LINE CARD — US ELECTRIFICATION

Original Equipment Manufacturers (OEM)
Distributor channel solutions

ABB offers a comprehensive product portfolio, support and strategic initiatives designed to help OEMs increase productivity, reliability and efficiency. Our extensive and always evolving portfolio enables ABB to meet ongoing OEM electrical component needs now and into the future.

Protection, distribution and control

Product category	Product name	Product image	Description
Automatic transfer switches	TruONE ATS		TruONE is the world's first true all-in-one automatic transfer switch (ATS), which incorporates switch and controller in one seamless unit. TruONE ATS broadens customer markets by replacing complexity with simplicity.
Circuit breakers	**Molded case circuit breakers**		
	SACE® Tmax® XT		The SACE® Tmax® XT series of MCCBs is designed to maximize ease of use, integration and connectivity while reliably delivering safety and quality. Rather than just offering standalone protection, they are seen as key elements of the system that give you complete flexibility, extreme breaking capabilities and reliable performance under pressure. With seven sizes and protection features of up to 1200 A, there's a solution for every purpose.
	SACE® Formula		The SACE® Formula range brings simplicity and quality together in some of the smallest dimensions available. With 1-, 2- and 3-pole versions from 15 A–250 A, they can be either installed directly on the back plate of cubicles or on a DIN rail. The extremely compact dimensions and coordinated depth mean standardized savings for you in distribution board design.
	Record Plus FB100		The Record Plus FB100 molded case circuit breakers offer a new standard of performance with high interrupt ratings for the expanding available short circuit currents associated with networked transformers. Available in 1-, 2- and 3-pole versions up to 600 A with interruption capacities up to 200 kAIC, global approvals, compact size, common internal accessories and a broad range of improved external accessories, these MCCBs provide for easy integration into equipment.
	TEY lighting panel		ABB's offering of TEY lighting panel circuit breakers allows for cost-effective protection for your particular application. The dependable and effective thermal magnetic trip units with time-current curves are designed to maintain easy coordination with upstream devices. These compact, ambient compensating circuit breakers are offered in 1-, 2- and 3-pole versions with ratings of up to 125 A and can be adapted to your needs with the wide range of internal accessories.
	TH(H)QB		TH(H)QB circuit breakers with bolt-on are one-inch wide per pole, compact, thermal-magnetic devices designed for use in ReliaGear® panelboards. They feature quick-make/quick-break mechanisms, common trip bars and easy-to-spot trip indications to help ensure safety and reliability. Q-Line breakers are available in 1-, 2- and 3-pole versions and can be ordered with auxiliary contact and shunt trip accessories.
	Thermal magnetic E150		ABB's thermal magnetic E150 molded case circuit breakers protect against overloads and short circuits with proven reliability and cost-effectiveness. This versatile offering with ratings of up to 150 A makes it ideal for a range of uses, including switchboards, motor control centers, lighting panelboards and power panelboards.

