SOURCE CHANGEOVER SWITCHES

Product Catalog for Devices that Ensures Power Reliability.

ELMEASURE®
Possibilities...Infinite

ENERGY
IS EVERYTHING.

And we help you manage it.

ABOUT US

With collective experience and expertise in energy and building management, our mission is to contribute significantly to the world by helping people manage energy efficientle, reduce wastage, and drive sustainability. We continuously strive to collaborate and build innovative energy and power management products that meet the highest quality standards of product performance while adhering to the needs of the customers.

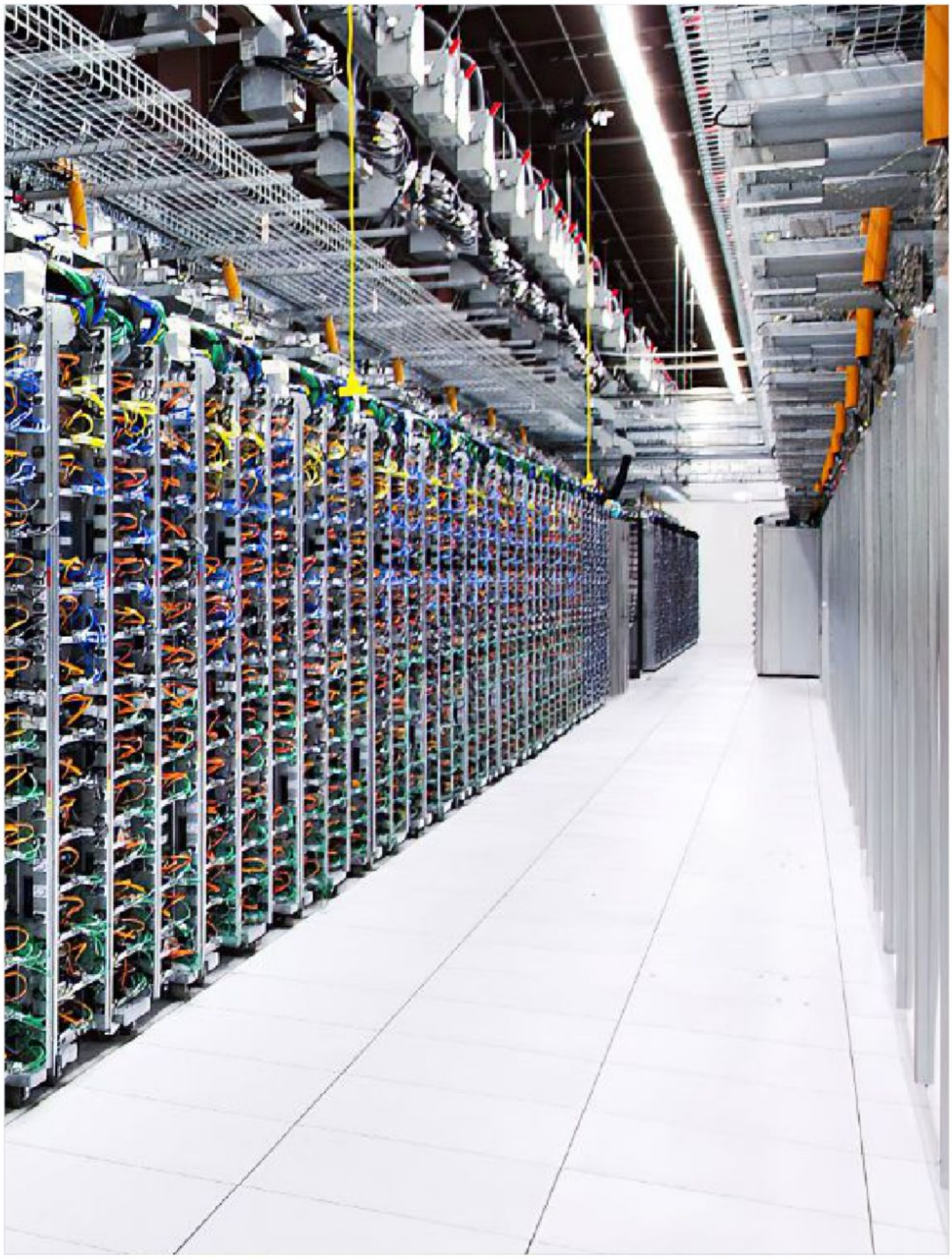
MOTORISED AUTOMATIC CHANGEOVER SWITCHES

Protect your mission-critical facilities from power uncertainties.

INBUILT AMF Controller

IEC 60947-6-1 TSE standards

40A – 3200A Wide range of applications



AUTOMATIC TRANSFER SWITCHES

The microprocessor-based ATS with in-built AMF controller provides advanced monitoring and control capabilities, allowing for precise and automated switching between the main power source and backup generator. This ensures a seamless transition of power during a power outage, minimizing downtime and protecting equipment from damage. The ATS with an inbuilt microprocessor-based AMF controller also allows for remote monitoring and control, which can be useful for monitoring power usage, diagnosing problems, and scheduling maintenance. Additionally, it can provide a detailed history of power events, which can be useful for troubleshooting and identifying patterns of power usage. All these features, coupled with the AMF function, will be beneficial for the smooth running of the manufacturing plant.

Meets Standards
IEC-60947-6-1 (TSE)

ADVANCED MONITORING AND CONTROL.

PRECISE AUTOMATED SWITCHING.

SEAMLESS TRANSITION OF POWER DURING OUTAGE.

BENEFICIAL FOR SMOOTH RUNNING FOR OPERATIONS.

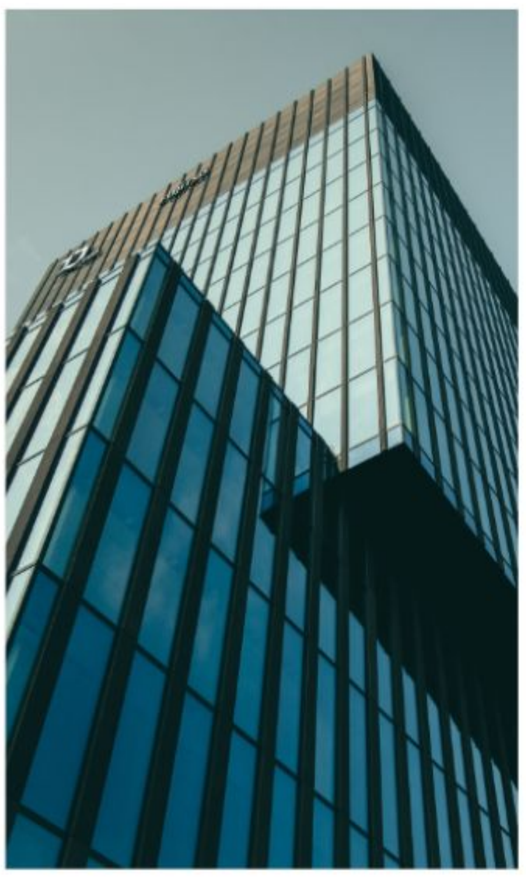
Residential

In a residential setting, power outages can be disruptive to systems such as heating, cooling, and security systems, and can cause inconvenience. ATS can help to minimize these risks by providing an uninterrupted power supply, and ensure the safety and comfort of the residents.

Restaurants

ATS ensures that important systems such as refrigeration and lighting, remain operational, minimizing disruption to the restaurant's operations, preserving food safety and making sure the customers have a lovely experience. Additionally, the ATS can also improve overall efficiency by automatically switching back to the primary power source eliminating the need for manual intervention.

Banking/Financial Institutions



In the banking industry, where even a few minutes of downtime can cause significant financial losses. ATS can ensures that systems such as ATM machines, servers, and data centers, remain operational during a power outage, minimizing disruption to banking operations and preserving data integrity. The use of ATS can be an essential component in maintaining business continuity and customer trust.

Educational Institutions

In the case of educational institutions, ATS can help to ensure that major systems that support technology-based learning such as servers, internet connections, and labs for experiential learning remain operational. Moreover, during a power outage, the ability to maintain lighting and heating systems, allows students and staff to remain safe and comfortable.

