

H07RN8-F

valid from: 2010-04-15

APPLICATION

HD 516

H07RN8-F is a heavy-duty, rubber-sheathed cable to be used with heavy appliances such as tool and agricultural machinery subject to high levels of stress in premises exposed to dry and damp conditions as well as in free air, in industrial environment and in water, except of drinking water and dependent from the composition of the industrial water. This cable is specified and tested for temporary immersion in water down to 10 m depth. Typically, H07RN8-F is used as motor supply cable for submersible pumps. Continuous, busy movements or strain above 15 N per cumulative, total cable cross section of a H07RN8-F cable in sq.mm are not allowed for H07RN8-F.

Permissible voltages (U_0/U)	HD 22.1, HD 22.16
(Rated voltage class 07)	
Phase-to-ground (U_0)	450 V AC/675 V DC
Phase-to-phase (U)	750 V AC/1125 V DC
Operating voltage	At most 10 % above these rated alternating and direct voltages

DESIGN

HD 22.16

Conductor material	Bare copper strands
Stranding/conductor class	Fine-wire strand/conductor class 5 according to IEC 60228
Cross-linked conductor insulation material	Rubber compound EI 4 in line with EN 50363-1; extruded
Standard conductor colour and marking	Up to 5 conductors: Coloured insulation in compliance with HD 308 From 6 conductors: Black insulation with white numeration marked on
Conductor arrangement	Stranded/twisted with each other
Cross-linked outer jacket material	Single-layered: Rubber compound EM 2 acc. EN 50363-2-1 Double-layered: Inner layer: Rubber EM 2 or EM 3 acc. EN 50363-2-1 Outer sheath: Rubber compound EM 2 acc. EN 50363-2-1
Colour outer sheath	Black (BK), if not ordered differently
Dismantling ability	Possible without damaging of the conductor insulations

CABLE MARKING/CABLE CERTIFICATION

In case of harmonised versions/items → Construction type token according to HD 22.16: "H07RN8-F"
H07RN8-F ◀HAR▶ certification in compliance with HD 22.16
◀HAR▶ testing and certification sign according to HD 22.16 & HD 22.1

This cable complies with the European Directive 2006/95/EG (European low voltage directive).

ELECTRICAL PROPERTIES AT +20 °C (± 15 °C) (EN 50395)

Nominal voltage U_0/U	450/750 V AC
Test voltage	2500 V AC

MECHANICAL AND THERMAL PROPERTIES

Conductor temperature range	Flexible use: -25 °C to +60 °C Fix installation: -40 °C to +60 °C
Water temperature when submersed	+40 °C maximally
Minimum cable bending radius	HD 516 S2, table 6 (c)
Flame retardance	IEC 60332-1-2/EN 60332-1-2
Oil resistance	EN 50363-2-1, EN 60811-2-1-10
Tests	Each only with H07RN8-F-relevant sections according to HD 22.16: EN 50396, EN 50395, EN 50363, EN 60811
Ozone resistance	Not ozone-resistant
Water resistance	HD 22.16 appendices B + C, EN 60811-1-1.9.2.3, HD 516, IEC 60502-1