ATeS C40 | M40

ATS Controller

Real-Time Monitoring | Improve Productivity

CONTROL YOUR POWER SOURCES!

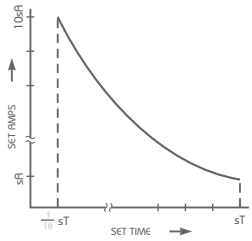
Automatic transfer Switch controllers are designed for quick and safe automatic transfer of load from one source to another by controlling automatic transfer switch, contactors, circuit breakers or other motorised switch gears.
ATS controllers are a vital part of electrical systems and is a device which tells the generator when to start & when to turn off, when the primary power source is unavailable.

Features :

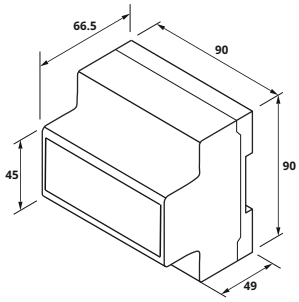
- Intelligent automatic changeover control
- Under/Over Voltage protection for Source I & Source II
- Phase sequence/ unbalance current protection for Source I & Source II
- Monitor and displays VLL, VLN and Hz for Source I & Source II (C40)
- Monitor and displays A, KVA and KVAh for Source I & Source II (M40)
- Monitor and displays ON hour and Number of power interruptions via RS485
- Programmable 1phase/3phase healthy selection for primary source
- Programmable feature is provided to choose Source I or Source II as priority
- Configurable timer for generator start, transfer delay , restore delay and generator cooling time
- Universal power supply of 8-60VDC
- 6 digit inbuilt LED display
- Individual phase overload monitoring with neutral current
- RS485 and addon TC-IP Ethernet Gateway
- Optional option to configure overload tripping module for Source I & Source II separately (M40)
- Optional built in AC Power Supply of 80-300 V AC taken from R Phase
- Optional monitoring of A, kVA, and kVAh feature is available
- Optional Programmable feature of overload ON/OFF cycles
- Optional digital input relay for fire alarm or other inputs of standby generator
- Optional programmable digital input relay for external fault trip

SOURCE I / SOURCE II PROTECTION
Under / Over Voltage
Single Phase missing
Phase sequence
Under / Over Frequency
Over Current & Current unbalance (M40)

Inverse Curve:



Mechanical Specification:



Benefits:

- Offers a fast, safe, and effective means of source changing over minimising power disruptions
- Rugged, versatile, compact and user friendly set up helps in saving time during installation.
- Set time delay to start the generator, transfer sources, and restore source for precise switching among sources as per your application.
- Load ON and source healthiness are indicated via bright LEDs.
- Reliable and field proven mechanism can provide you under voltage and overvoltage protection for your power sources.
- Provides total flexibility for configuring input and output of power sources on field
- Monitor three phase power, on hour of both sources and power interruptions to avoid unnecessary expense at sites
- Equipped to support remote monitoring and communication.
- Sends alarm during fire, fault in generator and during emergency.
- Provided with individual phase overload detection feature with immediate configurable action to trip.

Technical Specification:

Specification	Parameter	Default
Rated Operating Voltage	230V / 50 Hz	
Operating Voltage Range	150V to 300V AC (L-N)	
Rated Frequency	45-65 Hz.	
DG Start Relay Rating	8 A DC Power Relay	8/30V DC
Auxiliary Voltage Range	(8-60)V DC (Optional 80-300VAC Power Supply)	(8-60)V DC
Switching Technology	Relay based	Power Relays (R1-R5)
Accuracy	Class 1, Class 0.5	Class 1
Display	4 digit Instantaneous and 6 digit Integrated LED	

PROGRAMMING PARAMETERS		
EB Under Voltage	(160-210)V AC	(180V AC)
EB Over Voltage	(240-270)V AC	(260V AC)
Generator Start delay	upto 12 hrs	10 sec
Transfer/Restore delay	1-60 Sec	5 Sec
DG Cooling Time	1-600 Sec	30 Sec
Phase selection	1 Phase/ 3 Phase	3 Phase, 4W
Phase healthy selection	Any one Phase /all Phase	3 Phase
Overload	EB/DG (M40)	

Application:

- Data centres
- Healthcare
- Commercial Buildings / Infrastructure
- Telecommunication Industry
- Process Manufacturing/OEM's

ATeS

Automatic Transfer Switch

Real-Time Monitoring | Improve Productivity

CONTROL YOUR POWER SOURCES!

