

- Construction & tests: **EN 50525-2-11, IEC 60227-5**
- Low voltage directive: **2014/35/UE**
- CPR Regulation (EU) n° 305/2011: Reaction to fire (**Eca**)
- **AENOR <HAR>** and **IEC** certification (n° 042/000419, HAR/000318 and ES2248)
- **RoHS** compliant

1. CARACTÉRISTIQUES TECHNIQUES / TECHNICAL FEATURES

1.1. Technical designation

H05VV-F

1.2. Rated voltage (Uo/U)

300 / 500 V C.A.

1.3. Maximum permitted voltages against rated voltage of cable

A.C.		D.C.	
Conductor-earth	Conductor-conductor	Conductor-earth	Conductor-conductor
320 V	550 V	410 V	820 V

1.4. Maximum conductor temperature

Normal operation

70°C (60°C) *

Short circuit (t ≤ 5 s):

160°C (150°C) *

**The maximum conductor operating temperature of 60 °C considers the stated recommendations for use. H05VV-F cable can work at a maximum conductor operating temperature of 70 °C service when it is used inside equipment, or it can be guaranteed that there will be no contact with the skin.*

1.5. Test de tension / Voltage test

(A.C. - Alternating current) → 2 kV

1.6. Reaction to fire. Standards

- Declared performances: **E_{ca}** → EN 50575:2014+A1:2016
- DoP: ME05VV-F
- System AVCP: **3**
- Notified body: **1722**
- Flame retardant:
UNE-EN 60332-1-2 / EN 60332-1-2 / IEC 60332-1-2 (H≤425 mm)

ME05VV-F:

- 2x0,75 / 2x1 / 2x1,5 / 2x2,5 / 2x4 mm²
- 3x0,75 / 3x1 / 3x1,5 / 3x2,5 / 3x4 mm²
- 3G0,75 / 3G1 / 3G1,5 / 3G2,5 / 3G4 mm²
- 4x0,75 / 4x1 / 4x1,5 / 4x2,5 / 4x4 mm²
- 4G0,75 / 4G1 / 4G1,5 / 4G2,5 / 4G4 mm²
- 5G0,75 / 5G1 / 5G1 / 5G2,5 / 5G4 mm²
- 6,0 ≤ d ≤ 21 mm

For plus information, please check out "CPR/DoP" section in our website.

The packaging labels of these cables include the CE marking according to the CPR Regulation ((EU) N° 305/2011) articles 8 and 9.

1.7. Other fire performance features

Flame retardant: UNE-EN 60332-1-2, EN 60332-1-2 and IEC 60332-1-2

2. CABLE DESCRIPTION

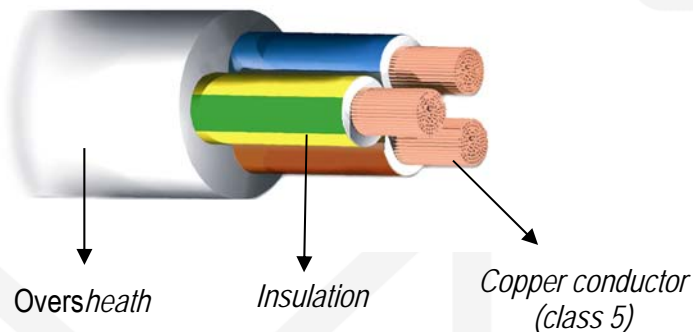
2.1. Construction

Based on the Spanish/European/International standards UNE-EN 50525-2-11 / EN 50525-2-11 / IEC 60227-5.
Multicore cables: From 2 to 5 cores. S= From 0,75 to 4 mm².

- Conductor
Flexible, annealed, plain copper conductor, class 5 acc. to standards UNE-EN 60228 / EN 60228 / IEC 60228. Suitable for mobile service.
- Insulation
Polyvinyl chloride insulation (PVC) type TI 2 acc. to European Standard EN 50363-3.
 - Identification of cores acc. to HD 308 S2.
 - The cores are twisted together helically.
- Oversheath
Polyvinyl chloride oversheath (PVC) type TM 2 acc. to the European Standard EN 50363-4-1.
Colour: White, black or gray

2.2.

Design



NOTE: Oversheath colour: White, black or gray.

2.3. Marking

AENOR < HAR > MIGUELEZ BARRYFLEX-MAN H05VV-F **NXS** mm2 E-022-01-88034
Made in Spain clase Eca EN 50575

AENOR < HAR > MIGUELEZ BARRYFLEX-MAN H05VV-F **NGS** mm2 E-022-01-88034
Made in Spain clase Eca EN 50575

- N**: Number of cores.
- X**: Without a green/yellow core.
- G**: With a green/yellow core.
- S**: Cross-sectional area of the conductor (mm²).

