



ENERGY SYSTEMS

Transformers Generators **Switchgear**

2026 Product Catalogue

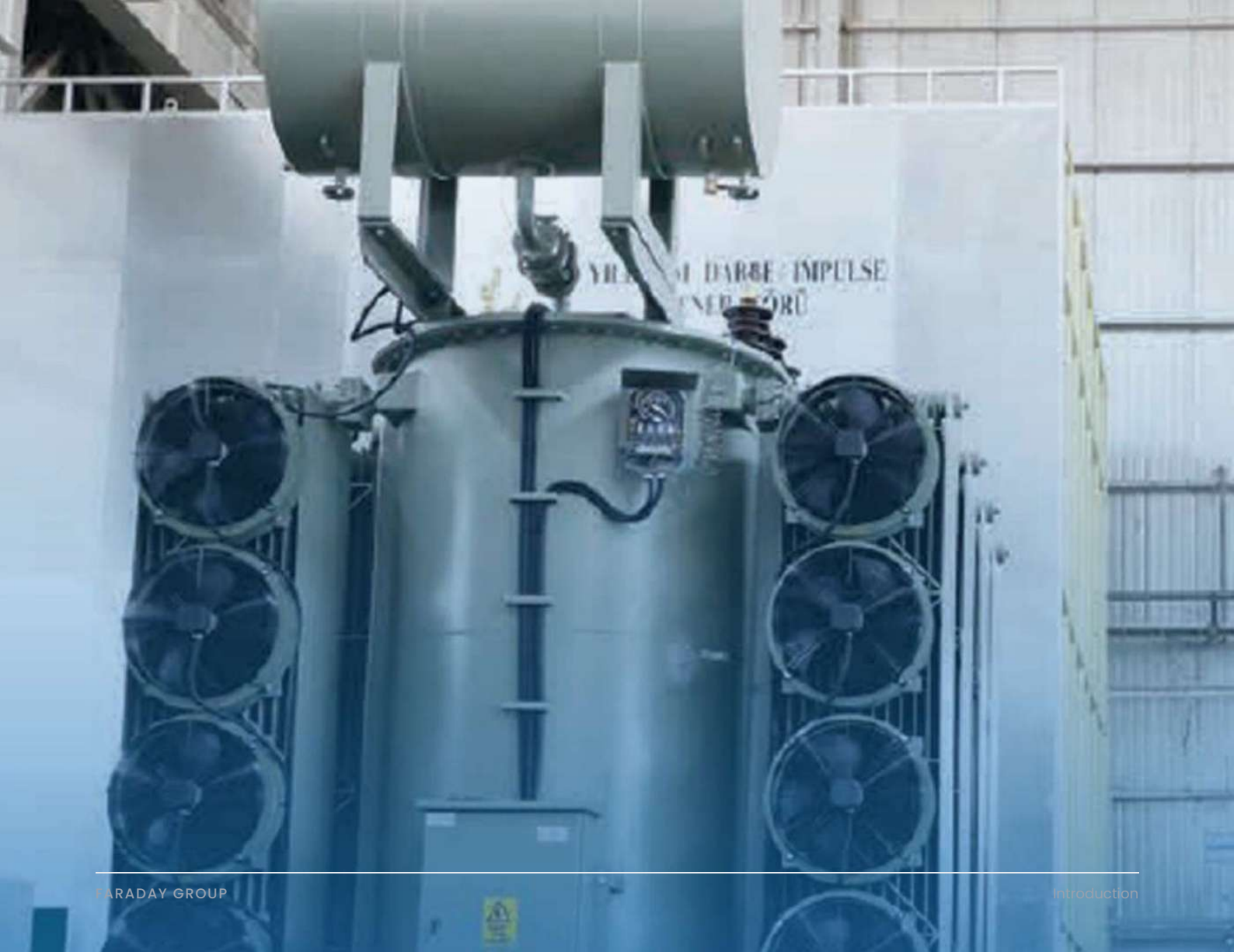
www.faradaygroups.com

İSTANBUL · TÜRKİYE



Discover Faraday in Energy.

Power generation, transformation and distribution equipment — engineered in Türkiye, delivered worldwide.



Since 1980

Faraday Group is a Türkiye-based supplier of electrical power equipment, serving utilities, contractors, industrial plants and distribution partners across Europe, the Middle East, Africa and the CIS. Our energy division brings together three complementary product families: oil-immersed distribution and power transformers, diesel generator sets, and medium- and low-voltage switchgear.

