NOTES
1. Orientation is measured clockwise when looking down on pole top.
2. Bracketed fittings require +/- 2mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal 310mm vent hole is required at the centre of the through tube provided for square rigging.
6. No subsidiary to be incorporated on 18m poles.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction
NOTES
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2 mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction
LIMIT STATE DESIGN LOAD (kN) 80

NAME PLATE INFORMATION

MANUFACTURER: NAME/TAG MARK
MONTH AND YEAR OF MANUFACTURE (MYY)
LIMIT STATE DESIGN LOAD
STRUCTURE TYPE
POLE MANUFACTURE
BATCH NO: STANDARD / MARINE GRADE
EROSION ENERGY
STOCK CODE

MANUFACTURER'S NAME/TRADE MARK
POLE MANUFACTURE
MANUFACTURER'S NAME/TRADE MARK

STOCK CODE 2410827

LENGTH (m) 24

LIMIT STATE DESIGN LOAD (kN) 80

TIP DIA. (mm) 406

BUTT DIA. (mm) 765

ANGLE ° 15° - 35°

PLANTING DEPTH (m) 3.0 (FULLY STAYED)

PLANTING DEPTH (m) 5.4 (NORMAL SOIL)

REFERENCE:

FITTING PURPOSE

FITTING

TUBE DESCRIPTION

STOCK CODE

SUPERSEDES:

DRAWING NUMBER:

NOTE:

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.

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STANDARD / MARINE GRADE

ERGON ENERGY

STOCK CODE

TUBE

FITTING

DESCRIPTION

QTY

A Tip ring and pole cap
1
B Depth indication mark
1
C M16 female (25mm thread length)
1
D M12 earth (30mm thread length)
1
E Name plate
1
F 22 OD S/S tube for M20 bolt
3
G 32 OD S/S tube for M24 bolt
3
H M16 female (25mm thread length)
1
I 5mm galv cross wires (access barrier)
2
J M16 female long (90mm thread length)
6

OVERHEAD SUB-TRANSMISSION
69kV CONCRETE POLE MANUFACTURING DETAILS
SINGLE CIRCUIT RURAL VERTICAL STRAIN
24m X 80kN AND 15°-35° ANGLE POLE
NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. When pole splicing is required a full moment transfer splice to Ergon approval is to be used.
6. A nominal 810 volt bus is required at the centre of the through tube provided for square rigging.
### Notes
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. No subsidiary to be incorporated on 18m poles.
7. Temporary stays may be required during construction and/or maintenance works.

### Set

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<thead>
<tr>
<th>FITTING</th>
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<tr>
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<tr>
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<tr>
<td>G</td>
<td>M12 earth ferrule (30mm thread length)</td>
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<tr>
<td>I</td>
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<tr>
<td>D</td>
<td>22 OD S/S tube for M16 bolt</td>
<td>3</td>
</tr>
<tr>
<td>E</td>
<td>25 OD S/S tube for M20 bolt</td>
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</tr>
<tr>
<td>F</td>
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<td>T</td>
<td>38 OD S/S tube</td>
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<td>K</td>
<td>5mm galv. cross wires (access barrier)</td>
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<td>X</td>
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### Table

<table>
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<th>LENGTH</th>
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<td>800</td>
<td>G</td>
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<tr>
<td>1000</td>
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<td>32 OD S/S tube M12 earth ferrule (30mm thread)</td>
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<td>1800</td>
<td>L</td>
<td>32 OD S/S tube M12 earth ferrule (30mm thread)</td>
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### Diagram

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction
NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-16-10 for Pole Construction
### STRUCTURE TYPE

**C6RSVZ326ED/E1**

### DESCRIPTION

**24m X 60kN AND 35%D - 45%D ANGLE POLE**

- **OVERHEAD SUB-TRANSMISSION**

### NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be no less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

