

BILL OF QUANTITIES — ELECTRICAL POWER INSTALLATIONS (Volume 4)

Item No.	Description of works	Unit	Quantity
01	BUILDING SUPPLY		
01.01	Supply and install standard service cable termination box (KPK) with three blade-type fuse links (mains supply connection).	pcs	1
01.02	Supply and install standard service cable termination box (KPK) type KPK-A (fire/life-safety supply, Article 83).	pcs	1
01.03	Supply and lay 2 (two) PVC ducts Ø110mm from the public area to each of the 2 service cable termination boxes (KPK) (4 ducts in total), in ground and under plaster, for drawing in the LV network supply cables, in accordance with the distribution utility conditions (TU-EDB).	m	40
01.04	Supply and lay supply cable XP00-Y 4x95mm ² with terminations at both ends, section from KPK-MAINS to MDB.	m	25
01.05	Supply and lay supply cable XP00-Y 4x16mm ² with terminations at both ends, section from KPK-A to SMDB-A.	m	50
01.06	Supply and lay supply cable N2XH-J 5x16mm ² with terminations at both ends, section from MDB to DB-G.	m	50
01.07	Supply and lay supply cable N2XH-J 5x6mm ² with terminations at both ends, section from MDB to DB-CS.	m	8
01.08	Supply and lay supply cable N2XH-J 5x6mm ² with terminations at both ends, section from MDB to DB-PO.	m	8
01.09	Supply and lay supply cable N2XH-J 5x6mm ² with terminations at both ends, section from SMDB-A to DB-L.	m	45
01.10	Supply and lay supply cable NHXHX-J FE180/E90 5x6mm ² with terminations at both ends, section from SMDB-A to DB-H.	m	30
01.11	Supply and lay supply cable N2XH-J 5x6mm ² with connection at both ends, from MDB to the standard floor distribution board DB (per apartment).	pcs	18
01.12	Supply and lay supply cable N2XH-J 5x16mm ² with connection at both ends, from DB-G to the ATS control panel, in the building garage.	m	8
01.13	Supply and lay supply cable with connection at both ends, from the ATS to the diesel generator, in the building yard. Cable type NHXHX-J FE180/E90 5x16mm ² + N2XH-J 5x2.5mm ² (control) + NHXHX-J FE180/E90 2x1.5mm ² (remote stop), laid partly in ground and partly on the wall.	m	30
01.14	Dismantling of the existing service connection and the existing building meters, as instructed in the distribution utility conditions (TU-EDB), including handover of the dismantled equipment to the competent distribution utility.	l.s.	1
01.15	Supply and lay spare cable ducting (PVC duct Ø110mm) from the service cable termination box (KPK) to the public area, in ground, with sealing of the duct ends and marking of the route, as instructed in the distribution utility conditions (TU-EDB).	m	10
	TOTAL 01 — BUILDING SUPPLY:		
02	METERING PANELS AND DISTRIBUTION BOARDS		
02.01	Supply and install standard distribution panel for the diesel generator, enclosure IP54 (gasketed) / interior IP20, with equipment as per the single-line diagram. Complete, installed.	set	1
02.02	Supply and install standard distribution panel MDB (main metering and distribution board), enclosure IP54 (gasketed) / interior IP20, with equipment as per the single-line diagram. Complete, installed.	set	1
	- dual-tariff three-phase meter (apartments).	pcs	17
	- dual-tariff three-phase meter (common services).	pcs	2
	- MTK / remote meter reading control unit (AMI/MDM).	pcs	1
	- miniature circuit breaker (limiter) C40A, Icu ≥ 15 kA.	pcs	3
	- miniature circuit breaker (limiter) C32A, Icu ≥ 15 kA.	pcs	3
	- MCB (limiter) C25A, Icu ≥ 15 kA.	pcs	60
	- MCB B6A, Icu ≥ 15 kA (board lighting and bell).	pcs	2
	- main isolating switch 200A with operating handle.	pcs	1
02.03	Supply and install a standard distribution board SMDB-A (metering and distribution board A — fire/life-safety supply), enclosure IP54 (sealed) / interior IP20, with equipment as per the single-line diagram. Complete, installed.	set	1
	- dual-tariff three-phase meter (fire-safety supply: lift, hydrant booster, fire alarm panel).	pcs	3
	- fuse link EZ 63A with fuse base.	pcs	6
	- fuse link EZ 25A with fuse base.	pcs	3
	- main isolating switch 40A with operating handle.	pcs	1
02.04	Supply and install a standard distribution board DB-G (garage distribution board), enclosure IP54 (sealed) / interior IP20, with equipment as per the single-line diagram. Complete, installed.	set	1
	- RCD 63/0.03A 3P+N.	pcs	1
	- MCB C10A, Icu 10 kA.	pcs	17
	- MCB C16A, Icu 10 kA.	pcs	17
	- MCB C25A, Icu 10 kA.	pcs	6
	- contactor — manual switching of garage lighting (pushbutton + contactor K1 20A).	pcs	1
	- contactor — sensor zone 1 — photocell relay + motion detector (5 zones).	pcs	1
	- contactor — sensor zone 2 — photocell relay + motion detector (5 zones).	pcs	1
	- contactor — extract ventilation (3-ph).	pcs	1
	- contactor — pressurisation ventilation (3-ph).	pcs	1
	- contactor — soft starter ATS48D22Q (fan, control circuit).	pcs	1
	- contactor — submersible pump, DUTY (3-ph).	pcs	1
	- contactor — submersible pump, STANDBY (3-ph).	pcs	1
	- contactor — car parking lift 1 (413E, 3-ph).	pcs	1
	- contactor — car parking lift 2 (413D, 3-ph).	pcs	1
	- contactor — car parking lift 3 (413D, 3-ph).	pcs	1
	- contactor — start of pump 1 via fire alarm panel (3-ph).	pcs	1
	- contactor — start of pump 2 via fire alarm panel (3-ph).	pcs	1
	- main isolating switch 63A with operating handle.	pcs	1
02.05	Supply and install a standard distribution board DB-CS (common services), enclosure IP54 (sealed) / interior IP20, with equipment as per the single-line diagram. Complete, installed.	set	1
	- RCD 25/0.03A 3P+N.	pcs	1
	- MCB C10A, Icu 10 kA.	pcs	7
	- MCB C16A, Icu 10 kA.	pcs	5
	- photocell relay, DIN-rail mounted.	pcs	1
	- main isolating switch 25A with operating handle.	pcs	1
	- staircase timer switch 10A (control of the staircase lighting pushbutton circuit).	pcs	1

