20-SDMS-01

Rev.03.2

SPECIFICATIONS FOR OCTAGONAL STEEL POLES (SPECIAL POLES)

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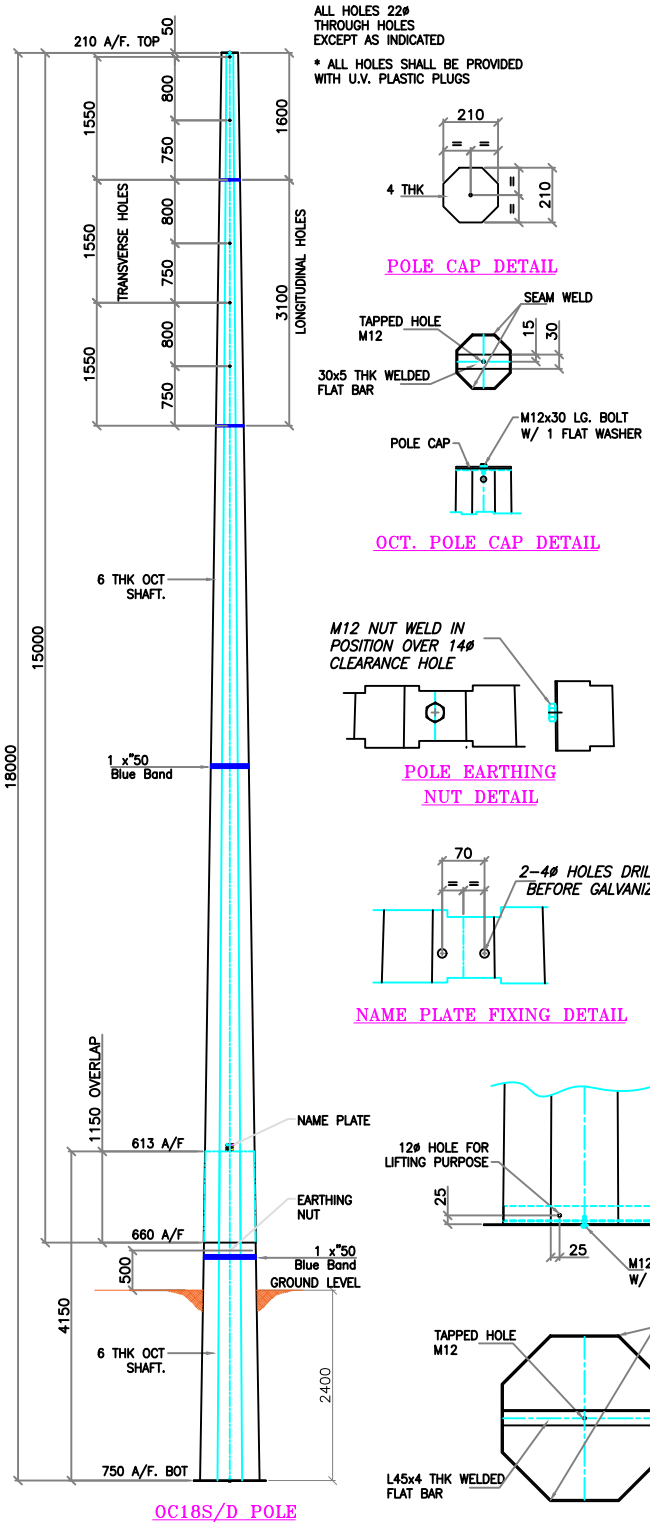
Table of Contents

1 Scope

This sub-revision of the specification 20-SDMS-01 Rev.03 specifies the drawing details of additional new octagonal steel poles (special poles) for use with medium-voltage single-circuit and double-circuit overhead line sections with long-spans, valley and wadi crossings, and highlands with the use of special pole structures. It shall always be read in conjunction with 20-SDMS-01 Rev.03 and the latest revision of 01-SDMS-01.

All the drawings and information in this sub-revision of the specification 20-SDMS-01 Rev.03 shall remain active unless a consolidated revision 20-SDMS-01 Rev.04 is officially published.