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Circuit breakers	**Low voltage power circuit breakers**		
	SACE® Emax 2		SACE® Emax 2 sets a new circuit breaker benchmark for the needs of today and tomorrow, matching new grid requirements thanks to its distinctive features. It enables direct communication to the new energy management cloud-computing platform ABB Ability™ Energy and Asset Manager. Smart and plug-and-play architecture makes SACE Emax 2 all-in-one easy to use. Standards: • UL 1066 and IEC • Four frame sizes: E1.2 (1200 A), E2.2 (2000 A), E4.2 (3600 A), E6.2 (6000 A) • Voltage ratings: 254 V AC (240 V AC) / 508 V AC (480 V AC), 635 V AC (600 V AC) • Short circuit ratings up to 100 kA • 3- and 4-pole / fixed mount and drawout construction
	Miniature circuit breakers and supplementary protectors		
	Miniature circuit breakers (MCBs)		ABB, the inventor of miniature circuit breaker technology, offers the largest selection of current-limiting, compact, DIN-rail mounted MCBs for AC and DC applications. Thermal and magnetic trips are provided to cover both overcurrent and short-circuit faults. • UL 489, UL 1077 and IEC • 0.2 to 100 A, up to 600 V AC/DC and 50 kA short circuit protection • Accessories include busbars, auxiliary and signal contacts, shunt trip, lock out/tag out and many more • Specialized MCB offerings include UL 489 SU200MR and UL 1077 ST200 MTR, both featuring ring tongue terminals to provide connection stability between the MCB and the DIN rail
	Residual current devices (RCDs)		RCDs are the safest device to detect and trip against electrical leakage currents, helping ensure protection against electric shock caused by indirect contacts. These devices must be used in series with a miniature circuit breaker (MCB) or fuse that protects them from the potentially damaging thermal and dynamic stresses of any overcurrent. • AC, A, AP-R AS types available to ensure protection against all kinds of ground fault currents • Rated currents from 16 A up to 100 A • Rated IΔn sensitivity 10, 30 mA, 100 mA, 300 mA, 500 mA and 1 A
	DIN-rail mount fuse holders		ABB offers a wide range of DIN-rail mountable, UL approved IP20 fuse holders. They offer venting grooves and cooling chambers to improve heat dissipation, increasing durability and reliability. Ergonomic flip hinge makes fuse replacement easier in small spaces even while wearing gloves. All models offer blown-fuse indication. • Class J — up to 60 A at 600 V AC/DC • Class CC — up to 30 A at 600 V AC/DC • Midget 10 x 38 mm — up to 32 A at 600 V AC/DC • Photovoltaic PV — up to 32 A at 1000 V DC and 1500 V DC
	Medium voltage indoor vacuum circuit breakers and accessories		
	ADVAC®		Spring-actuated circuit breaker utilizing EL mechanism, the most installed MV circuit breaker mechanism globally. Features a modular design for quick and simple maintenance. (ANSI, 5–38 kV, 1200–3000 A, up to 63 kA)
	AMVAC™		Magnetically actuated circuit breaker mechanism with only one moving part. This helps reduce maintenance time and increases safety by reducing personnel time in front of the equipment since the circuit breaker exceeds market standards for number of operations between services. Comes standard with a 5-year warranty. (ANSI, 5–27 kV, 1200–3000 A, up to 50 kA)
	OEM switchgear assemblies		ABB's circuit breaker cell kits, L-frames and compartments provide flexibility for customers to maximize their value add or production efficiency in 26" or 36" switchgear designs. Customers can also purchase complete compartments or kits for PT, CPT and fuse drawers, along with low voltage compartments. (Up to 38 kV, 4000 A, 63 kA)

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Protection, distribution and control

Product category	Product name	Product image	Description
Contactors and starters	Contactors IEC		CR460 series — The ultimate in versatility, simplicity and performance. All CR460 series lighting contactors deliver unprecedented versatility in application, simplicity in configuration and performance in operation. Their revolutionary design and unique features meet most lighting control needs better than ever before. CR360L series — The CR360L series lighting contactors are electrically held and offer solutions for applications between 30 and 300 amps. This is accomplished in five frame sizes, all built on the successful and long-established NEMA starters. The ratings are established for fluorescent, mercury arc, tungsten and sodium lamp loads, covering a wide spectrum of industrial and commercial applications. CR160 series — The CR160MC mechanically held lighting contactors are designed for control of lighting loads such as tungsten, fluorescent, mercury and sodium, as well as for general non-inductive loads. The shallow-type design makes these contactors particularly adaptable for wall-cavity mounting applications. The silver cadmium oxide main contacts and silver tungsten arcing contacts give the devices capability of handling a wide variety of lighting loads. Built-in clearing interlocks allow control from either momentary or maintained pilot devices.
	Contactor relays IEC		ABB's contactor relays offering features products of technological advancement as well as products with specific purposes. NF contactor relays allow use in all parts of the world and in all network conditions. The mini contactor relays range offers various contact combinations and specific connection possibilities. The AS contactor relays are efficient and allow you to optimize your equipment design.
	Definite purpose contactors		Definite purpose contactors provide high performance with flexibility and reliability and are designed to match numerous applications. They are ideal for resistive heating, for motors and compressors in air conditioning and refrigeration, as well as for food service equipment.
	Manual motor starters		Manual motor starters, also known as motor protection circuit breakers (MPCBs) or manual motor protectors (MMPs), are electromechanical protection devices for the main circuit. They are mainly used to switch motors ON/OFF manually and to provide fuseless protection against short-circuit, overload and phase failures. Fuseless protection saves costs and space and ensures a quick reaction under short-circuit condition by switching the motor off within milliseconds. Starter combinations are set up together with contactors and are available with screw or push-in spring terminals.
	Overload relays IEC		EF electronic overload relays — Electronic overload relays offer reliable and precise protection for motors in the event of overload or phase failure. The electronic overload relay can make up a compact starting solution together with contactors. Thermal overload relays — Economical electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The thermal overload relay can make up a compact starting solution together with contactors.
	Starters IEC		ABB's starters can be used in most motor control applications using mechanical starting means as well as solid-state, IEC and NEMA-rated. Combination tested to 200 kA. Both enclosed and open styles available.
	Universal motor controllers		ABB's intelligent motor controllers combine motor protection and control functions, Fieldbus and Ethernet communication, and fault diagnosis in a single device. They provide detailed operational, diagnostic and service data continuously, giving any plant an effective data source for predictive maintenance systems.
	Medium voltage contactors		
	ConVac™		The ConVac™ vacuum contactor is ANSI and IEC rated. It is ideal for switching motors and controlling electrical circuits in a wide variety of applications where a high number of operations are required. (Up to 12 kV, 400 A, 6 kA unfused (50 kA with fuses))

