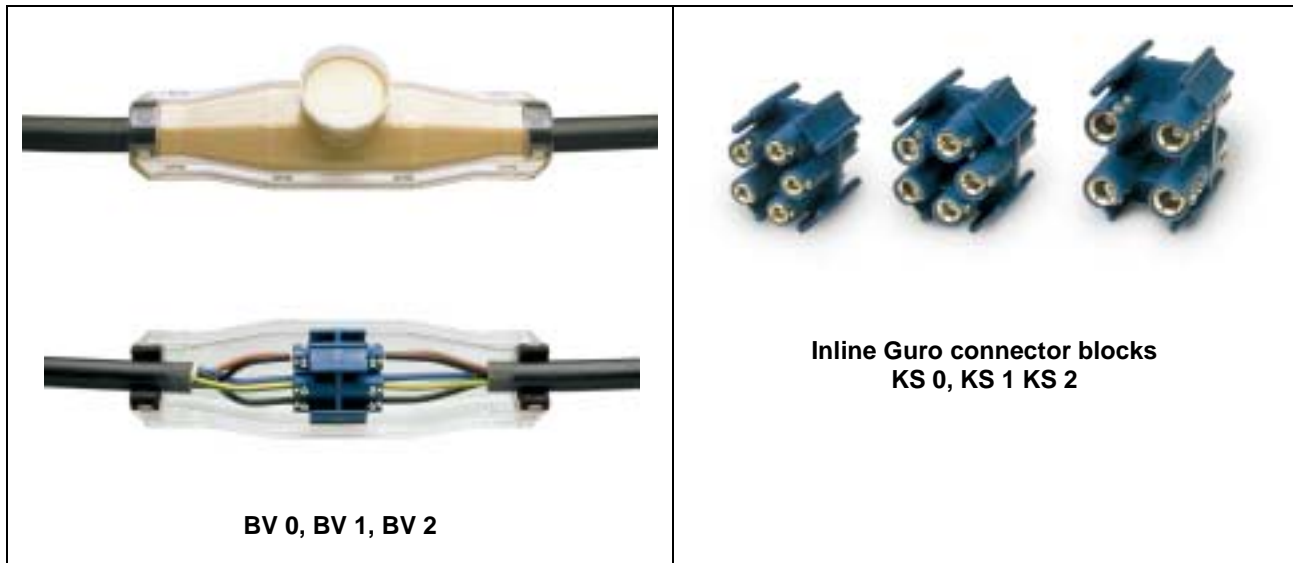


Inline filled joints for polymeric insulated cables 1 kV



Cable

The joints are designed for 3,5-, 4 and 5-core polymeric insulated cables without armour up to 25 mm².

For example: SZAMiKATM, KATM, N(A)YY, N(A)YBY, VVG, AVVG, BBГ, ABBГ, YAKY, YKY, YKYFty, AYKY, CYKY, PP 00, XP 00, PP 41, N(A)YC(W)Y

Design of joints

The joints consist of a shock-resistant, transparent polycarbonate snap-to-close design housing and integrated polymer foams for sealing. The filler material is delivered in a double chamber bags. The inline Guro connector block is pre-engineered and allows a quick and easy connection. A cable diameter range from 13 – 30 mm can be covered.

Technology

- Using mechanical robust transparent housings
- Easy to assemble, no sawing to the cable diameter needed
- Slim and short joints
- Inline connector blocks available
- Filler materials: Rapid 4100, Rapid 3010 and Guroflex

Inline joints (closures only)

| Nominal voltage U _o /U (kV) | Cable diameter (mm) | Cross section (mm ²) | Ordering description | Filler volume (l) | Joint (mm) | |
|---|------------------------|-------------------------------------|----------------------|----------------------|------------|----|
| | | | | | L | H |
| 0,6/1 | 13 – 20 | 5x 1,5 – 6 | BV0 | 0,35 | 220 | 73 |
| | 16 – 25 | 5x 6 – 16 | BV1 | 0,35 | 230 | 80 |
| | 21 – 30 | 4x16 – 25 | BV2 | 0,55 | 270 | 90 |

Note: Filler material see page 14, 15 and 16.

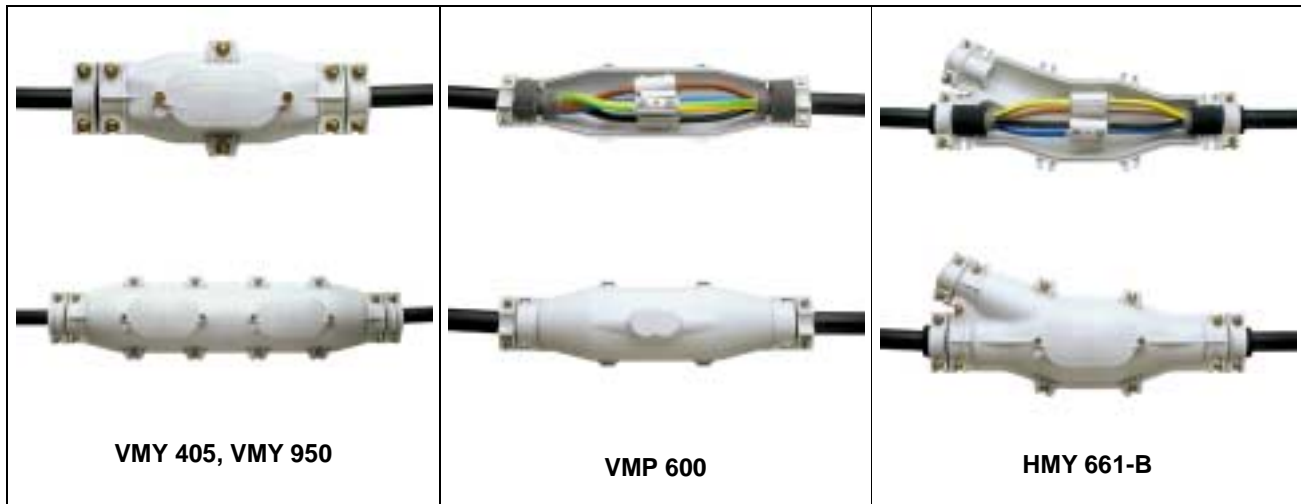
Inline filled joints without / with inline connector block

