

LS ELECTRIC

Air Circuit Breaker (ACB): Is to be installed in low voltage distribution line to break the circuit when over current, short circuit or ground fault occurs in order to protect user and other subordinate components.
Rated Current: up to 8300A.
Rated Breaking Capacity (Icu) KA Sym: 65KA, 85KA & 105KA @ 220V/230V/250V/415V AC 50/60Hz, as per IEC 60947-2.
No. of Pole: 3/4Poles.
Connection: Draw Out/Fixed Type (Horizontal/Vertical/Mixed).
High Functional Trip Relay:
Protection: Over Current, Short Circuit, Ground Fault.
 It supports the advance measurement function for Voltages Current, Power, Electric energy, harmonics, communication function & others.

Vacuum Circuit Breaker (VCB): Is installed in the medium voltage distribution line to protect life & load equipment in case of accidents such as over current, short circuit & ground fault current. VCB works by interrupting the circuit through the inner vacuum interrupter which is acted by signal from the outside separate relay.

Voltage	Interrupting current	Rated current
7.2kV	812.5/2025/51.5/40.95KA	400/300/250/200/150/100KA
10kV	2625/51.5/40.95KA	400/300/250/200/150/100/50/30/20KA
17.5kV	2025/51.5/40.95KA	400/300/250/200/150/100KA
24kV	12.5/2025/51.5/40.95KA	300/250/200/150/100KA
25.2kV	12.5/1625/51.5/40.95KA	400/300/250/200/150KA
36kV	25/51.5/40.95KA	125/200/150KA

Installation: Fixed/Draw out
Type of Cradle: E-type/F-type/G-type/H-type.

Molded Case Circuit Breaker (MCCB): used for power distribution, protection of motor & its control device, controlling & disconnecting circuits as well as extensive application. It has wide range of optimized auxiliaries and accessories.
Ampere Rating & Trip Unit:

Rated Current [A]	Rated Breaking Capacity [kA]	Rated Current [A]	Rated Breaking Capacity [kA]
100	10	100	10
160	10	160	10
250	10	250	10
400	10	400	10
630	10	630	10
1000	10	1000	10
1600	10	1600	10
2500	10	2500	10
4000	10	4000	10
6300	10	6300	10
10000	10	10000	10

Super Breaking Capacity Icu [KA]: up to 150KA @ 380/415VAC, 50/60Hz.
No. Pole: 3, 4 Pole.
Multifunctional Digital Trip Relay: for 1000A, 1250 & 1600A MCCB.

Miniature Circuit Breaker (MCB): Industrial & Residential use of different series.
Protection: Overload & Short Circuit Protection.
Rated Current [A]: 1-63A Available.
Characteristic Curve: B, C, D Curve.
Breaking Capacity Icu [KA]: 6KA/10 KA@ 220/415VAC @ 50/60Hz.
Residual Current Circuit Breaker (RCCB): Special design to use in residence for more sensitive trip.
Rated Current [A]: 6-63A Available.
No. of Pole: 1P+N, 3P+N.
Sensitive Current: 30mA (0.1sec)
Protection: Ground fault (by Electro-Magnetic trip).

MCCB/RCCB/AL/SHT

Magnetic Contactor:
 * Advance Technology & expert solution.
 * Economical solution with compact size & easy Connection.
 * Perfectly solution with peripheral device.
 * World class products conforming to IEC & UL Standards.
Rated Current: up to 800A (AC-3).
Coil Voltage: 415/220/110/24 VAC.
 AC/DC Contactor both available.
No. of Pole: 3, 4 poles.
Thermal Overload Relay: Bimetal-Style, overload relays are designed to protect AC circuits and motors against overloads, phase failure, long starting time & prolonged stalling of the Motor.