### FOLDER

- **Earth**: For maintenance purposes
- **S/S Tube**: Stainless steel tubing
- **Cross Arm**: Cross arm to pole
- **Earthing**: Earthing to pole
- **Hanger (S/C)**: Hanger to pole
- **Hanger (S/L)**: Hanger to pole
- **Ref**: Reference
- **Pole**: Pole
- **Top Phase Bridging Insulator**: Top phase bridging insulator
- **Bottom Phase Bridging Insulator**: Bottom phase bridging insulator
- **Stay Bracket**: Stay bracket
- **Stay Bracket, Backing Plate, Eye Nut**: Stay bracket, backing plate, eye nut
- **Tip Ring and Pole Cap**: Tip ring and pole cap

### STRUCTURE TYPE

**C6RSVZ326ED/E1**

### TABLE

<table>
<thead>
<tr>
<th>ORIENTATION</th>
<th>FITTING DESCRIPTION</th>
<th>TUBE MATERIAL</th>
<th>FITTING PURPOSE</th>
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<tbody>
<tr>
<td>A</td>
<td>Top Phase Flanged Eye Bolt (M24)</td>
<td>M16 ferrule (25mm thread)</td>
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<tr>
<td>B</td>
<td>Bottom Phase Flanged Eye Bolt (M24)</td>
<td>M16 ferrule (25mm thread)</td>
<td>Earth</td>
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<tr>
<td>C</td>
<td>Middle Phase Flanged Eye Bolt (M24)</td>
<td>M16 ferrule (25mm thread)</td>
<td>Earth</td>
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<tr>
<td>D</td>
<td>Bottom Phase Flanged Eye Bolt (M24)</td>
<td>M16 ferrule (25mm thread)</td>
<td>Earth</td>
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<tr>
<td>E</td>
<td>Middle Phase Flanged Eye Bolt (M24)</td>
<td>M16 ferrule (25mm thread)</td>
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<td>F</td>
<td>Tip Ring and Pole Cap</td>
<td>M12 earth ferrule (30mm thread)</td>
<td>Earth</td>
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</tbody>
</table>

### FLOOR PLAN

Refer dwg 5-7-2-2 for Foundations

Refer dwg 5-4-16-10 for Pole Construction

### DRAWING NUMBER

24-00-10-24
5mm galv cross wires
180°
Middle Phase Flanged Eye Bolt (M20)
Stay bracket, backing plate, eyenut top bolt (M24)
25 OD S/S tube
Bottom Phase Flanged Eye Bolt (M20)
M16 ferrule (25mm thr)
M16 ferrule (25mm thr)
M16 ferrule (25mm thr)
Middle phase bridging insulator top bolt (M16)
Lower Inline Stay Bracket Top Bolt (M24)
G
32 OD S/S tube
(FULLY STAYED)
Earth
Fall Arrest Bracket and Step bolt to pole
Fall Arrest Bracket and Step bolt to pole
Earth
E
25 OD S/S tube
M12 earth ferrule (30mm thread length)
M16 ferrule (25mm thr)
25 OD S/S tube
K
Fall Arrest Bracket and Step bolt to pole
Fall Arrest Bracket and Step bolt to pole
J
25 OD S/S tube
M12 earth ferrule (30mm thread)
Fall Arrest Bracket and Step bolt to pole
Top phase bridging insulator bottom bolt (M16)
38 OD S/S tube
5mm galv. cross wires (access barrier)
0.75
M16 ferrule (25mm thr)
32 OD S/S tube
Access barrier
M12 earth ferrule (30mm thread)
Fall Arrest Bracket and Step bolt to pole
Top Phase Flanged Eye Bolt (M20)
M16 ferrule (25mm thr)
25 OD S/S tube for M20 bolt
743
Fall Arrest Bracket and Step bolt to pole
Middle Phase Flanged Eye Bolt (M20)
32 OD S/S tube
25 OD S/S tube
D
Stay bracket, backing plate, eyenut bottom bolt (M24)
475
Fall Arrest Bracket and Step bolt to pole
F
32 OD S/S tube
22 OD S/S tube for M16 bolt
Earth
G
Stay bracket, backing plate, eyenut bottom bolt (M24)
For maintenance purpose
Pole butt
M16 ferrule (25mm thr)
22 OD S/S tube
180°
Fall Arrest Bracket and Step bolt to pole
F
J
Subsidiary Mid phase (M20)
J
M16 ferrule (25mm thr)
Earth
Bottom phase bridging insulator top bolt (M16)
Lower Inline Stay Top Bolt (M24)
Fall Arrest Bracket and Step bolt to pole
Fall Arrest Bracket and Step bolt to pole
T
Fall Arrest Bracket and Step bolt to pole
F
J