Protect your mission-critical facilities from power uncertainties.

Universal LCD Series

Universal LED Series

Remote Display Unit

Experience ultimate flexibility with the **Universal Model with multiple options,** offering seamless **N R Y B** or **R Y B N** Pole interchangeability and the versatility to configure the ATS as either Incoming from Top or Bottom, adapting effortlessly to site-specific requirements.

- Inbuilt Micro-processor based AMF controller.
- Automatic DG Start/Stop operation during main's failure.
- AC-32B Utilization category as per IEC 60947-6-1.
- PC-class ATS with breaker co-ordination.
- 3 operational position (Source 1, Center off, Source 2).
- Monitors V, A, F, PF, kW, kWh, ON hours & Load hours.
- Incomer level self monitoring and protection against under/over voltage, frequency, phase sequence and optional over load tripping logic.
- Systematic with time delays to prelong the stability of power source during automatic switching of sources in the case of blackout or loss of power.
- Dual contact design extinguishes the arc effectively.
- Fire fighting DG Start/Stop logic.
- Mode of operation Auto/Manual/ RS-485 Communication
- Free 12 months IoT cloud connectivity for Wifi option
- Plugable RS485 communication (Optional)
- Optional Wi-Fi communication
- Remote monitoring / Controlling / Configuration through Cloud
- Easy to replace the plugable card without removing the ATS from Bus bar
- RDU 50 can be used to operate the ATS without opening the panel

Ensuring a seamless transition of power during a power outage.

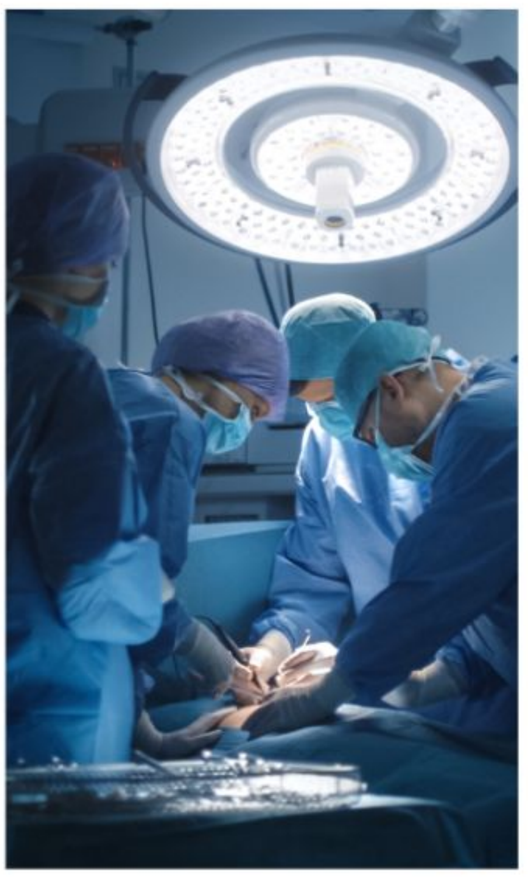
Commercial Malls / Retails Shops

A retail mall requires constant power supply for its various functions like lighting, HVAC, escalators, elevators, security systems, and many more, so having an advanced control system like this can ensure that there is no interruption in the power supply, which in turn will help in providing a comfortable and safe environment for the visitors, and also help in maintaining the image of the mall as a reliable and safe destination.

Industries

ATS ensures a seamless transition of power during a power outage, minimizing downtime and protecting equipment from damage.

Healthcare



ATeS can help hospitals and healthcare centers to maintain a reliable power supply to operate critical systems, such as life support equipment, during a power outage. They also reduces the risk of equipment failures, and ensure patient safety during power outages.

Transportation

In transportation systems such as railways, power failures can cause signaling systems to fail and communication systems to go down, trains to stop, all of which can lead to severe delays and even accidents. By providing an uninterrupted power supply, ATS can help minimize these risks and ensure the safe and efficient operation of the railway system. Moreover, ATS can also be used in rail yards and maintenance facilities, where they can ensure that the necessary power is always available for engines and other maintenance equipment.

High-end Micro-processor based ATS Controller

AMF inbuilt controllers in automatic transfer switches play a crucial role in ensuring a reliable, efficient, and safe power supply to critical loads during power outages, making it an indispensable component for any critical power application.

- DG Start/Stop potential free contacts
- Remote Controlling through PLC / SCADA /EMS
- Source 1 & 2 - Indications output
- Fire fighting DG Start/Stop
- Optional overload tripping logic S1 & S2
- Universal Auxiliary Supply 12–24V DC
- Dual source energy monitoring

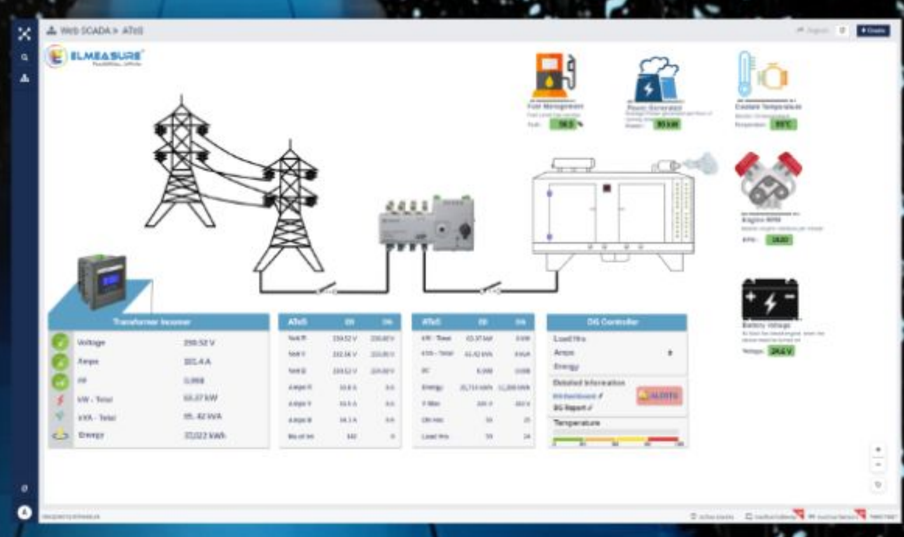
Improved Uptime: By automatically switching to the backup generator power in case of a main power failure, AMF inbuilt controllers ensure that critical loads are never left without power, which results in improved uptime.

Increased Efficiency: The AMF controller automatically starts and stops the generator based on the load demand, which ensures that the generator runs only when necessary, reducing fuel consumption and increasing efficiency.

Improved Monitoring and Reporting: The AMF controller provides real-time monitoring and reporting of the power system status, mains failure and source unhealthy conditions, allowing users to take proactive measures to maintain the reliability of the power supply.

Remote Connectivity with IoT Cloud Monitoring.