Electronic Motor Protection Relay (EMPR):
 There are different types of EMPR based on their protection quantities, connection ways, current capacity, storage, communication etc.
DMP series: DMP1 series; **MMP series:** MMP series; **MPC-III series:** MPC-III series.
Connection Type: Pin/Screw/ Tunnel type based on series & model.
Protection/Function: Over Current, Locked Rotor, Phase failure, Phase unbalance, Reverse phase, Low current, over voltage, under voltage, Ground fault, Instant short circuit, Display unit, storage of failure cause, communication etc. based on series & model.
Characteristic: Inverse time/ definite time protection variety of rating.

Motor Starter:
1. Steel enclosure (Metal); 2. Mold enclosure (Plastic).
 * With DMCVT function.
 * Contactor Spole with AC coil.
 * Overload relay.
 * Screw mounted.
 * degree of protection: IP40
 * Motor control up to 20KW (Available up to 15KW).

Manual Motor Starter (MMS)/MPCB: deliver more efficiency through various functions and compact design.
 * Adjustable Thermal release.
 * Mag. Release 10s max.
 * Trip Class 10.
Protective Function:
 * Phase Failure.
 * Short Circuit.
 * Overload.
 * Three Position Indicator (DN-OFF-TRIP) only 100AF applied
 * Handle lock in the OFF Position.
Rated Current: up to 100A for 45KW Motor Max.

Earth Leakage Circuit Breaker (ELCB):
Protective Function:
 * Overload.
 * Short Circuit.
 * Ground Fault.
No. Of Pole: 1P+N/3Pole/3P+N
Rated Current [A]: up to 800A available.
Rated Residual Current [mA]: 30mA and 100/200/500 mA.
Residual Current OFF Time [Sec.]: 0.1 sec.

LS MCCB Accessories:
 Handle/Quartz Trip/ Aux. Switch/UVT

Accessories of MCCB:
Rotary handle: 1. Extended Type, 2. Direct Mounted type.
SHT Shunt trip device/UVT undervoltage trip device.
Aux. Switch (ALS): For remote ON and OFF indication.
Alarm Switch (ALS): Indicate for trip signal in case of Overload/Short Circuit/shunt Trip/Undervoltage release condition.

ELCB

MPCB

Human Machine Interface (HMI):
 * XP Series;
 * eXP Series;
 * eXP2 Series;

LS-HMI

Cable/Slot

LS ELECTRIC

Automation Products (VFD/PLC/HMI):

Variable Frequency Drive (VFD)/AC Drive/Inverter:
Electrical drives are integral part of Industrial & Automation Processes particularly where precise control of speed of the motor is the prime requirement.
***I27 Series:** High Torque Performance and Precise VFD
 0.75-75kW (1-100HP) 3Phase 200-230Volts
 0.75-75kW (1-500HP) 3Phase 380-480Volts
***I65A/I100 Series:** Powerful compact sensor less vector control VFD.
 0.4-15kW (0.5-20HP) 3Phase 200-230Volts
 0.4-22kW (0.5-30HP) 3Phase 200-230Volts
 0.4-22kW (0.5-30HP) 3Phase 380-480Volts
***I65A/I100 Series:** Fan & Pump control Specialized VFD.
 0.75-30kW (1-400HP) 3Phase 200-230Volts
 0.75-45kW (1-600HP) 3Phase 380-480Volts
***S100 Series:** High Performance Standard VFD.
 0.4-2.2kW (0.5-3HP) 3Phase 200-230Volts
 0.4-15kW (0.5-20HP) 3Phase 200-230Volts
 0.4-15kW (0.5-20HP) 3Phase 380-480Volts
***H100 Series:** Micro VFD.
 0.12-2kW (0.25-3HP) 3Phase 200-230Volts

LS-VFD/Inverter

Programmable Logic Control (PLC):
 *Master X80 Series.
 *Master X120 Series.
 *XC Series (Economic Type)
 *XB Series (Possible to Add 100ms I/O Module).
 *XK Series.