Item No.	Description of works	Unit	Quantity
02.06	Supply and install a standard floor distribution board DB, made of self-extinguishing plastic, for flush wall mounting, with equipment as per the single-line diagram. Complete, installed.	set	16
	- RCD 40/0.03A 3P+N.	pcs	1
	- MCB B16A, Icu 10 kA.	pcs	27
	- MCB B10A, Icu 10 kA.	pcs	6
	- MCB C25/3A, Icu 10 kA.	pcs	1
	- contactor — roller shutter motors (7x).	pcs	1
	- contactor — bathroom extract fan.	pcs	1
	- door bell.	pcs	1
	- indicator lamp.	pcs	1
02.07	Supply and install distribution board DB-16 with a capacity of 48 protective devices, for duplex apartment 16 (net 140 m², EDB rating class 32A), made of self-extinguishing plastic, for flush wall mounting, with equipment as per the single-line diagram. Complete, installed.	set	1
	- RCD 63/0.03A 3P+N.	pcs	1
	- MCB B16A, Icu 10 kA.	pcs	31
	- MCB B10A, Icu 10 kA.	pcs	8
	- MCB C25/3A, Icu 10 kA.	pcs	1
	- contactor — roller shutter motors (10x).	pcs	1
	- contactor — bathroom extract fan.	pcs	1
	- door bell.	pcs	1
	- indicator lamp.	pcs	1
02.08	Supply and install distribution board DB-17 with a capacity of 48 protective devices, for duplex apartment 17 (net 153 m², EDB rating class 40A), made of self-extinguishing plastic, for flush wall mounting, with equipment as per the single-line diagram. Complete, installed.	set	1
	- RCD 63/0.03A 3P+N.	pcs	1
	- MCB B16A, Icu 10 kA.	pcs	34
	- MCB B10A, Icu 10 kA.	pcs	7
	- MCB C25/3A, Icu 10 kA.	pcs	1
	- contactor — roller shutter motors (14x).	pcs	1
	- contactor — bathroom extract fan.	pcs	1
	- door bell.	pcs	1
	- indicator lamp.	pcs	1
02.09	Supply and install, flush in the wall adjacent to the MDB, a box housing the main equipotential bonding bar (MEB).	set	1
02.10	Supply and install in the MDB (downstream of the main isolating switch) a combined surge protective device SPD type 1+2, Iimp ≥ 25kA (10/350) per pole, Up ≤ 1.5kV, Uc ≥ 275V, for TN system 3x400/230V, complete with associated gG 125A backup fuses and connection to PE/MEB. NOTE: item added to comply with the standards (SRPS HD 60364-4-443 + coordination with LPS class II to SRPS EN 62305-4) — the reference design does not include it.	set	1
TOTAL 02 — METERING PANELS AND DISTRIBUTION BOARDS:			
03	SOCKET OUTLET AND LIGHTING INSTALLATIONS		
03.01	Supply and lay PP-Y 3x2.5mm² cable for flush wall-mounted Schuko socket outlets, under plaster, including connection. Complete, installed.	pcs	216
03.02	Supply and lay PP-Y 3x2.5mm² cable for surface-mounted (OG) Schuko socket outlets, under plaster, including connection. Complete, installed.	pcs	70
03.03	Supply and lay PP-Y 5x2.5mm² cable for the three-phase socket outlet (electric cooker), under plaster, including connection. Complete, installed.	pcs	17
03.04	Supply and lay PP-Y 3x2.5mm² cable for double Schuko socket outlets, under plaster, including connection. Complete, installed.	pcs	32
03.05	Supply and lay P-Y 4mm² conductor with installation of PS-49 boxes for supplementary equipotential bonding in kitchens and wet rooms (extraneous conductive parts: pipework, bath, sink). Set.	pcs	43
03.06	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- Schuko socket outlet 16A/250V, surface-mounted (OG)	pcs	1
	Complete, installed and connected.	set	70
03.07	Supply and install: three-phase socket outlet 16A/400V. Socket flush-mounted in the wall.	pcs	17
03.08	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- Schuko socket outlet 16A/250V with earthing contact	pcs	1
	Complete, installed and connected.	set	199
03.09	4M modular set comprising:		
	- 4M box	pcs	1
	- 4M mounting frame	pcs	1
	- 4M cover plate	pcs	1
	- 1M Euro socket outlet	pcs	1
	- 1M USB charger outlet	pcs	1
	- Schuko socket outlet 16A/250V with earthing contact	pcs	1
	Complete, installed and connected.	set	51
03.10	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1