| Nominal voltage U _o /U (kV) | Cable diameter (mm) | Cross section (mm ²) | Ordering description | | Joint (mm) | |
|---|------------------------|-------------------------------------|----------------------|----------------|------------|----|
| | | | Without connector | With connector | L | H |
| Inline joints with Rapid 4100 filler | | | | | | |
| 0,6/1 | 13 – 20 | 5x 1,5 – 6 | BV0-4D | BV0-4D-KS0 | 220 | 73 |
| | 16 – 25 | 5x 6 – 16 | BV1-4D | BV1-4D-KS1 | 230 | 80 |
| | 21 – 30 | 4x16 – 25 | BV2-4D | BV2-4D-KS2 | 270 | 90 |
| Inline joints with Rapid 3010 filler | | | | | | |
| 0,6/1 | 13 – 20 | 5x 1,5 – 6 | BV0-3D | BV0-3D-KS0 | 220 | 73 |
| | 16 – 25 | 5x 6 – 16 | BV1-3D | BV1-3D-KS1 | 230 | 80 |
| | 21 – 30 | 4x16 – 25 | BV2-3D | BV2-3D-KS2 | 270 | 90 |
| Inline joints with Guroflex filler | | | | | | |
| 0,6/1 | 13 – 20 | 5x 1,5 – 6 | BV0-GD | BV0-GD-KS0 | 220 | 73 |
| | 16 – 25 | 5x 6 – 16 | BV1-GD | BV1-GD-KS1 | 230 | 80 |
| | 21 – 30 | 4x16 – 25 | BV2-GD | BV2-GD-KS2 | 270 | 90 |

Note: All cross sections are according to CENELEC HD 603;

L...Overall length of the housing; H...Overall height of the housing

Inline filled joints for polymeric insulated cables 1 kV



Cable

The joints are designed for 3,5-, and 4-core polymeric insulated cables without armour up to 400 mm².

For example: SZAMtKAtM, KAtM, N(A)YY, N(A)YBY, VVG, AVVG, BBΓ, ABBΓ, YAKY, YKY, YKYFty, AYKY, CYKY, PP 00, XP 00, PP 41, N(A)YC(W)Y

Design of joints

The joints consist of impact-resistant, grey polypropylene snap-to-close design (VMP) or rigid bolted-together polypropylene (VMY, HMY) housings and polymer foams for sealing. The filler material is delivered in double chamber bags (D) or in cans (C). A cable diameter range from 25 – 76 mm can be covered.

Technology

- Using extremely mechanical robust housings
- Easy to assemble, no adjustment to the cable diameter needed
- Quick and easy installation
- Cable strain relief clamps available
- Filler materials: Rapid 4100, Rapid 3010 and Guroflex

Inline joints (closures only)

| Nominal voltage U _o /U (kV) | Cable diameter (mm) | Cross section (mm ²) | Ordering description | Filler volume (l) | Joint (mm) | |
|---|------------------------|-------------------------------------|----------------------|----------------------|------------|-----|
| | | | | | L | H |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405 | 1,60 | 405 | 122 |
| | 30 – 52 | 4x 35 – 185 | VMP600 | 4,55 | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B | 6,45 | 650 | 200 |
| | 44 – 76 | 4x150 – 400 | VMP950 | 12,90 | 950 | 190 |

Note: Filler material see page 14, 15 and 16.

Inline filled joints without connectors

| Nominal voltage U _o /U (kV) | Cable diameter (mm) | Cross section (mm ²) | Ordering description | Joint (mm) | |
|---|------------------------|-------------------------------------|----------------------|------------|-----|
| | | | | L | H |
| Inline joints with Rapid 4100 filler | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-4D | 405 | 122 |
| | 30 – 52 | 4x 35 – 185 | VMP600-4C | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-4C | 650 | 200 |
| | 44 – 76 | 4x150 – 400 | VMP950-4C | 950 | 190 |
| Inline joints with Rapid 3010 filler | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-3D | 405 | 122 |
| | 30 – 52 | 4x 35 – 185 | VMP600-3C | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-3C | 650 | 200 |
| | 44 – 76 | 4x150 – 400 | VMP950-3C | 950 | 190 |
| Inline joints with Guroflex filler | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-GD | 405 | 122 |
| | 30 – 52 | 4x 35 – 185 | VMP600-GC | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-GC | 650 | 200 |
| | 44 – 76 | 4x150 – 400 | VMP950-GC | 950 | 190 |

Note: All cross sections are according to CENELEC HD 603;

L...Overall length of the housing; H...Overall height of the housing

Inline filled joints with mechanical connectors

| Nominal voltage U _o /U (kV) | Cable diameter (mm) | Cross section (mm ²) | Ordering description | Connector screw head type | Joint (mm) | |
|---|------------------------|-------------------------------------|----------------------|---------------------------|------------|-----|
| | | | | | L | H |
| Inline joints with Rapid 4100 filler | | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-4D-4896-Z | Grub screw | 405 | 122 |
| | 30 – 52 | 4x 35 – 150(185) | VMP600-4C-4893.1* | Outer hexagonal | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-4C-6997.1** | Outer hexagonal | 650 | 200 |
| | 44 – 76 | 4x150 – 300 | VMP950-4C-UST300 | Outer hexagonal | 950 | 190 |
| Inline joints with Rapid 3010 filler | | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-3D-4896-Z | Grub screw | 405 | 122 |
| | 30 – 52 | 4x 35 – 150(185) | VMP600-3C-4893.1* | Outer hexagonal | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-3C-6997.1** | Outer hexagonal | 650 | 200 |
| | 44 – 76 | 4x150 – 300 | VMP950-3C-UST300 | Outer hexagonal | 950 | 190 |
| Inline joints with Guroflex filler | | | | | | |
| 0,6/1 | 25 – 40 | 4x 25 – 70 | VMY405-GD-4896-Z | Grub screw | 405 | 122 |
| | 30 – 52 | 4x 35 – 150(185) | VMP600-GC-4893.1* | Outer hexagonal | 600 | 163 |
| | 44 – 65 | 4x150 – 240 | HMY661-B-GC-6997.1** | Outer hexagonal | 650 | 200 |
| | 44 – 76 | 4x150 – 300 | VMP950-GC-UST300 | Outer hexagonal | 950 | 190 |