LS-PLC

Human Machine Interface (HMI):
 *XP Series;
 *eXP Series;
 *eXP2 Series;

LS-HMI

Cable/Slot

ABB

LV/MV Components:

ACB: Air Circuit Breaker (ACB) is to be installed in low voltage distribution line to break the circuit when over current, short circuit or ground fault occurs in order to protect user and other subordinate components.
Rated Current: up to 5300A.
Rated Breaking Capacity (Icu) KA Sym: 65KA, 85KA, 100KA & 125KA @ 220V/230V/250V/415V AC 50/60Hz, as per IEC 60947-2.
No. of Pole: 3/4Poles.
Connection: Draw Out/Fixed Type (Horizontal/Vertical/Mixed).
Ekip Dip Switch/Display Unit:
Protection: Over Current, Short Circuit, Ground Fault.
 It supports the advance measurement function for Voltages Current, Power, Electric energy, harmonics, communication function & others.

VCB: Vacuum Circuit Breaker (VCB) is installed in the medium voltage distribution line to protect life & load equipment in case of accidents such as over current, short circuit & ground fault current. VCB works by interrupting the circuit through the inner vacuum interrupter which is acted by signal from the outside separate relay.
Capacity: 3250A, 1250A.
Breaking Capacity: 20KA/25KA.

Installation: Fixed/Draw out

MCCB: Molded Case Circuit Breaker (MCCB) used for power distribution, protection of motor & its control device, controlling & disconnecting circuits as well as extensive application. It has wide range of optimized auxiliaries and accessories.
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4000	10	4000	10
6300	10	6300	10
10000	10	10000	10

MCB: Miniature Circuit Breaker (MCB) Industrial & Residential use of different series.
Protection: Overload & Short Circuit Protection.
Rated Current [A]: 1-63A Available.
No. Pole: 1, 2, 3, 4 poles.
Breaking Capacity Icu [KA]: 3KA/ 6KA/10 KA@ 220/415VAC @ 50/60Hz.
Characteristic Curve: B, C, D Curve.

VFD/Inverter:

Variable Frequency Drive (VFD)/AC Drive/Inverter:
Electrical drives are integral part of Industrial & Automation Processes particularly where precise control of speed of the motor is the prime requirement.
***XP Series:** High Torque Performance and Precise VFD
 0.75-75kW (1-100HP) 3Phase 200-230Volts
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 0.4-15kW (0.5-20HP) 3Phase 200-230Volts
 0.4-15kW (0.5-20HP) 3Phase 380-480Volts
***H100 Series:** Micro VFD.
 0.12-2kW (0.25-3HP) 3Phase 200-230Volts

ACB535 Series: Machinery Drive (0.37KW-22KW, 3Phase, 380-480VAC, 48-63Hz, Output 0-599Hz) (0.37-2.2KW) 3Phase, 200-230VAC.

AC530 Series: Machinery Drive (0.55KW-22KW, 3Phase, 380-480VAC, Input frequency 48-63Hz, Output 0-599Hz).

AC550 Series: General Purpose Drive (0.75KW-160KW, 3Phase, 380-480VAC, Input frequency 48-63Hz, Output 0-500Hz).

AC580 Series: General Purpose, wall mounted Drive (0.75KW-220KW) (0.75-300KW, 3Phase, 380-480VAC, Input frequency 48-63Hz, Output 0-500Hz).

AC880 Series: All Compatible Industrial Drive (0.75KW-132KW/160-500KW/22-500KW 3Phase, 380-480VAC, Input frequency 48-63Hz, Output 0-599Hz).

AS800 Series: Special drive with spinning software (22KW-55KW 3Phase, 380-480VAC, Input frequency 48-63Hz, Output 0-599Hz).

LV Power Factor Correction Capacitor:
 Rated: 2.5kvar - 50kvar, K/N series 400V/415V/480V 50Hz. Available.

