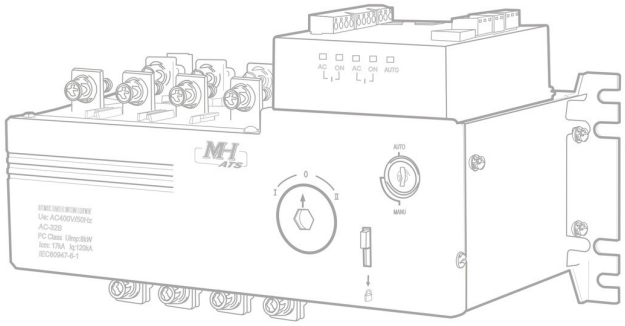
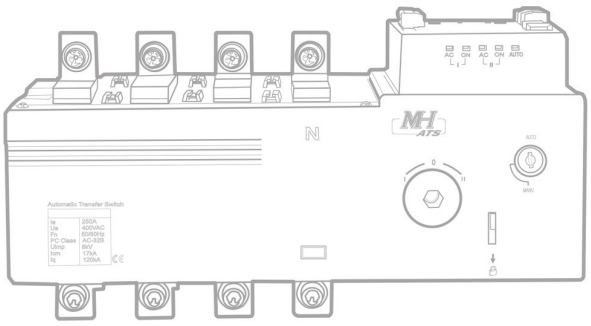
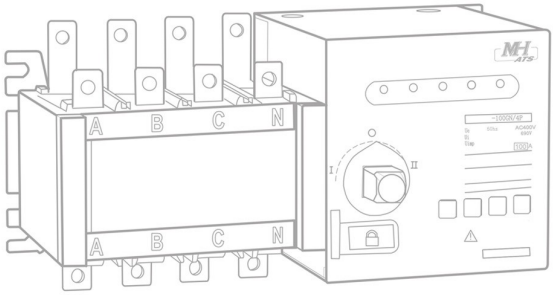
MH ATS

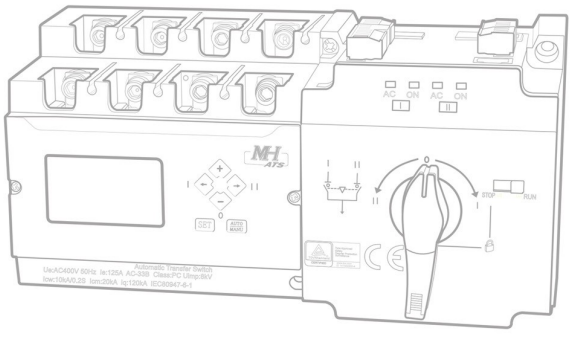
Automatic Transfer Switch

Designed for
Dual Power Source Networks





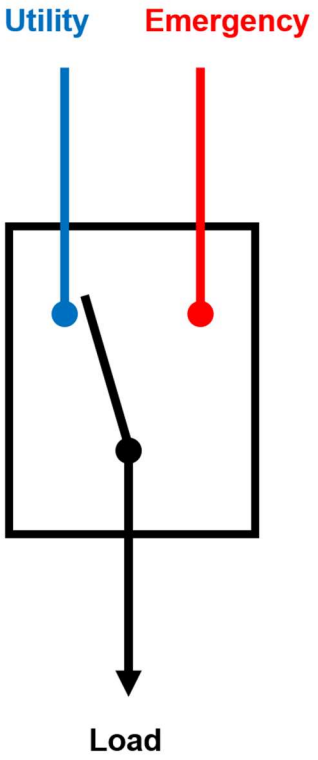




MH S3 ATS Series

In the event of main power failure, this system switches power from the primary source (such as utility) to a standby or alternative source (such as a backup generator) automatically.