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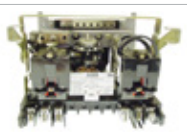
Protection, distribution and control

Product category	Product name	Product image	Description
Controls and protective relays	Economical and DIN rail range power supplies		ABB's CP-E range offers enhanced functionality and a simpler, more rational selection process. All power supply units can be operated at an ambient temperature of up to +70 °C. ABB's CP-D range of power supply units with its modular DIN rail component (MRDC) design fits all domestic installation and distribution panels.
	High performance and buffer range power supplies		ABB's ultra-capacitor based CP-B buffer modules serve to ensure a short-term uninterrupted power supply system with a voltage of 24 V DC by buffering the load in case of power loss. ABB's high-performance CP-C.1 power supplies for demanding industrial applications deliver high efficiency, high reliability and innovative functionality. This advanced range of power supplies has an integrated 150% power reserve and operate at an efficiency of up to 94%. They come equipped with overheat protection and active power factor correction, combined with a broad AC and DC input range and extensive worldwide approvals.
	Interface relays and optocouplers		ABB's interface relays and optocouplers provide reliable voltage conversion between process peripherals and higher-level control systems. Our relays ensure reliable signal switching and provide electrical isolation for sensitive electronics such as PLCs in all kinds of machinery. The wide variety of pluggable interface relays with standard or logic sockets can be used for switching AC or DC loads. Suitable for extreme environments, ABB's interface relays offer a range of different coil voltages and plug-in functional modules. Environmentally friendly, cadmium-free and lead-free, ABB interface relays and optocouplers meet RoHS requirements. Complete versions consisting of a relay, socket, holder, marker and function module are available in this range.
	Measuring and monitoring relays		No matter what measuring or monitoring function is needed, physical or electrical, ABB protects your equipment and ensures processes run smoothly. ABB relays are designed to detect overloads, temperature, liquid and other potentially damaging fluctuations. Choose from a large range of products that provide reliable protection, cost savings and maximum availability for processes and equipment. No matter what the environment, ABB's high quality products are built and tested to give you uninterrupted monitoring.
	Primary switch-mode power supplies		The CP range offers the latest technology in a more compact package. Modern power supply units are a vital component in most areas of energy management and automation technology. ABB works with customers as a global partner in these areas, responding quickly to changing requirements and evolving demands of markets and applications.
	Standard range power supplies		High-efficiency power supplies suited for machine-building applications. Designed for a huge variety of applications, including machine-building segments, this advanced range boosts an integrated 150% power reserve for five seconds and operates at an efficiency of up to 94%. With overheat protection, active power factor correction, a broad certified AC and DC input range and extensive worldwide approvals including marine, the all-new CP-S.1 power supplies are a preferred choice for multiple industrial applications.
	Time relays		Available in three different ranges to cover every application, CT range time relays are used to provide reliable timing functions worldwide. They have proven their excellent functionality in daily use under the toughest conditions. Choose ABB as the partner for all your low voltage timing control needs to leverage our wide variety of product options. From economic to high-end solutions, this range offers maximum value.
	Digital and electromechanical relays		
	Relion® relays		The Relion® family offers the widest range of products for the protection, control, measurement and supervision of power systems for ANSI applications. To help ensure interoperable and future-proof solutions, Relion products have been designed to implement the core values of the IEC 61850 standard.
	Electromechanical relays		Electromechanical relays are key components in new applications where reliable operation is essential, in harsh environments, or in existing installations where an exact replacement is required.