Every unit we supply is manufactured to IEC standards and released against a full set of routine tests. Our role does not end at the factory gate: we handle technical selection, documentation, export packing and shipment, so that our partners receive equipment that is correct on arrival and supported thereafter.

Four decades of trading experience have taught us that reliability in this sector is measured less by catalogue claims than by delivered lead times, accurate test reports and a supplier who answers the telephone.

1980

Founded

25 kVA – 40 MVA

Transformers

10 – 3000 kVA

Generators

IEC

Design & testing

TÜRKÇE

1980 yılında kurulan Faraday Grup, elektrik güç ekipmanları alanında faaliyet gösteren Türkiye merkezli bir tedarikçidir. Enerji bölümümüz; yağlı tip dağıtım ve güç transformatörleri, dizel jeneratör grupları ile orta ve alçak gerilim şalt ekipmanlarını kapsamaktadır. Tüm ürünlerimiz IEC standartlarına uygun olarak üretilmekte ve rutin testleri tamamlanarak sevk edilmektedir. Teknik seçim, dokümantasyon, ihracat ambalajlama ve sevkiyat süreçlerinin tamamı tarafımızca yürütülür.

What We Supply

Three product families, one point of contact. Below is the scope we quote against on a routine basis.



Distribution Transformers

Oil-immersed, hermetically sealed or conservator type. 25 – 2500 kVA up to 36 kV, copper or aluminium windings, pole- or ground-mounted.



Power Transformers

3.15 – 40 MVA, ONAN / ONAF cooling, on-load tap changers, custom vector groups and special designs for industrial and generation plants.



Diesel Generator Sets

10 – 3000 kVA in open, canopied, containerised and trailer-mounted configurations, with transfer and synchronisation panels.



MV & LV Switchgear

Metal-enclosed and metal-clad switchgear, low-voltage panels, concrete and metal sheet kiosks, mobile substations.

SUPPORTING SERVICES



Technical selection

Sizing against site load data



Type & routine testing

Reports issued with each unit



Export documentation

CoO, packing list, certificates



Seaworthy packing

Container and breakbulk



Commissioning support

On request, at site



Spare parts

Bushings, OLTC, protection

SECTION 01

Generators

Diesel generator sets from 10 to 3000 kVA — open, canopied, containerised and mobile, for standby and prime duty.



Diesel Generator Sets

Complete packages — engine, alternator, base frame with integral fuel tank, control panel, batteries, silencer and flexible connections — load tested before despatch.



CONFIGURATIONS



Open type

Skid mounted, plant rooms



Sound-attenuated canopy

Weatherproof, outdoor rated



Container type

20 ft and 40 ft, walk-in



Trailer mounted

Road-towable mobile sets



Twin / parallel sets

Load sharing configurations



Light towers

Telescopic mast, LED array

SCOPE OF SUPPLY



Automatic transfer panels

Mains / generator changeover



Synchronisation panels

Multi-set and mains parallel



Circuit breakers

Rated to set output



External fuel tanks

Bunded, with level monitoring



Remote monitoring

GSM / Ethernet controllers



Seismic and anti-vibration

Mounts to project specification



Batteries and charger

Maintenance-free, float charged



Exhaust silencer

Residential or industrial grade



Engine heaters

Cold-start readiness

Power Range

Standby and prime ratings to ISO 8528-1, three phase, 400/230 V, 50 Hz, 1500 rpm. 60 Hz / 1800 rpm ratings and alternative voltages on request.

Prime kVA	Prime kW	Standby kVA	Standby kW
9	7	10	8
15	12	16	13
20	16	22	18
30	24	33	26
40	32	44	35
50	40	55	44
60	48	66	53
80	64	88	70
100	80	110	88
125	100	138	110
150	120	165	132
175	140	193	154
200	160	220	176
250	200	275	220
300	240	330	264
350	280	385	308

Prime kVA	Prime kW	Standby kVA	Standby kW
400	320	440	352
450	360	495	396
500	400	550	440
600	480	660	528
700	560	770	616
800	640	880	704
900	720	990	792
1.000	800	1.100	880
1.250	1.000	1.375	1.100
1.500	1.200	1.650	1.320
1.800	1.440	1.980	1.584
2.000	1.600	2.200	1.760
2.250	1.800	2.475	1.980
2.500	2.000	2.750	2.200
2.750	2.200	3.025	2.420

STANDBY / PRIME — HOW TO SELECT

Standby (ESP) is the maximum power available for the duration of a mains outage, under variable load, with no overload capability. Prime (PRP) is the power available for unlimited hours under variable load, with 10% overload permitted for one hour in every twelve. Sites without a grid connection must be sized on prime. Standby = Prime × 1.1.