Note: All cross sections are according to CENELEC HD 603;

L...Overall length of the housing; H...Overall height of the housing

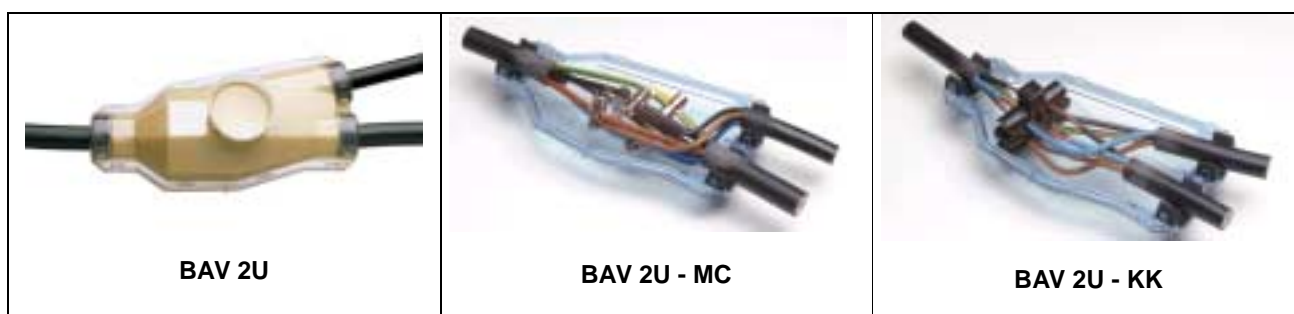
* 185mm² sector shaped must be round pressed

** 150mm² only round sector shaped

The grub screw has an inner hexagonal socket.

The outer hexagonal screw type has shear bolts.

Branch filled joints for polymeric insulated cables 1 kV



Cable

The joints are designed for 3,5-, 4 and 5-core polymeric insulated cables without armour up to 25 mm².

For example: SZAMiKAtM, KAtM, N(A)YY, N(A)YBY, VVG, AVVG, BBГ, ABBГ, YAKY, YKY, YKYFty, AYKY, CYKY, PP 00, XP 00, PP 41, N(A)YC(W)Y

Design of joints

The joint consists of a shock-resistant, transparent polycarbonate snap-to-close design housing and integrated polymer foams for sealing. The filler material is delivered in a double chamber bag. The branch connectors allow a quick and easy connection. A cable diameter range from 10 – 30 mm can be covered. Different types of Guro branch connectors are available like single mantle clamps or connector blocks.

Technology

- Using mechanical robust transparent housing
- Easy to assemble, no sawing to the cable diameter needed
- Slim and short joints
- Filler materials: Rapid 4100, Rapid 3010 and Guroflex

Branch joint (closure only)

| Nominal voltage U _o /U (kV) | Cable diameter (mm) Main / branch | Cross section Main (mm ²) | Branch | Ordering description | Filler volume (l) | Joint (mm) | |
|---|--------------------------------------|--|------------|----------------------|-------------------|------------|-----|
| | | | | | | L | H |
| 0,6/1 | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U | 0,80 | 238 | 110 |

Note: Filler material see page 14, 15 and 16.

Branch filled joint without connectors

| Nominal voltage U _o /U (kV) | Cable diameter (mm) Main / branch | Cross section Main (mm ²) | Branch | Ordering description | Joint (mm) | | |
|--|--------------------------------------|--|------------|----------------------|------------|-----|--|
| | | | | | L | H | |
| Branch joint with Rapid 4100 filler | | | | | | | |
| 0,6/1 | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-4D | 238 | 110 | |
| Branch joint with Rapid 3010 filler | | | | | | | |
| 0,6/1 | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-3D | 238 | 110 | |
| Branch joint with Guroflex filler | | | | | | | |
| 0,6/1 | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-GF | 238 | 110 | |

Note: For Guro branch mantle clamps see page 17 and 18.