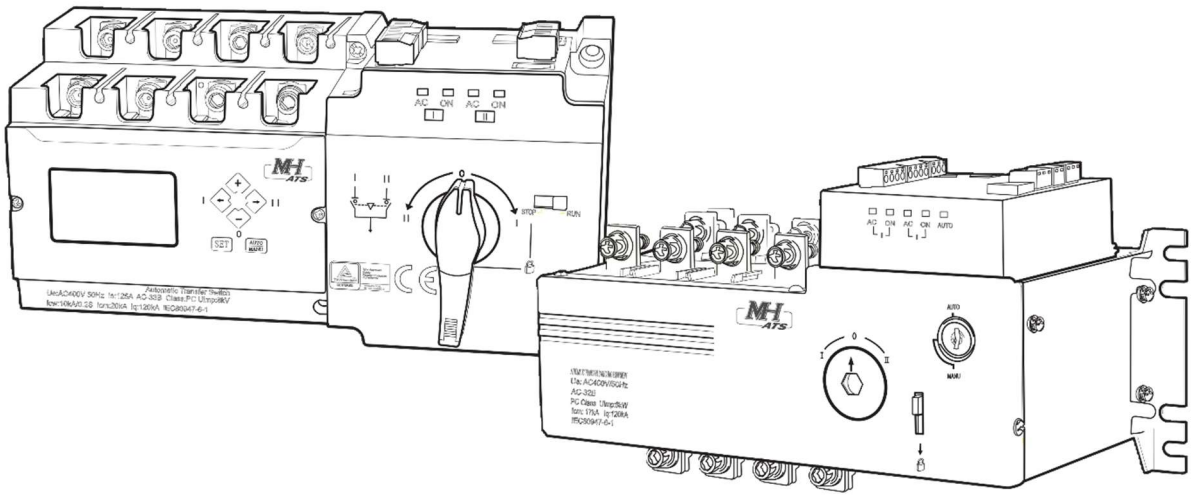
- Capacity ranges from 80A to 3,200A
- Available in 1P2W, 3P3W, and 3P4W systems
- Suitable for small industries and commercial sectors
- Features a 3-stage efficient switching system



Single Line Diagram of MH S3 ATS Series

Key Features

- Mechanical interlock
- Motorised driven switching
- Built-in controller with remote display (applicable for 125A to 1,600A model)
- Built-in controller with display (applicable for 80A model only)
- External LCD display
- Class PC
- Utilization category AC-33B
- Fire alarm input and generator control
- Compliance with IEC 60947-6-1



