



LAMEL[®]
ROZDZIELNICE

Prefabricated concrete substations (container transformer station)



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Main characteristics

Lamel Rozdzielnice is offering two types of concrete substations:

- concrete container transformed station with outside operation (BSZ)
- concrete container transformed station with inside working corridor (BSW)

Prefabricated substation in accordance with standard IEC EN 62271-202: the prefabricated substation is considered equipment conforming to the product standard and has passed all the required tests. The product standard pays particular attention to the protection of persons. The main components of a prefabricated substation are: casing, power transformers; switchgears; interconnections; auxiliary switchgear and circuits.

Substations produced by Lamel Rozdzielnice has:

- high quality, long life and ergonomic design
- minimal sizes
- are safe for workers and environment

Concrete container transformer stations are prefabricated containers composed of two (BSZ) or three (BSW) monolithic elements made from C30/ 37 class reinforced concrete. The foundation is an isolated oil sump. Main body is intended to cover the MV and LV switchgears, remote control and signaling appliances, metering systems, transformers, aggregators and another devices according to design. The roof can be made entirely from metal sheets, or an architectonic panel installed on a concrete roof. Doors has ventilation holes and covered with aluminum louvres, which provide a protection degree of IP 43, painted with powder paint in colour as to RAL and has MasterKey lock.

Concrete container transformed station with outside operation (BSZ)

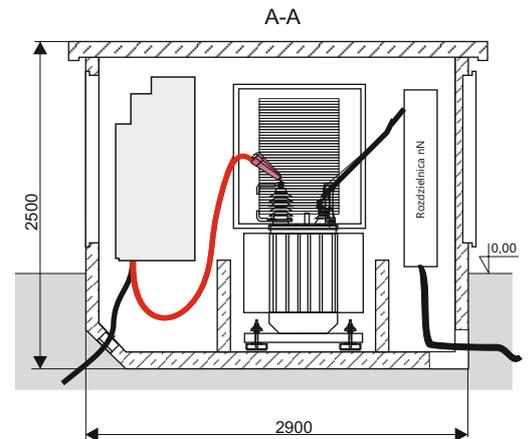
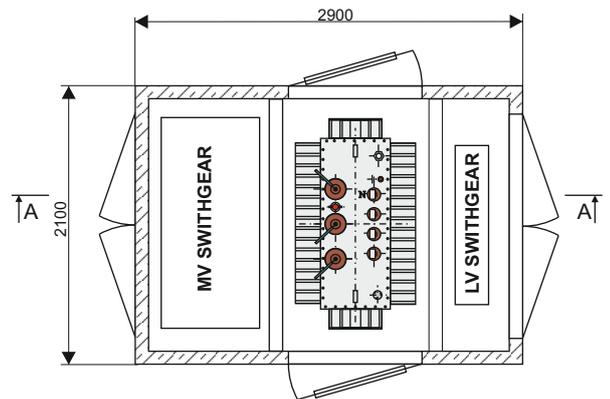
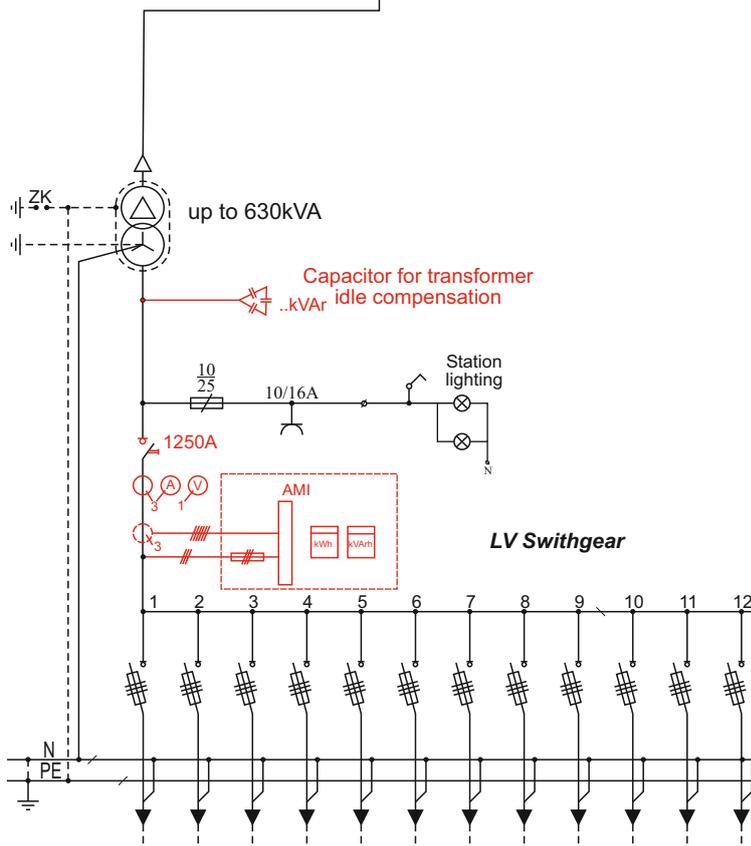
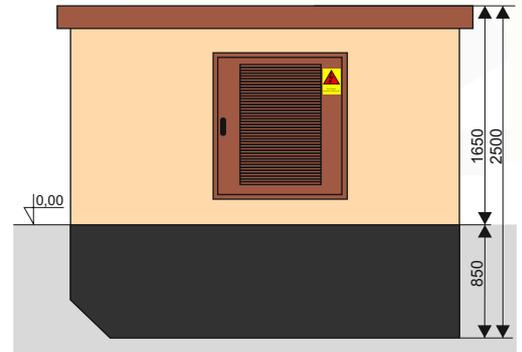
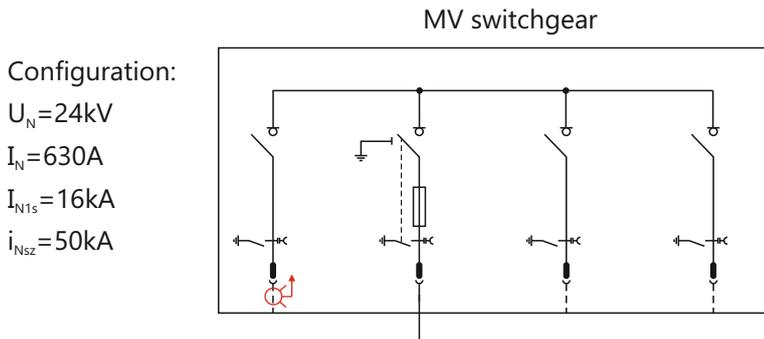
This substation is designed for outdoor operations. It has sizes 2.9 mtr x 2.1 mtr and is perfect for districts with congested buildings, because enables to mount substation on a small area. It is composed of two monolithic elements made from C30/ 37 class reinforced concrete: main body (with oil sump) and roof. Maximum weight is 2.8t (depends on assembly). In standard construction of the station, it is possible to install hermetically sealed transformers with rated power up to 630 kVA. The transformer is installed from the top after removing the roof. Fire resistance REI 90.

