

# Z1G-YMz1Kas mbzh (LSZH) Cable



Eland Product Group: B1A

## APPLICATION

The Z1G-YMz1Kas mbzh (LSZH) cable is used for industrial applications. Suitable for underground laying and where there is mechanical compulsion.

## CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
0.6/1kV

**Test Voltage**  
3.5kV AC

**Temperature Rating**  
Maximum Operating: 90°C  
Maximum Short-Circuit: 250°C

**Minimum Bending Radius**  
15 x overall diameter

## CONSTRUCTION

**Conductor**  
Class 1 Solid copper  
Class 2 Stranded copper

**Insulation**  
XLPE (Cross-Linked Polyethylene)

**Filler**  
HFFR (Halogen free flame retardant)

**Inner Sheath**  
HFFR (Halogen free flame retardant)

**Armour**  
Galvanized flat steel wires and flat bare copper wires covered with an open counter spiral of galvanized steel tape

**Outer Sheath**  
HFFR (Halogen free flame retardant)

**Outer Sheath Colour**  
● Grey

## CABLE THIRD-PARTY ACCREDITATION



Cables are tested and accredited by KEMA Laboratories in The Netherlands to KEMA K42C-1-5

## STANDARDS

HD-604-5-C, KEMA K42C-1-5  
Flame retardant according to EN 60332-3-24 Cat.C

## THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



## SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: [www.elandcables.com/company/about-us/esg-sustainability](https://www.elandcables.com/company/about-us/esg-sustainability)



