- Standards (construction & tests): **EN 50525-2-31 & IEC 60227-3.**
- Compliance with the Low Voltage Directive (LVD): **2014/35/UE**
- CPR Regulation nº 305/2011/UE (cable): **Reaction to fire (E_{ca})**
- Certification: **AENOR <HAR>** & **IEC**.
- RoHS compliant

1. TECHNICAL FEATURES

1.1. Technical designation
H07V-K *(conductor – flexible class 5)* → *correspondence with "60227 IEC 02".*

1.2. Rated voltage
450 / 750 V C.A.

1.3. Maximum admissible voltages (EN 50565-1):

Alternating current (A.C.)		Direct current (D.C.)	
Phase conductor and earth	Two phase conductors	Phase conductor and earth	Two phase conductors
480	825	620	1.240

1.4. Maximum conductor temperature
- In normal operation: 70 ºC
- Short circuit (t≤5s): 160 ºC

1.5. Voltage test
2,5 kV A.C.

1.6. Reaction to fire. Standards
- Declared performances: **E_{ca}** → Reaction to fire classification (CPR - EN 50575 & EN 13501-6).
- DoP: MEH07VK.
- Classified range: From 1,5 up 240 mm^2.
- AVCP system: **3**
- Notified body: **1722**
- Intended use/es: Cable for general applications in construction works subject to reaction to fire requirements.

  Download the Declaration of Performance (DoP) in our website www.miguelez.com

- Other fire performance features (when CPR Regulation is not applicable):
  - Flame retardant: IEC 60332-1-2.

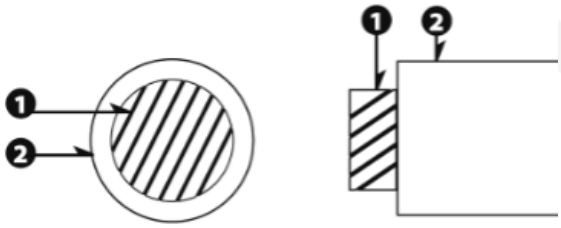
2. CONSTRUCTIVE DESCRIPTION

2.1. Construction

BARRYFLEX H07V-K is manufactured according to European standard EN 50525-2-31 and International standard IEC 60227-3.

- Conductor
  Flexible, annealed copper conductor, class 5 according to the standards EN 60228 & IEC 60228.
  Cross-sectional area: From 1,5 up to 240 mm^2.
- Insulation
  Polyvinyl chloride (PVC) type TI1 according to the European standard EN 50363-3.

2.2. Design:



1.- Flexible, annealed copper conductor, class 5 acc. to IEC 60228.
2.- Polyvinyl chloride (PVC) type TI1 acc. to EN 50363-3.

2.3. Marking

AENOR <HAR> MIGUELEZ BARRYFLEX H07V-K 1xS mm² 0.45/0.75kV 70ºC clase Eca EN 50575

Where:

- S: Cross-sectional are of conductor (in mm^2).

Minimum marking content. Additional marks may appear in compliance with the provisions of the applicable regulations and regulations.

The packaging labels (drums, coils…) of these cables include the CE marking according to the articles 8 and 9 of Construction Product Regulation (UE) nº 305/2011.

3. APPLICATIONS[1]

3.1. Type of installation. Fixed installation.

3.2. User guide.

Indoor installation in residential or industrial applications (dwellings, offices, industry, internal wiring of equipment…).

3.3. Suitable methods of installation

Installation in surface-mounted or embedded conduits, tubes (or similar closed systems).
It can be used like internal wiring for electrical apparatus in areas under normal temperatures[2].
Suitable for fixed protected installation in, or on, lighting or control gear for voltages up to 1.000 V A.C. or, up to 750 V D.C. to earth. (EN 50565-2).
It is recommended for fixed installations with complex paths where its flexibility allows an easier installation.

