



Databus

RADOX MARINE DATABUS 120 OHM 2x0.75mm²

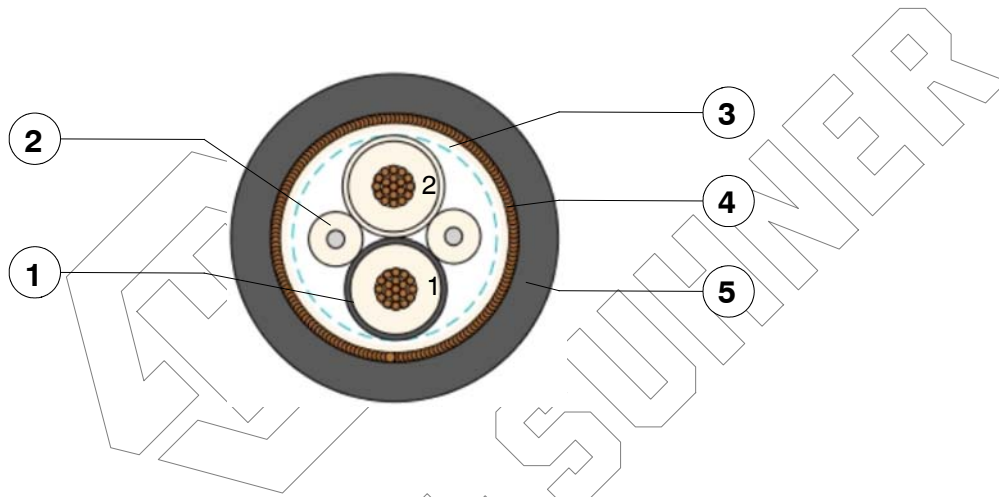
General Properties :

Limited fire hazard electrical installation cable, zero halogen, flame retardant; high temperature, low temperature and ozone resistance, solder iron resistant, easily strippable, flexible, excellent screening properties.

Cable for symmetrical data transmission with impedance of 120 Ω with very good transmission properties at high frequencies.

Application :

For permanent installation inside of ships to connect fixed parts.



1. 2 cores 0.75mm²

Conductor: flexible tin plated copper 19 x 0.22 mm
Insulation: RADOX foam D : 2.65 mm
cross-linked foam skin polyethylene
type C modified, acc.to EN 50290-2-23 and EN 50290-2-29
thickness, nom. 1.0 mm
thickness, min. 0.85 mm
Colours and numbering: black no.1, white no.2

2. 2 fillers

PE-LD

3. Wrapping

PP-tape

4. EMC - Screen optimised

Braid: Tin plated copper

D : 6.5 mm

5. Sheath

RADOX Elastomer S FH
type SHF2, acc. to IEC 60092-360 and
type SHF MUD, acc.to NEK TS 606
thickness, nom. 0.8 mm
thickness, min. 0.62 mm
Colour : black

D : 8.5 ± 0.3 mm

Printing on sheath: HUBER+SUHNER RADOX MARINE DATABUS 120 OHM 2X0.75MM2 SHF2 SHF MUD 90C

IEC 60332-1-2 IEC 60332-3-22 85063638-[batch. no.] [date of manufacture] [prod.- place]

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The product fulfils the test and specification requirements described in this document for the stated areas of application and operating conditions. HUBER+SUHNER AG does not expressly or implicitly guarantee performance under additional or changed conditions. Deviations are to be agreed upon in writing.

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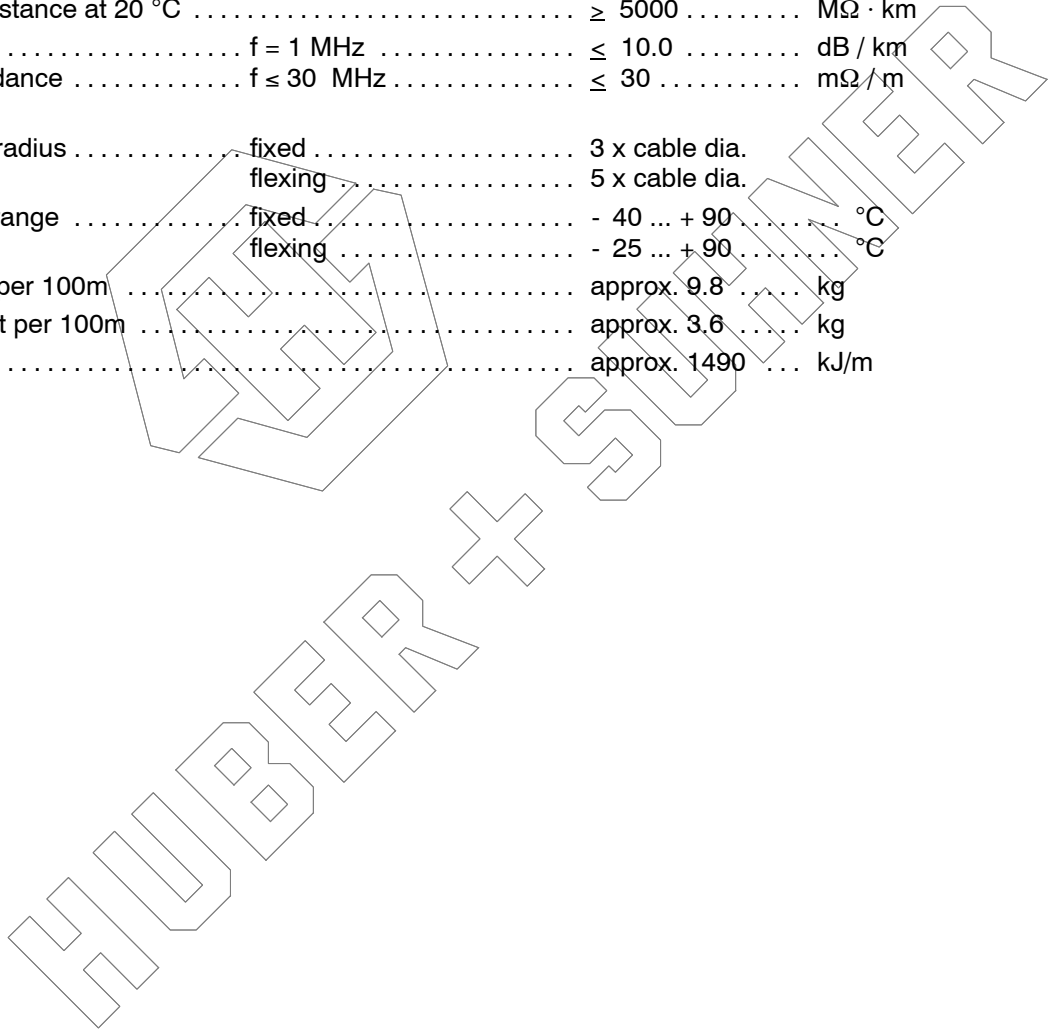
Technical Datasheet
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85 063 638 J (e)