SCIENCE  
BASED  
TARGETS

BUSINESS  
AMBIITION FOR **1.5°C**



## REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS

| ELAND PART NO.  | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL DIAMETER OF CONDUCTOR<br>mm | NOMINAL THICKNESS OF INSULATION<br>mm | NOMINAL THICKNESS OF OUTER SHEATH<br>mm | NOMINAL OVERALL DIAMETER<br>mm | NOMINAL WEIGHT<br>kg/km |
|-----------------|--------------|-------------------------------------------------|-------------------------------------|---------------------------------------|-----------------------------------------|--------------------------------|-------------------------|
| B1A020015/1.5GR | 2            | 1.5/1.5                                         | 1.36                                | 0.70                                  | 1.80                                    | 13.6                           | 389                     |
| B1A020025/2.5GR | 2            | 2.5/2.5                                         | 1.75                                | 0.70                                  | 1.80                                    | 14.3                           | 451                     |
| B1A020040/4GR   | 2            | 4/4                                             | 2.22                                | 0.70                                  | 1.80                                    | 15.3                           | 534                     |
| B1A020060/6GR   | 2            | 6/6                                             | 2.71                                | 0.70                                  | 1.80                                    | 16.3                           | 633                     |
| B1A02010/10GR   | 2            | 10/10                                           | 3.85                                | 0.70                                  | 1.80                                    | 18.5                           | 857                     |
| B1A02016/10GR   | 2            | 16/16                                           | 4.70                                | 0.70                                  | 1.80                                    | 20.2                           | 1096                    |
| B1A02025/16GR   | 2            | 25/16                                           | 5.85                                | 0.90                                  | 1.80                                    | 22.5                           | 1292                    |
| B1A02035/16GR   | 2            | 35/16                                           | 6.90                                | 0.90                                  | 1.80                                    | 24.6                           | 1574                    |
| B1A02050/25GR   | 2            | 50/25                                           | 8.10                                | 1.00                                  | 1.80                                    | 27.6                           | 2043                    |
| B1A02070/35GR   | 2            | 70/35                                           | 9.70                                | 1.10                                  | 1.90                                    | 31.4                           | 2711                    |
| B1A02095/50GR   | 2            | 95/50                                           | 11.40                               | 1.10                                  | 2.00                                    | 35.2                           | 3669                    |
| B1A030015/1.5GR | 3            | 1.5/1.5                                         | 1.36                                | 0.70                                  | 1.80                                    | 14.0                           | 429                     |
| B1A030025/2.5GR | 3            | 2.5/2.5                                         | 1.75                                | 0.70                                  | 1.80                                    | 14.8                           | 505                     |
| B1A030040/4GR   | 3            | 4/4                                             | 2.22                                | 0.70                                  | 1.80                                    | 15.9                           | 608                     |
| B1A030060/6GR   | 3            | 6/6                                             | 2.71                                | 0.70                                  | 1.80                                    | 16.9                           | 731                     |
| B1A03010/10GR   | 3            | 10/10                                           | 3.85                                | 0.70                                  | 1.80                                    | 19.4                           | 975                     |
| B1A03016/10GR   | 3            | 16/16                                           | 4.70                                | 0.70                                  | 1.80                                    | 21.2                           | 1268                    |
| B1A03025/16GR   | 3            | 25/16                                           | 5.85                                | 0.90                                  | 1.80                                    | 24.6                           | 1697                    |
| B1A03035/16GR   | 3            | 35/16                                           | 6.90                                | 0.90                                  | 1.80                                    | 26.0                           | 1908                    |
| B1A03050/25GR   | 3            | 50/25                                           | 8.10                                | 1.00                                  | 1.80                                    | 29.4                           | 2537                    |
| B1A03070/35GR   | 3            | 70/35                                           | 9.70                                | 1.10                                  | 2.00                                    | 33.9                           | 3430                    |
| B1A03095/50GR   | 3            | 95/50                                           | 11.40                               | 1.10                                  | 2.10                                    | 38.0                           | 4626                    |
| B1A03120/70GR   | 3            | 120/70                                          | 12.65                               | 1.20                                  | 2.20                                    | 42.5                           | 5960                    |
| B1A03150/70GR   | 3            | 150/70                                          | 14.15                               | 1.40                                  | 2.40                                    | 47.2                           | 7136                    |
| B1A040015/1.5GR | 4            | 1.5/1.5                                         | 1.36                                | 0.70                                  | 1.80                                    | 14.7                           | 467                     |
| B1A040025/2.5GR | 4            | 2.5/2.5                                         | 1.75                                | 0.70                                  | 1.80                                    | 15.7                           | 554                     |
| B1A040040/4GR   | 4            | 4/4                                             | 2.22                                | 0.70                                  | 1.80                                    | 16.8                           | 673                     |
| B1A040060/6GR   | 4            | 6/6                                             | 2.71                                | 0.70                                  | 1.80                                    | 18.0                           | 815                     |
| B1A04010/10GR   | 4            | 10/10                                           | 3.85                                | 0.70                                  | 1.80                                    | 20.7                           | 1132                    |
| B1A04016/10GR   | 4            | 16/16                                           | 4.70                                | 0.70                                  | 1.80                                    | 22.8                           | 1487                    |
| B1A04025/16GR   | 4            | 25/16                                           | 5.85                                | 0.90                                  | 1.80                                    | 26.8                           | 2039                    |
| B1A04035/16GR   | 4            | 35/16                                           | 6.90                                | 0.90                                  | 1.80                                    | 28.5                           | 2334                    |
| B1A04050/25GR   | 4            | 50/25                                           | 8.10                                | 1.00                                  | 1.90                                    | 32.4                           | 3120                    |
| B1A04070/35GR   | 4            | 70/35                                           | 9.70                                | 1.10                                  | 2.10                                    | 38.4                           | 4589                    |
| B1A04095/50GR   | 4            | 95/50                                           | 11.40                               | 1.10                                  | 2.20                                    | 42.9                           | 6101                    |
| B1A04120/70GR   | 4            | 120/70                                          | 12.65                               | 1.20                                  | 2.40                                    | 47.0                           | 7354                    |
| B1A04150/70GR   | 4            | 150/70                                          | 14.15                               | 1.40                                  | 2.50                                    | 52.0                           | 8818                    |
| B1A050015/1.5GR | 5            | 1.5/1.5                                         | 1.36                                | 0.70                                  | 1.80                                    | 15.5                           | 519                     |
| B1A050025/2.5GR | 5            | 2.5/2.5                                         | 1.75                                | 0.70                                  | 1.80                                    | 16.5                           | 620                     |
| B1A050040/4GR   | 5            | 4/4                                             | 2.22                                | 0.70                                  | 1.80                                    | 17.8                           | 760                     |
| B1A050060/6GR   | 5            | 6/6                                             | 2.71                                | 0.70                                  | 1.80                                    | 19.1                           | 928                     |
| B1A05010/10GR   | 5            | 10/10                                           | 3.85                                | 0.70                                  | 1.80                                    | 22.2                           | 1300                    |
| B1A05016/10GR   | 5            | 16/16                                           | 4.70                                | 0.70                                  | 1.80                                    | 24.5                           | 1722                    |
| B1A05025/16GR   | 5            | 25/16                                           | 5.85                                | 0.90                                  | 1.80                                    | 28.9                           | 2389                    |
| B1A05035/16GR   | 5            | 35/16                                           | 6.90                                | 0.90                                  | 1.90                                    | 31.1                           | 2786                    |



## ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS<br>SECTIONAL AREA<br>mm <sup>2</sup> | EQUIVALENT COPPER CROSS SECTION AREA<br>OF ARMOUR CONDUCTOR<br>mm <sup>2</sup> | MAXIMUM CONDUCTOR DC<br>RESISTANCE AT 20°C<br>ohm/km |
|----------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------|
| 1.5                                                | 1.5                                                                            | 12.1                                                 |
| 2.5                                                | 2.5                                                                            | 7.41                                                 |
| 4                                                  | 4                                                                              | 4.61                                                 |
| 6                                                  | 6                                                                              | 3.08                                                 |
| 10                                                 | 10                                                                             | 1.83                                                 |
| 16                                                 | 16                                                                             | 1.15                                                 |
| 25                                                 | 16                                                                             | 0.727                                                |
| 35                                                 | 16                                                                             | 0.524                                                |
| 50                                                 | 25                                                                             | 0.387                                                |
| 70                                                 | 35                                                                             | 0.268                                                |
| 95                                                 | 50                                                                             | 0.193                                                |
| 120                                                | 60                                                                             | 0.153                                                |
| 150                                                | 75                                                                             | 0.124                                                |
| 185                                                | 95                                                                             | 0.0991                                               |
| 240                                                | 100                                                                            | 0.0754                                               |
| 300                                                | 100                                                                            | 0.0601                                               |
| 400                                                | 100                                                                            | 0.0471                                               |

## CURRENT CARRYING CAPACITY

| NOMINAL CROSS<br>SECTIONAL AREA<br>mm <sup>2</sup> | RATED CURRENT<br>A                                                                  |                                                                                     |                                                                                                                                                                         |                                                                                       |                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    |  |  |   |  |    |
| 1.5                                                | 33                                                                                  | 25                                                                                  | 24                                                                                                                                                                      | 26                                                                                    | 32                                                                                                                                                                                                                                                                |
| 2.5                                                | 43                                                                                  | 34                                                                                  | 32                                                                                                                                                                      | 34                                                                                    | 42                                                                                                                                                                                                                                                                |
| 4                                                  | 57                                                                                  | 44                                                                                  | 42                                                                                                                                                                      | 44                                                                                    | 56                                                                                                                                                                                                                                                                |
| 6                                                  | 72                                                                                  | 57                                                                                  | 53                                                                                                                                                                      | 56                                                                                    | 71                                                                                                                                                                                                                                                                |
| 10                                                 | 99                                                                                  | 77                                                                                  | 73                                                                                                                                                                      | 77                                                                                    | 96                                                                                                                                                                                                                                                                |
| 16                                                 | 131                                                                                 | 102                                                                                 | 97                                                                                                                                                                      | 102                                                                                   | 128                                                                                                                                                                                                                                                               |
| 25                                                 | 177                                                                                 |                                                                                     | 132                                                                                                                                                                     | 138                                                                                   | 173                                                                                                                                                                                                                                                               |
| 35                                                 | 217                                                                                 |                                                                                     | 162                                                                                                                                                                     | 170                                                                                   | 212                                                                                                                                                                                                                                                               |
| 50                                                 | 265                                                                                 |                                                                                     | 197                                                                                                                                                                     | 207                                                                                   | 258                                                                                                                                                                                                                                                               |
| 70                                                 | 336                                                                                 |                                                                                     | 250                                                                                                                                                                     | 263                                                                                   | 328                                                                                                                                                                                                                                                               |
| 95                                                 | 415                                                                                 |                                                                                     | 308                                                                                                                                                                     | 325                                                                                   | 404                                                                                                                                                                                                                                                               |
| 120                                                | 485                                                                                 |                                                                                     | 359                                                                                                                                                                     | 380                                                                                   | 471                                                                                                                                                                                                                                                               |
| 150                                                | 557                                                                                 |                                                                                     | 412                                                                                                                                                                     | 437                                                                                   | 541                                                                                                                                                                                                                                                               |
| 185                                                | 647                                                                                 |                                                                                     | 475                                                                                                                                                                     | 507                                                                                   | 626                                                                                                                                                                                                                                                               |
| 240                                                | 775                                                                                 |                                                                                     | 564                                                                                                                                                                     | 604                                                                                   | 749                                                                                                                                                                                                                                                               |
| 300                                                | 894                                                                                 |                                                                                     | 649                                                                                                                                                                     | 692                                                                                   | 864                                                                                                                                                                                                                                                               |
| 400                                                | 1061                                                                                |                                                                                     | 761                                                                                                                                                                     | 812                                                                                   | 1018                                                                                                                                                                                                                                                              |

Cables in air

Permissible operating temperature: 90°C

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.