Types of BSZ substations (depends on service doors location):

- BSZa – with parallel separate doors for MV and LV service
- BSZb – with perpendicular separate doors for MV and LV service
- BSZc – with one common door for MV and LV service

BSZ-20/630-a

Concrete container transformed station with outside operation



Optional station equipment is **marked in red**
 Station can be designed in mirror version

MV Switchgear	Compact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	6040 kg
Roof	1950 kg
Total weight	7990 kg
Ground level	850mm

If you need more information about the equipment - contact us.

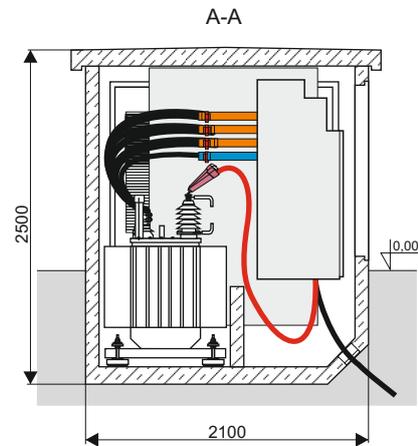
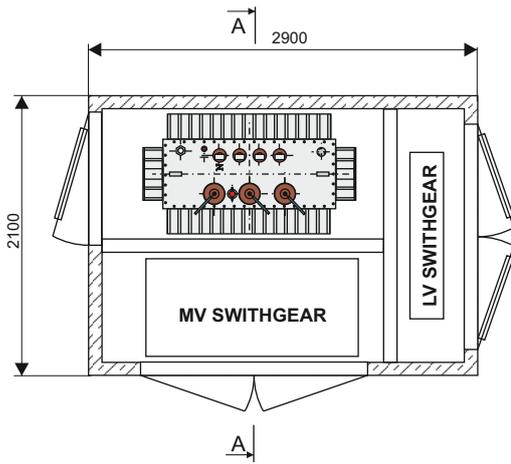
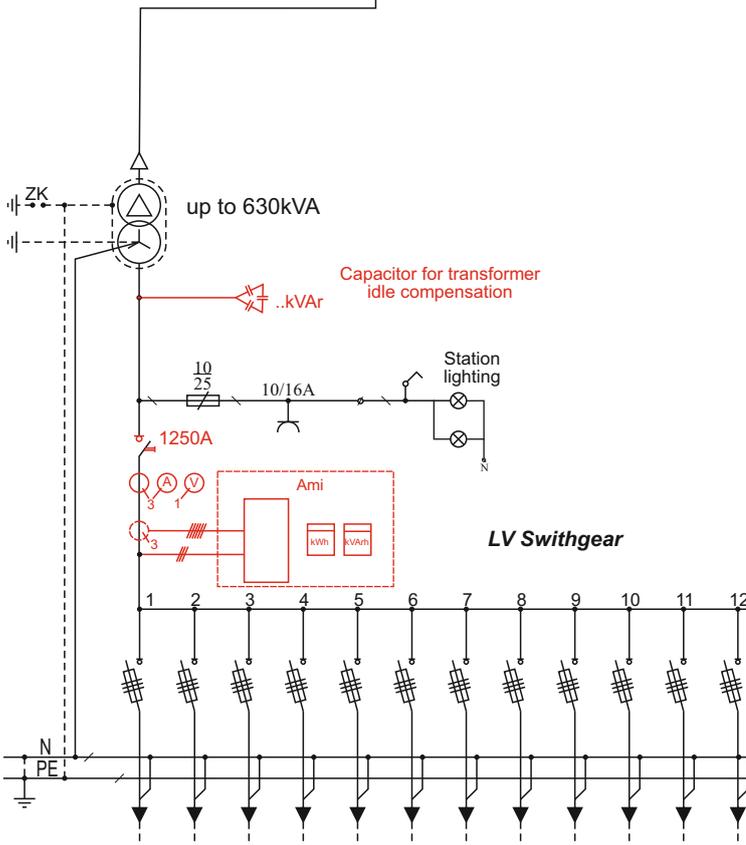
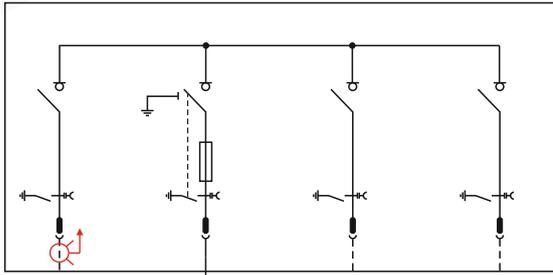
BSZ-20/630-b

Concrete container transformed station with outside operation

Configuration:

$U_N = 24\text{kV}$
 $I_N = 630\text{A}$
 $I_{N15} = 16\text{kA}$
 $i_{Nsz} = 50\text{kA}$

MV switchgear



Optional station equipment is **marked in red**
Station can be designed in mirror version

MV Swithgear	Compact
LV Swithgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	6500 kg
Roof	1950 kg
Total weight	8450 kg
Ground level	850mm

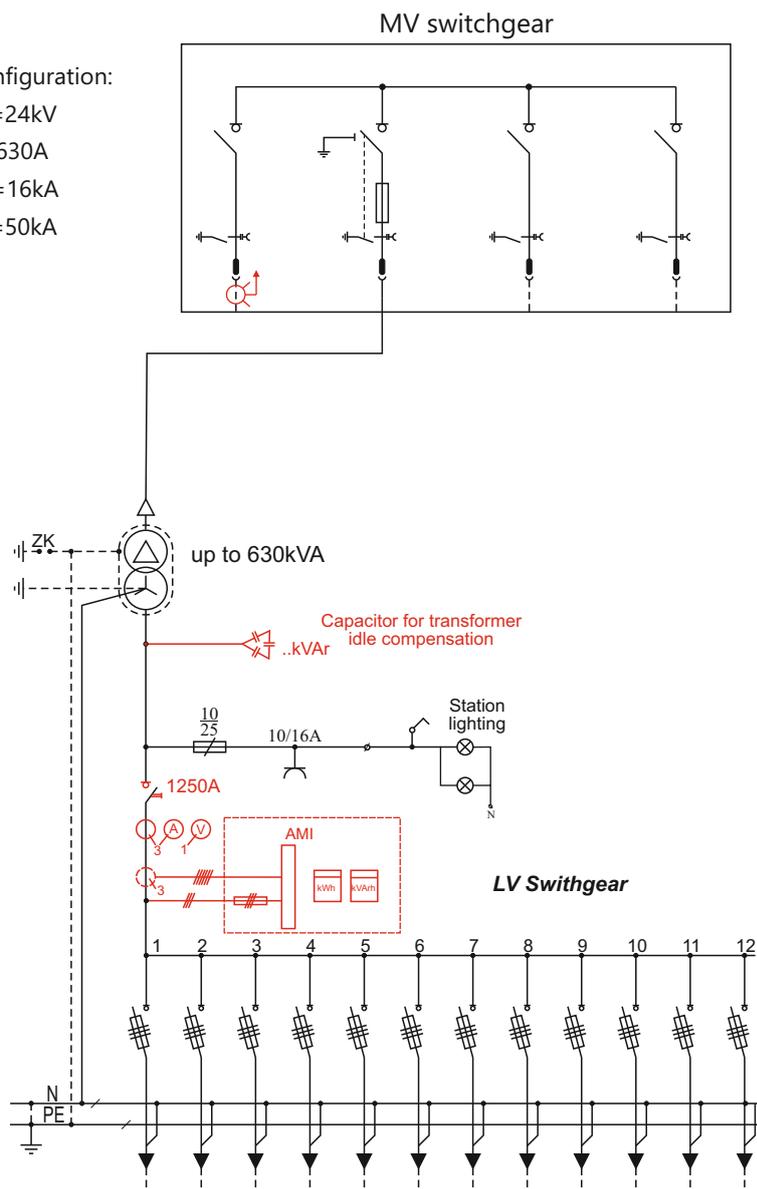
If you need more information about the equipment - contact us.

