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Словник призначений для інформаційного пошуку з метою обміну інформацією, для поповнення словникового запасу, подальшого розвитку та вдосконалення навичок розуміння англійської мови за допомогою використання дефініцій, самостійного адекватного сприйняття індивідуальних технічних текстів, осмислення професійно-орієнтованої науково-технічної літератури тощо.

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-A-

actuate *v.* make a machine or device operate.

укр. збуджувати, приводити в дію, запускати, спонукати, активізувати

рус. возбуждать, приводит в действие, запускать, побуждать, активизировать

admissible *adj.* deserving to be admitted or allowed to enter.

укр. допустимий

рус. допустимый

alternating current(ac) *n.* a flow of electricity that changes its direction regularly and quickly, that rises from zero to a maximum in one direction, falls to zero and then rises to a maximum in the opposite direction, and then repeats another cycle.

укр. змінний струм

рус. переменный ток

alternator *n.* a device that supplies alternating current.

укр. генератор змінного струму

рус. генератор переменного тока

ammeter *n.* an instrument for measuring the flow of electrical current in amperes. Ammeters are always connected in series with the circuit to be tested.

укр. амперметр

рус. амперметр

ampacity *n.* the current-carrying capacity of conductors in amperes.

укр. допустиме навантаження струму

рус. допустимая токовая нагрузка

amperage *n.* measurement of the flow rate of electricity, that is the strength of an electric current in amperes.

укр. сила струму

рус. сила тока

ampere *n.* a unit of measure for the flow of current in a circuit. One ampere is the amount of current flow provided when one volt of electrical pressure is applied against one ohm of resistance.

укр. ампер

рус. ампер

amplifier *n.* a device of electronic components used to increase power, voltage, or current of a signal.

укр. підсилювач

рус. усилитель

apparent power *n.* the product of voltage times current in a circuit containing reactances and measured in volt-amps.

укр. фіксована потужність

рус. фиксированная мощность

armature *n.* the movable part of a generator or motor. It is made up of conductors which rotate through a magnetic field to provide voltage or force by electromagnetic induction. The pivoted points in generator regulators are also called armatures, that is, an iron framework wound wire, fixed between the poles of a magnet.

укр. якір, ротор

рус. якорь, ротор

artificial magnets *n.* a magnet which has been magnetized by artificial means. It is also called, according to shape, a bar magnet or a horseshoe magnet.

укр. штучні магніти

рус. искусственные магниты

axle (axis) *n.* the bar connecting two wheels on a car or other vehicle.

укр. вісь (осі)

рус. ось (оси)

axle arrangement

укр. колісна характеристика

рус. колёсная характеристика

axle box *n.* a metal enclosure on a railway vehicle within which the end of an axle revolves.

укр. букса

рус. букса

axle box of a sliding friction type *n.* a metal enclosure on a railway vehicle within which the end of an axle revolves that moves smoothly along a surface while maintaining continuous contact with it.

укр. букса ковзання

рус. букса скольжения

-B-

ballast *n.* a passive component used in an electric circuit to moderate changes in current a device used to provide starting current for certain types of lamps (fluorescent).

укр. баласт

рус. балласт

battery *n.* a direct-current power source consisting of two or more cells.

укр. батарея, батарея, акумулятор

рус. батарея, батарея, аккумулятор

to be in contact *v.* to be caused by or operate through physical touch; to connect the passage of an electric current from one thing to another.

укр. стикатися, контактувати

рус. соприкасаться, контактировать

binary *n.* in electronics, a number system that has two as its base; therefore any position has only two possible values, 0 or 1. A signal that has only two possible states at any instance.

укр. бінарний, подвійний, двоїстий (той, який має два сталих стани)

рус. бинарный, двоичный, двойной, сдвоенный (устройство или схема с двумя устойчивыми состояниями)

body *n.* **the** main section of a motor vehicle.

укр. кузов

рус. кузов

bogie *n.* an undercarriage with four or six wheels pivoted beneath the end of a railway vehicle.

укр. візок (електровоза)

рус. тележка (электровоза)

bogie suspension *n.* the system of springs and shock absorbers by which a vehicle is supported on its wheels.

укр. ресорне підвішування

рус. рессорное подвешивание

bow *n.* the longitudinal curvature of a pantograph.

укр. дуга пантографа

рус. дуга пантографа

brake system a braking device consisting of a combination of interacting parts that work to slow a motor vehicle.

укр. гальмова система, гальмівне

рус. тормозная система, тормозящее

brake valve *n.* a device that controls the brakes of railroad rolling stock and it is mounted in the engineer's cabin in the locomotive and is a part of the braking system of the train.

укр. гальмовий кран

рус. тормозной кран

break *v.* to (cause something to) separate suddenly or violently into two or more pieces, or to (cause something to) stop working by being damaged.

укр. ламати, розбивати, руйнувати, розривати

рус. ломать, разбивать, разрушать, разрывать

brush *n.* an electrical conductor that makes sliding contact between a stationary and a moving part (as of a generator or a motor).

укр. щітка

рус. щётка

brush holder *n.* a device or implement for holding brushes in the traction motors.

укр. щіткотримач

рус. щёткодержатель

bearing *n.* a part of a machine that turns on another part, or in which a turning part is held or bears the friction set up by a moving part.

укр. підшипник

рус. подшипник

buffer lamp *n.* an electrical device mounted on the two special metal springs of a train's front or back.

укр. буферний ліхтар

рус. буферный фонарь

-С-

cable *n.* a stranded conductor or group of individual conductors insulated from each other.

укр. кабель

рус. кабель

cable harness *n.* a string of cables and/or wires which transmit informational signals or operating currents (energy). The cables are bound together by clamps, cable ties, cable lacing, sleeves, electrical tape, conduit, a weave of extruded string, or a combination thereof.

укр. кабельний джгут, електропроводка

рус. кабельный жгут, электропроводка

cage *n.* a framework made of wire or metal bars.

укр. каркас, клітка

рус. каркас, клетка

capacitance *n.* the ability of two conductors separated by an insulator to store an electrical charge; measured in farads (F).

укр. ємність, ємнісний опір

рус. ёмкость, ёмкостное сопротивление

capacitive reactance *n.* the opposition that a capacitor offers to alternating current. This opposition, in the form of a counter electromotive force (cemf), is expressed in ohms.

укр. реактивний опір

рус. реактивное сопротивление

capacitor *n.* a device which stores electrical energy. Commonly used for filtering out voltage spikes.

укр. конденсатор

рус. конденсатор

catenary *n.* a curve formed by a wire, rope, or chain hanging freely from two points and forming a U shape.

укр. контактна мережа

рус. контактная сеть

charge *v.* to restore the active materials in a storage battery by the passage of direct current through the battery cells in a direction opposite that of the discharging current.

укр. заряджати

рус. заряжать

changeover switch *n.* a switch is an electrical component that can break an electrical circuit, interrupting the current or diverting it from one conductor to another.

укр. перекидний рубильник, перемикач

рус. перекидной рубильник, переключатель

circuit *n.* the complete path that an electric current flows around.

укр. ланцюг, контур, схема

рус. цепь, контур, схема

circuit breaker *n.* an electric device that, like a fuse, interrupts an electric current in a circuit when the current becomes too high.

укр. автоматичний вимикач

рус. автоматический выключатель

circulation *n.* the flow or motion of fluid in or through a given area or volume.

укр. циркуляція

рус. циркуляция

closed circuit *n.* a circuit that provides a complete path for current.

укр. замкнений ланцюг

рус. замкнутая цепь

coil *n.* a wound spiral of two or more turns of insulated wire, used to introduce inductance into a circuit.

укр. котушка

рус. катушка

communication *n.* means of sending or receiving information, such as telephone lines, radio telephones or computers.

укр. зв'язок, засіб сполучення

рус. связь, средство сообщения

commutating pole *n.* one of several small **poles** between the main **poles** of a direct-current generator or motor, which serves to neutralize the flux distortion in the neutral plane.