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Protection, distribution and control

Product category	Product name	Product image	Description
Measuring and monitoring	Circuit monitoring system		The CMS is a compact and scalable system to measure AC and DC loads in branch circuits. It is easy to use and offers intuitive installation and configuration via integrated touch screen (CMS-600) or web client (CMS-700) in original installations or field retrofits. • Open and closed core sensors up to 160 A true RMS with up to 0.5% accuracy • Up to 96 sensors can be monitored by one control unit • Measured data can be accessed via Ethernet or polled via Ethernet or Modbus RTU protocol interface
	Ekip UP		Ekip UP is the product range of protection and metering relays for low voltage plants. The multifunctional units enable full metering of power quality, direct connection of switchgear to ABB Ability™ platforms, spread connectivity to supervision systems with more than 8 communication protocols, complete protections for feeders and generators plus control logics. Leveraging on plug-in current sensors, Ekip UP is also designed to upgrade existing installations in power distribution and automation. Main applications are in commercial buildings, industrial facilities, marine and solar power plants.
Modular bus bar system	SMISSLINE TP flexible power distribution bus system		Modular assembly allows for simple reconfiguration and maintenance and reduces space and installation time. Design changes and future expansion are easily accomplished. • Certified for UL 508 and UL 489 applications • 125 and 250 A busbar versions • Miniature circuit breakers (MCBs) up to 35 A (direct plug-in) and 100 A (with adapter) • Combination motor starters • Finger-safe IP20 design
Panelboards	OEM power panelboards		The ReliaGear® OEM neXT power panelboard offering enables our partner assembler to build distribution power panelboards using the ReliaGear neXT plug-in design. By purchasing premade plug-in vertical bus, plug-in circuit breaker assemblies and accessories (neutrals, grounds, RELT, SPD) — your customers can manufacture panels and group-mounted sections with their branding and expertise.
	ProLine panelboards		ProLine is the first UL 67 panelboard in the market offering touch-safe capabilities and total breaker coordination. It provides valuable features to those who demand the best possible protection against arc flash and electrical shock during installation or maintenance. • UL 67 panelboard with a certified touch-safe IP20 rating • Current-limiting branch breakers reduce potential for arc flash in a short circuit event • Pluggable branch breakers with non-energized bolt-on screw further reduce potential for contact • Fully coordinated branch and main breakers contain the fault to the branch level, leaving the main and other branch circuits up and running
Softstarters	Enclosed softstarters		Enclosed softstarters are ready to wire and use. PSE efficient range and PSTX-ND normal duty are available in NEMA 3R, 4 or 12. PSTX-XD is available in NEMA 4 enclosures only.
	Open softstarters		Open softstarters are ready to include in control panels and other OEM applications. For heavy-duty applications, upsize to the next size softstarter in each range.
Switchboards	OEM switchboard		The ReliaGear® OEM switchboard offering enables our partner assembler to build distribution switchboards using the ReliaGear plug-in design. By purchasing premade plug-in vertical bus, plug-in circuit breaker assemblies and interior frames — your customers can manufacture switchboards and group-mounted sections with their branding and expertise.