Item No.	Description of works	Unit	Quantity
	- one-way lighting switch 10A/250V	pcs	1
	Complete, installed and connected.	set	49
03.11	4M modular set comprising:		
	- 4M box	pcs	1
	- 4M mounting frame	pcs	1
	- 4M cover plate	pcs	1
	- Schuko socket outlet 16A/250V with earthing contact	pcs	2
	Complete, installed and connected.	set	34
03.12	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- one-way lighting switch 10A/250V	pcs	2
	Complete, installed and connected.	set	30
03.13	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	2
	Complete, installed and connected.	set	24
03.14	3M modular set comprising:		
	- 3M box	pcs	1
	- 3M mounting frame	pcs	1
	- 3M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	1
	- one-way lighting switch 10A/250V	pcs	2
	Complete, installed and connected.	set	17
03.15	6M modular set comprising:		
	- 6M box	pcs	1
	- 6M mounting frame	pcs	1
	- 6M cover plate	pcs	1
	- 1M Euro socket outlet (in the multimedia node)	pcs	1
	- Multimedia outlet (MMK) — (***) telecoms (TK) design	pcs	1
	- Fibre optic connector with 2 SM fibres — (***) telecoms (TK) design	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	3
	Complete, installed and connected.	set	15
03.16	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	1
	Complete, installed and connected.	set	12
03.17	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	1
	- one-way lighting switch 10A/250V	pcs	1
	Complete, installed and connected.	set	11
03.18	3M modular set comprising:		
	- 3M box	pcs	1
	- 3M mounting frame	pcs	1
	- 3M cover plate	pcs	1
	- one-way lighting switch 10A/250V	pcs	3
	Complete, installed and connected.	set	10
03.19	4M modular set comprising:		
	- 4M box	pcs	1
	- 4M mounting frame	pcs	1
	- 4M cover plate	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	2
	- Schuko socket outlet 16A/250V with earthing contact	pcs	1
	Complete, installed and connected.	set	8
03.20	6M modular set comprising:		
	- 6M box	pcs	1
	- 6M mounting frame	pcs	1
	- 6M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	1
	- one-way lighting switch 10A/250V	pcs	4
	Complete, installed and connected.	set	3
03.21	3M modular set comprising:		