CONFIRMED AT QUOTATION

Fuel consumption, dimensions, dry weight, sound pressure level and alternator data are confirmed against the selected engine and alternator combination. Ratings apply at 25 °C ambient and 100 m altitude; derating factors apply outside these limits.

Mobile Generators

More compact, quieter and safer. Road-towable sets for site power, planned outages, events and emergency response — delivered ready to run, with integral fuel tank, weatherproof canopy and road-legal running gear.



SECTION 02

Transformers

Oil-immersed distribution transformers from 25 kVA and power transformers to 40 MVA, manufactured and tested to IEC 60076.



Distribution Transformers

Three-phase oil-immersed units in hermetically sealed corrugated-tank or conservator design, from 25 to 2500 kVA at primary voltages up to 36 kV. Windings in copper or aluminium; vector groups Yzn5-11 and Dyn5-11 standard.

STANDARD FITTINGS



HV and LV bushings
Porcelain or composite



Off-load tap changer
 $\pm 2 \times 2.5\%$ on HV winding



Pressure relief device
Tank overpressure protection



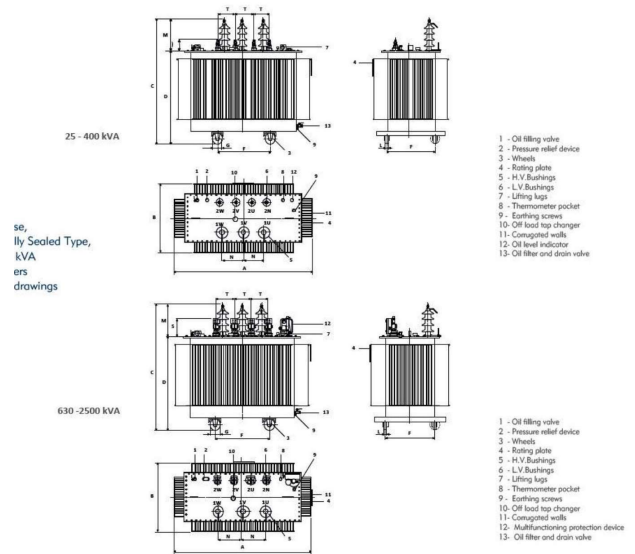
Thermometer pocket
Oil temperature measurement



Corrugated walls
Integral cooling surface



Filling and drain valves
With oil level indicator



TYPICAL APPLICATIONS



Utility distribution networks



Pole-mounted rural supply



Industrial plants



Solar and wind plants



Commercial buildings



Water and wastewater

TESTING

Each unit is routine tested to IEC 60076 before despatch — ratio and polarity, winding resistance, no-load and load losses, impedance voltage, and applied and induced overvoltage withstand. Test reports accompany every shipment.

Distribution — Technical Data

Standard oil-immersed distribution transformers, with or without conservator (hermetically sealed).
 Values are nominal and subject to IEC 60076 tolerances.

Power kVA	Rated Voltage kV	No-Load Current I ₀ %	No-Load Losses W	Load Losses W	Short Circuit U _k %	Efficiency cos φ = 1 %
25	6,3–10,5	2,50	70	600	4	97,33
	15,8	2,50	70	600	4	97,33
	33	3,15	81	660	4,5	97,05
50	6,3–10,5	2,30	90	750	4	98,35
	15,8	2,30	90	750	4	98,35
	33	2,76	105	825	4,5	98,14
100	6,3–10,5	2,10	145	1.250	4	98,62
	15,8	2,10	145	1.250	4	98,62
	33	2,27	170	1.375	4,5	98,46
160	6,3–10,5	1,90	210	1.750	4	98,78
	15,8	1,90	210	1.750	4	98,78
	33	2,00	242	1.925	4,5	98,65
250	6,3–10,5	1,60	300	2.350	4	98,95
	15,8	1,60	300	2.350	4	98,95
	33	1,80	345	2.585	4,5	98,83
400	6,3–10,5	1,50	430	3.250	4	99,09
	15,8	1,50	430	3.250	4	99,09
	33	1,70	495	3.575	4,5	98,98
630	6,3–10,5	1,40	600	4.600	4	99,18
	15,8	1,40	600	4.600	4	99,18
	33	1,60	690	5.060	4,5	99,09
800	6,3–10,5	1,30	650	6.000	6	99,18
	15,8	1,30	650	6.000	6	99,18
	33	1,50	750	6.600	6	99,08
1000	6,3–10,5	1,20	770	7.600	6	99,17
	15,8	1,20	770	7.600	6	99,17
	33	1,40	885	8.360	6	99,08
1250	6,3–10,5	1,20	950	9.500	6	99,17
	15,8	1,20	950	9.500	6	99,17
	33	1,40	1095	10.450	6	99,08
1600	6,3–10,5	1,10	1200	12.000	6	99,18
	15,8	1,10	1200	12.000	6	99,18
	33	1,30	1380	13.200	6	99,09
2000	6,3–10,5	1,10	1450	15.000	6	99,18
	15,8	1,10	1450	15.000	6	99,18
	33	1,20	1670	16.500	6	99,09
2500	6,3–10,5	1,00	1750	18.500	6	99,20
	15,8	1,00	1750	18.500	6	99,20
	33	1,10	2015	20.350	6	98,83

