range (solid conductor)2.5 ÷ 35 mm²2.5 ÷ 35 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²3Tightening moment0n DIN rail 35 mm4 NmInstallation0n DIN rail 35 mm1Modular width11 TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK - green target FAULT - red targetLifetimeiNo | Operating temperature | θ | -40 ÷ 70 °C |
| (doesn't apply to "V" connection) for T26 mm² (PE, PEN)Clamp fastening range (solid conductor)2.5 ÷ 35 mm²Clamp fastening range (stranded conductor)2.5 ÷ 25 mm²Tightening moment4 NmInstallationOn DIN rail 35 mmModular width1 TEOperating positionAnySignalling at the deviceOpticImportance of local signalingOK – green target FAULT – red targetRemote signallingNoLifetime> 100 000 h | Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T1 $$ | S | |
| Clamp fastening range (stranded conductor) 2.5 ÷ 25 mm² Tightening moment 4 Nm Installation On DIN rail 35 mm Modular width 1 TE Operating position Any Signalling at the device Optic Importance of local signaling OK – green target FAULT – red target Remote signalling No Lifetime > 100 000 h | Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T2 | S | |
| Tightening moment 4 Nm Installation On DIN rail 35 mm Modular width 1 TE Operating position Any Signalling at the device Optic Importance of local signaling OK – green target FAULT – red target Remote signalling No Lifetime > 100 000 h | Clamp fastening range (solid conductor) | | $2.5 \div 35 \text{ mm}^2$ |
| Installation On DIN rail 35 mm Modular width Operating position Any Signalling at the device Optic Optic Importance of local signaling OK - green target FAULT - red target FAULT - red target Signalling At the device OF Optic Opt | Clamp fastening range (stranded conductor) | | $2.5 \div 25 \text{ mm}^2$ |
| Modular width 1 TE Operating position Any Signalling at the device Optic Importance of local signaling OK - green target FAULT - red target Remote signalling No Lifetime > 100 000 h | Tightening moment | | 4 Nm |
| Operating position Any Signalling at the device Optic Importance of local signaling OK - green target FAULT - red target Remote signalling No Lifetime > 100 000 h | Installation | | On DIN rail 35 mm |
| Signalling at the device Optic Importance of local signaling OK - green target FAULT - red target Remote signalling No Lifetime > 100 000 h | Modular width | | 1 TE |
| Importance of local signaling OK - green target FAULT - red target Remote signalling No Lifetime > 100 000 h | Operating position | | Any |
| FAULT - red target Remote signalling Lifetime > 100 000 h | Signalling at the device | | Optic |
| Lifetime > 100 000 h | Importance of local signaling | | |
| | Remote signalling | | No |
| Modular design Yes | Lifetime | | > 100 000 h |
| | Modular design | | Yes |

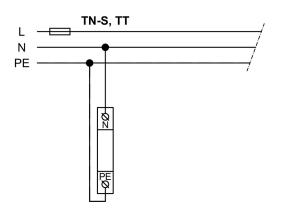


| Туре | | B25M Vseries |
|---|---|----------------------|
| Article number of spare module | | 16 041 |
| Designed according to standards | | |
| Requirements and test methods for SPDs connected to low-voltage power systems | | IEC 61643-11:2011 |
| Safety of Flammability of Plastic Materials | | UL 94 |
| Application standards | | |
| Protection against lightning | | IEC 62305:2010 |
| Selection and erection of electrical equipment - Switchgear and controlgear | | HD 60364-5-53:2022 |
| Selection and application principles for SPDs connected to low-voltage power systems | | CLC/TS 61643-12:2009 |
| Ordering, packaging and additional data | | |
| Mass | m | 73 g |
| Mass (including the packaging) | m | 85 g |
| Packaging dimensions (H x W x D) | | 25 x 112 x 87 mm |
| Packaging value | V | 0.24 dm ³ |
| Customs tariff no. | | 85363010 |
| EAN code | | 8590681119396 |
| Art. number | | 16 040 |
| The link in the QR code leads to the online presentation of the B25M Vseries. There, in addition to the always up-to-date data sheet, you will also find all diagrar and drawings, declarations of conformity, or 2D or 3D models and other necessary | | |



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Application wiring diagram (installation)



Internal diagram