укр. допоміжний полюс

рус. вспомогательный полюс

commutation *n.* the process of transferring current from one connection to another within an electric circuit; current reversal in the armature windings of a direct-current rotating machine to provide direct current at the brushes.

укр. комутація, перемикання

рус. коммутация, переключение

commutator *n.* a device for reversing the direction of an electric current; a rotating device that transmits current to the brushes in a dynamo and collects it from them in an electric motor.

укр. комутатор, колектор, перемикач

рус. коммутатор, коллектор, переключатель

compartment lighting *n.* something that makes things visible in a separate room, section of a train.

укр. освітлення купе

рус. освещение купе

compressed air *n.* air which volume has been decreased by the application of pressure.

укр. стиснуте (стиснене) повітря

рус. сжатый воздух

conductance *n.* the ability of a conductor to allow the flow of electrons. Measured in Siemens (S).

укр. провідність, електропровідність

рус. проводимость, электропроводимость

conductor *n.* a wire, cable, or other body or medium that is suitable for carrying electric current.

укр. провідник, провід
рус. проводник, провод

connection *n.* something that joins or connects two or more things; the act of connecting two or more things or the state of being connected.

укр. вивід, сполучення, зв'язок, з'єднання
рус. вывод, подключение, связь, соединение

connector *n.* a device for keeping two or more parts of an electric circuit in contact

укр. перехідник, з'єднувач.
рус. переходник, соединитель

contact *n.* a junction of electric conductors, usually metal, that controls current flow, often completing or interrupting a circuit.

укр. контакт
рус. контакт

contact wire *n.*

укр. контактний провід
рус. контактный провод

consumption *n.* the amount of energy or electricity that is used. The act or process of using up of energy or electricity.

укр. споживання, витрата
рус. потребление, расход

convection current the time rate at which the electric charges of an electron stream are transported through a given surface.

укр. конвекційний струм
рус. конвекционный ток

conversion the change of image, shape of something.

укр. перетворення, обернення, переробка
рус. превращение, изменение, переработка

convert *v.* to change something into a different form or so that it can be used in a different way.

укр. перетворювати
рус. превращать

cooling *n.* becoming less warm.

укр. остигання, охолодження
рус. остывание, охлаждение

core *n.* an iron bar, bundle of wires etc. forming the center of an induction coil, transformer etc.

укр. осердя (серцевина), ядро, сердечник

рус. сердцевина, ядро, сердечник

copper *n.* a chemical element that is a reddish-brown metal, used especially for making wire and coins.

укр. мідь

рус. медь

copper bar *n.* a rigid piece of a rectangular shape red-brown metal, used as a fastening.

укр. балка (брусок), пластина, смуга

рус. балка (брусок), пластина, полоса

copper wire *n.* a single bare or insulated copper conductor having solid, stranded, or tinsel construction, designed to carry current in an electric circuit.

укр. мідний дріт, мідний провід

рус. медный трос, медный провод

coupling *n.* a device for connecting parts of machinery.

укр. зчеплення

рус. сцепление

coulomb *n.* base unit of electrical charge equal to 6.25×10^{18} electrons. Named for Charles Coulomb, the French physicist who pioneered research into magnetism and electricity.

укр. кулон (одиниця виміру електричного заряду)

рус. кулон (единица измерения электрического заряда)

counterpressure *n.* pressure in the opposite direction or with opposing effect.

укр. протитиск

рус. противодействие

cross-member *n.* a transverse piece which adds support to a structure.

укр. поперечна балка

рус. поперечная балка

current *n.* a flow of electricity through a wire(along a conductor).

укр. струм

рус. ток

current collection *n.* the act of taking current from an overhead contact wire or from a rail in electrically powered rolling stock, transportation and hoisting machines.

укр. зняття струму
рус. съём тока

current flow *n.* the flow or movement of electrons from atom to atom in a conductor.

укр. потік струму
рус. поток тока

current load *n.* the amount of power supplied by a source; the resistance of moving parts to be overcome by a motor.

укр. навантаження струму
рус. нагрузка тока

current transformer a piece of equipment for changing electricity from one voltage for another.

укр. трансформатор струму
рус. трансформатор тока

currentless *adj.* the absence of current in an electrical circuit.

укр. знеструмлений
рус. обесточенный

cycling *n.* the process by which a battery is discharged and recharged.

укр. цикл, процес, такт, оберт
рус. цикл, процесс, такт, круг

dielectric *n.* a nonconductor of electricity. An insulator that is capable of concentrating electric fields.

укр. непровідник
рус. непроводник

cycle per second *n.*

укр. герц за секунду
рус. герц в секунду

-D-

dielectric test *n.* the test which consists of the application of a voltage higher than that of the rated voltage for a specified time for the purpose of determining the adequacy against breakdown of insulating materials and spacing under normal conditions.

укр. випробовування діелектрика (непровідника)
рус. испытание диэлектрика (непроводника)

defrosting *n.* a procedure, performed to remove ice or frost from the windscreen of any vehicle.

укр. розморожування, усунення паморозі, захист від обмерзання
рус. размораживание, удаление инея, защита от обмерзания (оледенения)

difference of potential *n.* the difference in potential between two points that represents the work involved or the energy released in the transfer of a unit quantity of electricity from one point to the other.

укр. різниця потенціалів
рус. разность потенциалов

differentiator circuit *n.* a circuit that consists of resistors and capacitors designed to change a direct current input to an alternating current output.

укр. диференціюючий ланцюг
рус. дифференцирующая цепь

diode *n.* an electrical device that will allow current to pass through itself in one direction only.

укр. діод
рус. диод

direct current (dc) *n.* a steady flow of electrons moving steadily and continually in the same direction along a conductor from a point of high potential to one of lower potential. It is produced by a battery, generator, or rectifier.

укр. постійний струм
рус. постоянный ток

direct current motor *n.* a motor converting electrical energy into mechanical one.

укр. двигун постійного струму
рус. двигатель постоянного тока

discharge *v.* to remove electrical energy from a charged body such as a capacitor or battery.

укр. розряджати, розряджатися
рус. разряжать, разряжаться

disconnection *n.* putting an electrical device out of action by detaching it from a power supply

укр. від'єднання, вимкнення
рус. отсоединение, отключение (выключение)

dismantling *n.* the act of taking something apart

укр. демонтаж, розбирання, зняття
рус. демонтаж, разборка, съём

distributor *n.* a device which directs the high voltage of the ignition coil to the engine spark plugs.

укр. розподільник
рус. распределитель

distributor lead connector *n.* connective/ing plug in the wires that leads from the sensor in the distributor to the electronic control unit.

укр. ведучий розподільний з'єднувач
рус. ведущий распределительный соединитель

drive *v.* to cause and guide the movement of a vehicle or something else, especially to operate an automobile.

укр. приводити до руху
рус. приводить в движение

driver's cab *n.* a separate front part of a large vehicle, such as a truck, bus, or train, in which the driver sits.

укр. кабіна водія, машиніста
рус. кабина водителя, машиниста

driving wheel *n.* a wheel that receives the power and transmits movement to other parts of a piece of machinery.

укр. ведуче колесо
рус. ведущее колесо

driving wheel set *n.* a pair of locomotive wheels attached to an axle, to which power is applied either directly or via coupling rods.

укр. ведуча колісна пара
рус. ведущая колёсная пара

-E-

earth switch a device for making and breaking the connection in an electric circuit.

укр. заземлюючий вимикач
рус. заземляющий выключатель

earth *n.* electrical connection to the ground, regarded as having zero electrical potential.

укр. заземлення
рус. заземление

efficiency *n.* ratio of useful energy provided by a dynamic system to the energy supplied to it during a specific period of operation.

укр. коефіцієнт корисної дії
рус. коэффициент полезного действия

eight-axled electric locomotive *n.* a railway electric vehicle with eight connecting bars between two wheels.

укр. восьмивісний електровоз

рус. восьмиосный электровоз

electricity *n.* a form of energy resulting from the existence of charged particles (such as electrons or protons), either statically as an accumulation of charge or dynamically as a current, that is, the power carried by wires, cables etc, and is used to provide light or heat, to make machines work etc.