VECTOR GROUPS

25 – 200 kVA : Yzn5–11 / Dyn5–11 250 – 2500 kVA : Dyn5–11

Distribution — Weights & Dimensions

With conservator, 25 – 2500 kVA. Dimensions in mm, weights in kg. Figures are indicative and confirmed on the approved general arrangement drawing.

Power kVA	Voltage kV	Oil Weight kg	Active Part Weight kg	Total Weight kg	Length A	Width B	Height C
25	6,3–10,5	130	295	540	930	670	1.240
	15,8	130	295	540	930	670	1.240
	33	120	225	405	880	650	1.350
50	6,3–10,5	160	450	735	960	770	1.325
	15,8	160	450	735	960	770	1.325
	33	170	390	615	1.005	810	1.460
100	6,3–10,5	200	575	920	985	785	1.500
	15,8	200	575	920	985	785	1.500
	33	210	550	820	1.040	830	1.500
160	6,3–10,5	230	665	1.050	1.285	745	1.560
	15,8	230	665	1.050	1.285	745	1.560
	33	255	645	950	1.090	840	1.630
250	6,3–10,5	295	995	1.370	1.310	805	1.655
	15,8	295	995	1.370	1.310	805	1.655
	33	315	875	1.285	1.325	845	1.655
400	6,3–10,5	400	1.365	1.925	1.445	845	1.860
	15,8	400	1.365	1.925	1.445	845	1.860
	33	440	1.245	1.830	1.630	935	1.870
630	6,3–10,5	515	2.060	2.760	1.525	980	1.925
	15,8	515	2.060	2.760	1.525	980	1.925
	33	535	1.665	2.445	1.740	965	2.060
800	6,3–10,5	600	2.400	3.250	1.770	1.040	1.975
	15,8	600	2.400	3.250	1.770	1.040	1.975
	33	620	1.930	2.800	1.840	1.025	2.095
1000	6,3–10,5	630	2.680	3.550	1.745	1.035	2.140
	15,8	630	2.680	3.550	1.745	1.035	2.140
	33	660	2.145	3.150	1.905	1.055	2.240
1250	6,3–10,5	710	2.800	3.940	1.850	1.065	2.210
	15,8	710	2.800	3.940	1.850	1.065	2.210
	33	710	2.310	3.490	1.950	1.085	2.265
1600	6,3–10,5	810	3.020	4.370	1.945	1.210	2.145
	15,8	810	3.020	4.370	1.945	1.210	2.145
	33	850	2.635	4.130	1.985	1.190	2.395
2000	6,3–10,5	970	3.395	5.030	2.005	1.270	2.305
	15,8	970	3.395	5.030	2.005	1.270	2.305
	33	1.030	3.110	4.880	2.080	1.310	2.475
2500	6,3–10,5	1.210	4.155	6.195	2.035	1.315	2.560
	15,8	1.210	4.155	6.195	2.035	1.315	2.560
	33	1.100	3.420	5.600	2.175	1.365	2.580

Power Transformers

Oil-immersed power transformers from 3.15 to 40 MVA with ONAN and ONAF cooling, supplied with on-load tap changers, Buchholz protection, winding and oil temperature indicators and forced-air cooling banks.