- Incomer level monitoring
- EB / DG energy consumption
- Number of interruptions
- Historical data on faults
- ON Hour / Load Hr monitoring
- Remote configuration (Voltage/frequency high/low thresholds, timers)



Technical Specification

Current Rating	40/63/80A	100/125A	160A	200/250A	315/400/630A
GENERAL CHARACTERISTICS					
No. of Poles	4				
Rated Operating Voltage	415V				
Rated Insulation Voltage (Ui) V - Power Circuit	690V				
Rated Insulation Voltage (Ui) V - Control Circuit	500V				
Rated Impulse with stand Voltage (Uimp)-Power Circuit	12kV				
Rated Impulse with stand Voltage (Uimp)-Control Circuit	4kV				
Classification/Utilization Category	PC Class / AC - 32B				
Rated Control Power Supply Voltage	230V / 50Hz				
Rated Short Circuit with stand current (KA, Rms) Icw (60 ms)	5 kA	7 kA	10 kA	10kA	12.5 kA
Rated Short Circuit Making Capacity (KA, Peak) Icm	10 kA	15 kA	20 kA	20 kA	25 kA
Operating Cycle	10000		8000	8000	6000
Motor Operating Voltage	220V AC (155-285V AC) / 50-60Hz				
Auxiliary DC Voltage	12-24V DC				
Standard / service	IEC 60947-6-1 : 2021 / CB				
MEASUREMENT PARAMETERS					
Primary Source	Voltage, Frequency & Current (Optional)				
Secondary Source	Voltage, Frequency & Current (Optional)				
Measurements Monitored	In-Built Display / Remote Display - V, A, F, PF, kW, kWh, ON Hours, Load Hours & DG Battery Voltage				
Communication	Optional Rs485 & WiFi				
PROGRAM CONFIGURATION					
Primary Source	Under Voltage (155-210V)/Over Voltage (230-285V), Over Load with external CT, Under Frequency (40-48Hz)/Over Frequency (50-60Hz) and Phase sequence enable / disable.				
Secondary Source	Under Voltage (155-210V)/Over Voltage (230-285V), Over Load with external CT, Under Frequency (40-48Hz)/Over Frequency (50-60Hz) and Phase sequence enable / disable.				
Timers	Recovery delay (1 to 600s), Transfer delay (1 to 600s), Generator Start delay (3 to 999s) Stop delay (10 to 600s)				
Priority Selection	Source I, Source II, None priority				
Overload	Source I and Source II				
Overload Trip Cycles	Up to 5 cycles (6-150s)				
AC System Selection	3Phase / 1Phase for both Sources				
Phase Sequence	Enable / Disable				
MODE OF OPERATION					
Selection Mode	Auto / Manual / Remote				
Position Order	I-OFF-II				
Functionality	On Load				
Manual Emergency Operation	Available				
GENERAL CHARACTERISTIC					
Ambient Temperature	-20°C to 55°C				
Air Humidity	Not more than 50% @ 40°C				
Altitude	Not more than 2000 m				
ELECTROMAGNETIC CHARACTERISTICS					
Class	Class B				
Radio Frequency Transmission Test	EN55011				
Radio Frequency Radiation Transmission Test	EN55011				

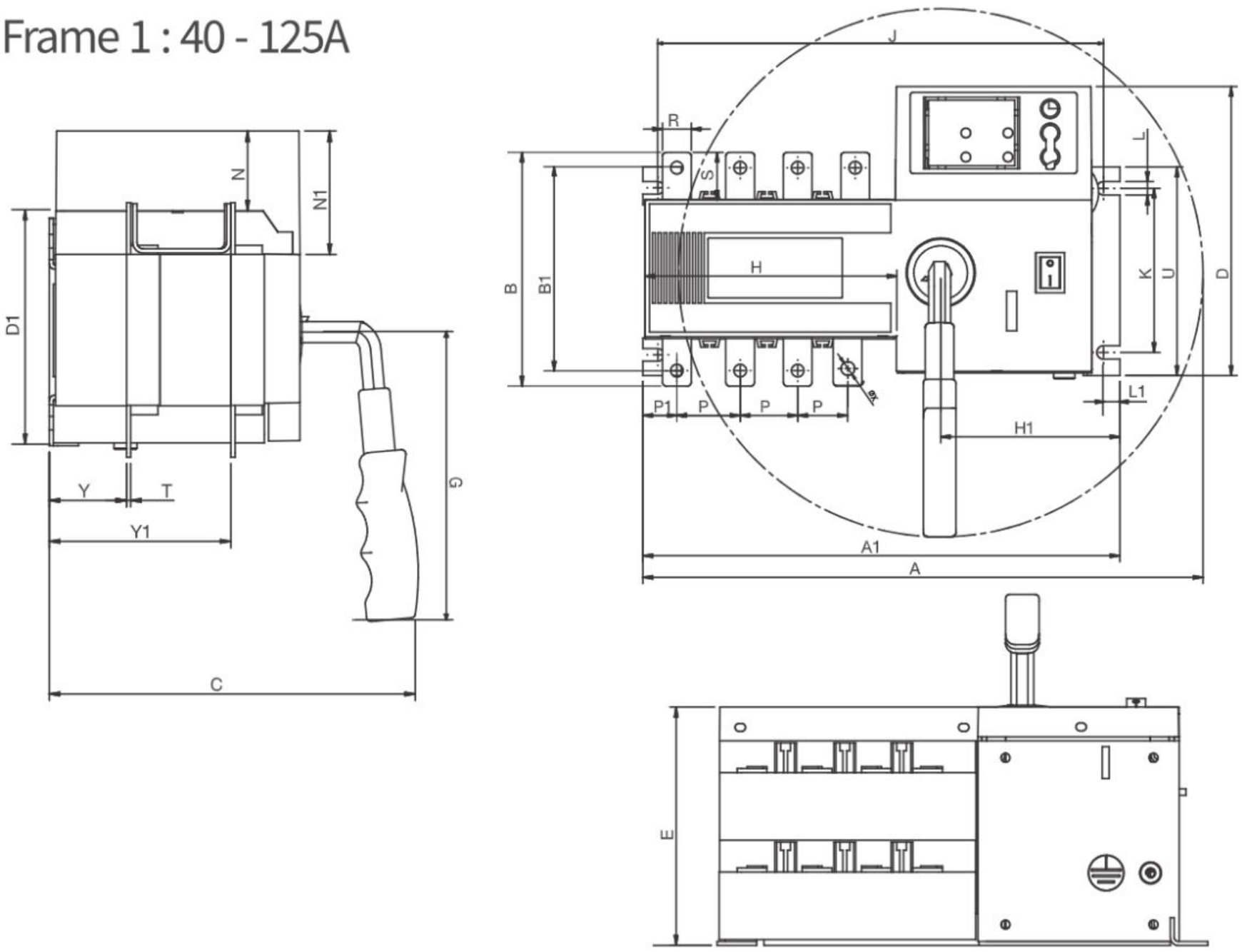
Technical Specification

Current Rating	800A	1000A	1250A	1600A	2000A	2500A	3200A
GENERAL CHARACTERISTICS							
No. of Poles	4						
Rated Operating Voltage	415V						
Rated Insulation Voltage (Ui) V - Power Circuit	690V						
Rated Insulation Voltage (Ui) V - Control Circuit	500V						
Rated Impulse with stand Voltage (Uimp)-Power Circuit	12kV						
Rated Impulse with stand Voltage (Uimp)-Control Circuit	4kV						
Classification/Utilization Category	PC Class / AC - 32B						
Rated Control Power Supply Voltage	230V / 50Hz						
Rated Short Circuit with stand current (KA, Rms) Icw (60 ms)	20 kA	20 kA	25 kA	35 kA	40 kA	50 kA	65 kA
Rated Short Circuit Making Capacity (KA, Peak) Icm	40 kA	40 kA	50 kA	70 kA	80 kA	100 kA	100 kA
Operating Cycle	5000						
Motor Operating Voltage	220V AC (155-285V AC) / 50-60Hz						
Auxiliary DC Voltage	12-24V DC						
Standard / Service	IEC 60947-6-1 : 2021 / CB						
MEASUREMENT PARAMETERS							
Primary Source	Voltage, Frequency & Current (Optional)						
Secondary Source	Voltage, Frequency & Current (Optional)						
Measurements Monitored	In-Built Display / Remote Display - V, A, F, PF, kW, kWh, ON Hours, Load Hours & DG Battery Voltage						
Communication	Optional RS485 & WiFi						
PROGRAM CONFIGURATION							
Primary Source	Under Voltage (155-210V)/Over Voltage (230-285V), Over Load with external CT, Under Frequency (40-48Hz)/Over Frequency (50-60Hz) and Phase sequence enable / disable.						
Secondary Source	Under Voltage (155-210V)/Over Voltage (230-285V), Over Load with external CT, Under Frequency (40-48Hz)/Over Frequency (50-60Hz) and Phase sequence enable / disable.						
Timers	Recovery delay (1 to 600s), Transfer delay (1 to 600s), Generator Start delay (3 to 999s) Stop delay (10 to 600s)						
Priority Selection	Source I, Source II, None priority						
Overload	Source I and Source II						
Overload Trip Cycles	Up to 5 cycles (6-150s)						
AC System Selection	3Phase / 1Phase for both Sources						
Phase Sequence	Enable / Disable						
MODE OF OPERATION							
Selection Mode	Auto / Manual / Remote						
Position Order	I-OFF-II						
Functionality	On Load						
Manual Emergency Operation	Available						
GENERAL CHARACTERISTIC							
Ambient Temperature	-20°C to 55°C						
Air Humidity	Not more than 50% @ 40°C						
Altitude	Not more than 2000 m						
ELECTROMAGNETIC CHARACTERISTICS							
Class	Class B						
Radio Frequency Transmission Test	EN55011						
Radio Frequency Radiation Transmission Test	EN55011						

