

Certification Update

CONNECT AND PROTECT

nVent ERIFLEX Power & Distribution Blocks EN 45545-2 Certified



EN 45545-2
Material Fire Protection
on Railway Vehicles

Solutions that Meet Key Railway Fire Safety Standards

nVent ERIFLEX Distribution & Power Blocks (UD, BD, TD & SB Series) **ARE NOW CERTIFIED TO MEET EN 45545-2***

*European Standard (EN) for fire protection on railway vehicles, from The European Committee for Standardization



INNOVATIVE CONNECTIONS CERTIFIED FOR RAIL

nVent ERIFLEX Power Blocks are the main DIN-mounted output/input devices for connection between primary and secondary switchboard, or main input/output connection for machine or industrial equipment, including wayside and onboard railway electrical panels. nVent ERIFLEX Distribution Blocks provide a solution for connecting conductors of various voltages, etc. By meeting EN 45545-2 standards, nVent ERIFLEX Distribution & Power Blocks (UD, BD, TC & SB Series) are compliant with European material fire performance standards for rolling stock, making it the idea solution for in onboard systems.

EN 45545-2 TESTING & REQUIREMENTS

- nVent ERIFLEX ensures compliance with EN-45545-2 [Part 2: Requirements for fire behavior of materials and components, etc.] through in-house and **THIRD PARTY** testing.
- Within the EN-45545-2 standard, Vehicles are classified as: HL1, HL2 or HL3 depending on their time in tunnels and whether they contain sleeper cars. The HL1 classification represents the lowest Hazard Level and HL3 represents the highest. This standard provides guidance to quantify the impact of a fire compared with the product requirements classification.
- nVent ERIFLEX Blocks comply with the EN45545-2:2013 standard on fire testing of materials and components for trains obtaining an HL3 classification for chapters R23 and a compliance HL2 for chapter R22. These standards are in place to mitigate the risk of fires, including reducing the potential that components and structures will catch on fire, and putting measures in place to prevent or delays its spread. Thus, these standards improve safety for passengers and rail personnel alike.
- There are 3 tests used to establish product performance versus these product requirements, (1) Oxygen index to T01 EN ISO 4589-2, (2) Flue gas density to T 10.03 EN ISO 5659, (3) Oxygen index to T 12 NF X70-100-1 and -2. Performance requirements on EN 45545-2 for each of these tests are summarized on the following table.

				HL1	HL2	HL3
R22	T01 EN ISO 4589-2 OI	Oxygen Content %	Minimum	28	28	32
	T10.03 EN ISO 5659-2: 25 kWm	Ds max. dimensionless	Maximum	600	300	150
	T12 NF X70-100-1: and -2, 600°C	CI Tnlp dimensionless	Maximum	1.2	0.9	0.75
R23	T01 EN ISO 4589-2: OI	Oxygen Content %	Minimum	28	28	32
	T10.03 EN ISO 5659-2: 25 kWm ²	Ds max. dimensionless	Maximum	–	600	300
	T12 NF X70-100-1 and -2, 600°C	CI Tnlp dimensionless	Maximum	–	1.8	1.5

NVENT ERIFLEX ADVANCED TECHNOLOGY

Power & Distribution Blocks feature nVent ERIFLEX Advanced Technology, which denotes solutions in the nVent ERIFLEX product line with material compositions and insulation that are low smoke, halogen free and flame retardant. nVent ERIFLEX Advanced Technology solutions are safe for use in electrical equipment with high working temperatures. Other nVent solutions featuring Advanced Technology include nVent ERIFLEX Flexibar Advanced flexible busbar as well as IBSB Advanced insulated braided power conductor.



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