BSZ-20/630-c

Concrete container transformed station with outside operation

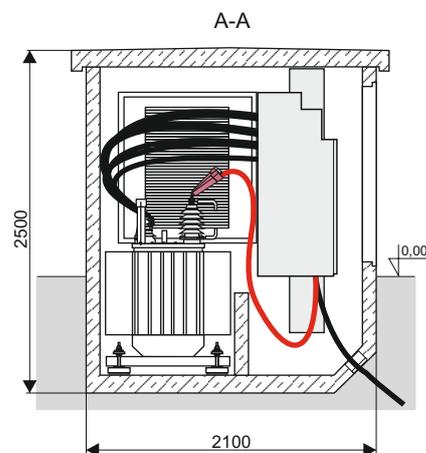
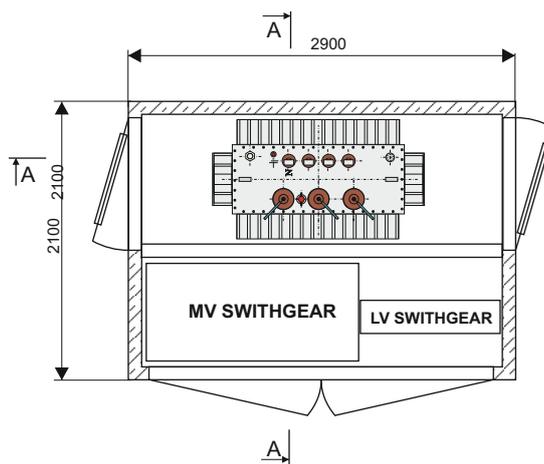
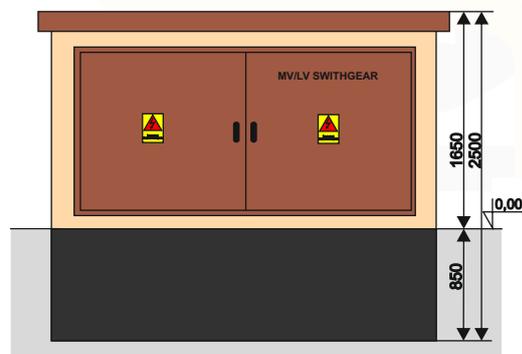
Configuration:

$U_N=24kV$
 $I_N=630A$
 $I_{N1s}=16kA$
 $i_{Nsz}=50kA$



Optional station equipment is **marked in red**
 Station can be designed in mirror version

MV Switchgear	Compact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	6040 kg
Roof	1950 kg
Total weight	7990 kg
Ground level	850mm



If you need more information about the equipment - contact us.

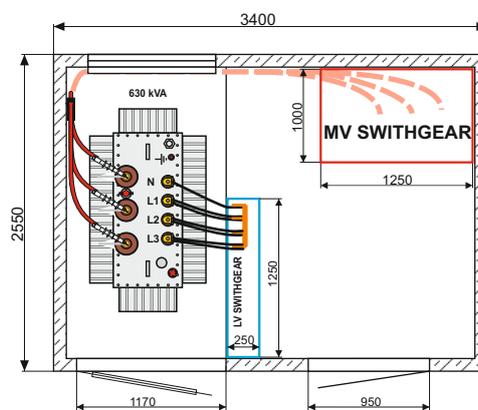
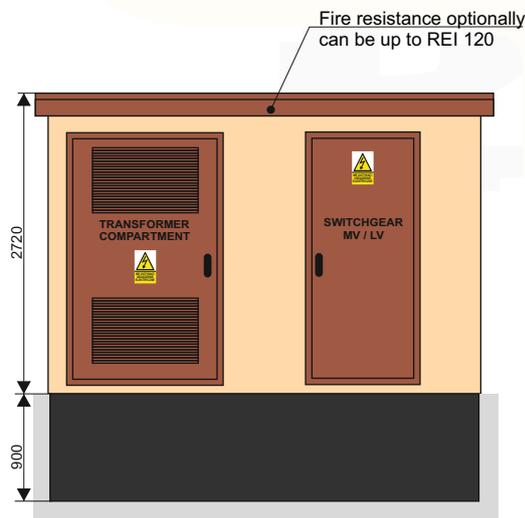
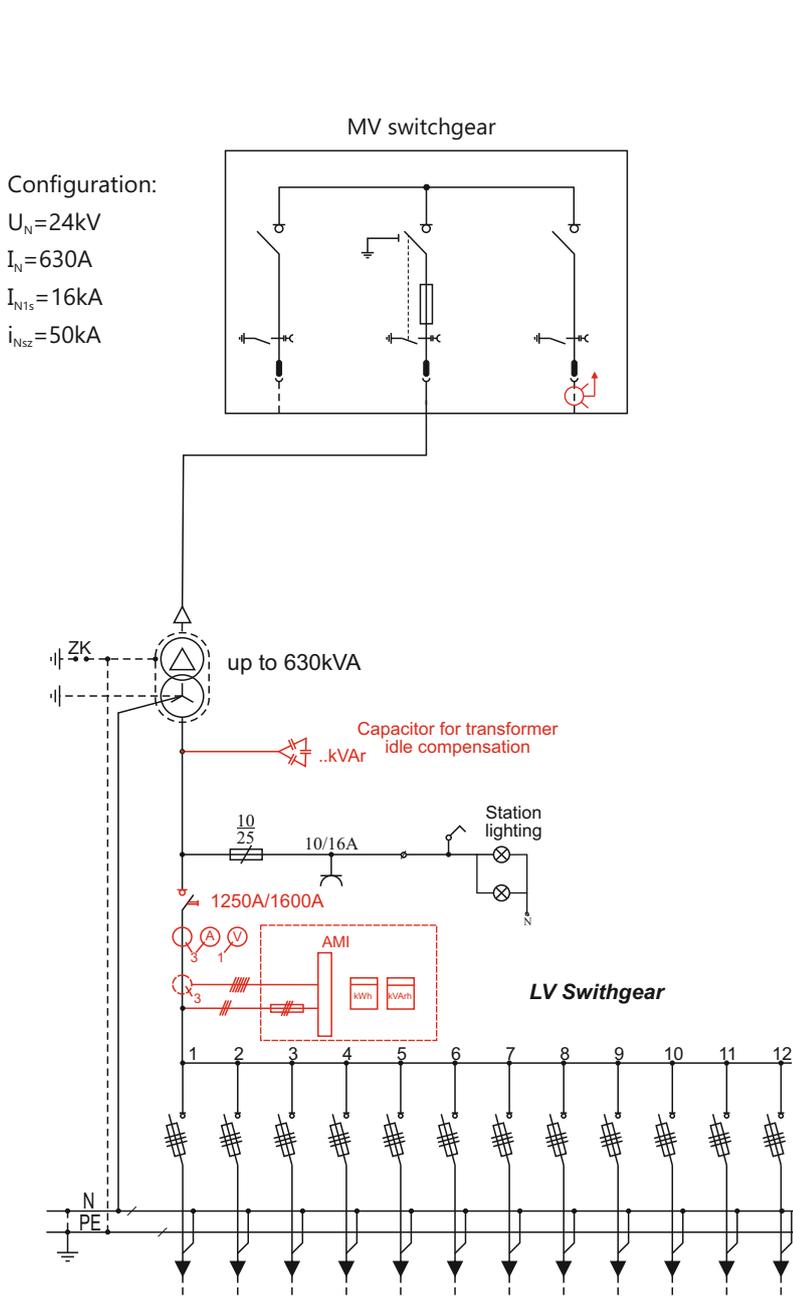
Concrete container transformed station with inside working corridor (BSW)