Note:- Rating 800-1600A Cable entry position need to be mentioned in the PO

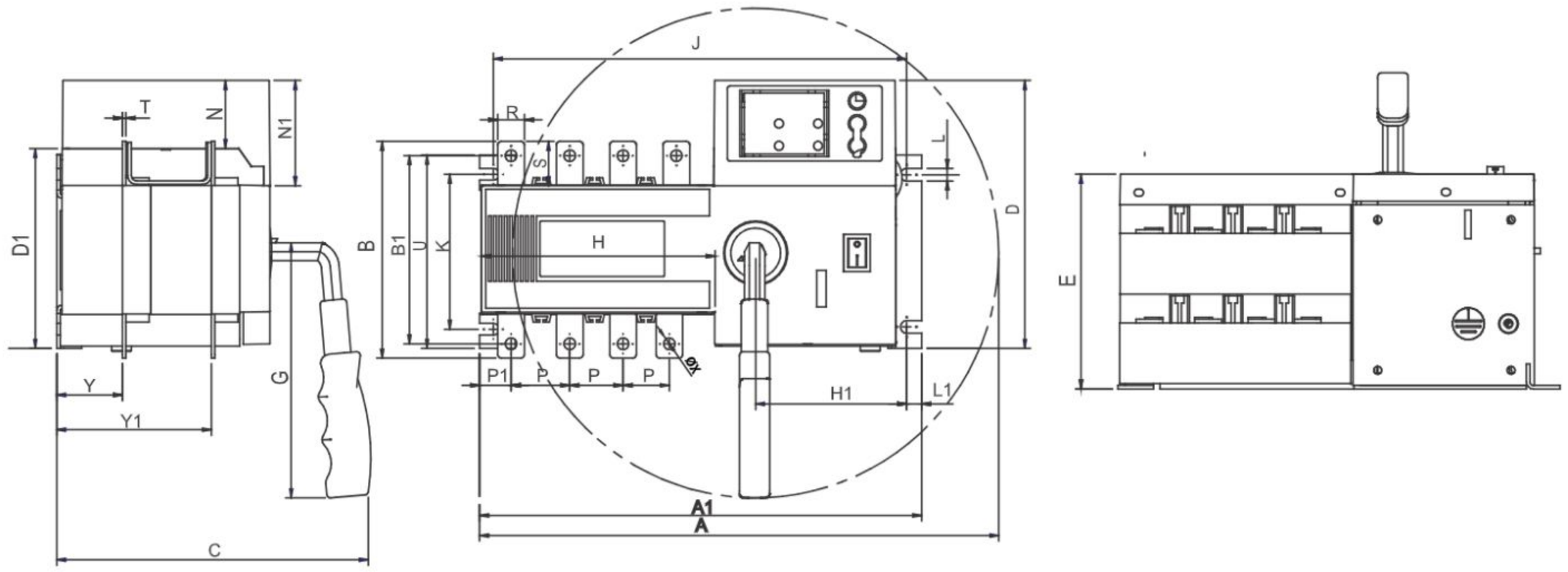
ATeSL - Mechanical Specification

Frame 1 : 40 - 125A



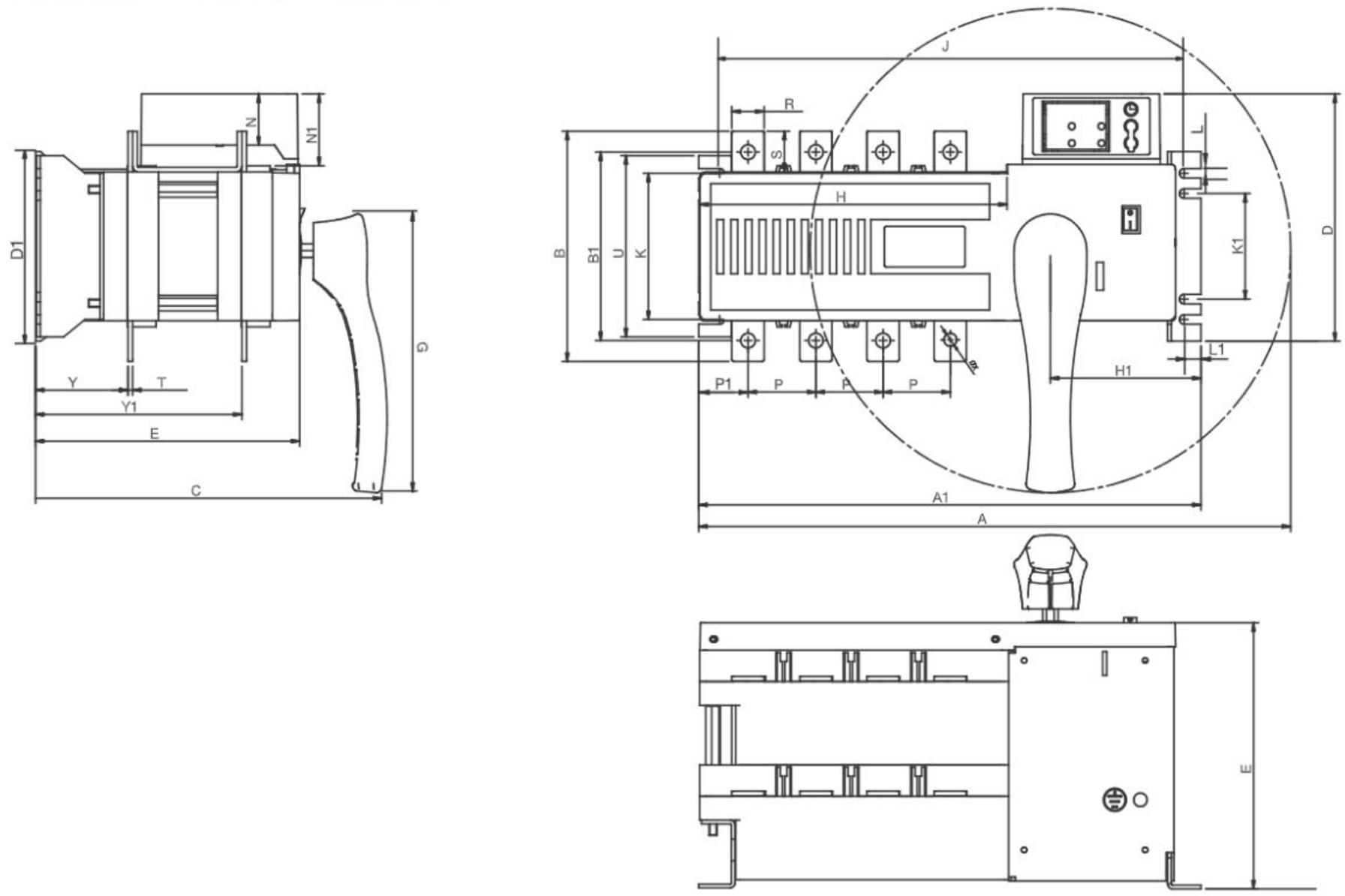
Specification	Outline Size (mm)						Mounting Size (mm)																		
ATeSL 63- 125A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**H**	**H1**	**J**	**K**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	292	248.7	121	105	175	149	111.6	120	174	131	93	228	85	7	8.5	38	53.2	30	18	15	24	2	108	6	37	87