Maximum conductor temperature in normal operation: + 70 ºC.
Maximum conductor temperature in short circuit (t≤5s): + 160 ºC.
Maximum ambient temperature (in service): - 50°C (at higher temperatures the current-carrying capacity is limited).
Minimum ambient temperature (in service): - 15°C (static, permanently installed without mechanical exigencies, vibrations, or movements).
Maximum cable surface temperature: + 70 ºC.
Minimum installation and handling temperature: + 5 ºC.
Maximum storage temperature: + 40 ºC.

Minimum bending radii (in mm) at cable temperature of 20 ºC +/- 10 ºC:
4xD (D ≤ 8 mm); 5xD (8 mm < D ≤ 12 mm); 6xD (D > 12 mm). D= overall diameter of the cable (mm).

- The radius of curvature is valid for temperatures equal to or greater than 20ºC.
- Bending nearby the temperature limits should be carried out extra carefully.
- Bending radius is measured with respect to the inner surface of the curved cable (not with respect to the axis of the cable).

Maximum pulling force: 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:

- 50 N/ mm^2 (during installation)
- 15 N/ mm^2 (in service)

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.

Account shall be taken of the possibility of damage to cables and their supports due to the disruptive effects of the electromechanical forces caused by any current which the cables might have to carry in service, including short circuit currents.

[1] The installation systems and additional requirements established by any regulation, code, law and/or standards applicable to each case must be met. It is the sole responsibility of the end user to determine suitability of this product for its intended use and application.
[2] The maximum temperature for a conductor depends on the maximum temperature of the other cables or accessories around them.

4. DIMENSIONAL CHARACTERISTICS

Code **		Nominal Cross-sectional area mm²	Insulation thickness mm	Nominal overall diameter mm	Weight kg/km	Maximum electrical resistance at 20ºC (D.C.) Ω/km	Maximum current-carrying capacity 30ºC NOTE 1 A	Maximum current-carrying capacity 30ºC NOTE 2 A
82000101-50	H07V-K	1x1,5	0,7	2,9	19	13,3	17,5	15,5
82000102-50	H07V-K	1x2,5	0,8	3,9	30	7,98	24	21
82000100040	H07V-K	1x4	0,8	4,2	44	4,95	32	28
82000100060	H07V-K	1x6	0,8	4,7	62	3,30	41	36
82000100100	H07V-K	1x10	1,0	6,0	106	1,91	57	50
82000100160	H07V-K	1x16	1,0	7,1	166	1,21	76	68
82000100250	H07V-K	1x25	1,2	8,6	247	0,780	101	89
82000100350	H07V-K	1x35	1,2	10,1	340	0,554	125	110
82000100500	H07V-K	1x50	1,4	12,1	483	0,386	151	134
82000100700	H07V-K	1x70	1,4	13,5	665	0,272	192	171
82000100950	H07V-K	1x95	1,6	15,5	878	0,206	232	207
82000101200	H07V-K	1x120	1,6	17,0	1100	0,161	269	239
82000101500	H07V-K	1x150	1,8	19,0	1370	0,129	300	262
82000101850	H07V-K	1x185	2,0	21,6	1695	0,106	341	296
82000102400	H07V-K	1x240	2,2	24,2	2240	0,0801	400	346

Dimensional and weight values are approximate and subject to normal manufacturing tolerances
** Product codes must be completed with the terminations corresponding to the colour code and presentation code.
NOTE 1: B1 reference method acc. to HD 60364-5-52. Ambient temperature: 30 ºC. Single-phase circuit. Single loaded circuit.
NOTE 2: B1 reference method acc. to HD 60364-5-52. Ambient temperature: 30 ºC. Three-phase circuit. Single loaded circuit.

5. COLORS

The identification of the conductors is according to the European standards EN 50525-1.
Black (code “92”), brown (code “91”), gray (code “89”), light blue (code “82”) and green-yellow (code “86”).
Another colours under request.

6. PACKAGING:

Coils (200 m (code “08”) or 100 m (code “00”) and Drum (code “03”).
Another packaging options under request.