2 Drawings

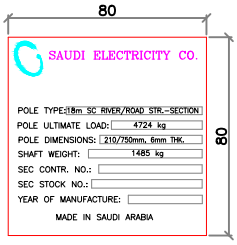


NOTES

1. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. MATERIALS
2.1 SHAFT: EN 10027–1 GRADE S355JO OR EQUI.
2.2 OTHERS: JIS G3101 GRADE SS400 OR EQUI.
3. HARDWARE
3.1 BOLT FOR POLE CAP AND BEARING PLATE: DIN267 GRADE 4.6 OR EQUI.
3.2 EARTHING NUT: DIN 267 GRADE 4 OR EQUI.
4. FINISH
4.1 SHAFT, POLE CAP AND BEARING PLATE: H.D.G. TO ASTM A123M WITH MINIMUM COATING OF 720 g / sq.m.
4.2 BOTTOM SHAFT & BEARING PLATE SHALL BE COATED WITH BITUMINOUS PAINT, MINIMUM THICKNESS OF 0.24MM.
– INTERNALLY: 1000MM FROM THE BOTTOM
– EXTERNALLY: BURIED DEPTH + 800MM
4.3 HARDWARES: H.D.G. TO ASTM A153M
5. ALL HOLES SHALL BE DRILLED PRIOR TO GALVANIZING.
6. TOLERANCES :
6.1 TOLERANCE ON OVERALL HEIGHT OF THE POLE ±0.5%
6.2 TOLERANCE ON HOLE DIAMETERS: ±0.5mm
6.3 TOLERANCE ON CENTERS OF HOLE: ±2mm
6.4 STRAIGHTNESS OF POLE: 1mm/m
6.5 TOLERANCE ON POLE A/F : ±5mm
7.

	SINGLE–CIRCUIT	DOUBLE–CIRCUIT
DESIGN SPAN:	200 m	150 m
WIND SPAN:	220 m	165 m
WEIGHT SPAN:	300 m	225 m

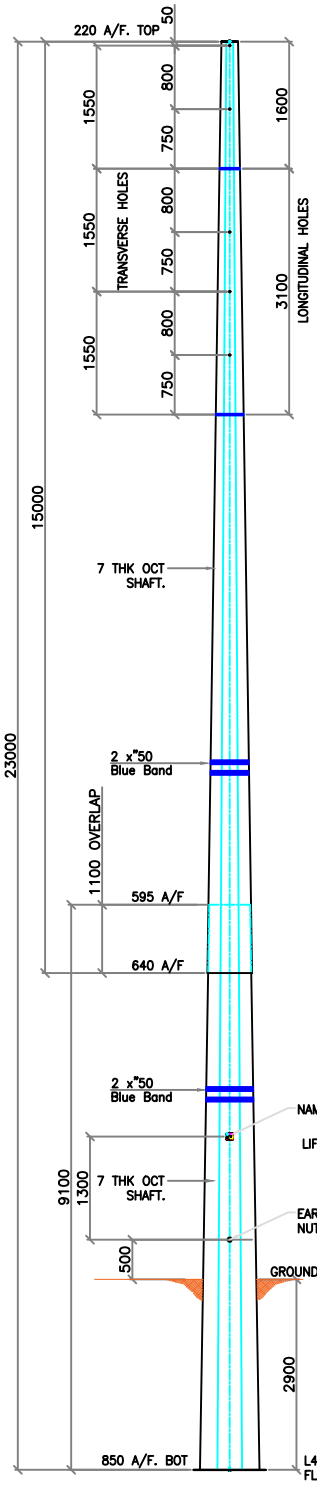
CONDUCTOR TYPE: MERLIN
OGW: QUAIL
STAY WIRE: FWDE2116 9/16" 14.48ø – 155.7kN UTS (MIN)



NAME PLATE DETAIL

MATERIAL: ALUMINIUM (MIN. 1mm THK.) LETTERING: CHARACTERS PRINTED IN BLACK COLOR ON WHITE BACKGROUND. NAME PLATE SHALL BE FIXED TO POLE BY RIVETS. THE HOLES SHALL BE DRILLED PRIOR TO GALVANIZATION

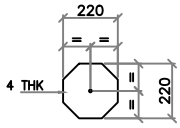
FIGURE 10: OC18S/D – 18M OCTAGONAL STEEL POLE FOR MEDIUM–VOLTAGE SINGLE & DOUBLE CIRCUIT STRUCTURES