Frame 2 : 160A



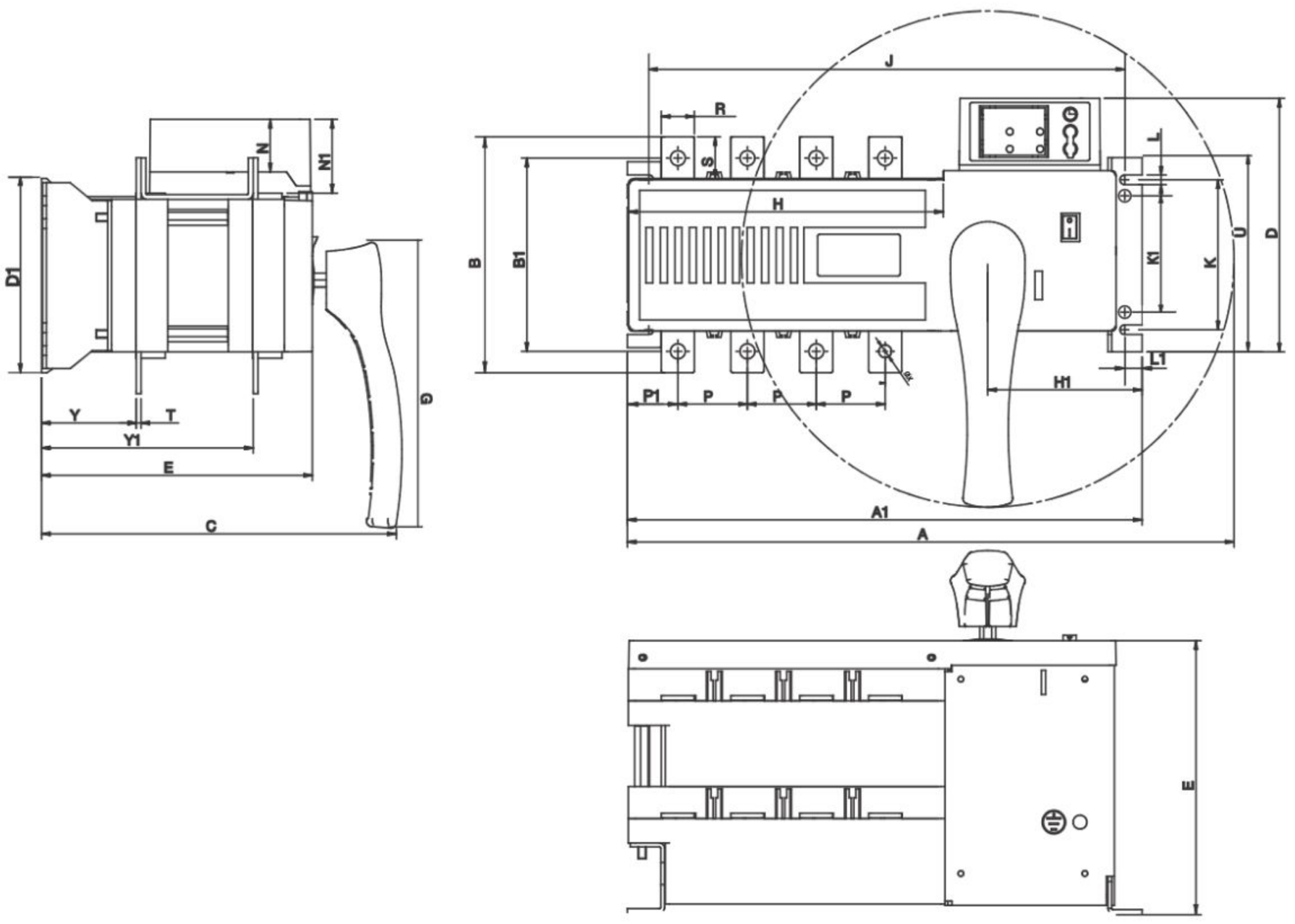
Specification	Outline Size (mm)						Mounting Size (mm)																		
ATeSL - 160A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**H**	**H1**	**J**	**K**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	330	302	135	105	204	149	116	163.5	174	172	90	287	85	7	8.5	38	53.2	36	18	20	24	2	127	8	55.5	125

Frame 3 : 200 - 250A



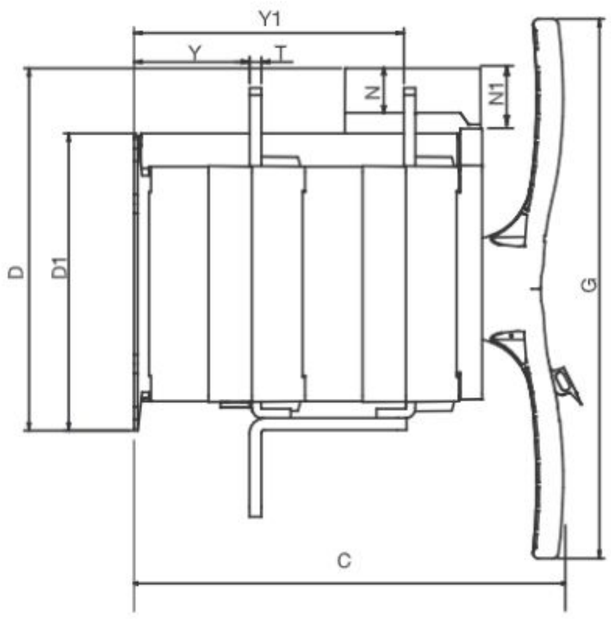
Specification	Outline Size (mm)						Mounting Size (mm)																				
ATeSL 200- 250A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	440	373	170	140	257	182.7	140	196.6	205	228.5	112	355	108	78	7	12.5	38	53.2	50	36.6	24	30	3.4	134	11	68.8	153.6