This substation is designed for inside operations and has indoor corridor. It has sizes 3 mtr x 8 mtr. It is composed of three monolithic elements made from C30/ 37 class reinforced concrete: foundation, main body and roof. Maximum weight is 2.8t (depends on assembly). In standard construction of the station, it is possible to install hermetically sealed transformers with rated power up to 1000 kVA. The transformer is installed through the compartment door. Fire resistance optionally can be up to REI 120 (in standard REI 90). The thickness of the concrete walls is minimum 10cm. Types of BSW substations depends on its sizes and number of transformers.

	Width (m)	Main body (t)	Foundation (t)	Roof (t)	Total weight (t)
Depth 2,55 (m)	3,00	9,80	4,50	2,50	16,80
	3,40	10,70	4,90	3,00	18,60
	3,80	11,50	5,40	3,30	20,20
	4,00	12,00	5,40	3,30	20,70
	4,20	12,50	5,80	3,50	21,80
	4,60	13,40	6,20	4,10	23,70
	4,80	13,80	6,80	4,20	24,80
	5,00	14,30	6,80	4,20	25,30
	5,40	15,20	7,20	4,80	27,20
	5,80	15,90	7,60	5,10	28,60
	6,00	16,30	7,80	5,30	29,40
	6,20	17,00	8,00	5,40	30,40
	6,60	17,90	8,50	5,80	32,20
	7,00	18,80	9,10	6,10	34,00
	7,40	19,50	9,70	6,50	35,70
	7,60	19,60	9,90	6,70	36,20
7,80	20,60	10,00	6,90	37,50	
8,00	21,20	10,20	7,00	38,30	

BSW-20/630(255/340)

Concrete container transformed station with inside working corridor



Optional station equipment is **marked in red**
120mm thickness of the wall in REI 120

MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	10700 kg
Roof	3000 kg
Foundation	4900 kg
Total weight	18600 kg

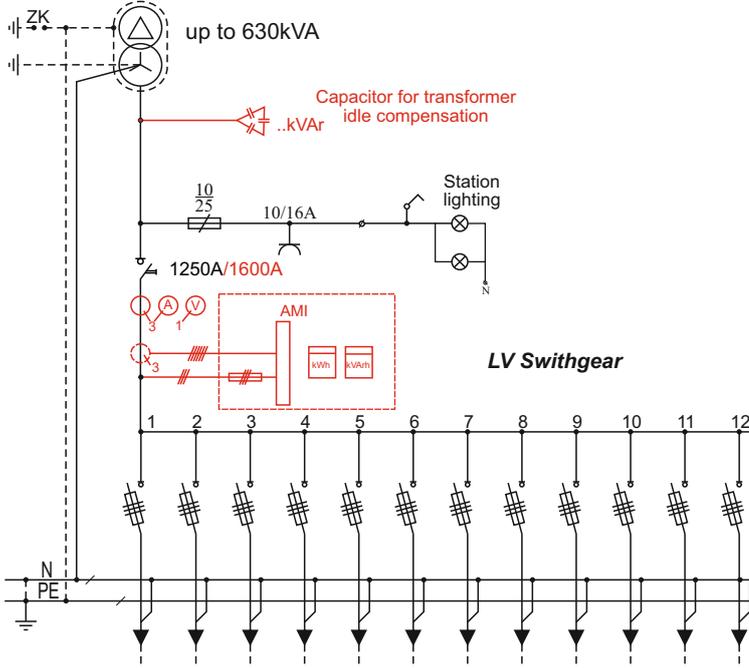
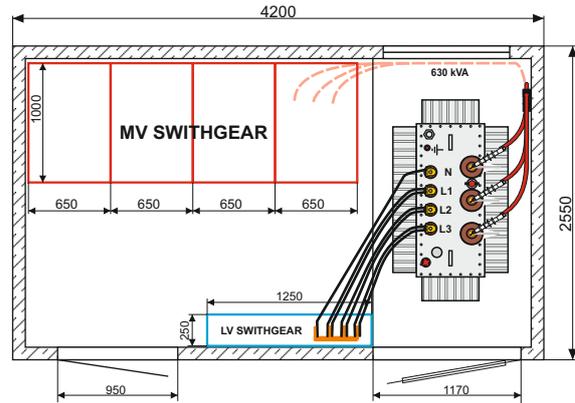
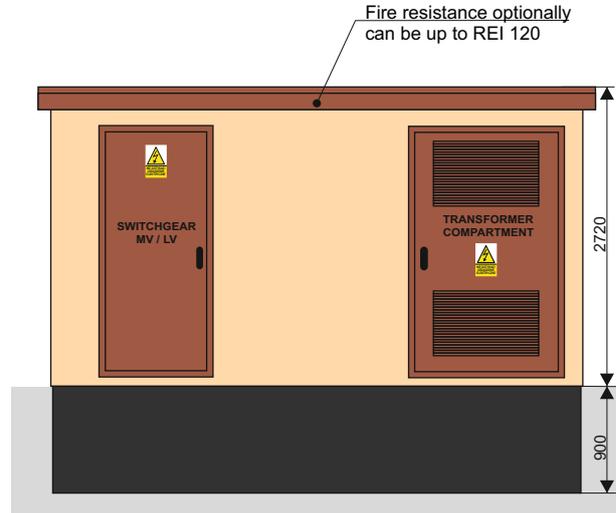
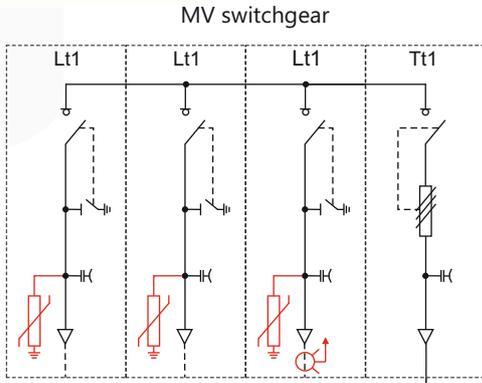
If you need more information about the equipment - contact us.