APPLICATIONS



Petroleum & petrochemical



Power generation plants



Metal industry



Textile and plastics



Mining and coal handling



Wastewater treatment

DESIGN & TEST

Units are designed to IEC 60076 and routine tested prior to despatch. Type and special tests — including lightning impulse, temperature rise and short-circuit withstand — are carried out at accredited high-voltage laboratories where the project specification requires independent verification.

Power — Technical Data

Rated power ONAN (ONAF), 33 / 15,8 kV, vector group Dyn5. Alternative voltage ratios, vector groups and impedance values available to project specification.

Rated Power MVA	Uk %	No-Load Loss kW	Load Loss kW	Io %	Noise dB	Length mm	Width mm	Height mm	Oil Wt. kg	Active Part kg	Total Wt. kg	Efficiency %
3,15	6	3,5	20	1	53	2.650	2.100	2.750	1.700	4.600	8.250	99,465
4	7	4,4	26	1	55	2.950	2.200	2.900	2.050	5.400	10.100	99,465
5	7	5	30	0,9	56	3.050	2.250	3.050	2.400	6.000	11.050	99,483
6,3	7	6	35,5	0,9	63	3.200	2.300	3.350	2.750	7.320	13.150	99,510
8	7	7	41	0,9	66	3.300	2.350	3.450	2.850	9.100	14.650	99,535
10	8	8,7	49,7	0,8	71	3.100	2.400	3.500	3.300	11.000	18.000	99,560
10 (12,5)	8	9	51	0,5	73	3.650	2.250	3.900	4.000	14.300	22.000	99,588
12,5	8	9	51	0,5	73	3.750	2.400	4.000	4.200	14.500	22.400	99,588
16	8	9,5	63	0,5	75	3.900	2.500	4.300	5.500	17.500	28.500	99,615
16 (20)	8	11	75	0,5	77	3.900	2.600	4.450	7.500	18.500	32.000	99,639
20	8	11	75	0,4	77	3.900	2.800	4.450	7.900	18.500	34.000	99,639
20 (25)	8	13	100	0,4	78	4.100	3.600	4.600	8.250	22.500	38.500	99,657
25	8	13	100	0,4	78	4.250	4.150	4.600	9.000	22.500	42.000	99,657
25 (31,5)	10	15	120	0,4	81	4.350	4.200	4.800	9.200	23.500	43.000	99,671
31,5	10	15	120	0,4	81	4.400	4.250	4.900	9.500	26.000	44.000	99,671
31,5 (40)	10	19	145	0,4	83	4.500	4.300	5.000	9.800	28.000	46.000	99,684
40	10	19	145	0,4	83	4.650	4.400	5.000	10.000	28.500	48.000	99,684

COOLING & TAP CHANGING

Values in brackets denote the ONAF rating with forced-air cooling banks in service. On-load tap changers are fitted to the HV winding as standard on units above 5 MVA, with motor drive and remote tap position indication.

MV & LV Equipment

Medium- and low-voltage switchgear, packaged substations and mobile substation units, supplied standalone or integrated with our transformer scope as a complete substation package.



Metal Enclosed Switchgear



Metal Clad Switchgear



Low Voltage Panels



Concrete Kiosk



Metal Sheet Kiosk



Instrument Transformers

MOBILE SUBSTATIONS



Trailer-mounted units combining transformer, MV switchgear and LV distribution in a single road-transportable package. Deployed for temporary supply, planned outages, emergency restoration and remote projects where a permanent substation is not yet in place. Configured to the voltage, rating and protection scheme of the network they serve.

Cables & Spare Parts

Alongside primary equipment we supply the cable and accessory scope required to complete an installation, and hold routine transformer spare parts for maintenance and repair contractors.



XLPE POWER CABLE

0,6 / 1 kV

Conductor	Solid or stranded copper
Insulation	XLPE
Armour	Double steel tape
Sheath	PVC inner and outer
Operating temperature	90 °C
Short circuit temperature	250 °C
Test voltage (AC)	4 kV
Min. installation temp.	5 °C
Min. bending radius	15 × D
Standard	NFC 32-322 / IEC 60332-1

