

15327000	DATA SHEET	
valid from 2025-04-22	ÖLFLEX® TRAIN 327 C TW-E 300V	

Application

ÖLFLEX® TRAIN 327 C TW-E are halogen-free, highly flame retardant cables with reduced insulation wall thickness for use in railway vehicles.

They are designed for fixed installation and for applications, where limited movement may occur.

They are particularly used in areas, where human life as well as valuable property are exposed to high risk of fire hazards.

ÖLFLEX® TRAIN 327 C TW-E are oil-, fuel-, acid- and alkali resistant acc. to EN 50306-4.

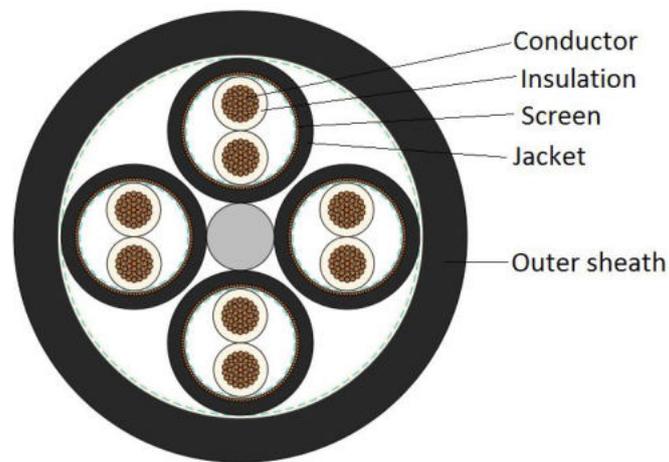
Relevant for the installation are the indications in EN 50355 and EN 50343.

The screen is a protection against electrical interference.

Application range:

railway vehicles, control and monitoring circuits as well as locking circuits and internal wiring of equipment in trains and locomotives

Design



Design	acc. to EN 50306-4, class 5E
Norm references	EN 50306-4. Code designation MM S MM = extra low temperature, extra oil and fuel resistant
Classification	EN 45545-2: Hazard Level HL1, HL2, HL3 NF F 16-101: Internal Category A1, A2, B External Category A1, A2, B Category C for flame propagation Category F1 for smoke
Conductor	tinned- copper strand, 19 or 37 wires, SRC (Special Round Conductor) acc. to EN 50306-2
Core isolation	electron beam cross-linked polymer compound acc. to EN 50306-2
Core identification	white cores with black numbers acc. to DIN EN 50334
Pairs	braid of tinned copper wires, coverage = 85% (nominal value) jacket: electron beam cross-linked polymer compound S2
Outer sheath	electron beam cross-linked polymer compound, halogen free and flame retardant, EM 104 acc. to EN 50264-1 colour: Black, similar RAL 9005

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Electrical properties at 20 °C

Nominal voltage	U ₀ / U: 300/500 V AC acc. to EN 50306 U _m : 550V AC acc. to EN 50355 U ₀ / U: 600/1000 V AC
Test voltage	core/core and core/screen: 3.5 kV AC or 8.4 kV DC

Mechanical and thermal properties

Min. bending radius	Outer diameter ≤ 12.0 mm: 5 x outer diameter for cautions bending (one bend at end of core): 4 x outer diameter Outer diameter > 12.0 mm: 6 x outer diameter for cautions bending (one bend at end of core): 5 x outer diameter
Temperature range	-40 °C up to +90 °C max. conductor temp. up to +120 °C max. conductor temp. (20.000h) -50°C acc. to GOST 33326-2015 and GOST 20.57.406-81 (method 203-1 and 205-1)
Short circuit temperature	max. +160°C (5s)

Fire protection acc. to EN 50306-4 / EN 45545-2:

Classification	EN 45545-2: Hazard Level HL1, HL2, HL3
Flammability	Flame retardand acc. to IEC 60332-1-2 resp. EN 60332-1-2 No flame propagation acc. to: ≥ 12 mm: IEC 60332-3-24 resp. EN 60332-3-24 > 6 mm und < 12mm: IEC 60332-3-25 resp. EN 60332-3-25 ≤ 6 mm: EN 50305, clause 9.1.2
Smoke density	acc. to EN 50306-1. light transmission: min. 70% acc. to IEC 61034-2 resp. EN 61034-2
Halogen-free	acc. to IEC 60754-1 resp. EN 60754-1(chlorine and bromine) acc. to EN 60684-2 (fluorine)
Corrosivity	acc. to EN 50264-1. pH ≥ 4.3 and conductivity ≤ 10µS/mm acc. to IEC 60754-2 resp. EN 60754-2
Toxicity	acc. to EN 50306-1: ≤ 3 EN 50305 EN 45545-2: ≤ 6

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