укр. електрика

рус. электричество

electric *adj.* needing electricity to work, produced by electricity, or used for carrying electricity: electric light/kettle/cooker/current/power/charge/blanket.

укр. електричний

рус. электрический

electric energy *n.* the energy carried by free electrons from a source to a load. Also, the potential energy of a stationary charge.

укр. електрична енергія

рус. электрическая энергия

electric power *n.* the rate at which energy is consumed in a circuit or load. Measured in watts (W).

укр. електрична потужність

рус. электрическая мощность

electrical *adj.* relating to electricity or using it; electrical fault/equipment/goods/appliances

укр. електричний

рус. электрический

electric circuit *n.* an unbroken path along which an electric current exists or is intended or able to flow.

укр. електричне коло

рус. электрическая цепь

electric heater *n.* a machine for warming air, water or some space using electricity

укр. електричний нагрівач, радіатор

рус. электрический нагреватель, радиатор

electric power *n.* a physical quantity that characterizes the speed of transfer or conversion of electrical energy.

укр. електрична сила, енергія

рус. электрическая сила, энергия

electrical field *n.* the region around a charged body in which the charge has an effect.

укр. електричне поле

рус. электрическое поле

electrical losses *n.* not tightly controlled, or not exact: lacking in precision, exactness, concerning electricity.

укр. електричні втрати

рус. электрические потери

electrical particles extremely small pieces of electricity.

укр. електричні частинки

рус. электрические частички

electrical steel *n.*

укр. електротехнічна сталь

рус. электротехническая сталь

to electrify *v.* to charge (a medium) with electricity; pass an electric current through; convert (a machine or system, especially a railway line) to the use of electrical power.

укр. електрифікувати

рус. электрофицировать

electrolytic capacitor *n.* a capacitor whose dielectric is formed through the reaction of an electrolyte and its electrodes.

укр. кисневий конденсатор

рус. оксидный конденсатор

electromagnet *n.* core of magnetic material, generally soft iron, surrounded by a coil of wire through which electrical current is passed to magnetize the core.

укр. електромагніт

рус. электромагнит

electromagnetic clutch *n.* an electromagnetic device which stops the operation of one part of a machine while other parts of the unit keep on operating.

укр. електромагнітне зчеплення

рус. электромагнитное сцепление

electromagnetic field *n.* the magnetic field about a conductor created by the flow of electrical current through it.

укр. електромагнітне поле

рус. электромагнитное поле

electromagnetic induction *n.* the process by which voltage is induced in a conductor by varying the magnetic field so that lines of force cut across the conductor.

укр. електромагнітна індукція

рус. электромагнитная индукция

electromotive force the force or electrical pressure that has the potential to cause electron flow in a circuit. Also called voltage, potential difference or difference of potential. Measured in volts (V).

укр. електрорухома сила

рус. электродвижущая сила

electron *n.* a tiny particle which rotates around the nucleus of an atom. It has a negative charge of electricity.

укр. електрон

рус. электрон

electronics *n.* the control of electrons (electricity) and the study of their behavior and effects.

укр. електроніка

рус. электроника

electronic ignition system *n.* a system in which the timing of the ignition spark is controlled electronically.

укр. електронна система запалювання

рус. электронная система зажигания

electrostatic field *n.* an electric field produced by stationary charges.

укр. електростатичне поле

рус. электростатическое поле

engine controller *n.* the electronic module which controls fuel delivery, diagnostic outputs, back up operation, and communications with other electronic modules.

укр. регулятор роботи двигуна

рус. регулятор работы двигателя

energy *n.* a fundamental entity of nature that is transferred between parts of a system in the production of physical change within the system and usually regarded as the capacity for doing work.

укр. енергія, сила, потужність

рус. энергия, сила, мощность

enlargement *n.* the action or state of increasing in size or amount.

укр. розширення, збільшення

рус. расширение, увеличение

excitation *n.* addition of a discrete amount of energy to a system that changes it usually from a state of lowest energy (ground state) to one of higher energy (excited state).

укр. збудження (збуджування)

рус. возбуждение

-F-

fan *n.* device for agitating air or gases or moving them from one location to another.

укр. вентилятор

рус. вентилятор

falling *n.* something becoming lower in amount, level, size, strength, or *value*.

укр. зниження

рус. снижение

falling current *n.* the gradual decrease of the current along a conductor through which electric current flows, due to the fact that the conductor has resistance.

укр. падіння струму

рус. падение тока

farad (F) *n.* the basic unit of measurement for capacitance. One farad is that capacitance that will store one coulomb of charge when the charging force is one volt. Since the farad is a very large unit, capacitance will more commonly be expressed as microfarad (mF) or picofarad (pF) values. Named for Michael Faraday, the British physicist and chemist who discovered electromagnetic induction and proposed the field theory later developed by Maxwell and Einstein.

укр. фарада

рус. фарада

faradaic *adj.* produced by or associated with electrical induction.

укр. індуктивний

рус. индуктивный

feed *n.* a device or pipe for supplying material to a machine. The supply of raw material to a machine or device; the part of a machine through which it is supplied with fuel or with something else that it needs.

укр. живлення, подача (матеріалу), постачання

рус. питание, подача (материала), снабжение

to feed *v.* to supply something with material especially, gas, liquid or power.

укр. подавати

рус. подавать

ferrite *n.* ferrimagnetic ceramic non-conductive compound material used to prevent high frequency electrical noise from entering or exiting the equipment.
укр. ферит, магнітодіелектрик
рус. феррит, магнитодиэлектрик

field effect transistor (FET) *n.* a transistor type that uses voltage to control current through the device.
укр. польовий транзистор
рус. полевой транзистор

field from vision *n.* the space perceived by the eye with a rigid eye.
укр. поле зору
рус. поле зрения

flow *n.* the continuous , steady and smooth movement of liquid , gas or electricity in one direction.
укр. потік
рус. поток

fluctuation *n.* an instance of change; the rate or magnitude of change.
укр. коливання, нестійкість
рус. колебание, неустойчивость

four-wheeled bogie an undercarriage with two axles pivoted beneath the end of a railway vehicle.
укр. двовісний візок (електровоза)
рус. двухосная тележка (электровоза)

frame *n.* the structure or main supporting parts of a piece of furniture, vehicle or other objects.
укр. каркас, кістяк, остов, рама, станина (основа)
рус. каркас, костяк, остов, рама, станина (основание)

framework *n.* the load-carrying frame of a structure.
укр. каркас, конструкція
рус. каркас, конструкция

frequency *n.* the number of cycles per second for a periodic waveform. Measured in hertz (Hz).
укр. частота
рус. частота

furnish *v.* to supply or provide something with what is necessary or desirable.
укр. постачати, забезпечувати, надавати
рус. снабжать, обеспечивать, оказывать

fuse *n.* replaceable safety electrical device, an electrical circuit or a part of a piece of electrical equipment that makes it stop working when there is too much electricity flowing through it. A fuse consists of a fine wire or a thin metal strip encased in glass or some fire resistant material. When an overload occurs in the circuit, the wire or metal strip melts, breaking the circuit.

укр. запобіжник

рус. предохранитель

-G-

gangway *n.* a narrow passageway between rows of seats; a raised platform or walkway providing a passage.

укр. прохід, перехід

рус. проход, переход

gauss *n.* a unit of measurement for magnetic field.

укр. гаус

рус. гаусс

gear *n.* a machinery in a vehicle that turns engine power into movement forwards or backwards.

укр. шестерня, зубчаста передача, механізм, привод

рус. шестерня, зубчатая передача, механизм, привод

gear wheel a toothed wheel in a set of gears.

укр. зубчате колесо

рус. зубчатое колесо

gearing *n.* a particular set or arrangement of power-transmitting toothed wheels or gears, a series of gear wheels in a machine or vehicle.

укр. зубчаста передача

рус. зубчатая передача

generator *n.* dynamo or similar machine for converting mechanical energy into electricity.