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Protection, distribution and control

Product category	Product name	Product image	Description
Switches and disconnects	High pressure contact switches		The high pressure contact (HPC) switch has been demonstrated to be a superior switching device when compared to bolted pressure switches due to the exceptional contact design. The new generation HPC switch is based on the time-proven platform of the Power Break* II circuit breaker. Now, it's ArcWatch-enabled to provide a better arc flash hazard mitigation solution.
	Rotary disconnects		ABB disconnect switches offer reliable switching for a wide variety of applications. Embrace the versatility with a complete range of UL-rated non-fusible (OT), fused (OS), DC (OTDC) and change-over (OT_C) disconnect switches.
	Rotary enclosed disconnects		Experience the versatility of the eOT series of rotary enclosed switches, suitable for use as motor disconnects. Housed in a variety of enclosures and holding both UL 508 and UL 98 listings, the eOT enclosed switches offer a compact design with compliance for wet and corrosive environments.
	Test switches and accessories		ABB test switches are designed and manufactured to allow quick and easy multi-circuit testing of switchboard relays, meters and instruments by any conventional system.
	VersaRupter®		The VersaRupter medium voltage indoor switch is a general purpose, three-pole, air loadbreak switch that offers switchgear owners and assemblers the advantages and flexibility of advanced interrupting technology and dependable performance in a compact design, with multiple mechanisms, handles and other unique options. The switch is available to switchgear assemblers as a building block for metal-enclosed and padmounted switchgear applications.
Surge protective devices	NEMA SPDs		SPDs are designed to protect equipment from lightning, utility load switching, internal load switching and more. They are suitable for use in hospitals, data centers, renewable energy, water treatment and other critical power applications. The UL 1449 listed OVRH series offers SPDs for all applications and can help protect equipment from overcurrent and overvoltage. They have replaceable modules for long service life.
	DIN rail		OVR series SPDs are type 4 UL 1449 5th edition recognized components. This series offers 15 kA–40 kA surge ratings and delivers effective protection to help mitigate damage to sensitive electronic equipment from transient surges. OVR DIN rail series SPDs are ideal for use in AC or DC OEM applications.
	Data line		OVR data/signal range of UL 497B listed SPDs are designed to protect sensitive electronic equipment and reduce costly downtime against the damaging effects of surges caused by lightning, load switching and more. The full range of OVR data/signal surge protective devices provides repeatable data and signal protection. They complement the OVR power SPD products to offer a complete system protection solution (power and data) against surges.
Transformers	**Low voltage transformers**		
	Low voltage dry type vented transformers		General purpose dry type vented transformers offer a reliable, energy-efficient design for general purpose lighting and electrical applications. Available in single-phase from 15 to 100 kVA and three-phase from 15 to 750 kVA.
	Drive isolation transformers		The drive isolation transformer (DIT) is designed specifically to handle the mechanical stresses, voltage distortions and harmonics associated with silicon-controlled rectifier (SCR) applications. DITs have symmetrically placed taps and added coil bracing to withstand the mechanical forces caused by severe SCR duty cycles. These features also help to protect the transformer from the regenerative duty and more frequent short circuits associated with SCRs.
	Low voltage dry type, encapsulated, enclosed transformers		ABB's QB and QMS small power transformers come standard in NEMA 3R non-ventilated, weatherproof enclosures. Type QB and QMS units feature encapsulated copper core and coils with integrated junction boxes for easy wiring. ABB's buck-boost transformers are small, single-phase, dry type distribution transformers designed and shipped as insulating/isolating transformers. They have a dual voltage primary and a dual voltage secondary. These transformers can be connected for a wide range of voltage combinations.

Protection, distribution and control

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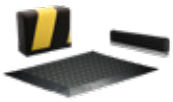
Transformers	Control power and machine tool encapsulated, core and coil transformers		Machine tool transformers are used to provide voltage to control devices in applications where voltage regulation and minimum space are critical. Welded cores provide the highest quality electrical performance and quiet operation. Control power transformers are an economical alternative to high inrush/ machine tool transformers. • Finger-safe terminals offer added safety • Pressure plate terminals ensure secure connections • Wide variety of fusing options • Type IP transformers are seismically qualified
	Medium voltage instrument transformers		
	Current and voltage instrument transformers		Dry-type instrument transformers for indoor and outdoor use provide standard accuracy and high accuracy metering, relay protection and control power.

