Caledonian Medium Voltage Cables

The following In-Process testing is conducted during the cable manufacturing :

- **Tandem Line**
  - Visual and physical tests
  - Electrical tests
  - Resistance & resistance unbalance tests
  - Open & short circuit test

- **High Voltage Test**
  - Group twinner
    - Visual & physical tests
    - Electrical tests
  - Resistance & resistance unbalance tests
  - Mutual capacitance test
  - Open & short circuit test
  - Insulation resistance test

- **Sheathing**
  - Dimensional test
  - Water penetration test
  - Spark test
  - Overlaps & seal bonding inspection

- **Armoring**
  - Dimensional test
  - Visual inspection

- **Jacketing**
  - Dimensional test
  - Overlap inspection
  - Spark test

- **Final Testing**
  - Routine testing
  - Resistance & resistance unbalance tests
  - Mutual capacitance test
  - Transmission test
  - Capacitance & capacitance unbalance tests (pair to pair and pair to ground)
  - Attenuation & cross talk tests.

Cable Options

It is essential that the type of cable ordered is suitable for its intended use. Cable choice will be based on a whole range of factors including installation requirements, relevant local regulations and the electrical characteristics of appropriate cable types. The factors to be considered are:

- Nominal voltage of system.
- Highest voltage of system.
- Impulse withstand voltage.
- System frequency.
- Maximum rated current.
- For continous operation.
  - For cyclic operation (a load curve is essential)
  - For overload operation, if any (duration is essential)
- Symmetrical and asymmetrical short circuit current , both between pulses and to earth.
- Duration of fault in second.
- Required screen bonding scheme
  - Both ends bonded
  - Single point bonded
  - Cross bonded

Ordering Information

VDE CODE: ABCDEFGH

A. Conductor
N- Standard construction in accordance to VDE standard (copper conductor)
NA- Aluminium conductor
NFA- Standard construction for twisted cable (aluminium conductor)

B. Insulation Material
Y- PVC
2X- XLPE
3G- EPR

C. Concentric Conductor Shielding Material
C- Concentric conductors of copper wires and copper tape, helically wounded
CW- Concentric conductors of copper wires in waveconal formation and and copper tape, helically wounded
CE- Concentric conductors of copper wires and copper tape over each individual conductor, helically wounded
Blank- No screen

D.Shielding Material
S- Shielding of copper wires and copper tape, helically wounded
SE- Shielding of copper wires and copper tape over each individual conductor, helically wounded
(F)- Longitudinally water proof shielding
Blank- No screen

E. Bedding Material
2Y- PE
Y- PVC
H- LSZH
K- Lead sheath
Blank- No bedding

F. Armoring Material
B- Double steel tape armouring
R- Round steel wire armouring
F- Flat steel wire armouring
Gb- Helical steel tape armouring
Blank- No armour

G. Jacket Material
2Y- PE
Y- PVC
H- LSZH
K- Lead sheath

H. Cable Types
J- Cables with green-yellow conductor are marked with protective conductor
O- Cables without green-yellow conductor are marked without protective conductor

Caledonian Order Code

MVA-BCDEFGH-IJ

A Cable Design Standard
6622- BS6622 standard
7835- BS7835 standard
502- IEC60502 standard
276- VDE0276 standard

B Conductor
A- Aluminium conductor
Blank- Copper conductor

C Insulation Material
Y- PVC
2X-XLPE
3G-EPR

D Concentric Conductor Shielding Material
C- Concentric conductors of copper wires and copper tape, helically wounded
CW- Concentric conductors of copper wires in waveconal formation and and copper tape, helically wounded
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E Shielding Material
S- Shielding of copper wires and copper tape, helically wounded
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F Bedding Material
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G Armoring Material
B- Double steel tape armouring
R- Round steel wire armouring
F- Flat steel wire armouring
Gb- Helical steel tape armouring
Blank- No armour

H Jacket Material
2Y- PE
Y- PVC
H- LSZH
K- Lead Sheath

I No of Cores
3C- 3 Cores

J Conductor Size
185- 185 sq mm
8A- 8AWG