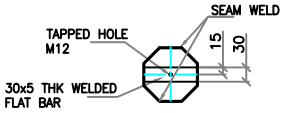
OC23SC POLE

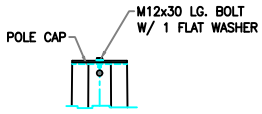
ALL HOLES 22ø THROUGH HOLES EXCEPT AS INDICATED

* ALL HOLES SHALL BE PROVIDED WITH U.V. PLASTIC PLUGS

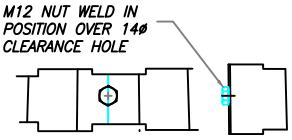


POLE CAP DETAIL

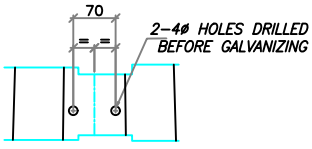




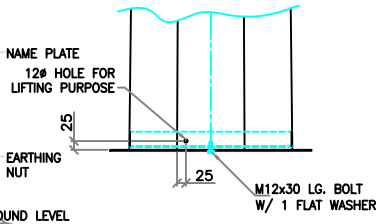
OCT. POLE CAP DETAIL

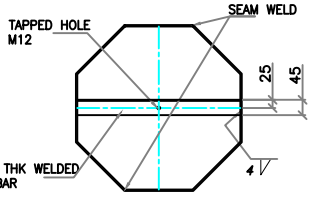


POLE EARTHING NUT DETAIL



NAME PLATE FIXING DETAIL





POLE BOTTOM END DETAIL

NOTES

1. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
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4.1 SHAFT, POLE CAP AND BEARING PLATE: H.D.G. TO ASTM A123M WITH MINIMUM COATING OF 720 g / sq.m.
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5. ALL HOLES SHALL BE DRILLED PRIOR TO GALVANIZING.
6. TOLERANCES :
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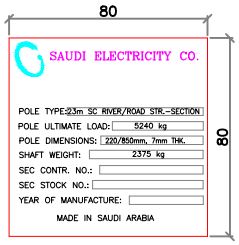
6.4 STRAIGHTNESS OF POLE: 1mm/m
6.5 TOLERANCE ON POLE A/F : ±5mm
7.

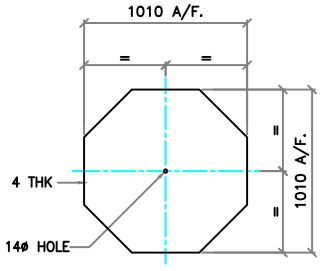
	SINGLE-CIRCUIT	DOUBLE-CIRCUIT
DESIGN SPAN:	250 m	200 m
WIND SPAN:	275 m	220 m
WEIGHT SPAN:	375 m	300 m

CONDUCTOR TYPE: MERLIN
OGW: QUAIL
STAY WIRE: FWDE2116 9/16" 14.48ø - 155.7kN UTS (MIN)