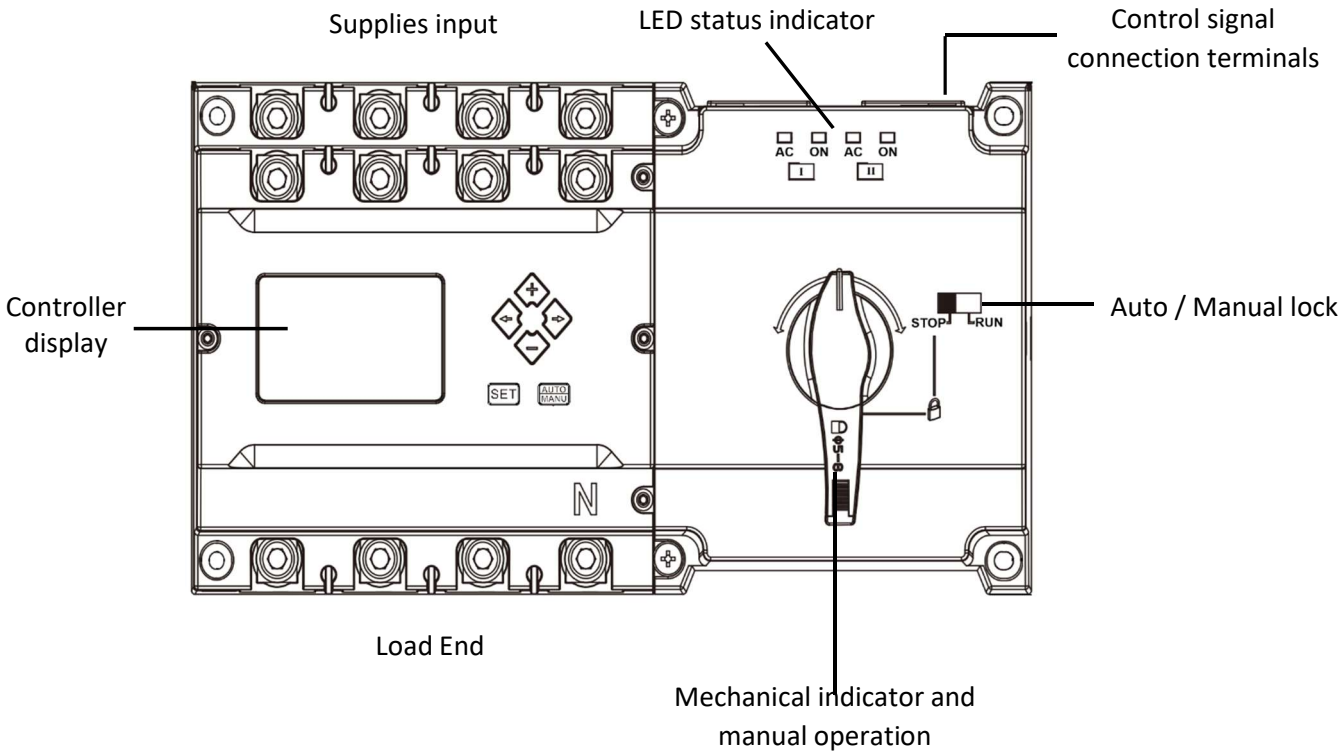
ATS Technical Datasheet (80A to 1,600A)

MH ATS	MH S3 Series
Specifications	
Poles	2, 3, 4
Main contact positions	3 (Normal-Off-Alternative)
Class	PC
Utilization category	AC-33B
Switching Mechanism	
Open transition	Yes
Delayed transition	Yes
Manual transition	Yes
Automatic transition	Yes
Semi-automatic transition (via controller)	Yes
Settings	
Source priority	Primary source
	Alternative source
	No priority
Overvoltage threshold	242 to 330 V_{LN} (default 263 V_{LN})
Overvoltage recovery	Default 10V
Undervoltage threshold	154 to 198 V_{LN} (default 187 V_{LN})
Undervoltage recovery	Default 10V
Over frequency threshold	52.5 to 60Hz (50Hz system; default 60Hz) 63 to 72Hz (60Hz system)
Under frequency threshold	40 to 47.5Hz (50Hz system; default 40Hz) 48 to 57 Hz (60Hz system)
Time Delay Settings	
Source A/B failure detection delay	0 to 180s (default 5s)
Source A to B transfer delay time	0 to 180s (default 5s)
Source B to A transfer delay time	0 to 180s (default 5s)
Generator start delay	0 to 180s (default 5s)
Generator stop delay	0 to 180s (default 5s)
Indications	
Normal source available	Yes
Alternative source available	Yes
Main switch position (normal, alternative)	Yes
Operating status (Auto / Manual)	Yes
Communication	
RS-485 Modbus RTU	Yes
Fire Alarm Input	Yes
Standard Compliance	
Product Safety Requirements	BS EN / IEC 60947-6-1