The smartest approach to provide continuous power for critical applications is to transfer sources between the load. ATeS (Automatic Transfer Switch) is designed with automatic start/stop DG operation to ease the transfer between primary source to alternate source for providing continuous power supply.

Features:

- Automatic Transfer switch with inbuilt micro processor based AMF controller
- AC 32B Utilization Category and in coherence with IEC-60947-6-1
- Source I & Source II protection against under/over voltage, Single phase missing and optional overload tripping logic.
- External remote control logic by using PLC, ATS Controller or Genset Controller.
- Availability of over load tripping with inverse curve logic.
- Optional Wifi communication and cloud connectivity for IoT applications.
- ATS With Wifi & Free 24 months Cloud Monitoring
- Automatic start/stop operation of DG on mains failure.
- Fire alarm / external fault trip feature is provided.
- Inbuilt control switch for selecting auto/manual mode.
- High capacity to withstand short circuit.
- External indication terminal output for Source healthy and load ON.
- Inbuilt fuse protection to avoid failure of AMF controller.
- 3 Position isolation lock for Source I – Off – Source II.

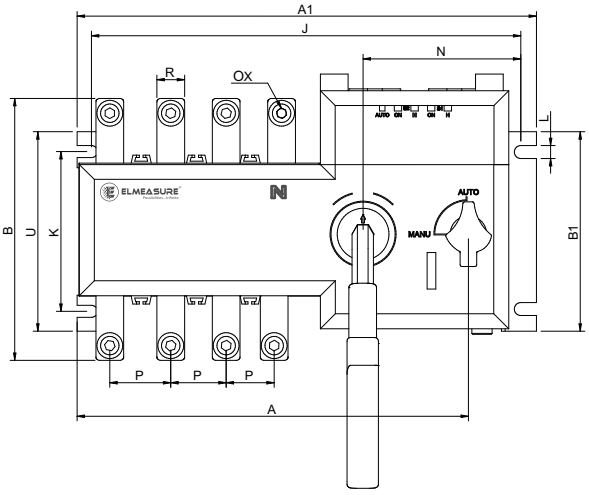
Benefits:

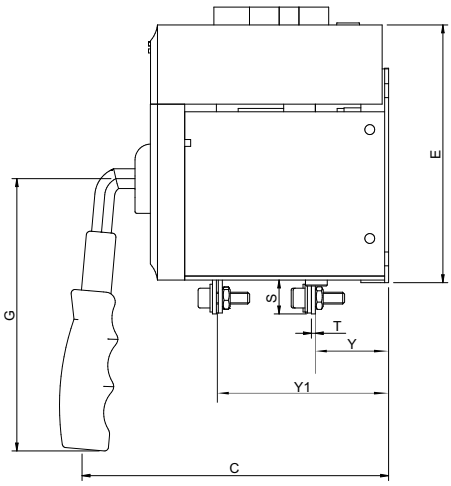
- Smooth and high-speed load transfer in the event of power outage or disturbances in the power supply.
- Incorporated with Fire Alarm/External fault trip and plays a pivotal role in providing maximum immunity to the electrical system from fire risk/faults.
- Systematized with time delays (timers) to prolong the stability of power source during automatic switching of sources in the case of blackout or loss of power.
- Facilitates easy installation and ensures reliable performance.