укр. джерело енергії, генератор

рус. источник энергии, генератор

grade *n.* a particular level of rank, quality, proficiency, intensity, or value.

укр. ступінь, ранг, оцінка

рус. степень, ранг, оценка

grid *n.* wire mesh to which the active materials of a storage battery are attached.

укр. решітка, сітка, модулятор, мережа низької напруги, ґрати

рус. решётка, сетка, модулятор, сеть низкого напряжения, переплетение

ground *n.* a part of pieces of electrical equipment, which occurs when any part of a wiring circuit unintentionally touches a metallic part of the machine frame.

укр. заземлення

рус. заземление

ground-fault circuit-interrupter *n.* an electrical wiring device that disconnects a circuit whenever it detects that the electric current is not balanced between the energized conductor and the return neutral conductor. Such an imbalance is sometimes caused by current leakage through the body of a person who is grounded and accidentally touching the energized part of the circuit.

укр. вимикач короткого замикання на землю

рус. выключатель короткого замыкания на землю

grounded circuit a connection of any electrical unit to the frame, engine, or any part of the tractor or machine, completing the electrical circuit to its source.

укр. заземлений ланцюг

рус. заземлённая цепь

-H-

haulage *n.* a rate or charge levied for the transportation of goods, especially by rail the business of carrying goods in trucks or trains for other company by road or railway.

укр. тяга, буксирування

рус. тяга, буксировка

headlight *n.* a lamp attached to the front of a vehicle to light the road ahead.

укр. ліхтар, головний прожектор

рус. фонарь, главный прожектор

heat sink *n.* a device attached to a component to aid in the dissipation of heat.

укр. радіатор

рус. радиатор

heater *n.* a device that heats water or supplies warmth to a room.

укр. нагрівальний прилад

рус. нагревательный прибор

heating unit *n.* a unit consisting of an electrical resistance material, insulated supports, and terminals for connection to a source of electric power; used as a heat source.

укр. нагрівальний елемент

рус. нагревательный элемент

henry (H) *n.* the unit of inductance in which an induced electromotive force of one volt is produced when the current is varied at the rate of one ampere per second. Named for Joseph Henry, an American physicist who performed extensive studies of electromagnetic phenomena.

укр. генрі

рус. генри

hertz (Hz) *n.* a unit of frequency equal to one cycle per second. Named for Heinrich Hertz, a German physicist who was the first to produce radio waves artificially.

укр. герц

рус. герц

hydrometer *n.* an instrument for measuring specific gravity. A hydrometer is used to test the specific gravity of the electrolyte in a battery.

укр. гідрометр

рус. гидрометр

hydraulic head *n.* denoting or relating to a liquid moving in a confined space under pressure.

укр. гідравлічний натиск, напір, нажим

рус. гидравлический напор, напор, нажим

-I-

impedance (Z) *n.* an opposition to current flow from the combined effects of resistance and reactance measured in ohms (S).

укр. комплексний опір, імпеданс (імпеданц)

рус. комплексное сопротивление, импеданс

individual drive *n.* the power from an engine that makes the wheels of a vehicle go round, relating to, used by or intended only one thing.

укр. індивідуальний привод

рус. индивидуальный привод

inductance *n.* the property of an electric circuit by which an electromotive force (voltage) is induced in it by a variation of current either in the circuit itself or in a neighboring circuit.

укр. індуктивність

рус. индуктивность

induction *n.* the production of electrical or magnetic forces in an object by other electrical or magnetic forces or near it.

укр. індукція

рус. индукция

inductive reactance (X_L) the opposition that an inductor offers to alternating current. This opposition, in the form of a counter electromotive force (cemf), is expressed in ohms.

укр. індуктивний опір

рус. индуктивное сопротивление

inductor *n.* a coil of wire wrapped around an iron core.

укр. індуктор, котушка індуктивності

рус. индуктор, катушка индуктивности

ingress protection rating a two digit code, and an optional letter, specifying the level of protection from foreign objects with the first digit referring to protection from solids and the second digit referring to protection from liquids. The optional letter can be appended to classify only the level of protection against access to hazardous parts by persons or to provide additional information related to the protection of the device.

укр. ступінь захисту оболонки

рус. степень защиты оболочки

inition control unit the module that contains the transistors and resistors that controls the electronic ignition

укр. пристрій для контролю систем запалювання

рус. устройство для контроля зажигания

inlet *n.* a male flange mounted wiring device with the conducting pins protruding and exposed. This type device should never be wired to make the exposed pins live while the mating device is unplugged.

укр. вхідний (впускний) отвір, ввід

рус. впускное (приёмное) отверстие, ввод

instrument panel a panel on which instruments are mounted to display the condition or performance of a machine or process.

укр. панель приладу, панель устрою

рус. приборная панель, панель устройства

insulation *n.* nonconductive material used to cover wires and components to prevent shock and short circuits.

укр. ізоляція

рус. изоляция

insulator *n.* a material or covering that electricity, heat, or sound cannot go through, that is block or retard them; substance or body that resists the flow of electrical current through it.

укр. ізолятор, непровідник, ізоляція

рус. изолятор, непроводник, изоляция

internal resistance *n.* the resistance within a power source.

укр. внутрішній опір

рус. внутреннее сопротивление

integrated circuit (IC) *n.* an electronic circuit which utilizes resistors, capacitors, diodes, and transistors to perform various types of operations.

укр. інтегральна (комплексна, об'єднана) схема

рус. интегральная (комплексная, объединённая) схема

integrator circuit *n.* a circuit that consists of resistors and capacitors and functions as a filter which can pass signals only below a certain frequency

укр. інтегрувальний ланцюг

рус. интегрирующая цепь

inverter *n.* a device with only one input and one output; it inverts or reverses any input.

укр. перетворювач, інвертер

рус. преобразователь, инвертор

to isolate *v.* cut off the electrical or other connection to (something, especially a part of a supply network).

укр. ізолювати

рус. изолировать

isolating switch *n.* a switch intended for isolating an electric circuit from the source of power.

укр. роз'єднувач

рус. разъединитель

-J-

jacket *n.* outer material layer of a cord.

укр. зовнішня оболонка (обшивка), захисний кожух, чохол

рус. внешняя оболочка (обшивка), защитный кожух, чехол

jolt *n.* a sudden violent movement, as from a heavy blow or an abrupt motion.

укр. поштовх (струму)

рус. толчок (тока)

joule *n.* the basic unit of electrical, mechanical, and thermal energy. As a unit of electrical energy it is equal to the energy carried by 1 coulomb of charge being propelled by an electromotive force of 1 volt. Named for James Joule, the British physicist who established the mechanical theory of heat and discovered the first law of thermodynamics.

укр. джоуль

рус. джоуль

junction field effect transistor (JFET) *n.* a transistor type made by diffusing a gate region into a channel region. Voltage applied to the gate controls current in the channel by either depleting or enhancing the channel.

укр. внутрішній опір джерела

рус. внутреннее сопротивление источника

-K-

kilowatt *n.* a measure of one thousand watts of electrical power.

укр. кіловат

рус. киловатт

kilowatthour (kWh) *n.* unit of energy consumption equal to 1000 watt-hours or the energy consumed at the rate to one kilowatt (kW) for a time of one hour. Equivalent to 3,600,000 joules. Generally used to specify a large energy consumption over a specific time interval. Residential energy is usually priced at the number of kilowatt-hours used for a month.

укр. кіловат-година

рус. киловатт-час

-L-

lamp *n.* a light producing device consisting of a filament placed in a vacuum.

укр. лампа

рус. лампа

law of magnetic poles *n.* the law which states that like poles of magnets repel each other, and unlike poles attract each other.

укр. закон магнітного поля, магнетизм

рус. закон магнитного поля, магнетизм

leg *n.* a part of an electrical circuit from one host to another host. A branch usually contains one or more series-connected circuit elements: resistors, sources of EMF or current sources.

укр. фаза, опора, плече

рус. фаза, опора, плечо

Lenz's law *n.* basic law of electromagnetic induction which states that an induced voltage will have a polarity that opposes the current change that produced it.