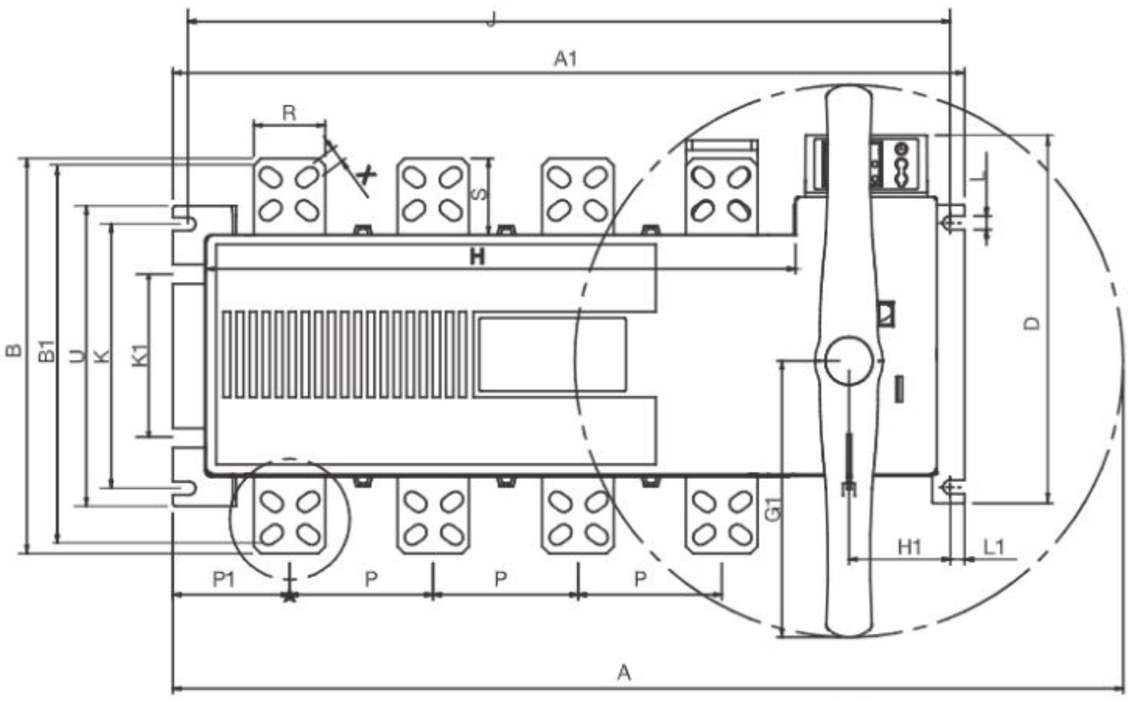
Frame 4 : 400 - 630A



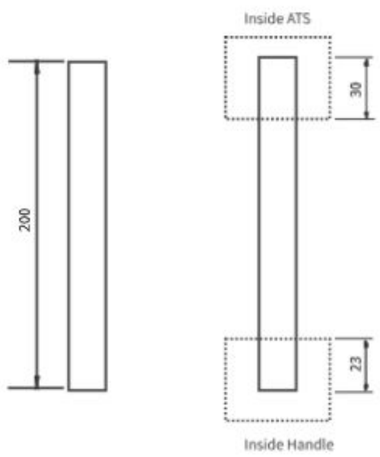
Specification	Outline Size (mm)						Mounting Size (mm)																				
ATeSL 400- 630A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	517	436	270	218	290	200	140	250	205	290	112	420	180	130	9	12.5	38	53.2	65	36.6	40	50	5	222	13	83	195

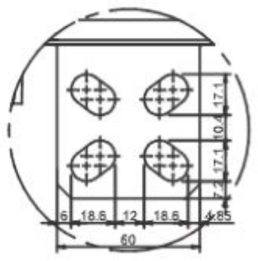
Frame 5 : 800 - 1000A



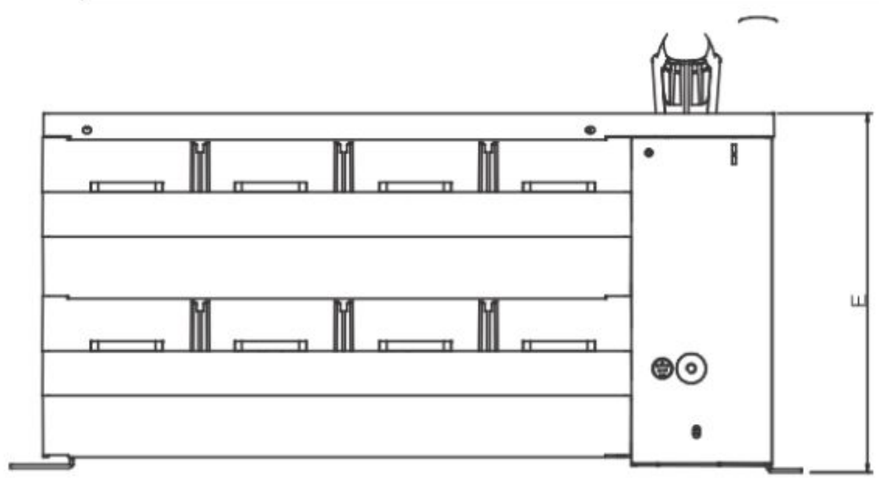


Extension Rod Details



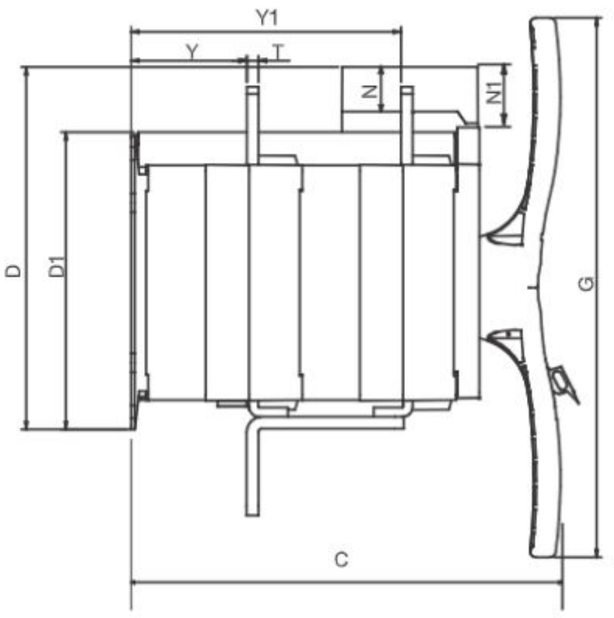


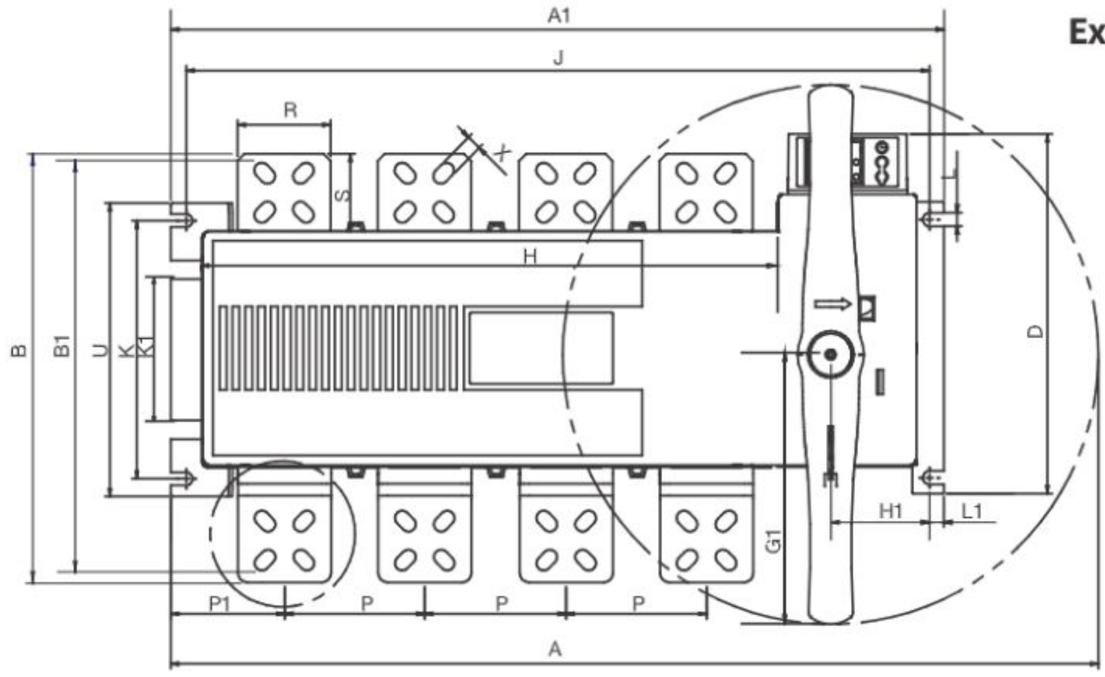
DETAIL A



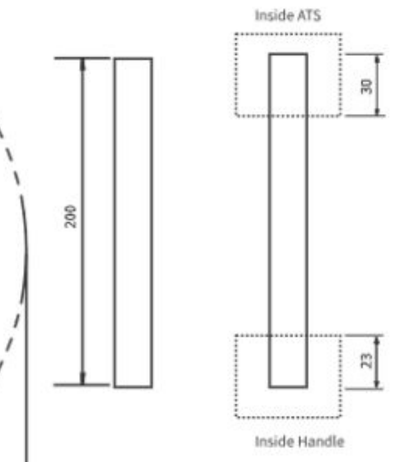
Specification	Outline Size (mm)							Mounting Size (mm)																			
ATeSL 800- 1000A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**G1**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	797	664	370	355	368	310	253	299	460	230	495	97	642	220	136	11.5	20	38	53.2	120	97.6	60	63.5	8	250	13	100	233