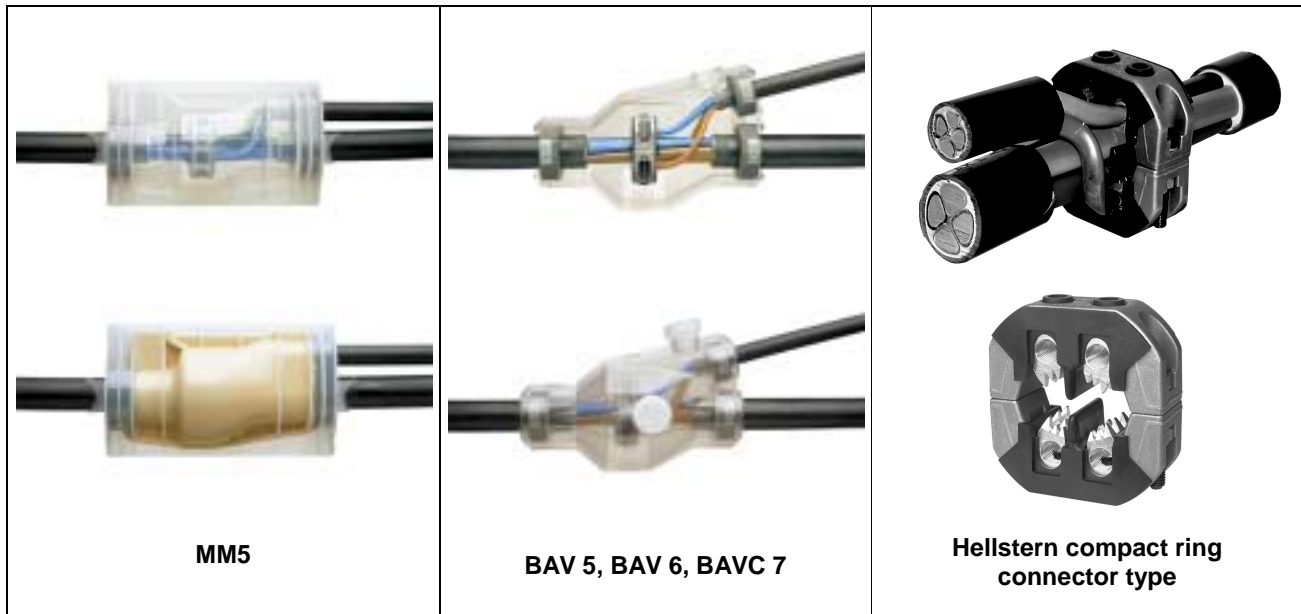
Branch filled joint including terminal connectors

| Nominal voltage U _o /U (kV) | Cable diameter (mm) Main / branch | Cross section Main (mm ²) | Branch | Ordering description | Joint (mm) | | |
|--|--------------------------------------|--|------------------|----------------------|------------|-----|--|
| | | | | | L | H | |
| Branch joint with Rapid 4100 filler | | | | | | | |
| 0,6/1 | 10 – 30 | 4x 6 – 25 | 4x 4 – 10 | BAV2U-4D-KK2/4 | 238 | 110 | |
| | 10 – 30 | 5x10 – 16 | 5x2,5 – 6 | BAV2U-4D-KK2/5 | 238 | 110 | |
| | 10 – 30 | 5x 6 – 16 | 5x 6 – 16 | | | | |
| | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-4D-SBBC25U | 238 | 110 | |
| 10 – 30 | 5x16 – 25 | 5x16 – 25 | BAV2U-4D-SBBC25 | 238 | 110 | | |
| Branch joint with Rapid 3010 filler | | | | | | | |
| 0,6/1 | 10 – 30 | 4x 6 – 25 | 4x 4 – 10 | BAV2U-3D-KK2/4 | 238 | 110 | |
| | 10 – 30 | 5x10 – 16 | 5x2,5 – 6 | BAV2U-3D-KK2/5 | 238 | 110 | |
| | 10 – 30 | 5x 6 – 16 | 5x 6 – 16 | | | | |
| | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-3D- SBBC25U | 238 | 110 | |
| 10 – 30 | 5x16 – 25 | 5x16 – 25 | BAV2U-3D- SBBC25 | 238 | 110 | | |
| Branch joint with Guroflex filler | | | | | | | |
| 0,6/1 | 10 – 30 | 4x 6 – 25 | 4x 4 – 25 | BAV2U-GD-KK2/4 | 238 | 110 | |
| | 10 – 30 | 5x10 – 16 | 5x2,5 – 6 | BAV2U-GD-KK2/5 | 238 | 110 | |
| | 10 – 30 | 5x 6 – 16 | 5x 6 – 16 | | | | |
| | 10 – 30 | 5x1,5 – 25 | 5x1,5 – 25 | BAV2U-GD- SBBC25U | 238 | 110 | |
| 10 – 30 | 5x16 – 25 | 5x16 – 25 | BAV2U-GD- SBBC25 | 238 | 110 | | |

Note: All cross sections are according to CENELEC HD 603;

L...Overall length of the housing; H...Overall height of the housing

Branch filled joints for polymeric insulated cables 1 kV



Cable

The joints are designed for 3,5-, and 4-core polymeric insulated cables without armour up to 240 mm².
For example: SZAMtKAtM, KAtM, N(A)YY, N(A)YBY, VVG, AVVG, BBΓ, ABBΓ, YAKY, YKY, YKYFty, AYKY, CYKY, PP 00, XP 00, PP 41, N(A)YC(W)Y

Design of joints

The joints consist of impact-resistant, transparent polypropylene snap-to-close design (MM5) or impact-resistant, transparent polycarbonate snap-to-close design (BAV) housings and polymer foams for sealing. The filler material is delivered in double chamber bag (D) or in cans (C). A cable diameter range from 27 – 65 mm can be covered.

Technology

- Using mechanical robust housings
- Easy to assemble, no adjustment to the cable diameter needed
- Cable strain relief clamps available
- Compact ring connectors available
- BAV can be assembled in different positions
- Filler materials: Rapid 4100, Rapid 3010 and Guroflex

Branch joints (closures only)

| Nominal voltage U _o /U (kV) | Cable diameter (mm) Main / branch | Cross section | | Ordering description | Filler volume (l) | Connector dia. max. (mm) | Joint (mm) | |
|---|--------------------------------------|-------------------------|-----------|----------------------|-------------------|--------------------------|------------|-----|
| | | Main (mm ²) | Branch | | | | L | H |
| 0,6/1 | 27 – 55 / 16 – 36 | 4x 35 – 150 | 4x6 – 70 | MM5 | 1,60 | 105 | 295 | 175 |
| | 27 – 56 / 16 – 37 | 4x 35 – 150 | 4x6 – 70 | BAV5 | 2,15 | 105 | 328 | 110 |
| | 30 – 58 / 16 – 40 | 4x 50 – 185 | 4x6 – 95 | BAV6 | 2,40 | 115 | 348 | 203 |
| | 45 – 65 / 16 – 50 | 4x120 – 240 | 4x6 – 150 | BAVC7 | 5,90 | 140 | 484 | 212 |

Note: Filler material see page 14, 15 and 16.

