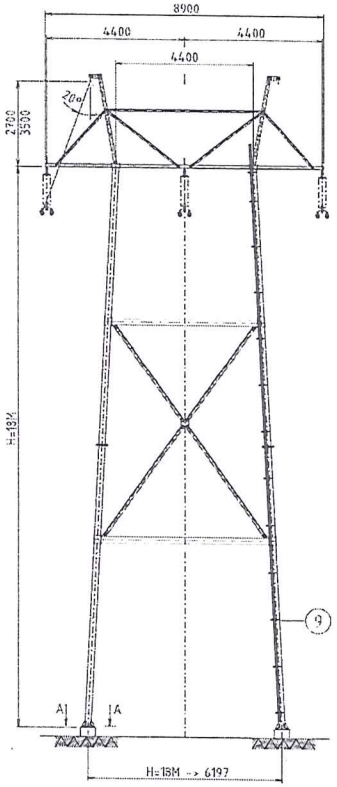


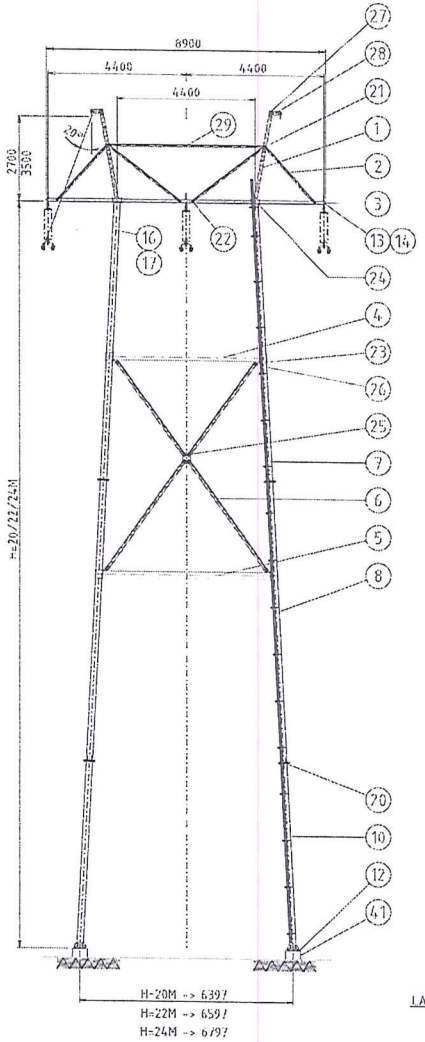


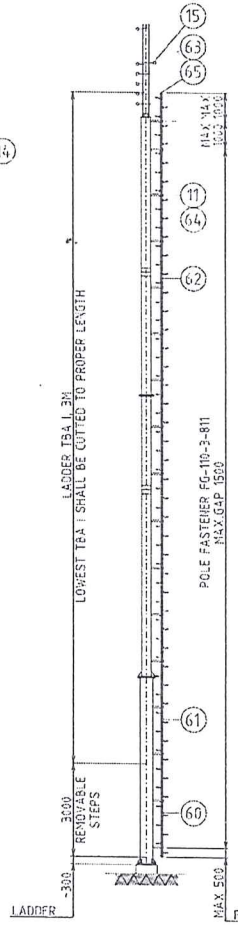


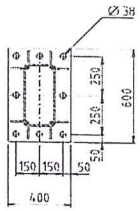


A - A 1:20

LADDER 1:20

CONDUCTORS
- 3x2 DUCK
- EDS 60 N/mm²

EARTH WIRE
- SUSTRONG
- EDS 80 N/mm²

- OR OPGW
- EDS LOAD <13,6 N/mm²

| | LADDER MATERIALS FOR SUPPORTS | IF18 | IF20 | IF22 | IF24 | |
|---|---|---|---|---|---|---|
| PART | PRODUCT | PCS | PCS | PCS | PCS | PCS |
| 60 | CLEAT LADDER TBAI 3M, WITH REMOVABLE STEPS | 1 | 1 | 1 | 1 | |
| 61 | CLEAT LADDER TBAI 3M | 6 | 6 | 7 | 8 | |
| 62 | SLEEVE JOINT NO 70 | 6 | 6 | 7 | 8 | |
| 63 | STOPPER NO 85 | 1 | 1 | 1 | 1 | |
| 64 | BASIC CLAMP NO 15 | 13 | 15 | 16 | 17 | |
| 65 | CARRIAGE GUIDE NO 84 | 1 | 1 | 1 | 1 | |
| 11 | POLE FASTENER TYPE 1, PIPE 300, FG-110-3-811 | 13 | 13 | 13 | 13 | |
| 11 | POLE FASTENER TYPE 2, PIPE 400, FG-110-3-811 | — | 2 | 3 | 4 | |