укр. закон Ленца

рус. закон Ленца

light-emitting diode (LED) *n.* a semiconductor diode that emits light as current flows from the cathode to the anode across its PN junction.

укр. світлодіод

рус. светодиод

lighting *n.* the equipment used to provide light.

укр. засоби освітлення, освітлення

рус. средства освещения, освещение

linear *adj.* a circuit or component where the output is a straight line (direct proportion) function of the input.

укр. лінійний

рус. линейный

load *n.* a device or apparatus that uses the energy of a circuit to perform work. May also refer to the power used by a device, machine, or a combination of many.

укр. струмоприймач

рус. токоприёмник

longitudinal *adj* going from the top to the bottom of something that is relating to the length or the lengthwise dimension.

укр. подовжній (поздовжній)

рус. продольный

loop *n.* a complete circuit for an electric **current**; a shape like a curve or a circle made by a line curving back towards itself, or a piece of wire, that has this shape.

укр. контур, петля

рус. контур, петля

lower *adj.* charged particles move with a reduced speed.

укр. знижений, зменшений

рус. сниженный, уменьшенный

-M-

magnet *n.* a piece of metal surrounded by a magnetic field that has the property, either natural or induced, of attracting iron or steel objects.

укр. магніт

рус. магнит

magnetic field a field of force surrounding a permanent magnet or a moving charged particle, in which another permanent magnet or moving charge experiences a force.

укр. магнітне поле

рус. магнитное поле

magnetic flux *n.* the integral over a specified surface of the component of magnetic induction perpendicular to the surface, that is, the flow of magnetism about a magnet exhibited by magnetic lines of force in a magnetic field.

укр. магнітний потік

рус. магнитный поток

magnetic induction *n.* the process of introducing magnetism into a bar of iron or other magnetic material.

укр. магнітна індукція

рус. магнитная индукция

magnetic lines of forces *n.* invisible lines which conveniently illustrate the characteristics of a magnetic field and magnetic flux about a magnet.

укр. магнітні силові лінії

рус. магнитные силовые линии

magnetic poles *n.* the two points of strongest concentration of magnetic flux around a magnet or electromagnet. By assignment the flux leaves the north pole and returns to the south pole.

укр. магнітні полюси

рус. магнитные полюса

magnetic saturation *n.* the point where an increase in magnetic force produces no further magnetic effect in a magnetic material. The material can have no further increase in flux. Iron, nickel, cobalt, and their alloys are considered to be magnetic materials.

укр. насичення магнітного матеріалу

рус. насыщение магнитного материала

magnetism *n.* the physical phenomena exhibited by magnets and electric current flow that is represented by lines of force.

укр. магнетизм

рус. магнетизм

main poles *n.* to create a residual magnetic flux in the machine with excitation.

укр. основний полюс

рус. основной полюс

master controller *n.* a person or a thing that directs or regulates something that is a machine or device directly controlling another.

укр. регулятор, інспектор, контролер

рус. регулятор, инспектор, контролёр

mechanical energy the sum of potential energy and kinetic energy.

укр. механічна енергія

рус. механическая энергия

mica *n.* a natural substance like glass that breaks easily into thin layers and is not damaged by heat, often used in electrical equipment.

укр. слюда

рус. слюда

microswitch *n.* a miniature electric switch that is actuated by very little physical force.

укр. мікроперемикач

рус. микропереключатель

millivolt ampere one thousandth of a volt unit measure for the flow of current in a circuit.

укр. мілівольт-ампер

рус. милливольт-ампер

motor *n.* a device that changes electricity or fuel into movement and makes a machine work.

укр. двигун, мотор

рус. двигатель, мотор

movable frame *n.* the rigid supporting structure of an object such as a vehicle, a building, or a piece of furniture.

укр. рухома рама, знімна рама

рус. подвижная рама, съёмная рама,

multimeter *n.* testing device that can be set to read ohms (resistance), voltage (force), or amperes (current) of a circuit.

укр. універсальний, комбінований вимірювальний прилад; авометр; ампер-вольтметр; вольтміліамперметр;

рус. универсальный комбинированный измерительный прибор; авометр; ампервольтметр; вольтмиллиамперметр

egative *n.* containing, producing, or denoting the kind of electric charge carried by electrons.

укр. катод, мінус

рус. катод, минус

nonlinear *adj.* a circuit or a component whose output versus input graph is not a straight line.

укр. нелінійний

рус. нелинейный

north-seeking pole *n.* a pole of a magnetic which points to the earth's north pole when free to turn.

укр. північний магнітний полюс

рус. северный магнитный полюс

Norton's theorem *n.* a method of reducing a complex network of bilateral (conducts equally well in both directions) components to one current source and one shunt resistance across the load terminals.

укр. теорема Нортон
рус. теорема Нортон

nose-suspended *n.* an electric traction motor) suspended by a nose from the framework of the bogie or vehicle.

укр. підвішений за «носик»

рус. подвешенный за «носик»

-O-

Ohm (S) *n.* the unit of measurement for resistance. Named for George Simon Ohm, the German physicist noted for his contributions to mathematics, acoustics, and the measurement of electrical resistance. One ohm is that resistance that limits the current to one ampere when a potential of one volt exist across its terminals.

укр. Ом

рус. Ом

Ohm's law very basic circuit law that defines the relationships between current, voltage, and resistance in a DC circuit. Ohm's law states that current is directly proportional to voltage and inversely proportional to resistance ($I = V/R$). The

other forms of the formula are $V = IR$ and $R = V/I$.

укр. закон Ома

рус. закон Ома

ohmmeter *n.* an instrument for measuring resistance.

укр. омметр

рус. омметр

oil-immersed *adj.* property of a transformer, reactor, regulator, or similar apparatus whose coils are immersed in an insulating liquid that is usually, but not necessarily, oil.

укр. маслянаповнений

рус. маслянаполненный

one-hour rating a quantity or amount considered in relation to or measured against another quantity or amount.

укр. одногодина потужність

рус. одночасовая мощность

operation *n.* any manual or machine activity.

укр. робота, управління, керування

рус. работа, управление

operational amplifier (Op Amp) a highly stable direct coupled amplifier resistant to oscillation. May be packaged in an IC format.

укр. операційний підсилювач

рус. операционный усилитель

oppose *v.* to disagree with something or someone, often by speaking or fighting against it, him, or her.

укр. протистояти, протистояти, чинити опір, заперечувати

рус. сопротивляться, противостоят, препятствовать, возражать

oscillator *n.* a circuit that converts dc power into ac signals with constant frequency. Also, an instrument that generates ac signals which frequency and amplitude can be varied. These are also referred to as signal generators.

укр. генератор коливань, клістронний генератор, вібратор, осцилятор, коливальний контур

рус. генератор колебаний, клистронный генератор, вибратор, осцилятор, колебательный контур

oscilloscope *n.* an instrument that displays a plot of voltage over time; a piece of equipment that shows changes in electrical current as waves in a line on a screen.

укр. осцилограф

рус. осциллограф

overhead *adv.* above your head, usually in the sky.

укр. угорі (вгорі), вище голови, нагорі (наверху)

рус. вверху, над головой, наверху

overload *n.* a load in excess of the design limit for a circuit.

укр. перевантаження, допустиме перевантаження

рус. перегрузка, допустимая перегрузка

output power the electricity or power produced or delivered by a piece of equipment engine.

укр. вихідна потужність

рус. выходная мощность

output voltage the voltage released by a device, such as a voltage regulator or a generator.

укр. напруга на виході

рус. напряжение на выходе

-P-

pane *n.* a framed section of a window or door that is usually filled with a sheet of glass or other transparent material.

укр. віконна рама
рус. оконный переплёт

pantograph *n.* an instrument for the mechanical copying of maps or diagrams on any desired scale.

укр. пантограф
рус. пантограф

parallel circuit a circuit in which the circuit components are arranged in branches so that there is a separate path to each unit along which electrical current can flow.

укр. паралельний(а) ланцюг, контур, схема
рус. параллельная(ый) цепь, контур, схема

path *n.* a route or track between one place and another, or the direction in which something is moving.