Note: Typical cross sections used with compact ring connectors according to CENELEC HD 603.

Branch filled joints without connectors

| Nominal voltage U _o /U (kV) | Cable diameter (mm) Main / branch | Cross section | | Ordering description | Joint (mm) | |
|--|--------------------------------------|-------------------------|-----------|----------------------|------------|-----|
| | | Main (mm ²) | Branch | | L | H |
| Branch joint with Rapid 4100 filler | | | | | | |
| 0,6/1 | 27 – 55 / 16 – 36 | 4x 35 – 150 | 4x6 – 70 | MM5-4D | 295 | 175 |
| | 27 – 56 / 16 – 37 | 4x 35 – 150 | 4x6 – 70 | BAV5-4D | 328 | 165 |
| | 30 – 58 / 16 – 40 | 4x 50 – 185 | 4x6 – 95 | BAV6-4D | 348 | 203 |
| | 45 – 65 / 16 – 50 | 4x120 – 240 | 4x6 – 150 | BAVC7-4C | 484 | 212 |
| Branch joint with Rapid 3010 filler | | | | | | |
| 0,6/1 | 27 – 55 / 16 – 36 | 4x 35 – 150 | 4x6 – 70 | MM5-3D | 295 | 175 |
| | 27 – 56 / 16 – 37 | 4x 35 – 150 | 4x6 – 70 | BAV5-3D | 328 | 165 |
| | 30 – 58 / 16 – 40 | 4x 50 – 185 | 4x6 – 95 | BAV6-3D | 348 | 203 |
| | 45 – 65 / 16 – 50 | 4x120 – 240 | 4x6 – 150 | BAVC7-3C | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 27 – 55 / 16 – 36 | 4x 35 – 150 | 4x6 – 70 | MM5-GD | 295 | 175 |
| | 27 – 56 / 16 – 37 | 4x 35 – 150 | 4x6 – 70 | BAV5-GD | 328 | 165 |
| | 30 – 58 / 16 – 40 | 4x 50 – 185 | 4x6 – 95 | BAV6-GD | 348 | 203 |
| | 45 – 65 / 16 – 50 | 4x120 – 240 | 4x6 – 150 | BAVC7-GC | 484 | 212 |

Note: For BAV products cable strain relief clamps can be ordered separately.

L...Overall length of the housing; H...Overall height of the housing;

Branch filled joints for 4-core cables including compact ring connector

| Nominal voltage U _o /U (kV) | Cross section (mm ²) | | Ordering description | Joint (mm) | |
|--|----------------------------------|---------------------------|----------------------|------------|-----|
| | Main rm, sm / re, se | Branch rm, sm / re, se | | L | H |
| Branch joint with Rapid 4100 filler | | | | | |
| 0,6/1 | 35- 70 / 50- 95 | 6- 50 / 6- 70 | MM5-4D-4874 | 295 | 175 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | MM5-4D-6875 | 295 | 175 |
| | 35- 70 / 50- 95 | 6- 50 / 6- 70 | BAV5-4D-4874 | 328 | 165 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | BAV5-4D-6875 | 328 | 165 |
| | 150 / 185 | 6- 70 / 6- 70 | BAV6-4D-6878 | 348 | 203 |
| | 185 / 240 | 6- 70 / 6- 70 | BAV6-4D-6879 | 348 | 203 |
| | 240 / - | 6- 70 / 6- 70 | BAVC7-4C-6880 | 484 | 212 |
| | - / 150 | 10- 95 / 16-120 | BAVC7-4C-5877 | 484 | 212 |
| Branch joint with Rapid 3010 filler | | | | | |
| 0,6/1 | 35- 70 / 50- 95 | 6- 50 / 6- 70 | MM5-3D-4874 | 295 | 175 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | MM5-3D-6875 | 295 | 175 |
| | 35- 70 / 50- 95 | 6- 50 / 6- 70 | BAV5-3D-4874 | 328 | 165 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | BAV5-3D-6875 | 328 | 165 |
| | 150 / 185 | 6- 70 / 6- 70 | BAV6-3D-6878 | 348 | 203 |
| | 185 / 240 | 6- 70 / 6- 70 | BAV6-3D-6879 | 348 | 203 |
| | 240 / - | 6- 70 / 6- 70 | BAVC7-3C-6880 | 484 | 212 |
| | - / 150 | 10- 95 / 16-120 | BAVC7-3C-5877 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | |
| 0,6/1 | 35- 70 / 50- 95 | 6- 50 / 6- 70 | MM5-GD-4874 | 295 | 175 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | MM5-GD-6875 | 295 | 175 |
| | 35- 70 / 50- 95 | 6- 50 / 6- 70 | BAV5-GD-4874 | 328 | 165 |
| | 70-120 / 95-150 | 6- 50 / 6- 70 | BAV5-GD-6875 | 328 | 165 |
| | 150 / 185 | 6- 70 / 6- 70 | BAV6-GD-6878 | 348 | 203 |
| | 185 / 240 | 6- 70 / 6- 70 | BAV6-GD-6879 | 348 | 203 |
| | 240 / - | 6- 70 / 6- 70 | BAVC7-GC-6880 | 484 | 212 |
| | - / 150 | 10- 95 / 16-120 | BAVC7-GC-5877 | 484 | 212 |