BSW-20/630(255/420)

Concrete container transformed station with inside working corridor

Configuration:

$U_N = 24\text{kV}$
 $I_N = 630\text{A}$
 $I_{N15} = 16\text{kA}$
 $i_{Nsz} = 50\text{kA}$



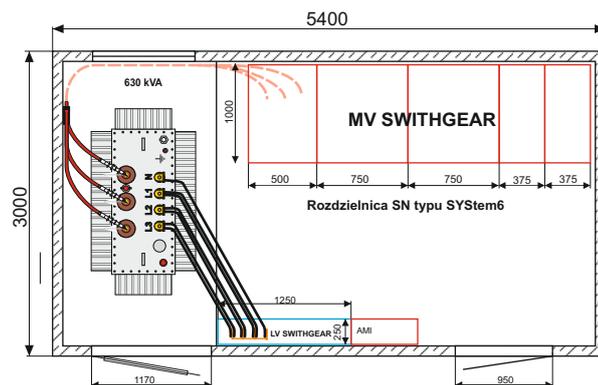
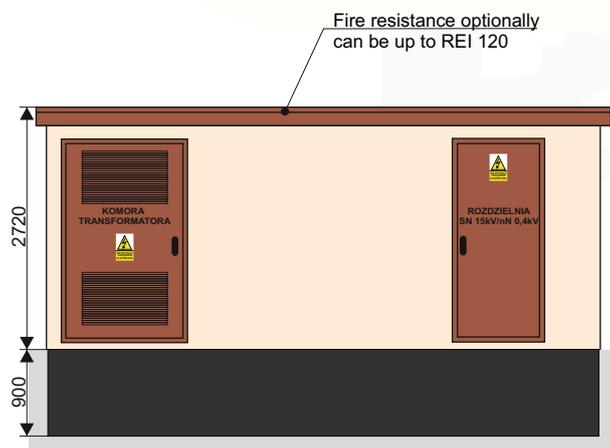
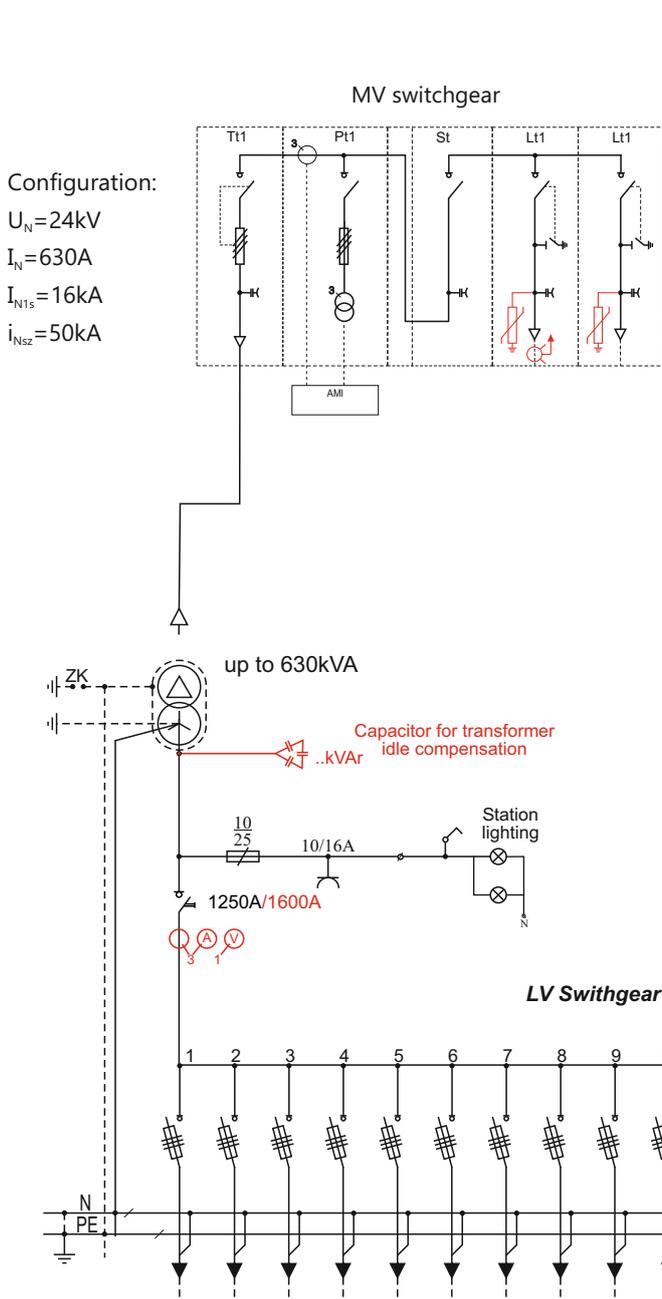
Optional station equipment is marked in red
120mm thickness of the wall in REI 120

MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	12500 kg
Roof	3500 kg
Foundation	5800 kg
Total weight	21800 kg

If you need more information about the equipment - contact us.