TRANSFORMER SPARE PARTS



HV and LV bushings

Porcelain and composite



Tap changers

On-load and off-circuit



Protection devices

Buchholz and pressure relief



Temperature indicators

Oil and winding



Radiators, fans and pumps

Cooling equipment



Insulating oil and materials

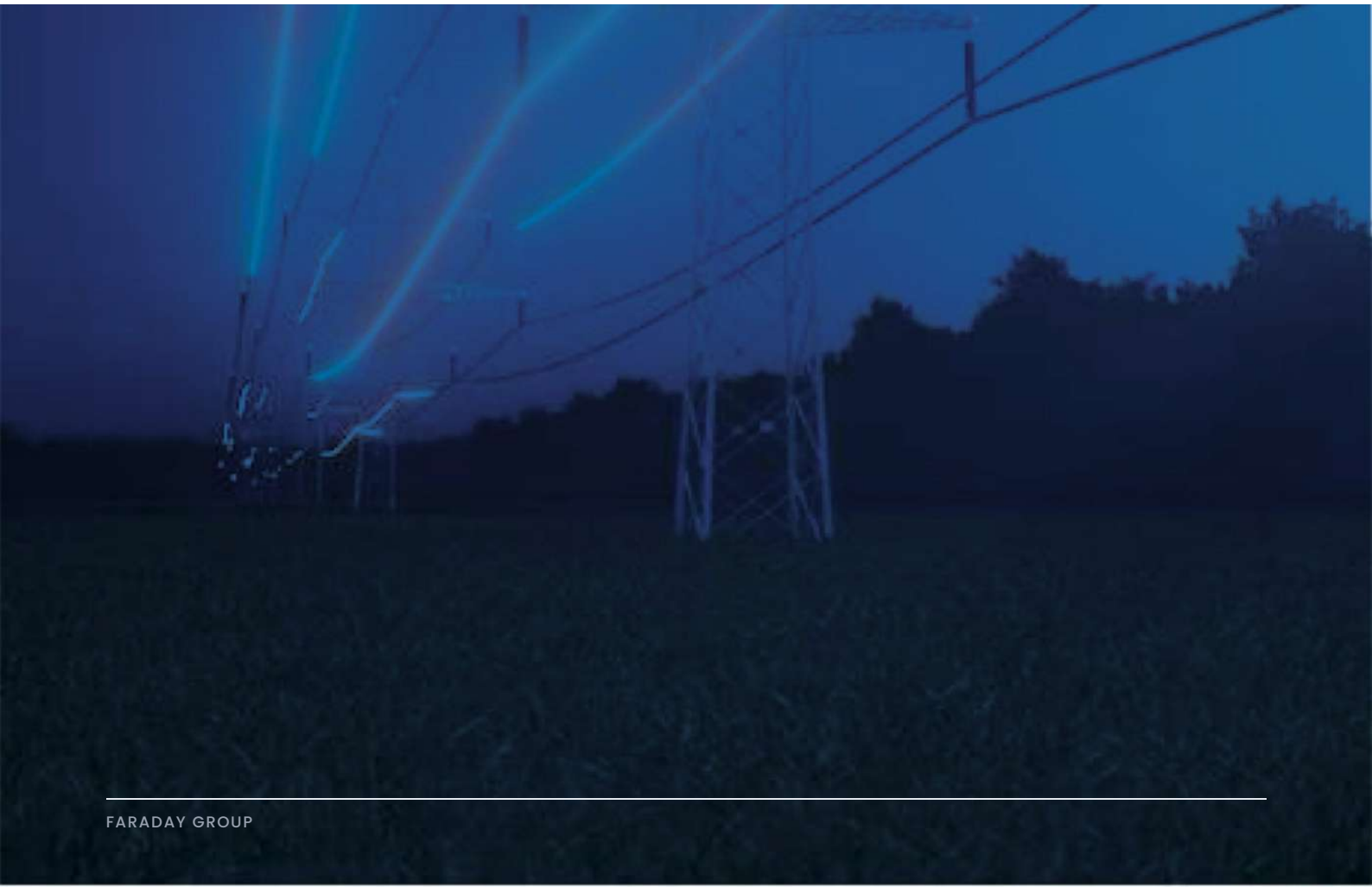
Pressboard, kraft paper

SUPPLY TO MAINTENANCE CONTRACTORS

Several accessories are specific to the original manufacturer of the transformer. When requesting spare parts, please provide the rating plate details – manufacturer, serial number, year, rating and vector group – so that we quote a part that fits.

For future generations in energy.

Faraday Group — supplying the equipment that carries power from generation to the point of use.





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2026 Product Catalogue · Energy Systems

Transformers / Generators / Switchgear

All technical data in this catalogue is indicative and subject to change without notice. Binding values are confirmed in the quotation and on the approved drawings for each order.