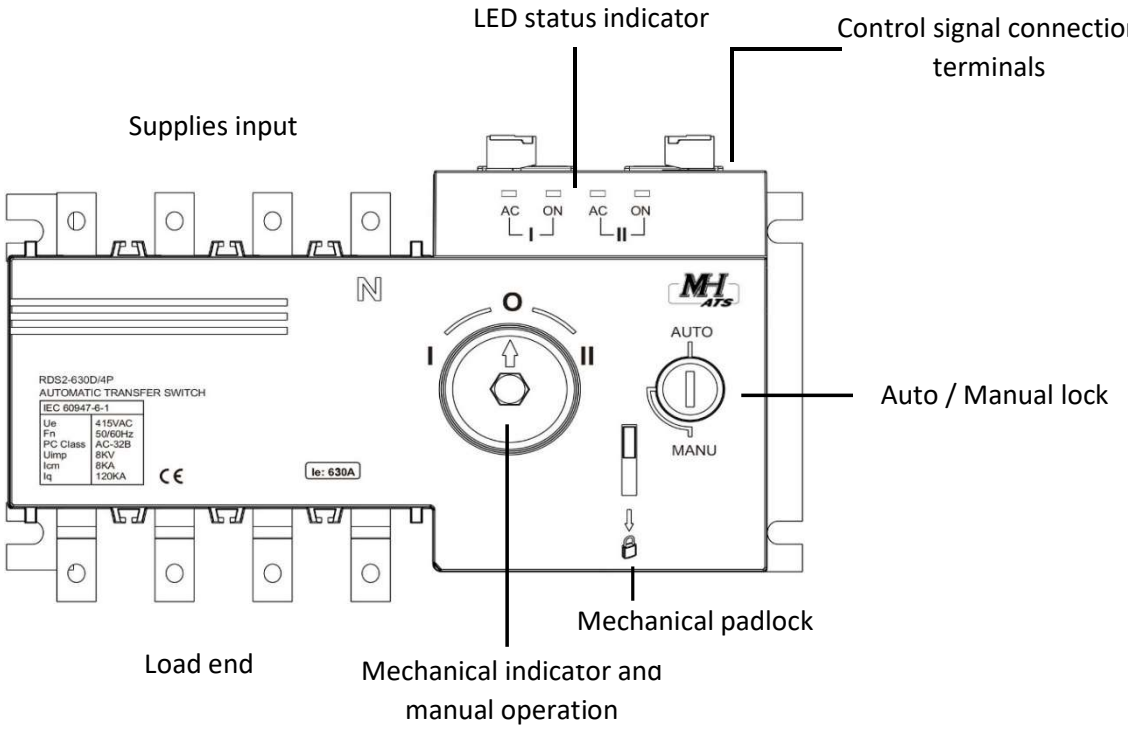
	S3-80-4P	S3-125-4P	S3-250-4P	S3-630-4P	S3-1000-4P	S3-1600-4P
Rated operational current, Ie	80 A	125 A	250 A	630 A	1,000 A	1,600A
Rated operational voltage, Ue	400 VAC±30%					
Rated frequency	50 / 60 Hz					
Rated insulation voltage, Ui	690 VAC					
Rated impulse withstand voltage, Uimp	8 kV					
Number of pole	4 Poles					
Rated Current	16 A, 20 A, 32 A, 40 A, 63 A, 80 A	100 A, 125 A	160 A, 200 A, 250 A	400 A, 500 A, 600 A	800 A, 1,000 A	1,250 A, 1,600 A
Rated short-time withstand current, Icw	10 kA	NA	NA	NA	NA	NA
Rated conditional short-circuit current, Iq	NA	120 kA				
Rated short-time making capacity, Icm	15 kA	8 kA	17 kA	26 kA	55 kA	55 kA
ATS dimension[1] (W x D x H), mm	230 x 125 x 130	244 x 125 x 144	375 x 198 x 200	433 x 244 x 241	636 x 320 x 366	636 x 321 x 370
Remote display unit dimension (W x D x H), mm	NA	133 x 40.5 x 66				

[1] Dimensions for other than the standard 4-pole unit are available upon request. The provided dimensions for the 125A to 1,600A ATS units are for the equipment itself and do not include the space required for handle operation.