BSW-20/630(255/540)

Concrete container transformed station with inside working corridor



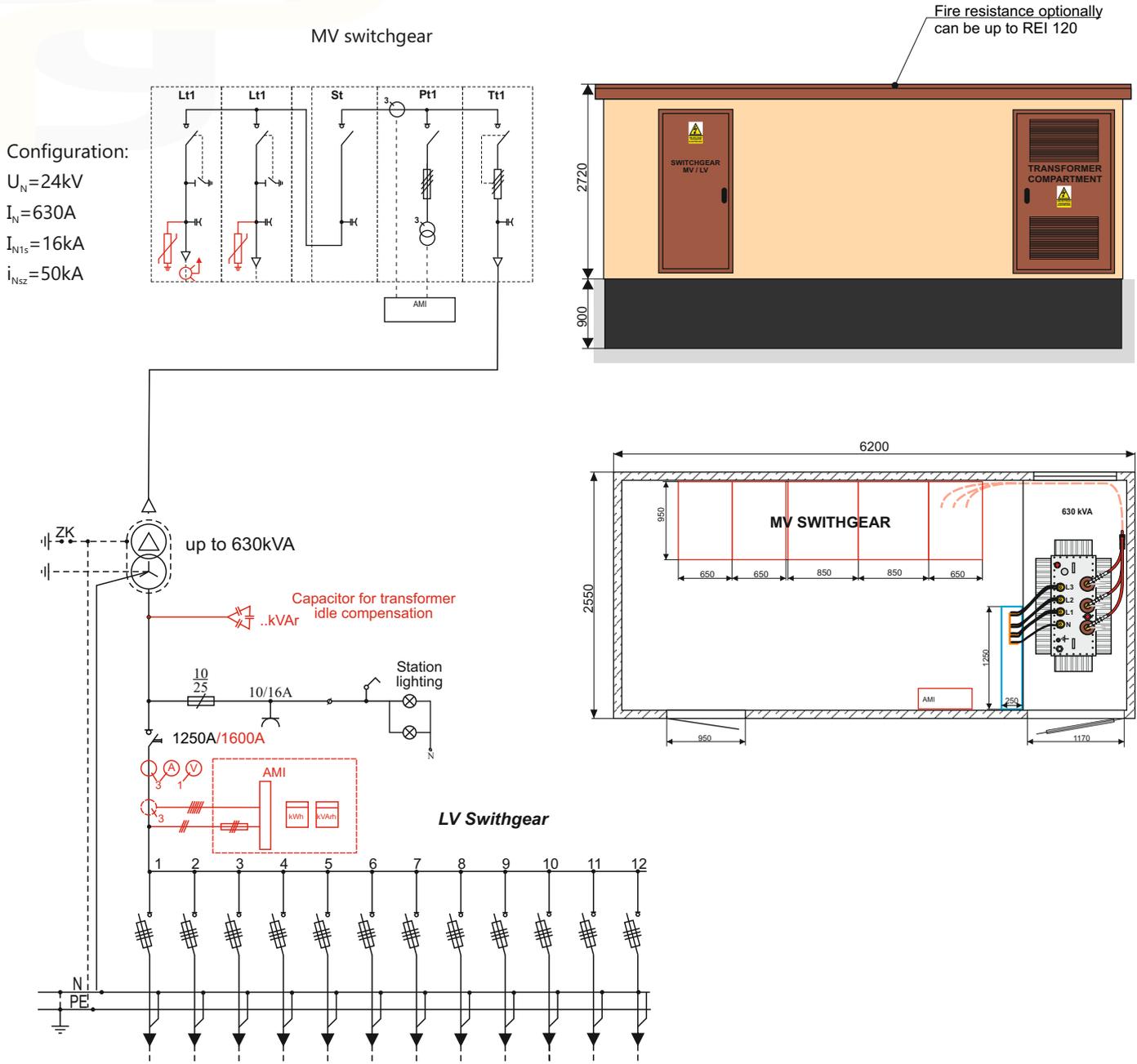
Optional station equipment is marked in red
 120mm thickness of the wall in REI 120

MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	15200 kg
Roof	4800 kg
Foundation	7200 kg
Total weight	27200 kg

If you need more information about the equipment - contact us.

BSW-20/630(255/620)

Concrete container transformed station with inside working corridor



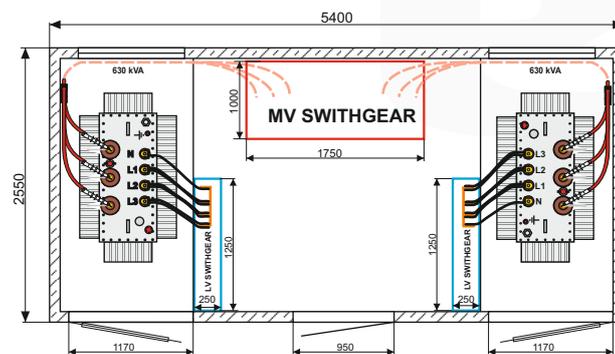
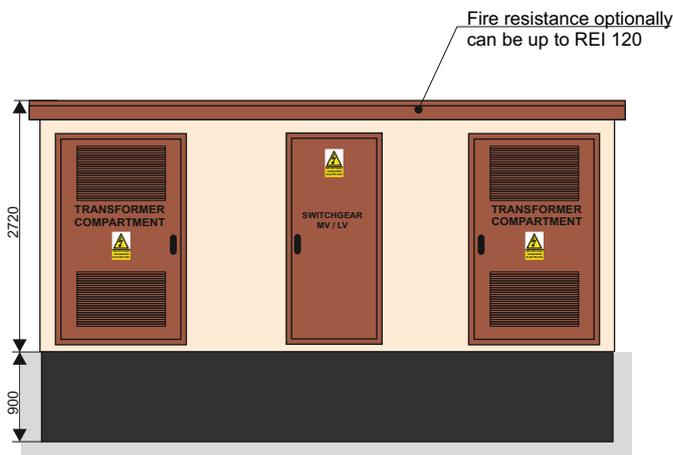
Optional station equipment is marked in red
120mm thickness of the wall in REI 120

MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	17000 kg
Roof	5400 kg
Foundation	8000 kg
Total weight	30400 kg

If you need more information about the equipment - contact us.