PFC Capacitor:

LV filter reactors:
 -400, 440, 525V 50Hz
 -5-120kvar
 -detuning factors: 5, 6.7%, 7%, 14%
 -3-W/kvar powerloss
 -Inrush current: 40% winding
Capacitor duty controllers: V capacitor duty controllers, nominal power KC 12-75kvar up to 690V 50/60Hz EM 60947-1

Power Factor Controller: Power factor controller types PFC/Maximumpfc/2max/automatic/LS systems 6 or 12 relays/output.

Reactor/Switching Contactor/PFC Relay

UPS : ABB - Switzerland.

ABB Online UPS:
 ABB offers a wide range of Uninterruptible Power System (UPS) starting from 10 kVA to 5 MVA in the portfolio of Standalone and Modular.
 1. Standalone System.
 (i) Power Scale (100kVA-200kVA).
 (ii) Power Wave (50kVA-500kVA).
 2. Modular System:
 (i) DPA 100 Series ST (100kVA-200kVA).
 (ii) Concept Power DPA (30kVA-1.5MVA).
 (iii) Mega Flex DPA (250kVA-1500kVA).

UPS-Features:
 -Units output power factor (KVA/KW).
 -Output power factor ranges 0.9 lag to 0.9 lead supported without derating.
 -Front Access.
 -Input power factor >0.99
 -Up to 95% efficiency in double conversion mode and 99% efficiency in eco mode.
 -Ripple free battery charging increase battery life.
 -Wide input voltage range (20% +15%) at full load up to 10 units in parallel configuration.

Total Load for Industrial Weighing:
Load Cell (IP 65, Anodized Aluminum/Nickel Plated Steel/Stainless Steel):
 -Single Point Load Cell.
 -Sensing Beam Load Cell.
 -Pan Cake Load Cell.
 -Truck and Tank Weighing Load Cell.
Digital Weighing Indicator:
 SI 400, SI 300, SI 410, SI 400, SI 480, SI 500, SI 560A, SI 580.
Summing Box:
 S8-MP-04, S10-4P, S10-4E, S10-4F.
External Display: GE-E135A.
Mini Printer: SEF300 S/1.

Photo Electric Sensor

Temperature Controller (TZNSeries)

Temperature Controller (TK4 Series)

Temp. Controller (TZ4ST/TCN4/TH4)

Autonics Sensors & Controllers

Proximity Sensor (Inductive & Capacitive)

Photo Electric Sensor

Temperature Controller (TZNSeries)

Temperature Controller (TK4 Series)

Temp. Controller (TZ4ST/TCN4/TH4)

Timer/Counter (CT6S/FX6M/ATE8/LE4SA):

Humidity Transducers/SSR

Pressure Transmitter (TPS20/PTF30)

Thermocouple & RTD (PT-100)

Power Supply (SPB /SPA)

Encoder:

Schneider Electric LS ELECTRIC

Lighting Power Management (LPM):
Bus Bar Trunking System (BBT): This is the most common use of busbar trunking and is applied to distribute power over a predetermined area. Busbar trunking can be run vertically or horizontally, or a combination of both.
 Three typical application would be:
 * Supply to large numbers of light fittings.
 * Power distribution around factories and offices.
 * Rising main office blocks or apartment blocks to supply distribution boards serving individual floors or others busbar systems serving individual floors.

Lighting Automation:
 Automated lighting control-programmable dimming and on-off control-can transform a home as well as the homeowner's lifestyle. With declining costs and complexity, these systems are no longer exclusively the province of luxury homes.
Advantages:
 * Minimizing energy usage.
 * Convenience.
 * Security.
 * Automated Control.
 * Energy Savings.
 * Work Places healthy & productivity.
 * Personalisation & adaptability.
 * Achieving building standards.

Control Area:
 Office/Education/Healthcare/Hospitality/Culture/Industrial.