MOUNTING OF SAFETY LADDERS ACCORDING TO TURVATIKAS INSTRUCTIONS

WITHOUT ANY MENTION.
- NUTS 8-ZnK, DIN 934
- WASHER Fe-ZnK, DIN 7989

WEIGHT H=18 M -> 4276 KG
WEIGHT H=20 M -> 4802 KG
WEIGHT H=22 M -> 5161 KG
WEIGHT H=24 M -> 5521 KG

WEIGHT IS THEORETICAL BLACK STEEL WEIGHT WITHOUT GALVANIZING, BOLTS AND LADDER

| | | | | | |
|---|---|---|---|---|---|
| 41 | FOUNDATION ELEMENT | ACCORDING TO FUNDATION PLAN | | | 2 |
| 40 | SAFETY LADDERS | SAFETY LADDER LTD | | | TABLE |
| 29 | THREADED ROR M12 - 248 +4xNUT | A2 | DIN 975 | | 1 |
| 28 | SCREW M16x60/38 +WA+NUT | 8.8-ZnK | DIN 931 | | 2 |
| 27 | SCREW M16x280/57 +WA+NUT | 8.8-ZnK | DIN 931 | | 4 |
| 26 | SCREW M20x50/26 +WA+NUT | 8.8-ZnK | DIN 7990 | | 16 |
| 25 | SCREW M20x70/26 +WA+NUT | 8.8-ZnK | DIN 7990 | | 8 |
| 24 | SCREW M20x180/52 +WA+NUT | 8.8-ZnK | DIN 931 | | 8 |
| 23 | SCREW M20x260/65 +WA+NUT | 8.8-ZnK | DIN 931 | | 32 |
| 22 | SCREW M20x280/65 +WA+NUT | 8.8-ZnK | DIN 931 | | 4 |
| 21 | SCREW M20x300/65 +WA+NUT | 8.8-ZnK | DIN 931 | | 2 |
| 20 | SCREW M24x100/54 +WA+2xNUT | 8.8-ZnK | DIN 931 | | 20/40 |
| 17 | PLATE FOR U-SCREW (LIFTING) | FG 110 3 330 | | 1,0 | (2) |
| 16 | U-SCREW M24x80x450/100 | FG 110 3 313 | | 2,9 | (2) |
| 15 | STEP BOLT L-380 | FG 110 3 314 | | 1,0 | 14/20 |
| 14 | U-SCREW M20x80x250/100 | FG-110-3-313 | | 1,5 | 3 |
| 13 | SAFETY HANDLE UM20 | FG-110-3-312 | | 2,0 | 3 |
| 12 | WASHER | FG-110-3-820 | | 18,8 | 2 |
| 11 | POLE FASTENER | FG-110-3-811 | | DRAW | TABLE |
| 10 | LEG, LOWER PART, H=20, 22, 24 M | FG-110-3-810 | | DRAW | 2 |
| 9 | LEG, LOWER PART, H=18 M | FG-110-3-809 | | 771,5 | 2 |
| 8 | LEG, MIDDLE PART, H=20, 22, 24 M | FG-110-3-808 | | 729,4 | 2 |
| 7 | LEG, UPPER PART | FG-110-3-807 | | 454,7 | 2 |
| 6 | FRAME | FG-110-3-806 | | 407,6 | 1 |
| 5 | INTERMEDIATE BEAM, LOWER | FG-110-3-805 | | 300,2 | 1 |
| 4 | INTERMEDIATE BEAM, UPPER | FG-110-3-804 | | 267,7 | 1 |
| 3 | CROSSARM IF | FG-110-3-803 | | 303,6 | 1 |
| 2 | TENSION BARS IF | FG-110-3-802 | | 172,4 | 1 |
| 1 | EARTH WIRE EXTENSION 3,5 M | FG-110-3-801 | | 114,8 | 2 |
| 1 | EARTH WIRE EXTENSION 2,7 M | FG-110-3-800 | | 81,8 | 2 |
| PART | NAME | QUALITY OR DRAWING / STANDARD | | MASS | PCS |

FOR LIFTING

ALTERNATIVES SEE SUPPORT LIST

FINGRID OYJ

EMPOWER

110 kV LINE
TYPE IF 18-24M
GENERAL DRAWING

Filename: FG-110-3-080.dgn

Replaces
Replaced by
Designed A. USKI
Date 02.04.2017
Drawn KRN
Appr
Drawing number FG-110-3-080
Size A2
Rev
Sheet
Sheets
Scale 1:100

| Rev | Sheet(s) | Date | Remarks | Drawn | Appr | Rev | Sheet(s) | Date | Remarks | Drawn | Appr | Rev | Sheet(s) | Date | Remarks | Drawn | Appr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|