2x630kVA BSW-20/630(255/540)

Concrete container transformed station with inside working corridor



MV switchgear

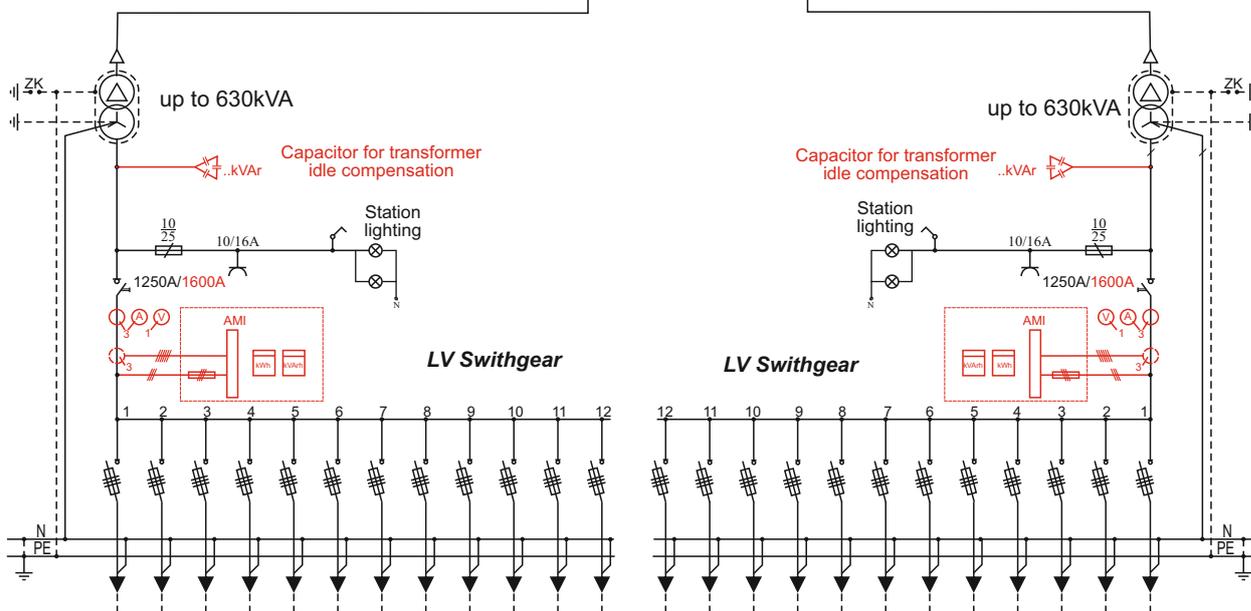
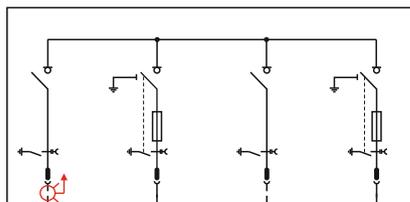
Configuration:

$U_N = 24\text{kV}$

$I_N = 630\text{A}$

$I_{N15} = 16\text{kA}$

$i_{Nsz} = 50\text{kA}$



Optional station equipment is marked in red

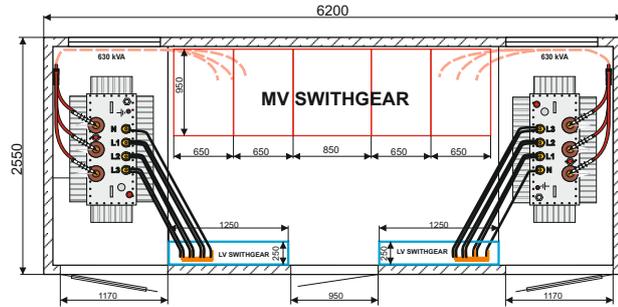
MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	15200 kg
Roof	4800 kg
Foundation	7200 kg
Total weight	27200 kg

120mm thickness of the wall in REI 120

If you need more information about the equipment - contact us.

2x630kVA BSW-20/630(255/620)

Concrete container transformed station with inside working corridor



MV switchgear

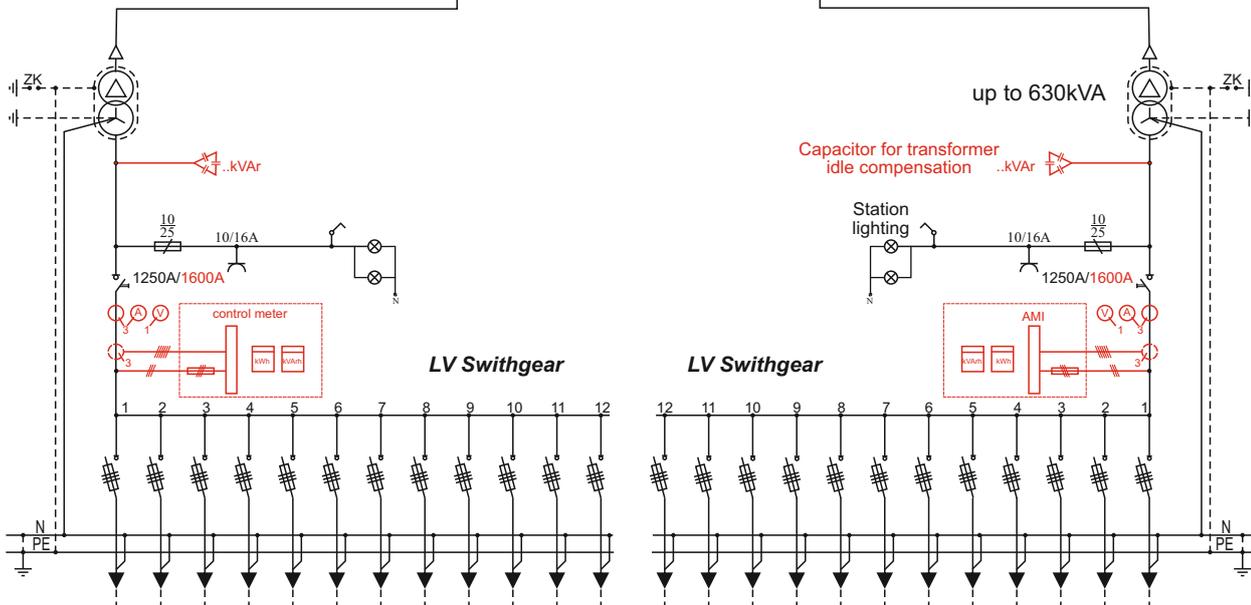
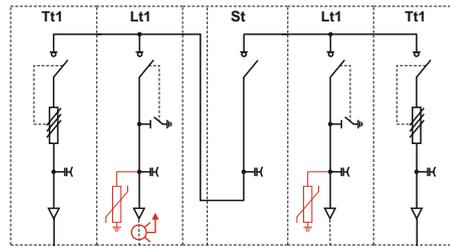
Configuration:

$U_N = 24kV$

$I_N = 630A$

$I_{N1s} = 16kA$

$i_{Nsz} = 50kA$



MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	17000 kg
Roof	5400 kg
Foundation	8000 kg
Total weight	30400 kg

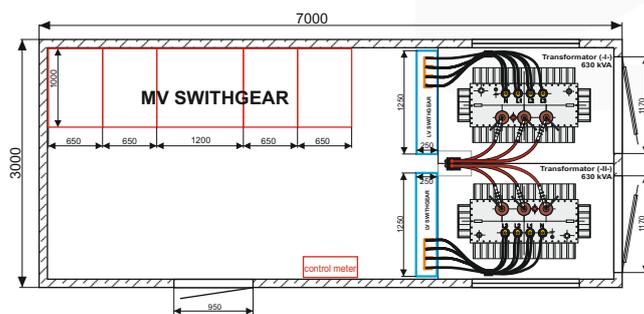
Optional station equipment is **marked in red**

120mm thickness of the wall in REI 120

If you need more information about the equipment - contact us.