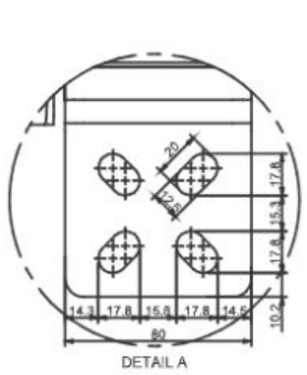
Frame 5 : 1250 - 1600A



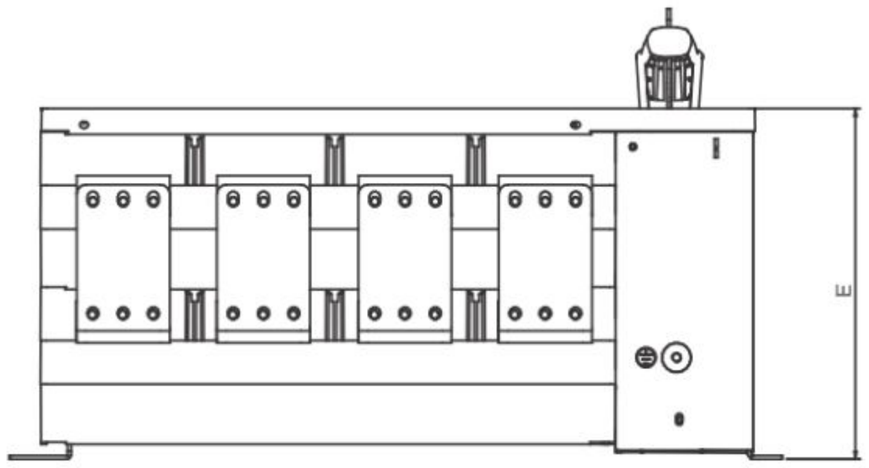


Extension Rod Details



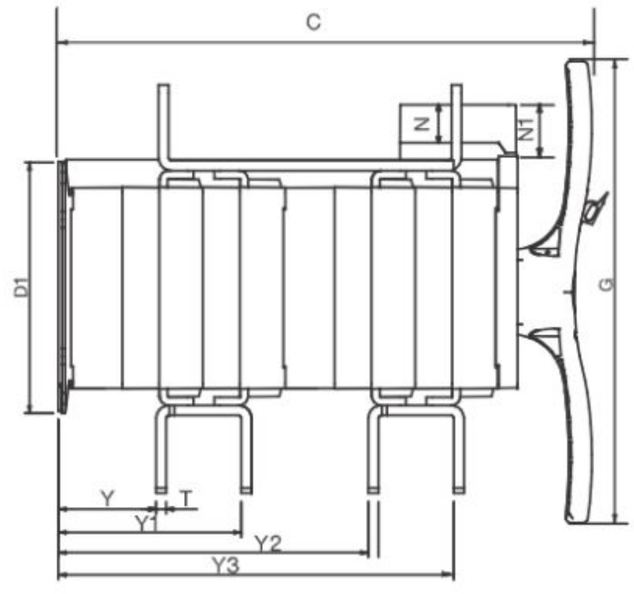


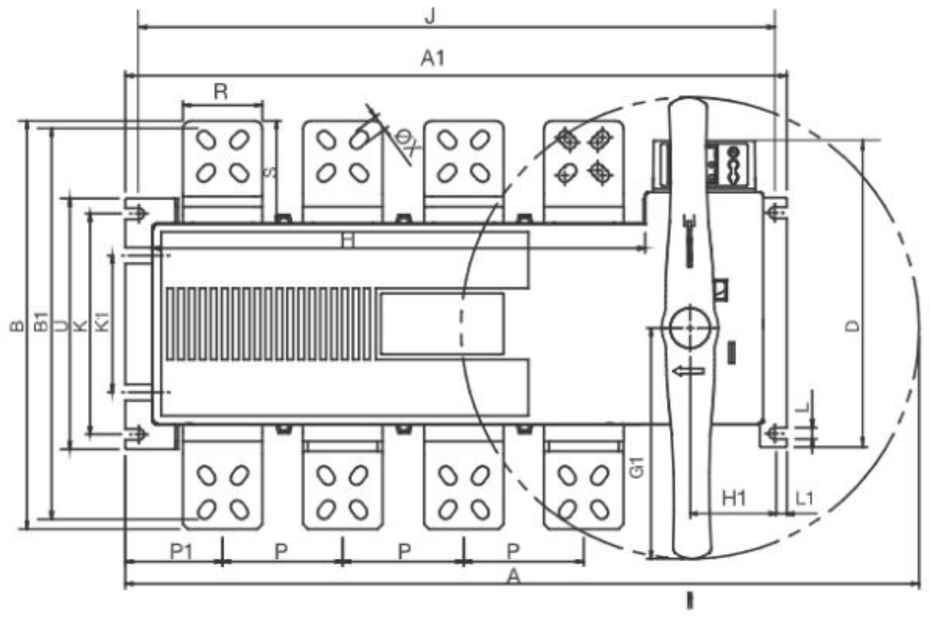
DETAIL A



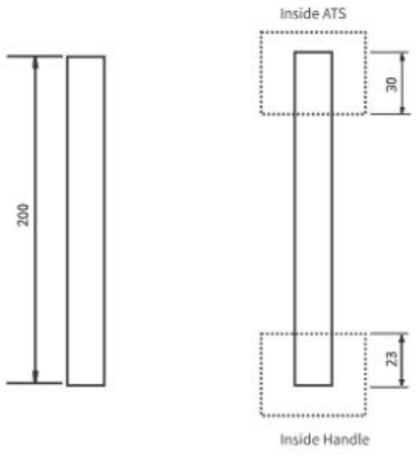
Specification	Outline Size (mm)							Mounting Size (mm)																			
ATeSL 1250- 1600A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**G1**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**
	797	664	370	349.6	368	310	253	299	460	230	495	97	642	220	136	9	20	38	53.2	120	97.8	80	66	10	250	13	100	233