Branch filled joints for 3 ½-core cables including compact ring connector

| Nominal voltage U _o /U (kV) | Cross section (mm ²) | | | Ordering description | Joint (mm) | |
|--|----------------------------------|----------------------------|---------------------------|----------------------|------------|-----|
| | Main rm, sm / re, se | Neutral rm, sm / re, se | Branch rm, sm / re, se | | L | H |
| Branch joint with Rapid 4100 filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-4D-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-4D-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-4D-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-4C-6879.3 | 484 | 212 |
| Branch joint with Rapid 3010 filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-3D-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-3D-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-3D-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-3C-6879.3 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-GD-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-GD-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-GD-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-GC-6879.3 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-GD-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-GD-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-GD-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-GC-6879.3 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-GD-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-GD-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-GD-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-GC-6879.3 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-GD-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-GD-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-GD-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-GC-6879.3 | 484 | 212 |
| Branch joint with Guroflex filler | | | | | | |
| 0,6/1 | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | MM5-GD-4875 | 295 | 175 |
| | 70-120 / 95-150 | 35-70 / 50-95 | 6- 50 / 6- 70 | BAV5-GD-4875 | 328 | 165 |
| | 150 / 185 | 70 / 70 | 6- 50 / 6- 50 | BAV6-GD-6878.3 | 348 | 203 |
| | 185 / 240 | 95 / 95 | 6- 50 / 6- 50 | BAVC7-GC-6879.3 | 484 | 212 |

Note: All cross sections are according to CENELEC HD 603;
L... Overall length of the housing; H... Overall height of the housing;
Other housings like T-type joints are available on request.

RAPID 4100 – 2-component Polyurethane filler material



Properties

Rapid 4100 is a hydrophobic, polyurethane-based 2-component resin. Rapid 4100 can be used for all underground cable joint systems up to 1kV. Rapid 4100 has excellent insulating properties and is suitable for XLPE, PE and PVC insulated cables.

Handling

The resin is available either in double chamber bags or in cans. Immediately before filling the entire joint area both components will be mixed in order to start the cross-linking process. The mixture has a pot life of about 15 minutes and after that hardening starts. Immediately after filling the ditch can be closed.

Technical data

- Density: Comp.A (Polyol) 1,26 g/cm³
Comp.B (Isocyanate) 1,24 g/cm³
- Viscosity @ 20°C: Comp.A 3000 mPa s
Comp.B 300 mPa s
- Pot life @ 5°C: ~ 25 min
@ 23°C: ~ 14 min
@ 35°C: ~ 10 min
- Max. reaction temp. (300ml): 75° C
- Hardness Shore D: ~ 30 - 40
- Tensile strength: 5 MPa
- Elongation to break: 45 %
- Min. installation / storage temp.: 5° C
- Shelf life: 2 years @ 23° C
- Color: Brown

| Volume (~ l) | Weight (~ kg) | Double Chamber bags | Cans | Joints used |
|--------------|---------------|---------------------|---------|------------------|
| 0,35 | 0,44 | PU4D035 | - | BV0, BV1 |
| 0,55 | 0,69 | PU4D055 | - | BV2 |
| 0,8 | 1,00 | PU4D080 | - | BAV2 |
| 1,4 | 1,75 | PU4D140 | - | MM5 |
| 1,6 | 2,00 | PU4D160 | PU4C160 | VMY405, MM5 |
| 1,7 | 2,13 | PU4D170 | PU4C170 | MM5 |
| 2,0 | 2,50 | PU4D200 | PU4C200 | BAV5 |
| 2,4 | 3,00 | PU4D240 | PU4C240 | BAV6 |
| 3,7 | 4,63 | - | PU4C370 | - |
| 4,8 | 6,00 | - | PU4C480 | VMP600 |
| 5,7 | 7,13 | - | PU4C570 | BAVC7 |
| 6,5 | 8,13 | - | PU4C650 | HMY661-B, VMY950 |

Note: Other sizes on request

RAPID 3010 – 2-component Polyurethane filler material



Properties

Rapid 3010 is a hydrophobic, polyurethane-based 2-component resin which fulfills the requirement of E DIN VDE 0291-2:06.97. Rapid 3010 can be used for all underground cable joint systems up to 1kV. Rapid 3010 has excellent insulating properties and is suitable for XLPE, PE and PVC insulated cables.

Handling

The resin is available either in double chamber bags or in cans. Immediately before filling the entire joint area both components will be mixed in order to start the cross-linking process. The mixture has a pot life of about 15 minutes and after that hardening starts. Immediately after filling the ditch can be closed.

Technical data

- Density: Comp.A (Polyol) 1,22 g/cm³
Comp.B (Isocyanate) 1,24 g/cm³
- Viscosity @ 20°C: Comp.A 3000 mPa s
Comp.B 300 mPa s
- Pot life @ 5°C: ~ 26 min
@ 23°C: ~ 13 min
@ 35°C: ~ 9 min
- Max. reaction temp. (300ml): 80° C
- Hardness Shore D: ~ 45 - 50
- Tensile strength: 8 MPa
- Elongation to break: 45 %
- Min. installation / storage temp.: 5° C
- Shelf life: 2 years @ 23° C
- Color: Blue

| Volume (~ l) | Weight (~ kg) | Double Chamber bags | Cans | Joints used |
|--------------|---------------|---------------------|---------|------------------|
| 0,35 | 0,43 | PU3D035 | - | BV0, BV1 |
| 0,55 | 0,68 | PU3D055 | - | BV2 |
| 0,8 | 0,98 | PU3D080 | - | BAV2 |
| 1,4 | 1,72 | PU3D140 | - | MM5 |
| 1,6 | 1,97 | PU3D160 | PU3C160 | VMY405, MM5 |
| 1,7 | 2,09 | PU3D170 | PU3C170 | MM5 |
| 2,0 | 2,46 | PU3D200 | PU3C200 | BAV5 |
| 2,4 | 2,95 | PU3D240 | PU3C240 | BAV6 |
| 3,7 | 4,55 | - | PU3C370 | - |
| 4,8 | 5,90 | - | PU3C480 | VMP600 |
| 5,7 | 7,01 | - | PU3C570 | BAVC7 |
| 6,5 | 8,00 | - | PU3C650 | HMY661-B, VMY950 |

Note: Other sizes on request

GUROFLEX – 2-component environmental friendly filler material



Properties

Guroflex is an economical safe, easy to handle soft elastically hardening 2-component casting material based on hydrocarbone resins. Guroflex can be used for all self-supporting underground cable joint systems up to 1kV. Guroflex is suitable for XLPE, PE, PVC and paper insulated cables. Guroflex has excellent insulating properties, is hydrophobic and gives excellent corrosion protection.