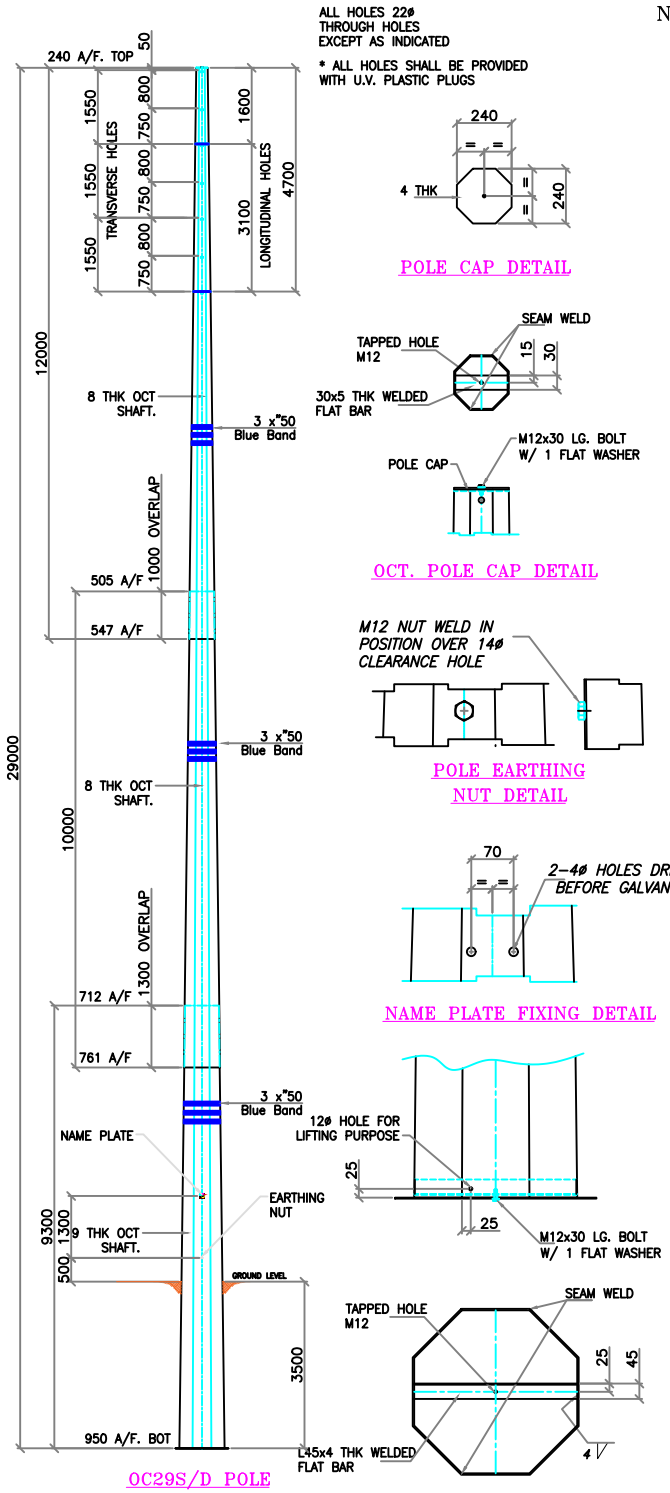
MATERIAL: ALUMINIUM (MIN. 1mm THK.)
LETTERING: CHARACTERS PRINTED IN BLACK COLOR ON WHITE BACKGROUND.
NAME PLATE SHALL BE FIXED TO POLE BY RIVETS. THE HOLES SHALL BE DRILLED PRIOR TO GALVANIZATION

NAME PLATE DETAIL



BEARING PLATE DETAIL

FIGURE 11: OC23S/D - 23M OCTAGONAL STEEL POLE FOR MEDIUM-VOLTAGE SINGLE & DOUBLE CIRCUIT STRUCTURES



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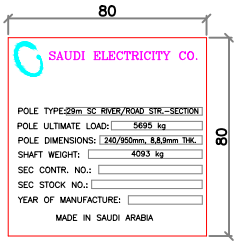
6.4 STRAIGHTNESS OF POLE: 1mm/m
6.5 TOLERANCE ON POLE A/F : ±5mm
7.

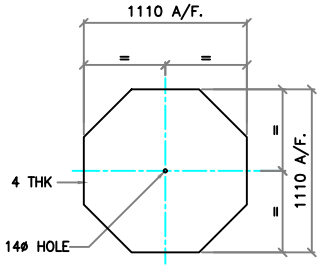
	SINGLE-CIRCUIT	DOUBLE-CIRCUIT
DESIGN SPAN:	300 m	250 m
WIND SPAN:	330 m	275 m
WEIGHT SPAN:	450 m	375 m

CONDUCTOR TYPE: MERLIN
OGW: QUAIL
STAY WIRE: FWDE2116 9/16" 14.48ø - 155.7kN UTS (MIN)



MATERIAL: ALUMINIUM (MIN. 1mm THK.)
LETTERING: CHARACTERS PRINTED IN BLACK COLOR ON WHITE BACKGROUND.
NAME PLATE SHALL BE FIXED TO POLE BY RIVETS. THE HOLES SHALL BE DRILLED PRIOR TO GALVANIZATION

NAME PLATE DETAIL



BEARING PLATE DETAIL

FIGURE 12: OC29S/D – 29M OCTAGONAL STEEL POLE FOR MEDIUM-VOLTAGE SINGLE & DOUBLE CIRCUIT STRUCTURES