Technical Data :

| | | | | |
|--------------------------------|------------------|----------------|-------|---------|
| Conductor resistance at 20 °C | | ≤ 26.7 | | Ω / km |
| Voltage rating | | 300 | | V AC |
| Test voltage, 5 min. | ..... | 2 000 | ..... | V AC |
| Mutual capacitance wire/wire | ..... | 38 ± 3 | ..... | pF / m |
| Characteristic Impedance | f = 1 MHz | 120 ± 10 | ..... | Ω |
| Velocity factor | f = 1 MHz | 77± 3 | ..... | % |
| Insulation resistance at 20 °C | ..... | ≥ 5000 | ..... | MΩ · km |
| Attenuation | f = 1 MHz | ≤ 10.0 | ..... | dB / km |
| Transferimpedance | f ≤ 30 MHz | ≤ 30 | ..... | mΩ / m |
| Min. bending radius | fixed | 3 x cable dia. | | |
| | flexing | 5 x cable dia. | | |
| Temperature range | fixed | - 40 ... + 90 | ..... | °C |
| | flexing | - 25 ... + 90 | ..... | °C |
| Cable weight per 100m | ..... | approx. 9.8 | ..... | kg |
| Copper weight per 100m | ..... | approx. 3.6 | ..... | kg |
| Fire load | ..... | approx. 1490 | ..... | kJ/m |



**The cable sheath pass the following fluid tests**

| | | |
|--------------------------------|--------------------------|-------------------|
| Enhanced oil resistance | Category b/Code E | NEK TS 606 |
| Mineral oil type IRM 902 | 7 d / 100 °C | NEK TS 606, 4.4.1 |
| Mineral oil type IRM 903 | 7 d / 100 °C | NEK TS 606, 4.4.1 |

| | | |
|--|--------------------------|-------------------|
| Mud resistance | Category c/Code M | NEK TS 606 |
| Calcium bromide brine (50 % CaBr ₂ content) | 56 d / 70 °C | NEK TS 606, 4.4.1 |
| Base oil EDC 95- 11 | 56 d / 70 °C | NEK TS 606, 4.4.1 |

| | | |
|--------------------------------|------------------|------------------------|
| Enhanced oil resistance | Fulfilled | IEC 60092-360 |
| Mineral oil type IRM 902 | 7 d / 100 °C | IEC 60092-360, table 9 |

| | | |
|--|------------------|-------------------------|
| Drilling fluid resistance | Fulfilled | IEC 60092-360 |
| Mineral oil type IRM 903 | 7 d / 100 °C | IEC 60092-360, table 10 |
| Calcium bromide brine (50 % CaBr ₂ content) | 56 d / 70 °C | IEC 60092-360, table 10 |

The cable pass the following fire tests

| | | |
|---|------------------------|----------------------|
| Fire protection in ships | Fulfilled | IEC 60092-376 |
| Vertical flame spread of a single cable | 50 < L ≤ 540 mm | IEC 60332-1-2 |
| Smoke density | T ≥ 70 % | IEC 61034-2 |
| Vertical flame spread, bunched cables | L ≤ 2.5 m | IEC 60332-3-22 |
| Corrosivity of combustion gases | pH ≥ 4.3, C ≤ 10 μS/mm | IEC 60754-2 |
| Amount of halogen acid gas | HCl+HBr ≤ 0.5% | IEC 60754-1 |
| Content of fluorine | HF ≤ 0.1 % | IEC 60684-2, 45.2 |

Applicable standards :

| | |
|---------------|--|
| EN 50290-2-23 | Communication cables - Part 2-23: Common design rules and construction - PE insulation |
| EN 50290-2-29 | Communication cables - Part 2-29: Common design rules and construction - Cross-linked PE insulation compounds |
| IEC 60092-360 | Electrical installations in ships - Part 360: Insulating and sheathing materials for shipboard and offshore unit, power, control, instrumentation and telecommunication cables |
| IEC 61156-1 | Multicore and symmetrical pair/quad cables for digital communications - Part 1: Generic specification |
| NEK TS 606 | Cables for offshore installation, halogen-free, low smoke, flame- retardant |

Approvals :

| | |
|--------|-----------------------|
| DNV GL | Certification pending |
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