Machine and motor control

Product category	Product name	Product image	Description
Emergency stops and pilot devices	E-stops and pilot devices		Emergency stop buttons are used to safely stop dangerous machine functions. ABB offers a wide range of emergency stop buttons for external mounting or panel mounting, with plastic or metal housing and for different types of connections.
Limit switches	Limit switches		ABB limit switches are an easy and reliable way to convert mechanical movements into electrical signals. The contacts are mechanically linked to an actuator for visible operation. By combining different types of actuators and casings, this wide range of limit switches can meet the needs of countless applications. Available in plastic or metal casing, IP66 and IP67, these devices are able to switch strong current up to 10 A.
Optical safety devices	Safety light curtains and grids		Safety light curtains and grids stop the machine when someone passes through LED beams, providing contactless perimeter control.
Pilot and signaling devices	Pilot and signaling devices		ABB offers three ranges of pilot devices for 22 mm and 30 mm diameter holes. The modular range is offered in metal or plastic bodies and includes operators, holders and contact, and LED blocks that can be combined. The compact range offers all functions built into a single unit. Adapter rings enable use of 22 mm pilot devices in 30 mm diameter holes.
Pressure-sensitive devices	Safety bumpers, edges and mats		Safety bumpers are mounted on leading edges of large doors or moving machinery such as automated guided vehicles, to help prevent crushing injuries. Safety edges are used on leading edges of doors or slow-moving machine parts to help prevent crushing injuries. Safety mats are used for protection inside the hazard zone around dangerous machines.
Programmable safety controllers	Safety programmable logic controllers		Safety programmable logic controllers (PLCs) can offer the most flexibility in terms of cost and installation when you consider the number of safety relays you can replace. In addition, you can easily change the program in order to change or add to your system.
Safety accessories	Safety accessories		Accessories for emergency stops, Puto, safety control devices, safety sensors, switches, locks and gate boxes. Also includes cables, connectors and Tina adapters.
Safety control devices	One- and two-hand control devices		Used as a hold-to-run button — Safeball and JSTD25.
	Three-position devices		Three-position devices, or hold-to-run devices, can be used for troubleshooting, programming and test running in situations where no other protection is available or feasible. The operator can either press harder in an emergency or release the device to stop the machine.

Machine and motor control

Product category	Product name	Product image	Description
Safety controllers	Safety controllers		Vital offers the capability to exclusively control smaller machine safety systems that would otherwise require a programmable controller or multiple safety relays.
Safety relays	Safety relays		ABB Sentry safety relays begin to blur the line between safety controllers and relays. Sentry safety relays are available for standard safety circuits, two-hand control, input and output expansion, timer-based circuits and programmable universal safety relays capable of becoming any of the previously mentioned safety relay types.
Safety sensors, switches, locks and gate boxes	Mechanical safety switches		Used to detect the status of doors and hatches (open or closed). Mechanical safety switches use an actuator key to change the state of the switch from open/closed.
	Multifunction gate box		The multifunction gate box is used on doors as a safety lock, but it also offers open positions for pilot devices (such as start, stop and e-stop buttons).
	Non-contact safety sensors		ABB's safety sensors are a great option when you need to sense if a door or hatch is open. Unlike mechanical safety switches that use a key to change the state of the switch, ABB's devices operate with no mechanical contact, making them easy to use and install with 360-degree mounting.
	Safety locks and process locks		The Magne DYN is an electromagnetic process lock intended for locking doors and hatches. It is usually used to prevent unwanted process interruptions, such as during a welding operation. Magne DYN utilizes DYNlink technology that can be used with our Vital Safety Controller or Pluto Safety PLC. DYNlink is an ABB-specific sensor-communication and cabling solution that makes it easy to reach the highest level of safety using a minimum of cables and PLC inputs. Models with integrated Adam safety sensor make it easy to achieve the highest safety level for the interlocking function. Magne OSSD is a dual-channel device that can be use with safety relays (e.g., Sentry Safety Relays) and safety PLCs (e.g., Pluto Safety PLC). Magne models with integrated Adam safety sensor make it easy to achieve the highest safety level for the interlocking function. MKey are mechanical solenoid safety switches used for monitoring doors and hatches. The switch is mounted on the frame and the actuator key on the moving part of the guard. These models have a safe interlocking function. They can be used either as process locks or safety locks (with a safe unlocking function). MKey switches are available in different body style materials to meet the requirements of different applications.

ABB Inc.
305 Gregson Drive
Cary, NC 27511

electrification.us.abb.com

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