укр. шлях
рус. путь

permanent magnet a magnet which retains its property of magnetism for an indefinite period.

укр. постійний магніт
рус. постоянный магнит

permeability *n.* the ability of a magnetic material to conduct magnetic lines of force.

укр. магнітна проникність, проникна здатність
рус. магнитная проницаемость, проникающая способность

pigtail *n.* a very short patch cable or wiring adapter. Primarily used in the automotive industries where a longer cable assembly is not needed.

укр. щітковий (гнучкий) канатик
рус. щёточный (гибкий) канатик

piston *n.* a sliding metal cylinder used in waveguides and cavities for tuning purposes or for reflecting essentially all of the incident energy.

укр. поршень
рус. поршень

pivot *n.* the central point, pin, or shaft on which a mechanism turns or oscillates.

укр. шкворінь
рус. шкворень

phase *n.* the relationship in time between the successive states or cycles of an oscillating or repeating system such as an alternating electric current.

укр. фаза, етап

рус. фаза, этап

plate *n.* a solid substance from which electrons flow.

укр. пластина, панель

рус. пластина, панель

plug *n.* a device for making an electrical connection between an appliance and the mains, consisting of an insulated casing with metal pins that fit into holes in a socket.

укр. штепсель

рус. вилка

polarity *n.* the property of having poles or being polar, the direction of a magnetic or electric field, that is, the positive (+) and negative (–) ends of a magnet or electrical mechanism such as a coil or battery.

укр. полярність

рус. полярность

polarized *adj.* a plug and connector formed in a way that only allows proper connection.

укр. поляризований, поляризувальний

рус. поляризованный, поляризирующий

pole *n.* either of two oppositely charged terminals at which its magnetic attraction is concentrated, as in an electric cell or battery.

укр. полюс

рус. полюс

pole shoes iron blocks fastened to the inside of a generator or motor housing around which the field or stator coils are wound. The pole shoes may be permanent or electro – magnets.

укр. полюсний башмак (генератора)

рус. полюсный башмак (генератора)

porcelain *n.* a hard but delicate, shiny, white substance made by heating a special type of clay to a high temperature, used to make cups, plates, decorations, etc.

укр. фарфор

рус. фарфор

potentiometer *n.* a three-terminal resistor with an adjustable center connection generally used to control voltage; widely used for volume control in radio and television receivers. In this sense, also called a Pot.

укр. потенціометр
рус. потенциометр

power *n.* the rate at which energy is consumed. In electronics it refers to the consumption of electrical energy in joules over time; measured in watts.

укр. потужність, живлення
рус. мощность, питание

power factor *n.* the ratio of the average power (expressed in watts) to the apparent power (expressed in volt-amperes).

укр. коефіцієнт потужності
рус. коэффициент мощности

power supply *n.* a device or circuit used to convert alternating current (ac) of specific voltage to one or more direct current (dc) values of specific voltage and current ratings.

укр. електроживлення, джерело живлення
рус. электропитание, источник питания

power switch transistor *n.* the part responsible for switching off the primary circuit that causes high voltage induction in the secondary winding in an electronic ignition system.

укр. силовий перемикач
рус. силовой переключатель

pressure *n.* the force you produce when you press something.

укр. тиск, стиснення
рус. давление, сжатие

pressure gauge an instrument for measuring the pressure of liquid or gas.

укр. манометр
рус. манометр

primary cell *n.* a device that uses up its ingredients to convert chemical energy to electrical energy and therefore can not be recharged.

укр. первинне джерело струму
рус. первичный источник тока

primary winding *n.* coil forming the part of an electrical circuit such that changing current in it induces a current in a neighboring circuit.

укр. первинна обмотка
рус. первичная обмотка

prime mover *n.* a machine that transforms energy from/to thermal, electrical or pressure to/from mechanical form, typically an engine or turbine.

укр. генератор
рус. генератор

printed circuit board *n.* device used to hold integrated circuit components in place and provide current paths from component to component.

укр. друкована плата, плата з друкованою схемою
рус. печатная плата; плата с печатной схемой

proton *n.* the part of the nucleus of an atom that has a positive electrical charge.

укр. протон
рус. протон

pulse *n.* a signal that is produced by a sudden ON and OFF of direct current (DC) within a circuit.

укр. вібрація, ритм, імпульс, сигнал
рус. вибрация, ритм, импульс, сигнал

pump *n.* a device to lift, transfer, or increase the pressure of fluid (gas or liquid) or to create a vacuum in an enclosed space by the removal of a gas.

укр. насос
рус. насос

push-button switch *n.* a master switch that is operated by finger pressure on the end of an operating button.

укр. кнопковий перемикач
рус. кнопочный переключатель

-R-

rate *n.* physical quantity, equal in the general case the rate of change, conversion, transfer or consumption of energy of the system.

укр. величина
рус. величина

rated current *n.* the current that an electrical device can carry under specified conditions, without resulting in overheating or mechanical overstress.

укр. номінальний струм
рус. номинальный ток

rated torque *n.* the maximum torque that the motor can safely apply continuously to the load at any speed within the rated speed range of the motor.

укр. номінальний обертальний момент (обертаючий)
рус. номинальный вращающий момент

rated value *n.* the particular amount, or degree that something is worth, important or useful.

укр. номінальна величина, значення

рус. номинальная величина, значение

rated voltage *n.* the voltage adopted for the corresponding apparatus.

укр. номінальна напруга

рус. номинальное напряжение

rating *n.* a specified performance limit, as of capacity, range, or operational capability.

укр. клас, розряд

рус. класс, разряд

reactance *n.* an opposition to current offered by capacitors and inductors in the form of a counter-electromotive force (cemf), but expressed in ohms. Reactance does not consume power but gives the appearance that it does.

укр. реактивний опір

рус. реактивное сопротивление

rectifier *n.* an electrical device that converts alternating current(AC), which periodically reverses direction, to direct current (DC), which flows in only one direction.

укр. випрямляч

рус. выпрямитель

reduction *n.* the action or fact of making something smaller or less in amount, degree, or size.

укр. зниження, зменшення, скорочення

рус. снижение, уменьшение, сокращение

regulating transformer *n.* intended for inclusion in the network or in the power transformer unit to regulate voltage or unit.

укр. регулюючий трансформатор, регульований

рус. регулировочный трансформатор, регулируемый

regulator *n.* a device which controls the flow of current or voltage in a circuit to a certain desired level.

укр. реостат, регулятор

рус. реостат, регулятор

relay *n.* an electrical coil switch that uses a small current to control a much larger current.

укр. реле, перемикач

рус. реле, переключатель

reluctance *n.* the resistance that a magnetic circuit offers to lines of force in a magnetic field.

укр. магнітний опір

рус. магнитное сопротивление

reluctor *n.* a metal cylinder, with teeth or legs, mounted on the distributor shaft in an electronic ignition system.

укр. зубчате кільце (датчика частоти обертання колеса, задаюче колесо)

рус. зубчатое кольцо (датчика частоты вращения колеса, задающее колесо)

residual voltage *n.* the voltage remaining on the arrester after it is triggered when the flow through it a current pulse of a given shape and duration.

укр. остаточна напруга

рус. остаточное напряжение

resistance *n.* the opposing or retarding force offered by a circuit or component of a circuit to the passage of electrical current through it, the ability of a substance to stop the flow of an electricity through it.

укр. опір, протидія, опірність

рус. сопротивление, противодействие, сопротивляемость

resistor *n.* device usually made of wire or carbon which presents a resistance to current flow.

укр. резистор, опір (елемент схеми), пристрій омичного опору, котушка опору

рус. резистор, сопротивление (элемент схемы), прибор омического сопротивления, катушка сопротивления

resonance *n.* a circuit condition when the inductive reactance (X_L) equals the capacitive reactance (X_C). A resonant circuit is one that has been tuned to that condition and resonant frequency is that frequency where resonance occurs in a circuit and provides a maximum output for one of its circuit variables.