Item No.	Description of works	Unit	Quantity
	- 3M box	pcs	1
	- 3M mounting frame	pcs	1
	- 3M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	2
	- one-way lighting switch 10A/250V	pcs	1
	Complete, installed and connected.	set	2
03.22	6M modular set comprising:		
	- 6M box	pcs	1
	- 6M mounting frame	pcs	1
	- 6M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	2
	- one-way lighting switch 10A/250V	pcs	3
	Complete, installed and connected.	set	2
03.23	12M modular set comprising:		
	- 12M back box	pcs	1
	- 12M mounting frame	pcs	1
	- 12M cover plate	pcs	1
	- 1M Euro socket outlet	pcs	1
	- 1M Euro socket outlet (in the multimedia node)	pcs	1
	- Multimedia outlet (MMK) — (***) telecoms (TK) design	pcs	1
	- Fibre optic connector with 2 SM fibres — (***) telecoms (TK) design	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	5
	- 1M USB charger outlet	pcs	1
	- Schuko socket outlet 16A/250V with earthing contact	pcs	1
	Complete, installed and connected.	set	1
03.24	10M modular set comprising:		
	- 10M back box	pcs	1
	- 10M mounting frame	pcs	1
	- 10M cover plate	pcs	1
	- 1M Euro socket outlet	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	2
	- 1M USB charger outlet	pcs	1
	- Schuko socket outlet 16A/250V with earthing contact	pcs	3
	Complete, installed and connected.	set	1
03.25	10M modular set comprising:		
	- 10M back box	pcs	1
	- 10M mounting frame	pcs	1
	- 10M cover plate	pcs	1
	- 1M Euro socket outlet (in the multimedia node)	pcs	1
	- Multimedia outlet (MMK) — (***) telecoms (TK) design	pcs	1
	- Fibre optic connector with 2 SM fibres — (***) telecoms (TK) design	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	5
	- Schuko socket outlet 16A/250V with earthing contact	pcs	1
	Complete, installed and connected.	set	1
03.26	14M modular set comprising:		
	- 14M back box	pcs	1
	- 14M mounting frame	pcs	1
	- 14M cover plate	pcs	1
	- Dado (perimeter) trunking 1 m	pcs	1
	- RJ45 cat.6 data outlet — (***) telecoms (TK) design	pcs	4
	- Schuko socket outlet 16A/250V with earthing contact	pcs	4
	Complete, installed and connected.	set	1
03.27	4M modular set comprising:		
	- 4M box	pcs	1
	- 4M mounting frame	pcs	1
	- 4M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	1
	- one-way lighting switch 10A/250V	pcs	3
	Complete, installed and connected.	set	1
03.28	2M modular set comprising:		
	- 2M box	pcs	1
	- 2M mounting frame	pcs	1
	- 2M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	2
	Complete, installed and connected.	set	1
03.29	6M modular set comprising:		
	- 6M box	pcs	1
	- 6M mounting frame	pcs	1
	- 6M cover plate	pcs	1
	- two-way lighting switch 10A/250V	pcs	

