



# NPG 19/33 (36)kV Single Core Unarmoured Copper Conductors



## APPLICATION

Medium voltage DNO copper power cable approved to Northern Powergrid (NPG) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

## CHARACTERISTICS

**Voltage Rating (U<sub>0</sub>/U)**  
19/33 (36)kV

**Temperature Rating**  
0°C to +90°C

## CONSTRUCTION

### Conductor

Class 2 Stranded Copper Conductor

### Conductor Screen

Fully bonded semi-conductive compound

### Insulation

XLPE (Cross-Linked Polyethylene)

### Insulation Screen

Semi-conductive compound

### Screen

Copper Wires and Equalising Tape

### Separator

Binding tape

### Sheath

MDPE (Medium-Density Polyethylene)

### Sheath Colour

● Black

## STANDARDS

BS 7870-4.10, ES 02-0940



## ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



## REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





## DIMENSIONS

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL AREA OF METALLIC SCREEN<br>mm <sup>2</sup> | NOMINAL OVERALL DIAMETER<br>(OR TRIPLEX GROUP IF APPLICABLE)<br>mm <sup>2</sup> | NOMINAL WEIGHT<br>(OR TRIPLEX GROUP IF APPLICABLE)<br>kg/km | MINIMUM BENDING RADIUS<br>mm | MAXIMUM PULLING TENSION<br>N |
|----------------|--------------|-------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------|------------------------------|
| D310120BK000   | 1            | 500                                             | 35                                                 | 58                                                                              | 6200                                                        | 1070                         | 24510                        |
| D310121BK000   | 1            | 630                                             | 35                                                 | 59                                                                              | 7600                                                        | 1100                         | 30890                        |
| D310130BK000   | 1            | 800                                             | 35                                                 | 65                                                                              | 9400                                                        | 1210                         | 39228                        |

## ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C<br>ohms/km | MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C<br>ohms/km | REACTANCE AT 50HZ<br>ohms/km | CAPACITANCE<br>µf/km | 1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR<br>kA | 1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN<br>kA |
|-------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------------------|----------------------|--------------------------------------------------|--------------------------------------------------------|
| 500                                             | 0.0605                                                | 0.08                                                  | 0.105                        | 0.32                 | 47.2                                             | 5                                                      |
| 630                                             | 0.0469                                                | 0.063                                                 | 0.103                        | 0.33                 | 59.5                                             | 5                                                      |
| 800                                             | 0.0367                                                | 0.051                                                 | 0.098                        | 0.37                 | 75.5                                             | 5                                                      |

## CURRENT CARRYING CAPACITY

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | DIRECT BURIED<br>Amps | IN DUCTS<br>Amps | IN AIR<br>Amps |
|-------------------------------------------------|-----------------------|------------------|----------------|
| 500                                             | 543                   | 498              | 831            |
| 630                                             | 610                   | 560              | 945            |
| 800                                             | 684                   | 629              | 1093           |

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.