NOTES
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction

OVERHEAD SUB-TRANSMISSION
69kV CONCRETE POLE MANUFACTURING DETAILS
SINGLE CIRCUIT RURAL VERTICAL STRAIN

DRAWING NUMBER: 5-20-10-4

NOTES
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction
60kV CONCRETE POLE MANUFACTURING DETAILS

NAME PLATE INFORMATION

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-4-16-10 for Pole Construction
NOTES

1. Orientation is measured clockwise when looking down on pole tip.

2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.

3. Longitudinal capacities to be not less than transverse capacities.

4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.

5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.

6. No subsidiary to be incorporated on 18m poles.

7. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-14-16-10 for Pole Construction
### Notes
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2 mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

### Table

<table>
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<tr>
<th>Distance (m)</th>
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<th>Tube Type</th>
<th>Fitting Purpose</th>
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<tr>
<td>100</td>
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<td>Tip and pole cap</td>
<td>32 OD S/S tube</td>
<td>Step bracket, backing plate, eyenut (top bolt) (M24)</td>
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<tr>
<td>105</td>
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<td>Tip and pole cap</td>
<td>32 OD S/S tube</td>
<td>Step bracket, backing plate, eyenut (bottom bolt) (M24)</td>
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</tbody>
</table>

### Diagram

Refer dwg 5-4-16-10 for Pole Construction
### 66kV CONCRETE POLE MANUFACTURING DETAILS

#### OVERHEAD SUB-TRANSMISSION

**66kV CONCRETE POLE MANUFACTURING DETAILS**

<table>
<thead>
<tr>
<th>引き抜き</th>
<th>回転点</th>
<th>設備品</th>
<th>トーション</th>
<th>装置品</th>
<th>モデル</th>
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<td>66kV CONCRETE POLE MANUFACTURING DETAILS</td>
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<td>Depth indication mark</td>
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<td>5</td>
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</table>

**NAME PLATE INFORMATION**

**MANUFACTURER**

**MANUFACTURE NUMBER**

**MANUFACTURE YEAR**

**MANUFACTURE LOCATION**

**MANUFACTURE DATE**

**MANUFACTURE CODE**

**MATERIALS**

**STANDARD**

**CIRCUIT**

**SINGLE CIRCUIT RURAL VERTICAL STRAIN**

**DRAWING NUMBER**

**5-20-10-10**

**DRAWN**

**CHECKED**

**APPROVED**

**DATE**

**14/03/2016**

**SUPERSEDES**

**DRAWN**

**CHECKED**

**APPROVED**

**DATE**

**14/03/2016**

**NOTES**

1. Orientation is measured clockwise when looking down on pole tip.
2. Braced-off stays require ± 2 mm tolerance between them and ± 2 mm orientation tolerance.
3. Longitudinal capacities to be less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

**STANDARD / MARINE GRADE**

**BATCH NO.**

**POLE MANUFACTURE**

**LENGTH OF POLE (m) / LIMIT STATE DESIGN LOAD**

**MONTH AND YEAR OF MANUFACTURE**

**PLANTING DEPTH (m)**

**TUBE**

**VOLUME**

**FITTING PURPOSE**

**FITTING DESCRIPTION**

**FITTING TUBE LENGTH**

**FITTING**

**SUPERSEDES**

**DRAWN**

**CHECKED**

**APPROVED**

**DATE**

**14/03/2016**

**STOCK CODE**

**2441723**

**HARD COPY UNCONTROLLED**