укр. резонанс

рус. резонанс

rheostat *n.* a resistor used for regulating a current by means of variable resistance; rheostats allow only one current path.

укр. пусковий пристрій, опір, реостат

рус. пусковое устройство, сопротивление, реостат

right- hand rule *n.* a method used to determine the direction a magnetic field rotates about a conductor, or to find the north pole of a magnetic field in a coil.

укр. правило правої руки

рус. правило правой руки

rigging *n.* a device that pushes against a wheel, creating friction which produces a stopping action; can be activated by air pressure or by hand.

укр. гальмова тяга

рус. тормозная тяга

ring *n.* an object in the shape of the circle with a large hole in the middle.

укр. кільце

рус. кольцо

ripple *n.* the small amount of ac voltage that still remains in the output of a dc power supply.

укр. пульсація випрямленого струму

рус. пульсация выпрямленного тока

rise *n.* move from a lower position to a higher one; come or go up.

укр. зростання, підвищення

рус. увеличение, повышение

rising current *n.* the movement of air during convection with large vertical velocity component of the wind directed upwards.

укр. зростаючий струм

рус. восходящий поток

rod *n.* a thin straight bar, especially of wood or metal.

укр. стрижень, стержень, основна частина

рус. стержень, основная часть

roller bearing *n.* a bearing similar to a ball bearing but using small cylindrical rollers instead of balls.

укр. роліковий підшипник

рус. роликовый подшипник

rotor *n.* a revolving part of an electrical machine or mechanical device, esp. the armature of a generator, motor, or the turning assembly of a turbine, that is, a machine element that rotates around or on a central part.

укр. ротор, робоче колесо (турбіни, насоса), якір (електродвигуна)

рус. ротор, рабочее колесо (турбины, насоса), якорь (электродвигателя)

running *n.* an operation of a machine moving in one direction.

укр. рух, експлуатація

рус. движение, эксплуатация

running notch a position, at power-on, starts working.

укр. ходова позиція

рус. ходовая позиция

secondary cell *n.* a device whose ingredients convert chemical energy to electrical energy but can be recharged.

укр. вторинне джерело струму

рус. вторичный источник тока

secondary winding *n.* coil such that current is induced in it by passing a current through the primary coil.

укр. вторинна обмотка

рус. вторичная обмотка

self-induction *n.* voltage which occurs in a coil when there is a change of current.

укр. самоіндукція

рус. самоиндукция

semiconductor *n.* an element which has four electrons in the outer ring of its atoms. Semiconductors are used to make diodes, transistors and integrated circuits.

укр. напівпровідник

рус. полупроводник

series circuit a circuit in which the parts are connected end to end, positive pole to negative pole, so that only one path is provided for current flow.

укр. схема з послідовним включенням (з'єднанням), послідовна схема (ланцюг), ланцюг струму, послідовний контур

рус. схема с последовательным включением (соединением), последовательная схема (цепь), цепь тока, последовательный контур

series- parallel circuit a circuit in which some of the circuit components are connected in series and others are connected in parallel.

укр. схема з послідовно-паралельним включенням (з'єднанням), послідовно-паралельна(ий) схема (ланцюг), ланцюг струму, послідовно-паралельний контур

рус. схема с последовательно-параллельным включением (соединением), последовательно-параллельная схема (цепь), цепь тока, последовательно-параллельный контур

shaft *n.* a revolving rod that transmits motion or power.

укр. вал, вісь

рус. вал, ось

shifting *n.* change in a position, place, direction or condition.

укр. зміна, переміщення, деформація, зсув

рус. изменение, перемещение, деформация, смещение

short circuit this occurs when one part of a circuit comes in contact with another part of the same circuit, diverting the flow of current from its desired path.

укр. коротке замикання

рус. короткое замыкание

shunt *n.* a conductor joining two points in a circuit so as to form a parallel circuit through which a portion of the current may pass.

укр. шунт, з'єднання, паралельне включення

рус. шунт, соединение, параллельное включение

shunt *v.* to divert (a part of a current) by connecting a circuit element in parallel with another.

укр. шунтувати

рус. шунтировать

siemens (S) *n.* the unit of measurement for conductance. Named for Ernst Werner von Siemens, a German engineer who made notable improvements to telegraphic and electrical apparatus.

укр. сіменс (См)

рус. сименс (См)

single-phase motor a motor energized by a single alternating voltage.

укр. однофазний двигун

рус. однофазный двигатель

slip ring one of two or more continuous conducting rings in a generator, motor, or alternator from which brushes take, or deliver to, current.

укр. струмозбиральне (колекторне, контактне) кільце

рус. токособирательное (коллекторное, контактное) кольцо

source of power a place or thing from which energy originates or can be obtained.

укр. джерело живлення

рус. источник питания

spark plugs devices for firing the explosive mixture in an internal-combustion engine; devices which ignite the fuel by a spark in a spark-ignition engine.

укр. свічки запалювання

рус. свечи зажигания

sparkling *n.* an electrical discharge that ignites the explosive mixture in an internal-combustion engine.

укр. іскріння (іскрення), іскроутворення

рус. искрение, искрообразование

spring *n.* an elastic device, typically a helical metal coil, that can be pressed or pulled but returns to its former shape when released, used chiefly to exert constant tension or absorb movement.

укр. ресопа

рус. рессора

squirrel-cage motor an induction motor in which the secondary n.circuit consists of a squirrel-cage winding arranged in slots in the iron core.

укр. електродвигун з короткозамкненим ротором

рус. электродвигатель с короткозамкнутым ротором

splinterproof *n.* a proof against the splinters, or fragments, of bursting shells.

укр. протиосколочний (протиосколковий)

рус. противоосколочный

stamping *n.* a transformer lamination that has been cut out of a strip or sheet of metal by a punch press.

укр. штампований лист

рус. штампованный лист

starting current the point in time at which current has its origin; the beginning the current drawn from the mains by an electric motor upon starting.

укр. стартовий струм

рус. стартовый ток

static electricity a stationary electric charge, typically produced by friction, which causes sparks or crackling or the attraction of dust or hair; a stationary electrical charge on an object.

укр. електростатика, статичний струм

рус. электростатика, статическое электричество

stator *n.* the stationary part of a motor, dynamo, turbine, or other working machine about which a rotor turns.

укр. статор; *рус.* статор

stater motor a device that converts electrical energy from the battery into mechanical energy that turns an engine over for starting.

укр. стартер

рус. стартёр

step down transformer is an electrical device which reduces voltage of the alternating current to a value dictated by the operation conditions of traction motors.

укр. знижувальний трансформатор

рус. понижающий трансформатор

step-up transformer a piece of equipment that increases voltage.

укр. підвищувальний трансформатор

рус. повышающий трансформатор

stepper motor *n.* a motor type driven with digital codes that moves in discrete angular increments with each code change.

укр. кроковий двигун

рус. шаговый двигатель

storage battery *n.* a group of electrochemical cells connected together to generate electrical energy. It stores the energy in a chemical form.

укр. батарея акумуляторів, акумуляторна батарея, вторинне джерело струму (батарея)

рус. батарея аккумуляторов, аккумуляторная батарея, вторичный источник тока (батарея)

supply *n.* the action of providing what is needed or wanted.

укр. постачання

рус. снабжение

to supply *v.* make (something needed or wanted) available to someone; provide.

укр. постачати, забезпечувати

рус. снабжать, обеспечивать

supply circuit *n.* amount of something supplied or available for use: often in large quantities and over a long period of time.

укр. схема або ланцюг споживання

рус. схема или цепь питания

surge *n.* a very rapid increase of current or voltage.

укр. імпульс перенапруги

рус. импульс перенапряжения

switch *n.* a device which opens or closes electrical pathways in an electrical circuit.

укр. роз'єднувач, перемикач, комутатор, залізнична стрілка, вимикач

рус. разъединитель, переключатель, коммутатор, стрелка, выключатель

switching *n.* in the processes for the first time after switching in electrical circuits, closing and opening different portions of the circuit.

укр. перемикання

рус. переключение

synchronous *adj* if two or more things work at the same time or at the same speed.