The packaging labels of these cables include the CE marking according to the CPR Regulation ((UE) N° 305/2011) articles 8 and 9.

3. APPLICATIONS

3.1. Type of installation

Mobile & Fixed installation.

3.2. User 's guide

In domestic premises and offices, for ordinary duty applications and household appliances, including in damp premises (e.g., vacuum cleaners, washing machines, spin dryers and refrigerators).

These cables are also appropriate for cooking and heating apparatus, provided that the cable does not come into direct contact with the hot parts of the apparatus or with any other heat source.

3.3. Suitable methods of installation

Ordinary and normal service. Harmonized flexible cables for indoor use, ideal for domestic appliances such as washing machines, tumble dryers etc. They can be used when risks of mechanical injuries and efforts are weak.

This situation can be found in the use of machines of small and medium dimensions in domestic commercial equipment and light industry.

3.4. Conditions of use (EN 50565-1 & 2):

Mobile service - Duty: Ordinary.

Frequent flexing.

AD2. Suitable for use in presence of water. Probability of drops falling vertically

AF3. Suitable in presence of corrosive or polluting substances. Submitted intermittently or accidentally corrosive or polluting substances.

AG1. Mechanical resistance to impacts – Low

AN1. Intermittent and temporary periods of short duration. Use outdoors for temporary periods of short duration.

For example, for connection of appliances such as lawn mowers.

- Maximum cable surface temperature: + 50 °C
- Maximum storage temperature: + 40 °C
- Minimum installation and handling temperature: + 5 °C

- Minimum bending radii (mm):

	Ambient temperature: 20 ± 10 °C			
	Cable diameter (mm) D ≤ 8	Cable diameter (mm) 8 < D ≤ 12	Cable diameter (mm) 12 < D ≤ 20	Cable diameter (mm) D > 20
Fixed installation	3 x D	3 x D	4 x D	4 x D
Free movement	5 x D	5 x D	6 x D	6 x D
At inlet of portable appliance or mobile equipment (a)	5 x D	5 x D	6 x D	6 x D
Repeated reeling	7 x D	7 x D	8 x D	8 x D
D = the overall diameter of round cables.				
(a) No mechanical load on the cable.				

- Tension (tensile stress): The tension applied to a cable shall not exceed the following values of tensile stress per conductor, subject to a total maximum tensile force of 1 000 N:
 - 15 N/mm² under static tensile stress

In circumstances where a stress exceeding these values would result, a separate stress-bearing member or device shall be used. The method of attaching such a member or device to the cable shall be such that the cable is not damaged.

4. DIMENSIONAL CHARACTERISTICS

Code*	No. of cores & nominal cross-sectional area mm ²	Insulation thickness mm	Overall Ø mm	Total Weight kg/km	Maximum D.C. resistance at 20°C Ω/km	Current rating EN 50565-1 Ambient temperature: 30°C A
8201020-750	2 X 0,75	0,6	6,1	55	26	6
82010200010	2 X 1	0,6	6,5	60	19,5	10
82010201-50	2 X 1,5	0,7	7,5	80	13,3	16
82010202-50	2 X 2,5	0,8	9,0	119	7,98	25
82010200040	2 X 4	0,8	10,4	160	4,95	32
8201031-750	3 G 0,75	0,6	6,5	65	26	6
82010310010	3 G 1	0,6	7,0	74	19,5	10
82010311-50	3 G 1,5	0,7	8,1	101	13,3	16
82010312-50	3 G 2,5	0,8	10,0	155	7,98	25
82010310040	3 G 4	0,8	11,3	250	4,95	32
8201041-750	4 G 0,75	0,6	7,2	79	26	6
82010410010	4 G 1	0,6	7,9	94	19,5	10
82010411-50	4 G 1,5	0,7	9,3	131	13,3	16
82010412-50	4 G 2,5	0,8	10,8	185	7,98	20
82010410040	4 G 4	0,8	12,4	260	4,95	25
8201051-750	5 G 0,75	0,6	8,2	95	26	6
82010510010	5 G 1	0,6	8,6	120	19,5	10
82010511-50	5 G 1,5	0,7	10,2	164	13,3	16
82010512-50	5 G 2,5	0,8	12,1	232	7,98	20
82010510040	5 G 4	0,8	14,0	330	4,95	25

*Short product code. Must be filled in with the corresponding characters for "outer layer colour code" and 'packaging code'.
 Check our 'Product coding' section in the technical annexes of our catalogue or in our website: www.miguelélez.com

** Total weight and overall diameter values are approximate and subject to normal manufacturing tolerances.

5. IDENTIFICATION

Oversheath colour: Black, white or grey.

The identification of cores is acc. to the standards HD 308 S2 and UNE 21089-1.