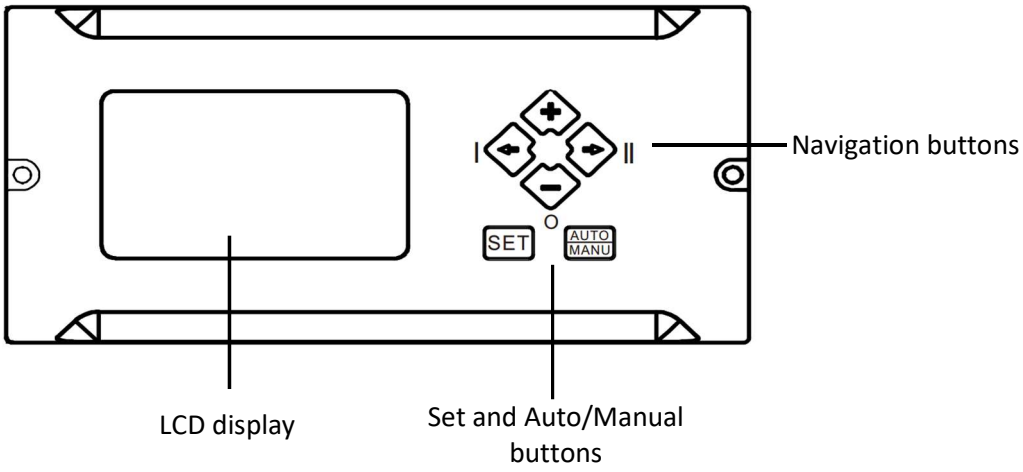
ATS Product Overview (80A)



ATS Product Overview (125A to 1,600A)

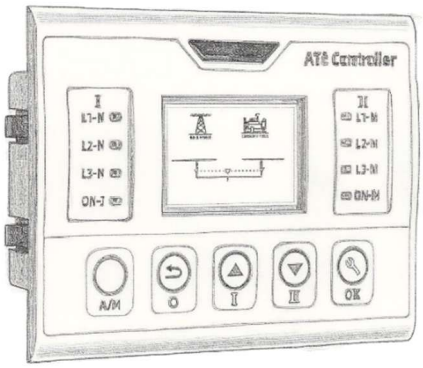


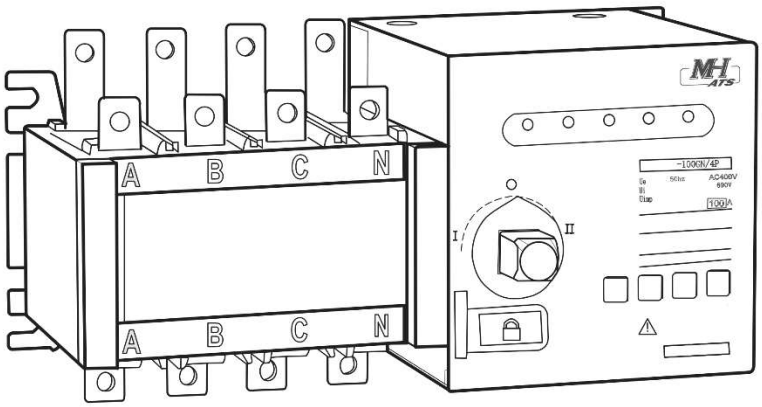
ATS Remote Display Unit - Product Overview (applicable for 125A to 1,600A)



ATS Technical Datasheet (2,000A to 3,200A)

MH ATS	MH S3 Series
Specifications	
Poles	2, 3, 4
Main contact positions	3 (Normal-Off-Alternative)
Class	PC
Utilization category	AC-33B
Switching Mechanism	
Open transition	Yes
Delayed transition	Yes
Manual transition	Yes
Automatic transition	Yes
Semi-automatic transition (via controller)	Yes
Indications	
Normal source available	Yes
Alternative source available	Yes
Main switch position (normal, alternative)	Yes
Operating status	Yes
(Auto / Manual)	
Standard Compliance	
Product Safety Requirements	BS EN / IEC 60947-6-1