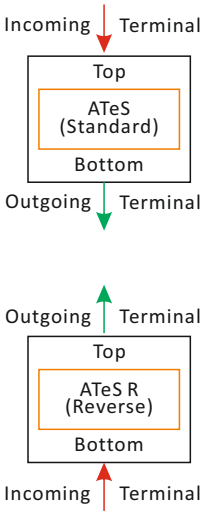
Application:

- Airport and Railways
- IT Malls and Commercial buildings
- Automobile Industry
- Data Centre and Telecommunications
- Oil and Gas Industry
- Manufacturing Industry
- Healthcare
- Banking and Finance

Mechanical Specification:







	Spec.	Outline Size (mm)						Mounting Size (mm)												
40/63/80A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	63	195	226	117	107	190	126	175	215	87	7	81	25	12	18	2	107	6	43	94
100/125A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	125	210	243	119	107	168	125	172	228	86	6.5	89	30	15	34.7	2.4	107	8	41	91
160A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	160	200	302	135	127	204	136	200.5	287	101	8	100	36	20	23.5	3.5	126.5	10	69	151
200/250A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	250	332	375	165	134	240	154	172	348	109	6.5	100	50	24	30	3.5	134	11	69	151
315/400/630A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	630	387	436	260	222	285	220	172	406	180	9	103	65	40	50.5	5	222	13	84	191
800/1000/ 1200/1600A	In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	ØX	Y	Y1
	1600	536	636	330	337	373	230	440	612	220	11	83.5	120	80	65	8	222	13	106	240

Technical Specification:

	40/63/80	100/125A	160/200/250A	315/400/630A	800/1000/1200/1600A
ELECTRICAL CHARACTERISTICS					
Current Rating	40/63/80	100/125A	160/200/250A	315/400/630A	800/100/1200/1600A
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 withstand voltage (Uimp) - Power Circuit	8kV				
Rated impulse withstand voltage (Uimp) – Control Circuit	4kV				
Utilization Category	AC – 33B				
Rated control Power supply Voltage	230V/50Hz				
Rated short circuit withstand current (KA, Rms) Icw(0.1/1s)	7/5 kA	9/5 kA	12/25 kA	50/25 kA	25/50 kA
Rated short circuit Making Capacity (KA, Peak) Icm	8 kA	8 kA	17 kA	26 kA	55 kA
Rated Limit short circuit current (KA) Iq	120 kA				
Operating Cycle	10000		8000	6000	5000
Motor operating Voltage	220V AC / 50Hz				
Auxiliary DC voltage	12-24V DC				
Standard	IEC60947-6-1				
MEASUREMENT PARAMETERS					
Primary Source	Voltage, Frequency & Current (Optional)				
Secondary Source	Voltage, Frequency & Current (Optional)				
Measurements Monitored	In-Built Display				
Communication	Wifi (Optional)				
PROGRAM CONFIGURATION					
Primary Source	Under Voltage(160-210V)/Over Voltage (240-285V) , Over Load with external CT, Under Frequency (40-48Hz) /Over Frequency (50-60Hz) and Phase sequence Enable / Disable				
Secondary Source	Under Voltage(160-210V) / Over Voltage (240-285V), Over Load with external CT, Under Frequency (40-48Hz) /Over Frequency (50-60Hz) and Phase sequence Enable / Disable				
Timers	Recovery delay (3 to 600s), Transfer delay(3 to 600s), Generator Start delay (3 to 9999s), Generator stop delay(3 to 9999s)				
Priority selection	Primary/Secondary source				
Overload	Source I (10-110%) and Source II (10-110%)				
Overload Trip cycles	Up to 4 cycles (6-150s)				
AC System Selection	3Phase /1Phase for Both Sources				
Phase Sequence	Enable/Disable				
APPLICATIONS					
Transfer Between Main Power to Backup Power	Applicable				
Transfer between Backup Power to Main Power	Applicable				
MODE OF OPERATION					
Selection Mode	Auto/Manual/Remote/Cloud				
Position order	I-OFF-II				
Functionality	On Load / Off Load				
Manual Emergency Operation	Available				
MECHANICAL CHARACTERISTIC					
Mounting	Position A				
Outline Dimension in mm	226X117X107	243X119X107	375X165X134	436X260X222	636x330x337
Weight in kg	4	5	10	20	60
GENERAL CHARACTERISTIC					
Ambient temperature	-20° to 55°C				
Air Humidity	Not more than 50% @ 40°C				
Altitude	Not more than 2000 m				
ELECTROMAGNETIC CHARACTERISTIC					
Class	Class B				
Radio Frequency Transmission Test	EN55011				
Radio Frequency radiation Transmission Test	EN55011				