

## WIRING DIAGRAMS

Address:

Owner:

Contractor:

Designer:

Director:

# CONTENT

Main page.....	1
Content.....	2
Specifications.....	3
Floor 1 building plant.....	4
Floor 2 building plant.....	5
Main panel.....	6
Fuse box 2 floor .....	7
Earthing.....	8
Short circuits (fire safety).....	9
Materials.....	10

# TECHNICAL CONDITIONS

Introductionary cable: AXMK 4G25

Main fuse: 3x40A

Power supply:

voltage: Y+N 230/400V

type of current: ~3 AC

frequency: 50Hz

type of power system: 3-phase

Voltage drop: 3.1%

Ground:

- missing (voltage doesn't exceed 50V)
- TN-C
- TN-C-S
- TN-S
- T-T
- I-T
- M+ and M- with grounded tap

Ground impedance: 2,45 Ohm

I (breaking):

- 4.5 kA
- 6 kA
- 10 kA
- 15 kA
- 25 kA
- 60 kA
- 90 kA

Wiring way:

- overhead powerline
- underground power cable
- cable shaft
- cables on wall surface
- cables inside the wall
- cables in cable tray
- other: \_\_\_\_\_

Fuse box:

- wall surface
- inside the wall
- other: \_\_\_\_\_

BUILDING PLANT 1 FLOOR

kitchen

longue

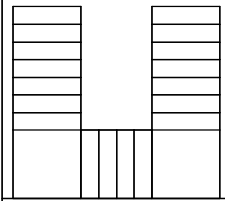
bedroom

shower

sauna

WC

washing  
machine



BUILDING PLANT 2 FLOOR

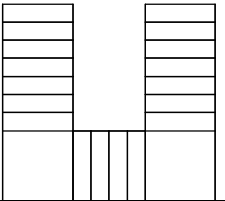
room 2

room 4

hall

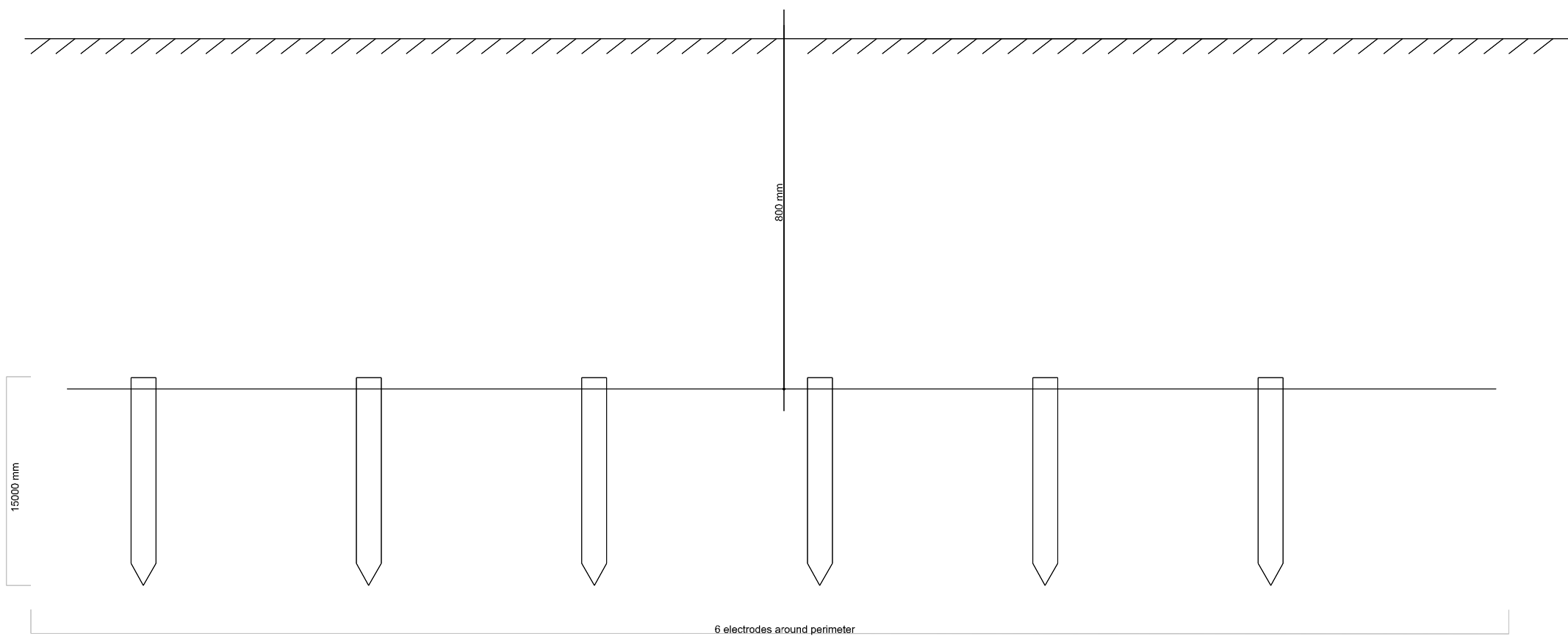
room 1

room 3









Ground impedance:

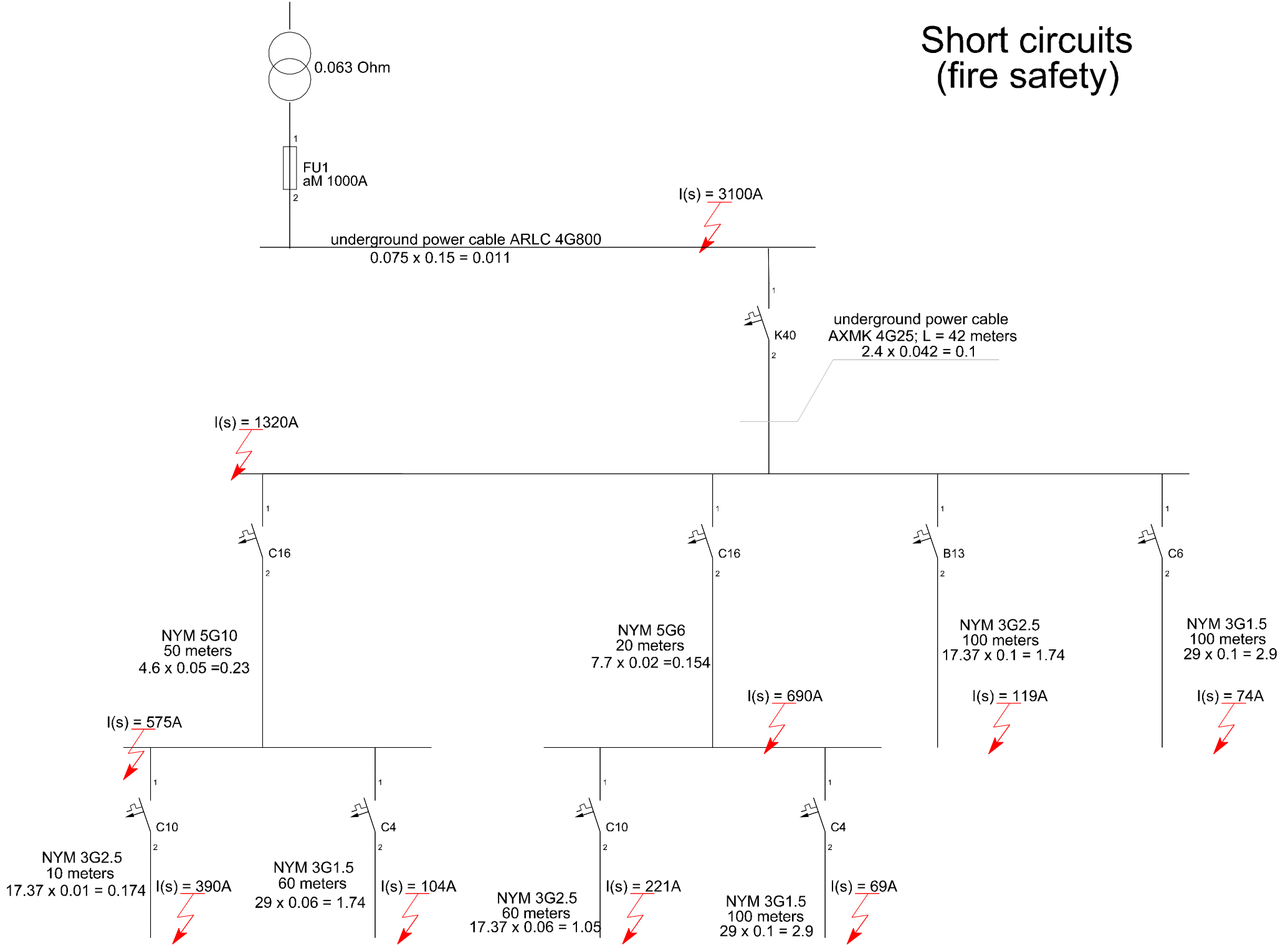
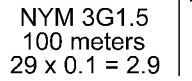
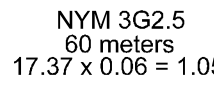
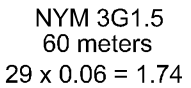
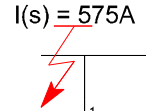
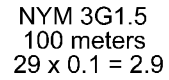
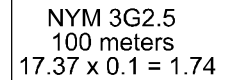
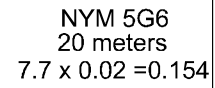
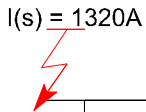
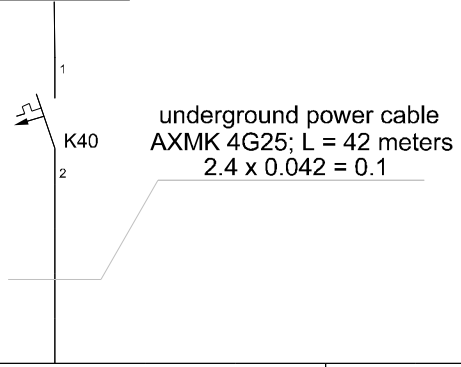
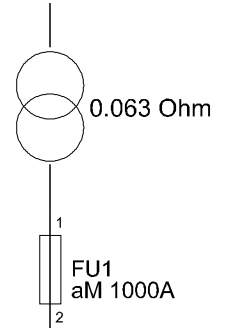
Vertical:

$$R(1 \text{ electrode}) = \frac{0.366 \times \rho}{L} \times \left( \lg \frac{2L}{D} + 0.5 \lg \frac{4T + L}{4T - L} \right) = 13,44 \times (1,18 + 0.08) = 17$$

$$R(6 \text{ electrodes}) = \frac{R(1 \text{ el})}{K_p + N} = 2,45$$



# Short circuits (fire safety)



# MATERIALS

Fuse box "ABB UNIBOX" 54M	1
Load switch OT40M3	1
Load switch 3x25A 415V	5
Transistive terminals ZS6	6
Bridge JB6	1
Circuit breaker C16, 3-phase	4
Circuit breaker B13, 1-phase	12
Circuit breaker C10, 1-phase	12
Circuit breaker C6, 1-phase	3
Circuit breaker C4, 1-phase	6
RCD 40A/30mA 3-phase	1
RCD 40A/30mA 1-phase	3
RCD 25A/30mA 1-phase	6
Cable NYM 5G6	250 Meters
Cable NYM 5G2.5	150 Meters
Cable NYM 3G2.5	720 Meters
Cable NYM 3G1.5	700 Meters
Copper wire yellow green 16mm	60 Meters
Earthing rods 1.5M	6
Contacts for earthing rods	6
Earthing wire RD8/KTS	20 Meters
Conduit flexible	* by installation process
Outlet box	60
Lamps and light fixtures	*according to consumer's wishes
Other (nails, contacts)	1