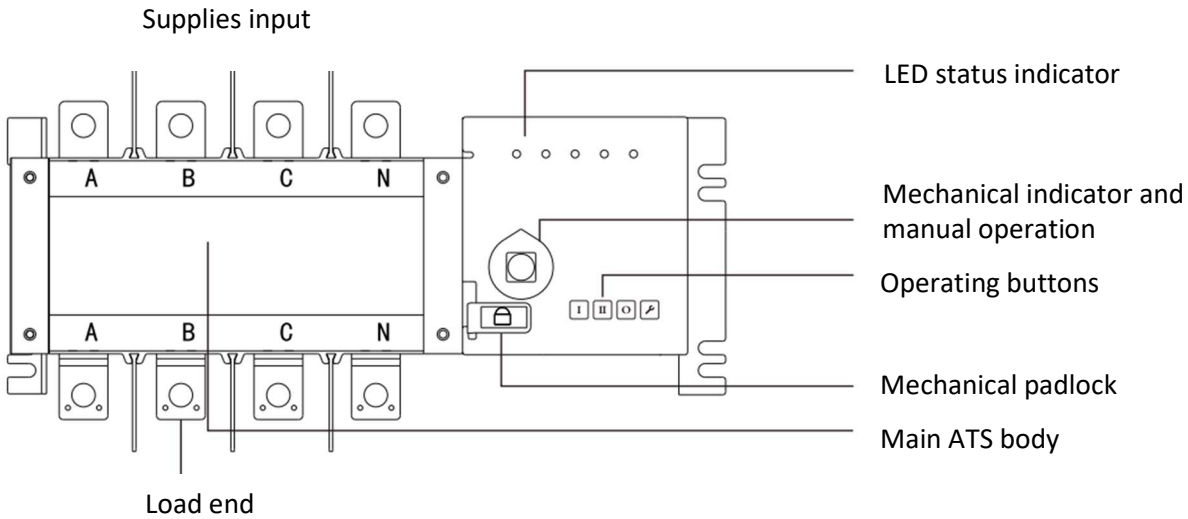




	S3-2000-4P	S3-2500-4P	S3-3200-4P
Rated operational current, Ie	2,000 A	2,500 A	3,200 A
Rated operational voltage, Ue	400 VAC±30%		
Rated frequency	50 / 60 Hz		
Rated insulation voltage, Ui	1,000 VAC		
Rated impulse withstand voltage, Uimp	12 kV		
Number of pole	4 Poles		
Rated Current	2,000 A	2,500 A	3,200 A
Rated short-time withstand current, Icw	50 kA	50 kA	50 kA
Rated short-time making capacity, Icm	105 kA	105 kA	105 kA
Dimension[2] (W x D x H), mm	722 x 483 x 528	722 x 483 x 528	722 x 483 x 528

[2] Dimensions for other than the standard 4-pole unit are available upon request.