Home/Building Automation by Schneider Electric

Energy Management System:
 According to the International Organization for Standardization (ISO) an energy management system involves developing and implementing an energy policy, setting achievable targets for energy use, and designing action plans to reach them and measure progress. This might include implementing new energy-efficient technologies, reducing energy waste or improving current processes to cut energy costs.

Packing Machinery:

PFH-Italy: Horizontal & Vertical Machine.

SMART weighing solution.

Khosla Horizontal & Vertical Packing Solution:

Factory Production Sub-Station

Transformer (33/11KV):
 Transformer: At SEL, we are constantly striving to introduce new innovations to transformer industry, bringing you the highest quality, most reliable transformer. SEL Reign transformer emphasizing process improvement in all phases of design manufacturing & testing.
Project: 5MVA Sub-station (33/11KV) successfully design, supply, installation, testing & commissioning done at Bangladesh Ordnance Factory (BOF), Gazipur.

Project: 20/28MVA (33/11KV) = 2set, Sub-Station Successfully Supply, Installation, Testing & Commissioning done at Oposonin Pharma, Barishal. (20/28MVA Transformer Manufactured by LS Electric-Korea).

Project: 5MVA/4MVA/2500KVA/2000KVA/1250KVA/1000KVA/800KVA (11/0.415KV) = 3Ssets Sub-Station by Cast Resin Transformer Supply Installation Testing & Commissioning at Oposonin Pharma/Young One Group At Barishal & Korean EP2-Ctg. (CST Transformer Manufactured by LS Electric-Korea).

Project: 10/14MVA (33/11KVA) Sub-Station Successfully Design, Supply, Installation & Commissioning at Beshundhara Multi-Food Products Ltd, Pangoan, Keranigonj Dhaka.

Switchgear WALTON

Project: 11KV Ring Main Unit (RMU) panel design, Supply, Installation, testing & Commissioning at WALTON.

Project: 11KV HT Switchgear panel design, Supply, Installation, Testing & Commissioning at Bashundhara Multi Food Products Ltd.

Project: LT Switchgear Panel design, Supply, Installation, Testing & commissioning at WALTON.

Project: Power Factor Improvement Plant (PFI) design, supply, Installation, Testing & Commissioning at WALTON.

SCADA

supervisory control and data acquisition (SCADA): The Latest SCADA Solution from System Engineering Ltd. Is designed to monitor and control processes, equipment and resources of an enterprise, in real time, whether you are planning for standalone applications or multi-site plant solution to manage a large spread of assets. This robust and powerful solution allows you to make informed decisions-improving performance efficiency, reducing overall operational costs and enhancing profitability. We are using industry leading SimaticWinCC platform (Siemens)and InforU SCADA Platform (LS) according to your application.

SCADA & Automation Project of SEL

Project Name	Client	Year
Dhaka Water Supply and Sewerage Authority	Dhaka Water Supply and Sewerage Authority	2018
Khulna Water Supply and Sewerage Authority	Khulna Water Supply and Sewerage Authority	2018
Bangladesh Ordnance Factory	Bangladesh Ordnance Factory	2018
Bangladesh Diesel Plant Limited (BDPL), Bangladesh Army	Bangladesh Diesel Plant Limited (BDPL), Bangladesh Army	2018

Corporate Office: House # 7/1, Road # 02, Block-A, Sonargaon Janapath, beside BRTA Uttara office, Diabari, Uttara.
Project Office: House # 35, Block-D, Sonargaon Janapath, Diabari, Uttara, Dhaka-1250.
Factory: Karamtala, Harabaid, Gazipur Sader, Gazipur-7700, Bangladesh.
Contact: IP NO: 09868883399, Extension-308(Mkt), 307(Mkt), 313(Mkt), 403(Mkt) 306 (Service), 354 (HR), 303 (A/C).
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 Web: www.selbn.com

PRODUCT PROFILE

System Engineering Ltd.
 Always with our customer