укр. синхронний

рус. синхронный

-T-

template *n.* is a device for monitoring and measuring the parameters of wheel pairs locomotives.

укр. діаграма, шаблон

рус. диаграмма, шаблон

temporary magnet a magnet which loses its property of magnetism quickly unless forces act to demagnetize it.

укр. тимчасовий магніт (який втрачає магнетизм під час припинення дії джерела намагнічування)

рус. временный магнит (теряющий магнетизм при прекращении действия источника намагничивания)

tension *n.* the condition of the string, wire, or rod that is stretched between two points.

укр. натягнення, напруга

рус. натяжение, напряжение

terminal *n.* a passive conductor in such a position used to facilitate the connection.

укр. клемовий затискач

рус. клеммный зажим

terminal *n.* the area or building at a station, airport, or port that is used by passengers leaving or arriving by train, aircraft, or ship.

укр. термінал

рус. терминал

thermistor *n.* a resistor made of semiconductor material having resistance that varies rapidly and predictably with temperature. Used as a temperature sensor, the resistance varies inversely with temperature.

укр. терморезистор

рус. терморезистор

thermocouple *n.* a thermoelectric device used to measure temperatures accurately, consist of two dissimilar metals joined so that a potential difference is generated that is representative of the temperature of the junction.

укр. термоелемент

рус. термоэлемент

Thevenin's theorem a method of reducing a complex network of bilateral (conducts equally well in both directions) components to one voltage source and one resistor in series with the load terminals.

укр. теорема Тевеніна

рус. теорема Тевенина

three-phase motor *n.* an alternating-current motor operated from a three-phase circuit.

укр. трифазний двигун

рус. трёхфазный двигатель

thyristor *n.* a four-layered semiconductor rectifier in which the flow of current between two electrodes is triggered by a signal at a third electrode.

укр. тиристор

рус. тиристор

torque *n.* the tendency of a force to rotate an object about an axis, fulcrum, or pivot.

укр. наддування, крутильний момент (крутний)

рус. наддув, крутящий момент

track *n.* a rail or set of parallel rails upon which railroad cars or other vehicles run.

укр. колія, шлях

рус. пути, рельсы (железная дорога)

traction *n.* - the pulling of a heavy load over a surface, or the type of power needed to make vehicle move.

укр. тяга, притягальна сила

рус. тяга, сила сцепления

traction effort *n.* a force exerted by a machine or in a process for the pulling of a heavy load over a surface, or the type of power needed to make vehicle move.

укр. тягове зусилля

рус. тяговое усилие

traction motor *n.* an electric machine that converts electrical energy into mechanical energy.

укр. тяговий електричний двигун

рус. тяговый электрический двигатель

transducer *n.* a device used to convert input energy of one form into output energy of another.

укр. перетворювач

рус. преобразователь

transformer *n.* an electrical device made of two coil windings used to transfer an alternating current or voltage from one electric circuit to another by means of electromagnetic induction.

укр. трансформатор

рус. трансформатор

transient voltage protection module (TVP) a device which protects the engine controller electronics against high energy voltage transients such as alternator load dumps.

укр. захисний блок зміни напруги

рус. защитный блок смены напряжения

transistor *n.* a device constructed of semiconductors that is used in circuits to control a larger current by using a smaller current for operation. Its function is the same as a relay.

укр. кристалічний триод, транзистор (прилад, виготовлений з напівпровідникового матеріалу. Використовується для підсилювання звукового сигналу)

рус. кристаллический триод, транзистор (прибор, изготовленный из полупроводникового материала. Используется для усиления звукового сигнала)

transmission *n.* the mechanism by which power is transmitted from an engine to the axle in a motor vehicle.

укр. передача

рус. передача

to transmit *v.* allow (heat, light, sound, electricity, or other energy) to pass through a medium.

укр. передавати

рус. передавать

trimmer resistor *n.* a resistor used in applications where only a small resistance change is needed.

укр. підстроєний (регульований), перемінний (змінний) резистор, вмонтований

рус. подстроенный (регулируемый), переменный резистор, встроенный

true power *n.* the actual power consumed by a circuit; measured in watts.

укр. активна (індикаторна) потужність

рус. активная (индикаторная) мощность

turn *v.* to move in a circle around a fixed point or line; to change the direction in which you are facing or moving; to move, or to move an object or page, so that a different side or surface is on the top; to become, change into, or come to be something; to become a particular age or time.

укр. крутити, рухати, повертати, змінювати, направляти, приводити в рух

рус. крутить, двигать, поворачивать, менять, направлять, приводит в движение

-U-

underframe *n.* the internal supporting frame or substructure(structure) of something, in particular a vehicle or piece of furniture.

укр. рама

рус. рама

undulating current a smooth wave-like motion of electricity which results from the ordered directional movement of electrically charged particles.

укр. пульсуючий струм, струм пульсації

рус. пульсирующий ток

uniform voltage sharing stresses in all cross-sections, remote from the point of application of the load is distributed evenly.

укр. одноманітний розподіл напруги

рус. однородное распределение напряжения

uninterrupted contact connection for the passage of an electric current from one thing to another, or a part or device by which such a connection is made without a break in continuity.

укр. безперервний контакт

рус. непрерывный контакт

-V-

values *n* the numerical amount denoted by an algebraic term; a magnitude, quantity, or number.

укр. величини, значення

рус. величины, значения

ventilation *n.* provision for the movement, circulation, and quality control of air in an enclosed space.

укр. вентиляція

рус. вентиляция

volt *n.* a unit of electrical pressure (or electromotive force) which causes current to flow in a circuit. One volt is the amount of pressure required to cause one ampere of current to flow against one ohm of resistance.

укр. вольт

рус. вольт

voltage *n.* a measure of the difference in electric potential between two points in space, a material, or an electric circuit, expressed in volts.

укр. напруга струму

рус. напряжение тока

voltage divider a series circuit that divides voltage.

укр. дільник напруги

рус. делитель напряжения

voltage drop the difference in potential between two points caused by current flow through a component.

укр. перепад напруги

рус. перепад напряжения

voltage regulator a device that controls the strength of a magnetic field produced by a generator or alternator. It prevents the battery from being over or undercharged during high – or low – speed operation of the generator or alternator.

укр. стабілізатор напруги

рус. стабилизатор напряжения

voltmeter *n.* an instrument for measuring the force in volts of an electrical current. This is the difference of potential (voltage) between different points in an electrical circuit. Voltmeters are connected across (parallel to) the points where voltage is to be measured.

укр. вольтметр

рус. вольтметр

-W-

watt *n.* a unit of measure for indicating the electrical power applied in a circuit. It is obtained by multiplying the current (in amperes) by the electrical pressure (in volts) which cause it to flow. That is: watts = amperes x volts.

укр. ватт

рус. ватт

watt-hour (Wh) a unit of energy consumed at the rate of one watt (W) for a time of one hour. Equivalent to 3,600 joules.

укр. ваттогодина

рус. ватточас

wave *n.* a signal that is produced by varying a continuous flow of current within a circuit. Wave forms can be created by either AC or DC current.

укр. хвиля

рус. волна

Wheatstone bridge an instrument or a circuit consisting of four resistors or their equivalent in a series-parallel arrangement, used to determine the value of an unknown resistance when the other three resistances are known.

укр. міст Уїтстона

рус. мост Уитстона

winding *n.* one or more turns of wire forming a continuous coil through which an electric current can pass, as used in transformers, generators, etc.

укр. обмотка

рус. обмотка

wire *n.* (a piece of) thin metal thread with a layer of plastic around it, used for carrying electric current

укр. дрiт

рус. провод

wiring diagram a graphic representation of how circuit components are connected.

укр. схема електричних з'єднань

рус. схема электрических соединений

-Z-

Zener diode a semiconductor device designed to operate at a fixed voltage as a voltage regulator.

укр. зенеровський (опорний) діод

рус. зенеровский (опорный) диод

СПИСОК РЕКОМЕНДОВАНОЇ ЛІТЕРАТУРИ

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