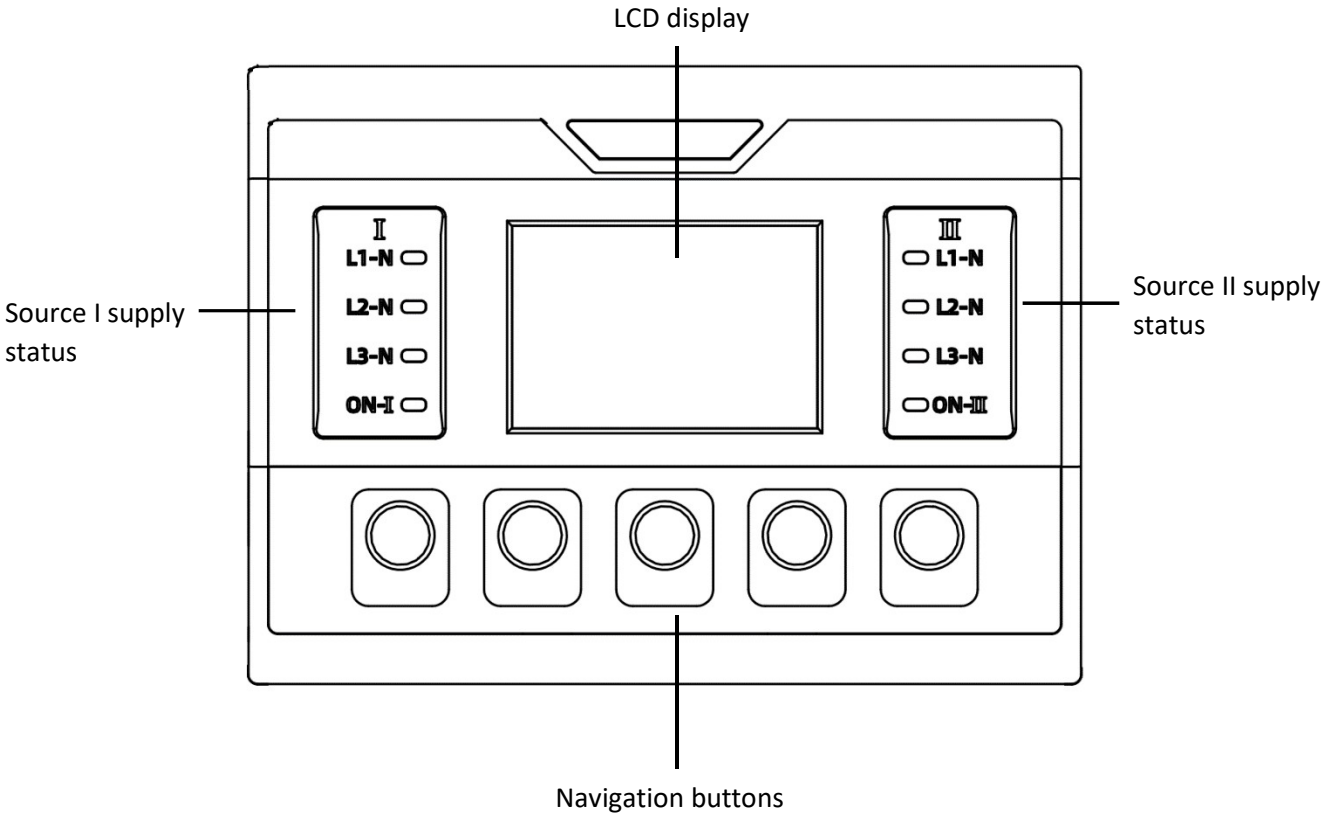
ATS Product Overview (2,000A to 3,200A)



ATS Controller - Technical Datasheet (only applicable for 2,000 to 3,200A)

	MH-SCT-5N
General	
Display	LCD
Dimension (W x D x H), mm	170 x 56 x 126
Controller Settings	
Source priority	Primary source
	Alternative source
	No priority
Rated Frequency	50Hz or 60Hz
Overvoltage threshold	242 to 286 V_{LN} (default 264 V_{LN})
Overvoltage recovery	1-20V (default 10V)
Undervoltage threshold	154 to 198 VLN (default 176 V_{LN})
Undervoltage recovery	1-20V (default 10V)
Over frequency threshold	52Hz (50Hz system); 62Hz (60Hz system)
Under frequency threshold	48Hz (50Hz system); 58Hz (60Hz system)
Controller Time Delay Settings	
Source A/B failure detection delay	0 to 99.9s (default 2.0s)
Source A/B fail return delay	0 to 99.9s (default 0.0s)
Source A to B transfer delay time	0 to 99.9s (default 5.0s)
Source B to A transfer delay time	0 to 99.9s (default 5.0s)
Off to source A/B delay	0 to 99.9s (default 0.0s)
Generator start delay	0 to 999s (default 5s)
Generator stop delay	0 to 999s (default 5s)
Indications	
Normal source (A) available	Yes
Alternative source (B) available	Yes
Main switch position (normal, alternative)	Yes
Operating status	Yes
(Auto / Manual)	
Communication	
RS-485 Modbus RTU	Yes
Fire Alarm Input	Yes

ATS Controller - Product Overview



**Images used are for illustrative purpose only, actual product may differ from image shown.*

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