Handling

The resin is available either in double chamber bags or in cans. Immediately before filling the entire joint area both components will be mixed in order to start the cross-linking process. The mixture has a pot life of about 10 minutes and the hardening is without heat development. Immediately after filling the ditch can be closed.

Technical data

- Dielectric strength: $U_d > 10 \text{ kV/mm}$
- Spec. Dielectric Constant: $\epsilon_r \sim 4$
- Specific Vol. Resistance: $Q_D > 10^{13} \Omega\text{cm}$
- Relative Density: $\rho = 1,22 \text{ g/cm}^3$
- Min. Storage temperature: -20°C
- Min. Installation temperature: -10°C
- Hardness Shore A: ~ 20
- Shelf life: 2 years @ 23°C
- Color: Green

| Volume (~ l) | Weight (~ kg) | Double Chamber bags | Cans | Joints used |
|-----------------|------------------|------------------------|--------|------------------|
| 0,35 | 0,43 | GFD035 | - | BV0, BV1 |
| 0,55 | 0,67 | GFD055 | - | BV2 |
| 0,8 | 0,98 | GFD080 | - | BAV2 |
| 1,4 | 1,71 | GFD140 | - | MM5 |
| 1,6 | 1,95 | GFD160 | GFC160 | MY405, MM5 |
| 1,7 | 2,07 | GFD170 | GFC170 | MM5 |
| 2,0 | 2,44 | GFD200 | GFC200 | BAV5 |
| 2,4 | 2,93 | GFD240 | GFC240 | BAV6 |
| 3,7 | 4,51 | - | GFC370 | - |
| 4,8 | 5,86 | - | GFC480 | VMP600 |
| 5,7 | 6,95 | - | GFC570 | BAVC7 |
| 6,5 | 7,93 | - | GFC650 | HMY661-B, VMY950 |

Note: Other sizes on request

Guro Connector Blocks

Inline connector blocks

| Cross Section (mm ²) | Ordering description | Packaging Size pcs |
|----------------------------------|----------------------|--------------------|
| 5x1,5 – 5x 6 | KS 0 | 15 |
| 5x6 – 5x16 | KS 1 | 12 |
| 4x16 – 4x25 | KS 2 | 10 |



Branch connector blocks

| Cross Section Main (mm ²) | Branch (mm ²) | Ordering description | Packaging Size pcs |
|---------------------------------------|---------------------------|----------------------|--------------------|
| 5x 6 – 5x16 | See table | KK 2/5 | 1 |
| 4x10 – 4x25 | See table | KK 2/4 | 1 |



KK2/5: 10 – 16mm²

| main (mm ²) | branch (mm ²) | | | | | |
|-------------------------|---------------------------|-----|----|----|----|----|
| | 1,5 | 2,5 | 4 | 6 | 10 | 16 |
| 6 | - | - | - | ok | | |
| 10 | - | ok | ok | ok | ok | |
| 16 | ok | ok | ok | ok | ok | ok |

KK2/4: 16 – 25mm²

| main (mm ²) | branch (mm ²) | | | | | |
|-------------------------|---------------------------|-----|----|----|----|----|
| | 1,5 | 2,5 | 4 | 6 | 10 | 16 |
| 6 | - | - | - | ok | | |
| 10 | - | ok | ok | ok | ok | |
| 16 | ok | ok | ok | ok | ok | ok |

Universal mantle clamp with individual branch connection and insulator cap

| Cross section Main (mm ²) | Branch (mm ²) | Ordering description |
|---------------------------------------|---------------------------|----------------------|
| 2,5 – 25 | 1,5 - 25 | MC25U-I |

Note: Mantel clamps are available in packaging sizes of 4, 5 and 100 pieces



Mantle clamps with insulator caps

| Cross section | | Ordering description |
|-------------------------|---------------------------|----------------------|
| Main (mm ²) | Branch (mm ²) | |
| 2,5 – 6 | | MC06-I |
| 10 – 16 | See tables | MC16-I |
| 16 – 25 | | MC25-I |

Note: Mantel clamps are available in packaging sizes of 4, 5 and 100 pieces

MC06-I: 2,5 – 6mm²

| main (mm ²) | branch (mm ²) | | | |
|-------------------------|---------------------------|-----|----|----|
| | 1,5 | 2,5 | 4 | 6 |
| 2,5 | - | ok | | |
| 4 | ok | ok | ok | |
| 6 | ok | ok | ok | ok |

MC16-I: 10 – 16mm²

| main (mm ²) | branch (mm ²) | | | | | |
|-------------------------|---------------------------|----|----|----|----|----|
| | 2,5 | 4 | 6 | 10 | 16 | 25 |
| 10 | - | - | - | ok | | |
| 16 | - | - | ok | ok | ok | |
| 25 | ok | ok | ok | ok | ok | ok |

MC25-I: 16 – 25mm²

| main (mm ²) | branch (mm ²) | | | | | |
|-------------------------|---------------------------|----|----|----|----|----|
| | 2,5 | 4 | 6 | 10 | 16 | 25 |
| 10 | - | - | - | ok | | |
| 16 | - | - | ok | ok | ok | |
| 25 | ok | ok | ok | ok | ok | ok |



Mantle clamp without insulator cap

| Cross section | | Ordering description |
|-------------------------|---------------------------|----------------------|
| Main (mm ²) | Branch (mm ²) | |
| 16 – 25 | See table | MC25-5 |