Item No.	Description of works	Unit	Quantity
	- one-way lighting switch 10A/250V	pcs	4
	Complete, installed and connected.	set	1
03.30	6M modular set comprising:		
	- 6M box	pcs	1
	- 6M mounting frame	pcs	1
	- 6M cover plate	pcs	1
	- one-way lighting switch 10A/250V	pcs	5
	Complete, installed and connected.	set	1
03.31	8M modular set comprising:		
	- 8M back box	pcs	1
	- 8M mounting frame	pcs	1
	- 8M cover plate	pcs	1
	- one-way lighting switch 10A/250V	pcs	7
	Complete, installed and connected.	set	1
03.32	Supply and lay PP-Y 3x2.5mm ² conductor for the water heater installation. Cable laid under plaster with all necessary connections. Average installation length 16 m. The water heater is included in the rate. Complete installation.	pcs	43
03.33	Supply and lay PP-Y 3x2.5mm ² conductor for the bathroom heater installation. Cable laid under plaster with all necessary connections. Average installation length 8 m. The heater is included in the rate. Complete installation.	pcs	25
03.34	Supply and lay PP-Y 3x2.5mm ² conductor for the washing machine connection point. Cable laid under plaster with all necessary connections. Average installation length 10 m. The washing machine is included in the rate. Complete installation.	pcs	25
03.35	Supply and lay PP-Y 3x1.5mm ² conductor to supply the fan via a series (two-circuit) switch. Cable laid under plaster with all necessary connections. Average installation length 6 m. Complete installation.	pcs	25
03.36	Supply and lay PP-Y 4x1.5mm ² conductor for the roller shutter installation. Cable laid under plaster with all necessary connections. Average installation length 4 m. Complete installation.	pcs	88
03.37	Supply and lay PP-Y 3x2.5mm ² conductor for the schuko socket serving the heat pump indoor unit. Cable laid under plaster with all necessary connections. Average installation length 7 m. Complete installation.	pcs	52
03.38	Total length of socket-circuit conductors (measured from the routes on the drawings) — check item.	m	1493
03.39	Supply, install and connect ceiling luminaires in rooms (dry areas). Luminaires are LED ceiling type, IP20.	pcs	76
03.40	Supply, install and connect ceiling luminaires in bathrooms. Luminaires are LED ceiling type, IP54.	pcs	25
03.41	Supply, install and connect ceiling luminaires in kitchens, hallways and other service/common areas. Luminaires are LED ceiling type, IP54.	pcs	18
03.42	Supply, install and connect ceiling luminaires in the garage and plant rooms. Luminaires are LED ceiling type, IP54.	pcs	5
03.43	Supply, install and connect ceiling luminaires in apartment corridors and plant rooms (dry areas). Luminaires are LED ceiling type, IP20.	pcs	41
03.44	Supply, install and connect wall/ceiling luminaires on the building terraces. Luminaires are LED type, IP54.	pcs	46
03.45	Supply, install and connect wall-mounted luminaires at the building entrance. Luminaires are wall-mounted LED type, IP54.	pcs	1
03.46	Supply, install and connect emergency escape luminaires in the staircase, with integral batteries (3 h autonomy).	pcs	28
03.47	Supply, install and connect emergency escape luminaires in the basement/garage, IP65, with integral batteries.	pcs	14
03.48	Supply and lay PP-Y 3x1.5mm ² conductor for lighting points in the apartments, under plaster, with connection. Average installation length 8m. Installed complete.	pcs	153
03.49	Supply and lay N2XH-J 3x1.5mm ² (halogen-free) conductor for lighting points in the common areas, under plaster, with connection. Average installation length 8m. Installed complete.	pcs	13
03.50	Supply and lay PP-Y 3x1.5mm ² conductor for staircase lighting points supplied via the staircase timer switch. Average length per lighting point 15m. Installed complete.	pcs	14
03.51	Supply and lay N2XH-J 3x1.5mm ² conductor for garage lighting points supplied via the automatic switch. Average length per lighting point 15m. Installed complete.	pcs	13
03.52	Supply and lay PP-Y 3x1.5mm ² conductor forming a standard lighting point at the building entrance and in the atrium, supplied via the photocell relay. Average installation length 12m. Installed complete.	pcs	2
03.53	Supply and install the main equipotential bonding bar (SIP) in the building.	pcs	1
03.54	Supply and lay the earthing cable for the main metering board MDB from the equipotential bonding bar (SIP).	pcs	1
03.55	Supply and lay the earthing cable for metering board SMDB-A from the equipotential bonding bar (SIP).	pcs	1
03.56	Bonding of extraneous conductive parts to the SIP bonding bar (water and drainage pipework, staircase balustrade, earthing of the cable-TV (CATV) cabinet).	pcs	4
03.57	Supply and lay signalling conductor from the ripple-control receiver (MTK) to the distribution boards DB in the apartments and commercial units and to the metering/distribution boards.	pcs	18
03.58	Supply and lay conductor for the supply of the RACK cabinet housing the cable operator's and CCTV equipment.	m	50
03.59	Supply and lay conductor for the supply of the door entry (intercom) cabinet INT.	m	18
03.60	Supply and lay conductor for the supply of the car lift from board SMDB-A.	pcs	1
03.61	Supply and lay conductor for the supply of the gas detection panel and the fire alarm panel.	pcs	2
03.62	Supply and lay conductor for the supply of the emergency (flood) water transfer pumps in the building basement, fed from garage board DB-G.	m	120
03.63	Supply and lay N2XH-J 3x2.5mm ² conductor for the supply of the roof gutter trace heating from garage board DB-G. The cable is laid on spacing clips. The rate includes the cable and its laying.	m	73
03.64	Supply and lay conductor from general services board DB-CS to the photocell sensor.	pcs	1
03.65	Supply and lay conductor for the push-buttons with indicator lamp for switching on the garage lighting.	pcs	6
03.66	Supply and lay conductor for the control installation for switching on the garage lighting via motion detectors.	pcs	10
03.67	Supply and lay conductor for the outlet to the mirror cabinet with luminaire above the washbasin, via a series (two-circuit) switch.	pcs	24
03.68	Supply and lay conductor for the push-buttons with indicator lamp for switching on the staircase lighting.	pcs	19
03.69	Supply and lay PP 2x1.5mm ² conductor for the bell installation at the apartment entrance, including installation of the push-button and bell. Installed complete.	pcs	18
03.70	Preparation of test certificates and execution of all required testing of the completed installation, with issue of the test report.	l.s.	1
	TOTAL 03 — SOCKET-OUTLET AND LIGHTING INSTALLATIONS:		
04	CABLE SUPPORT SYSTEMS		
04.01	Supply and install PNK perforated cable tray in the ground floor corridor (boxed in plasterboard) for power installations, with all associated accessories (suspension accessories, corner elements, covers).	m	29
04.02	Supply and install PNK perforated cable tray in the riser up to the loft (boxed in plasterboard) for power installations, with all associated accessories.	m	27