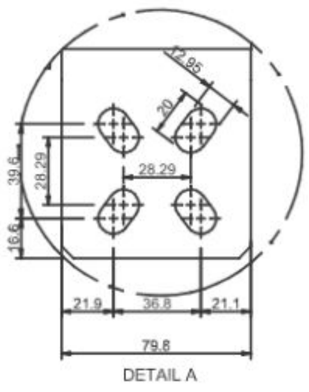
Frame 6 : 2000 - 2500A

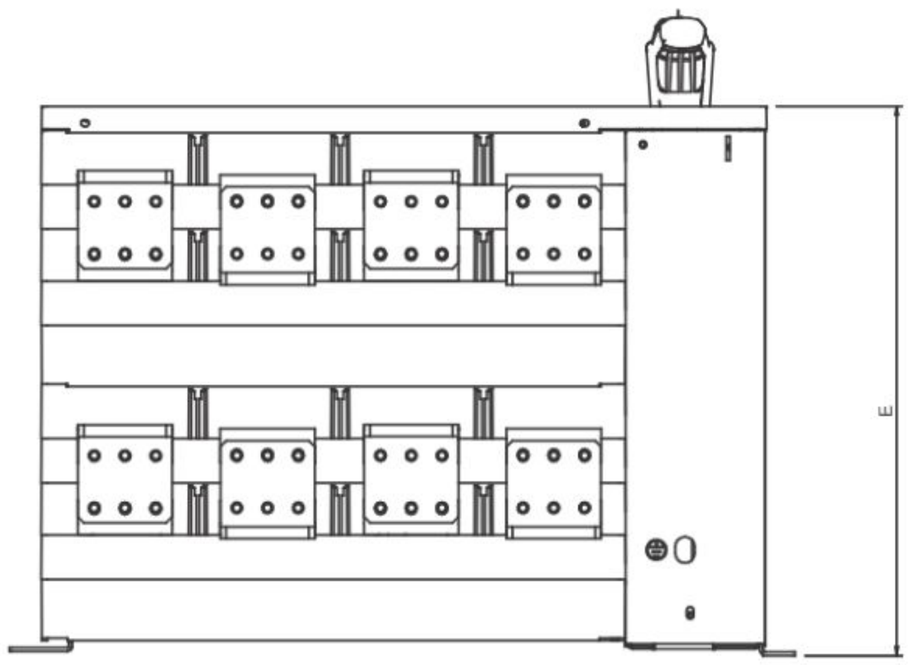




Extension Rod Details

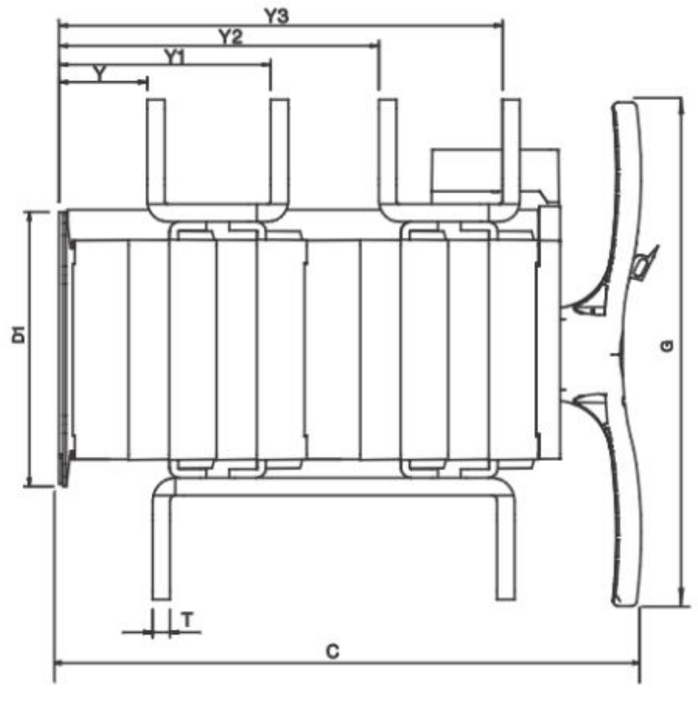


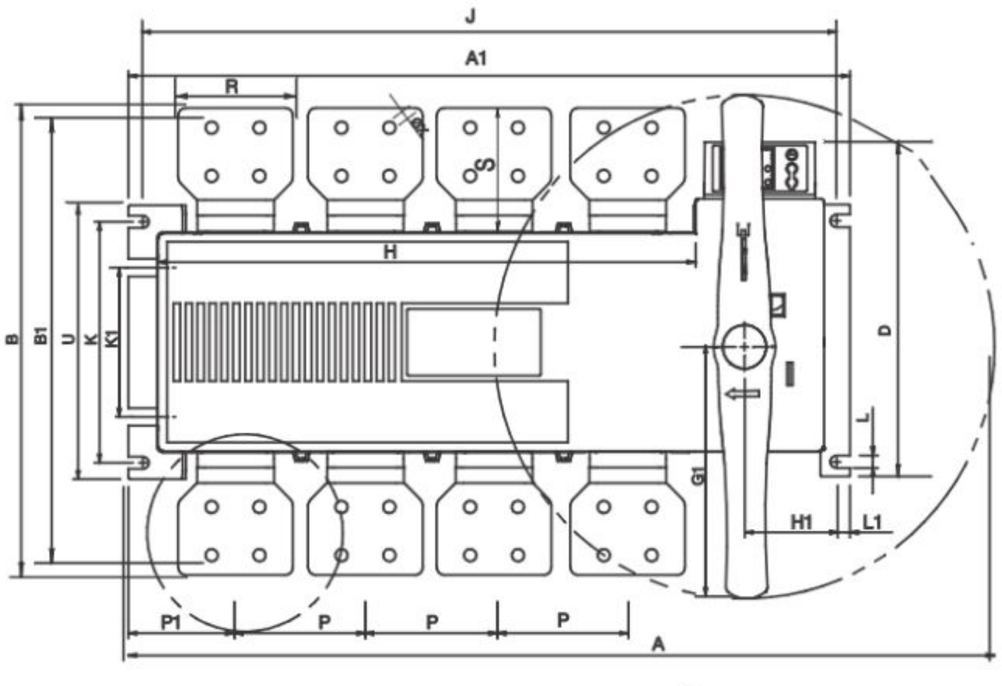




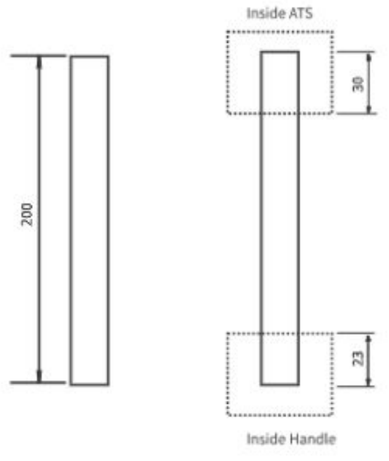
Specification	Outline Size (mm)							Mounting Size (mm)																					
ATeSL 2000 - 2500A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**G1**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**	**Y2**	**Y3**
	797	664	407	374	535	310	250	461	460	230	495	97	642	220	136	11.5	20	38	53.2	120	97.6	80	102	10	250	13	100	180	310	400

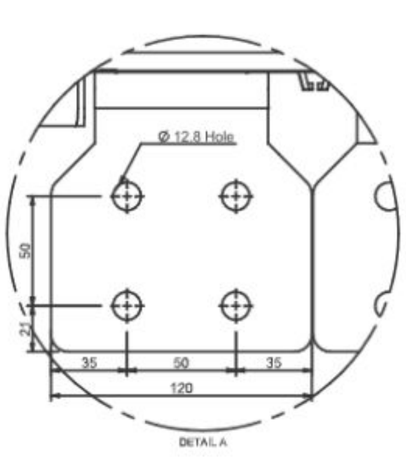
Frame 6 : 3200A

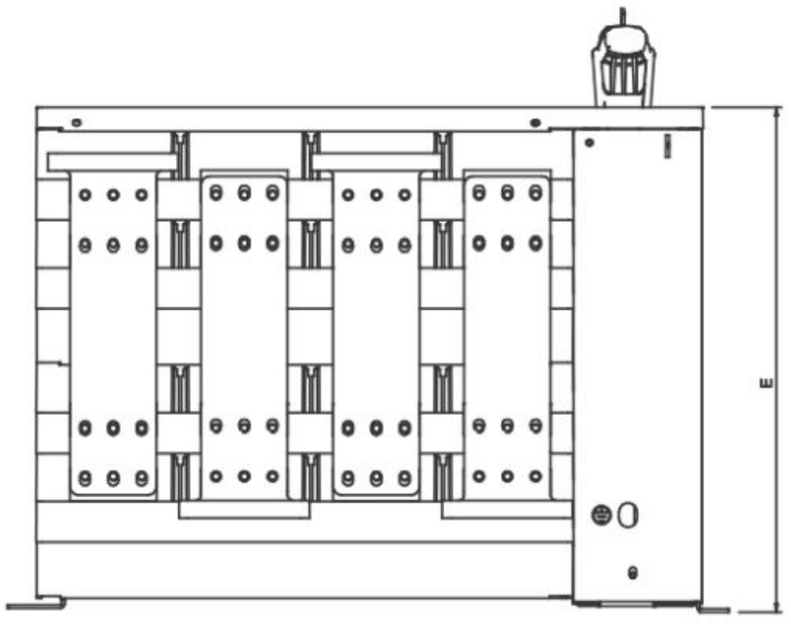




Extension Rod Details







Specification	Outline Size (mm)							Mounting Size (mm)																					
ATeSL 3200A	**A**	**A1**	**B**	**B1**	**C**	**D**	**D1**	**E**	**G**	**G1**	**H**	**H1**	**J**	**K**	**K1**	**L**	**L1**	**N**	**N1**	**P**	**P1**	**R**	**S**	**T**	**U**	**ØX**	**Y**	**Y1**	**Y2**	**Y3**
	797	664	457	415	535	310	250	461	460	230	495	97	642	220	136	11.5	20	38	53.2	120	97.6	120	127	15	250	13	81	195	294	408