Note: Mantel clamps are available in packaging sizes of 4, 5 and 100 pieces

MC25: 16 – 25mm²

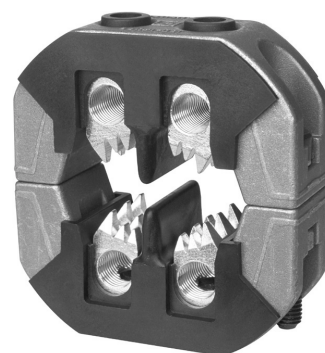
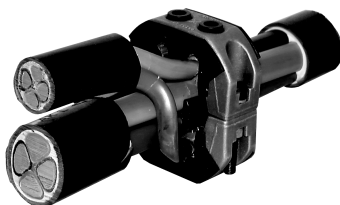
| main (mm ²) | branch (mm ²) | | | | | |
|-------------------------|---------------------------|----|----|----|----|----|
| | 2,5 | 4 | 6 | 10 | 16 | 25 |
| 10 | - | - | - | ok | | |
| 16 | - | - | ok | ok | ok | |
| 25 | ok | ok | ok | ok | ok | ok |



Hellstern insulation piercing multi-core connectors

The Hellstern cable ring type connector is specially designed for simple and reliable installation while ensuring maximum safety during life line work.

The connectors are suitable for aluminium or copper, for stranded or solid conductors and cables with PVC or XLPE insulation. The compact design allows installation in reduced size resin filled boxes and in Raychem heat-shrinkable Rayligator joints.



Installation

Cable oversheath is removed and the core separators placed between the cores. The two connector halves positioned over the cores and the bolts slightly tightened. Stripped ends of branch cores inserted in the branch channels and the bolts are tightened. The connector halves are closed by tightening the two outer bolts while the contact segments pierce the main cable cores. The outer metal ring is at all times insulated from the life conductors.

- For 4- and for 3 ½ core cables
- Contact segments with integrated depth limitation
- Branch channels with grooves
- No torque moment key required
- Exceeds requirements according to VDE 0220

Materials:

- Body: High strength aluminium alloy
- Contact segment: electro tinned brass
- Insulation parts: Glass fibre reinforced polymer
- Bolts: Tinned steel 12.9

Conductors types:

- sm: Sector stranded.
- se: Sector solid.
- rm: Round stranded
- re: Round solid.

Cable ring type connector for 4-core cables

| Ordering description standard version | branch with shear head | Main conductor rm/sm (mm ²) | re/se (mm ²) | Branch conductor rm/sm (mm ²) | re/se (mm ²) | Dimensions A / B / circle (mm) | Width across flats (mm) | Weight (kg/100pcs) |
|---------------------------------------|------------------------|---|-----------------------------|---|-----------------------------|--------------------------------------|-------------------------------|-----------------------|
| HEL-4874-35re | | - | 35re | 6- 50 | 6- 70 | 87/ 87/ 96 | 6 / 5 | 42,4 |
| HEL-4874 | HEL-4874-AK | 35- 70 | 50- 95 | 6- 50 | 6- 70 | 87/ 87/ 96 | 6 / 5 | 42,4 |
| HEL-6874 | HEL-6874-AK | 50- 70 | 70- 95 | 6- 50 | 6- 70 | 87/ 87/ 96 | 6 / 5 | 42,6 |
| HEL-6875 | HEL-6875-AK | 70-120 | 95-150 | 6- 50 | 6- 70 | 87/ 87/ 96 | 6 / 5 | 42,2 |
| HEL-6876 | HEL-6876-AK | 95-120 | 120-150 | 6- 50 | 6- 70 | 91/ 87/100 | 6 / 5 | 44,6 |
| HEL-6877 | HEL-6877-AK | 95-120 | 120-150 | 10- 95/ 35-120 | 16-120/ 50-150 | 100/120/125 | 6 / 6 | 46,0 |
| HEL-6878 | - | 150 | 185 | 6- 70 | 6- 70 | 103/ 93/115 | 6 / 5 | 60,0 |
| HEL-6879 | - | 185 | 240 | 6- 70 | 6- 70 | 110/115/124 | 8 / 5 | 69,4 |
| HEL-6880 | - | 240 | - | 6- 70 | 6- 70 | 110/115/124 | 8 / 5 | 69,4 |
| HEL-5876 | HEL-5876-AK | - | 120-150 | 6- 50 | 6- 70 | 91/ 87/ 98 | 6 / 5 | 46,0 |
| HEL-5877 | HEL-5877-AK | - | 120-150 | 10- 95/ 35-120 | 16-120/ 50-150 | 100/120/125 | 6 / 6 | 46,0 |

A-height, B-width

Cable ring type connector for 3 ½-core cables with reduced cross section of neutral conductor

| Ordering description | Main phase conductor rm/sm (mm ²) | re/se (mm ²) | neutral conductor rm/sm (mm ²) | re/se (mm ²) | Branch conductor rm/sm (mm ²) | re/se (mm ²) | Dimensions A / B / circle (mm) | Width across flats (mm) | Weight (kg/100pcs) |
|----------------------|---|-----------------------------|--|-----------------------------|---|-----------------------------|--------------------------------------|-------------------------------|-----------------------|
| HEL-4875.3 | 70-120 | 95-150 | 35- 70 | 50- 95 | 6- 50 | 6- 70 | 87/ 87/ 95 | 6 / 5 | 42,2 |
| HEL-6878.3 | 150 | 185 | 70 | 70 | 6- 50* | 6- 50 | 110/115/115 | 6 / 5 | 63,8 |
| HEL-6879.3 | 185 | 240 | 95 | 95 | 6- 50 | 6- 50 | 110/115/124 | 8 / 5 | 73,2 |
| HEL-6880.3 | 240 | | 120 | 120 | 6- 50 | 6- 50 | 110/115/124 | 8 / 5 | 72,2 |

A-height, B-width