Item No.	Description of works	Unit	Quantity
	TOTAL 04 — CABLE SUPPORT SYSTEMS:		
05	FOUNDATION EARTH ELECTRODE AND LIGHTNING PROTECTION INSTALLATIONS		
05.01	Supply and install rod air terminations on the roof (at the corners/high points of the building), complete with supports.	pcs	4
05.02	Supply of FeZn 25×4mm tape for the foundation earth electrode, laid in the foundation around the perimeter of the building, with all joints.	m	261
05.03	Supply and install cross connectors in the building foundation for the tap-offs and joints of the foundation earth electrode.	pcs	38
05.04	Supply and forming of tap-offs in FeZn 25×4mm tape from the foundation earth electrode for the lightning protection down conductors.	pcs	7
05.05	Supply and forming of tap-offs in FeZn 25×4mm tape from the foundation earth electrode for the earthing of extraneous metal parts (doors, railings, services).	pcs	27
05.06	Supply and forming of tap-offs in FeZn 25×4mm tape from the foundation earth electrode for the earthing of the main earthing bar (SIP) / lift shaft / RACK.	m	13
05.07	Supply of FeZn 20×3mm tape for the lightning protection down conductors, laid under plaster from the roof to the test joints.	m	147
05.08	Supply and lay FeZn 20×3mm tape for the air-termination mesh over the roof.	m	130
05.09	Supply and install test/disconnection boxes in the building façade (one at each down conductor).	pcs	7
05.10	Supply and forming of the test/disconnection point (lap joint, with two bolts) within the box.	pcs	7
05.11	Supply and forming of connections (by soldering or by clamp with serrated washer) at all tape crossings and joints.	pcs	21
05.12	Testing of the galvanic continuity of metal parts and measurement of the earth resistance of the lightning protection installation, with issue of test certificates.	l.s.	1
	TOTAL 05 — FOUNDATION EARTH ELECTRODE AND LIGHTNING PROTECTION INSTALLATIONS:		
06	DIESEL GENERATOR		
06.01	Supply, install and commission a diesel generator in an outdoor weatherproof canopy, rated 44kVA / 40kVA prime (sized for the safety/standby supply of the fire and life-safety loads: lift, hydrant, emergency luminaires, fire alarm panel — Pj=22kW), with ATS changeover control, fuel tank, silencer and exhaust. Complete set.	pcs	1
	TOTAL 06 — DIESEL GENERATOR:		

SAMPLE - not for construction

SUMMARY RECAPITULATION OF WORKS — ELECTRICAL POWER INSTALLATIONS

No.	Section	Items
1	01 BUILDING SUPPLY	15
2	02 METERING PANELS AND DISTRIBUTION BOARDS	10
3	03 SOCKET OUTLET AND LIGHTING INSTALLATIONS	70
4	04 CABLE SUPPORT SYSTEMS	2
5	05 FOUNDATION EARTH ELECTRODE AND LIGHTNING PROTECTION INST	12
6	06 DIESEL GENERATOR	1
	TOTAL ELECTRICAL POWER INSTALLATIONS:	

SAMPLE - not for construction