2x630kVA BSW-20/630(300/700)

Concrete container transformed station with inside working corridor



MV switchgear

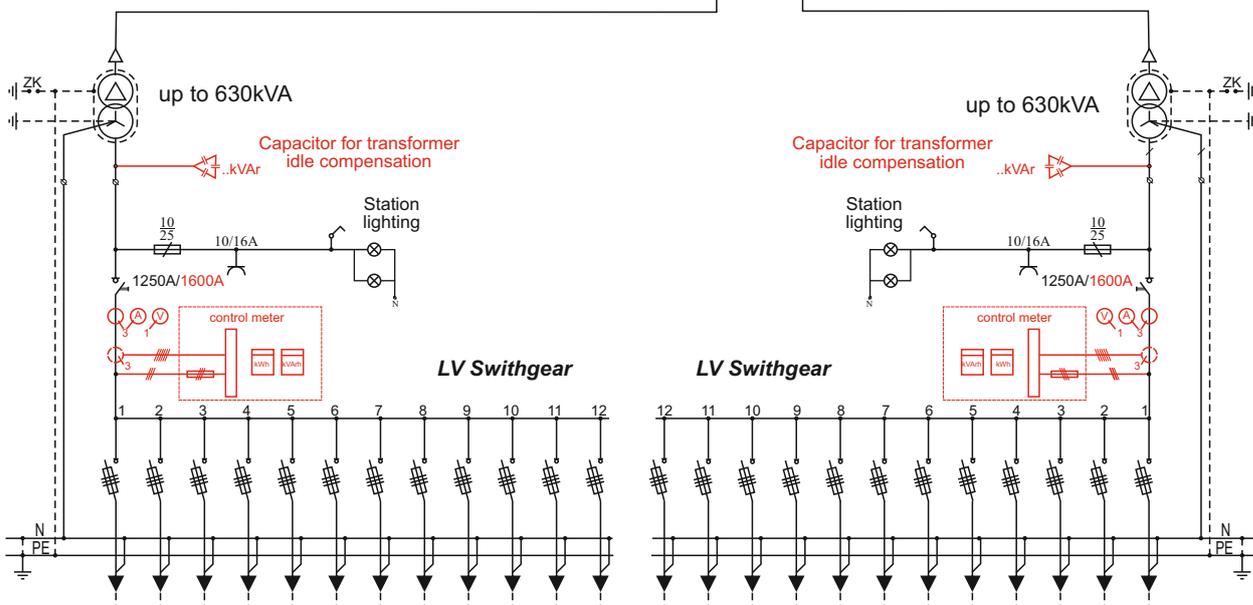
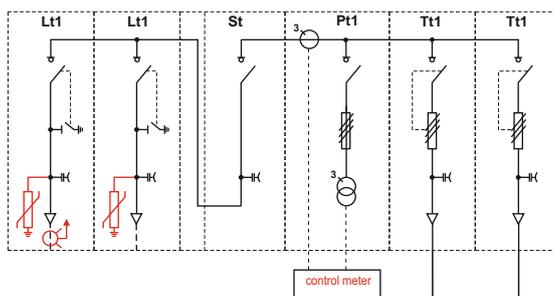
Configuration:

$U_N = 24kV$

$I_N = 630A$

$I_{N15} = 16kA$

$i_{Nsz} = 50kA$

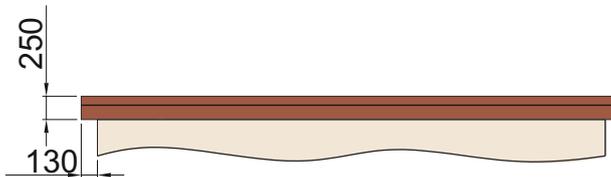
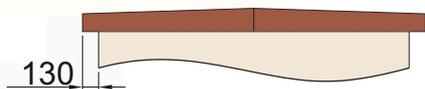


MV Switchgear	Please contact
LV Switchgear	STS-12-12
Transformer	up to 630kVA
Weight	
Main body	18800 kg
Roof	6100 kg
Foundation	9100 kg
Total weight	34000 kg

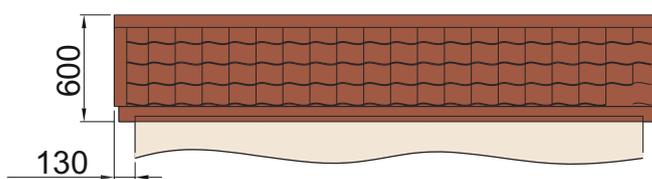
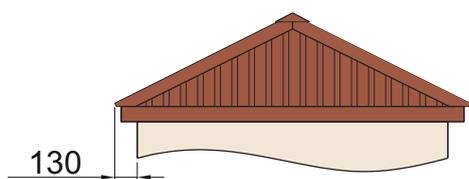
Optional station equipment is **marked in red**
120mm thickness of the wall in REI 120
 If you need more information about the equipment - contact us.

Design of the roofs

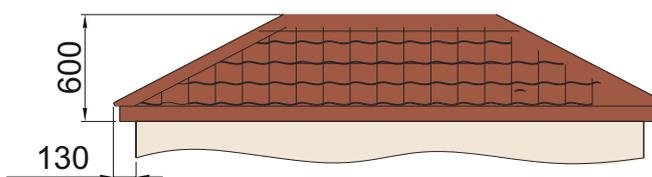
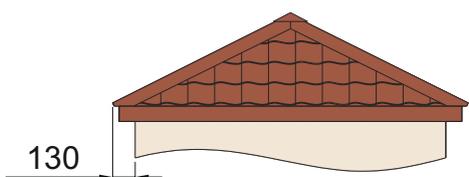
Flat concrete roof (STANDARD)



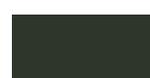
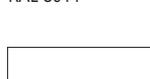
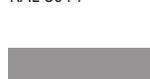
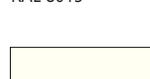
Gable metal roof



Hipped metal roof



Standard color sets

						
RAL 1002	RAL 1012	RAL 1013	RAL 1014	RAL 1015	RAL 1018	RAL 1019
						
RAL 1023	RAL 3003	RAL 3009	RAL 3012	RAL 3020	RAL 5005	RAL 5010
						
RAL 5013	RAL 5015	RAL 6010	RAL 6016	RAL 6020	RAL 6021	RAL 6022
						
RAL 7004	RAL 7032	RAL 7035	RAL 7047	RAL 8011	RAL 8014	RAL 8015
						
RAL 8017	RAL 8024	RAL 8025	RAL 9002	RAL 9003	RAL 9006	RAL 9010

The colours presented in the table may appear different in reality!
While choosing colours, always compare them with the original colour pallets.



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