ATS Health and Maintenance Watch Automatic transfer switches



Optimize transfer switch reliability through intelligence and efficient maintenance

What is ATS Health and Maintenance Watch[™]?

Eaton's ATC-900 automatic transfer switch (ATS) controller has gotten smarter with the addition of two new features. ATS Health reports equipment condition so facility service personnel can make informed decisions based on real-time data. Maintenance Watch schedules due dates, issues reminder notifications and provides task guidance to comply with maintenance program requirements.

Introduction

An ATS is a vital element in the power distribution chain and is responsible for providing continuous power to critical loads in emergency, legally required, optional standby and critical operation power systems.

To maintain a high degree of reliability, an ATS must undergo regular inspection, maintenance and exercise as part of an established program implemented by the equipment owner.

To optimize equipment uptime, ATS Health reports equipment condition to facility service personnel who can assess operational risk and plan for maintenance.

Maintenance Watch issues automated notifications and task guidance to perform regular test, inspection and maintenance based on NFPA® 110—the standard for emergency and standby power systems.



ATS Health

- Measures equipment use against UL® 1008 endurance test threshold
- Identifies voltage and current
 excursions above the norm
- Reports condition of surge protection device (internal to ATS)
- Reports condition of circuit breaker (internal to ATS)
- Measures switching performance for comparison to commission baseline
- Tracks amount of time the load has been energized
- Reports date and time ATS last exercised, and number of days elapsed since
- Allows user to enable/disable via programmable setpoint

Maintenance Watch

- Schedules quarterly inspection, major maintenance and load test activities
- Generates quarterly inspection major maintenance and load test due notifications with multiple resolution options
- Provides transfer switch maintenance task guidance per NFPA 110
- Records and displays recently completed inspection, maintenance and load test activities with date and time stamp
- Allows user to enable/disable via programmable setpoint

Remote monitoring

- Eaton's HMi Remote Annunciator Controller (RAC) device allows ATS Health and Maintenance Watch features to be managed remotely; up to eight transfer switches can be managed with a single HMi RAC
- Eaton's Brightlayer™ Remote Monitoring application consolidates all your ATS equipment for remote monitoring via computer or mobile device

ATS Health

ATS Health reports equipment condition related to main contact operation and actuation, electrical excursions above the norm, last exercised date, load energized time and component status/health. Parametric data can be viewed locally on the ATC-900 display or monitored remotely via an Eaton HMi RAC device, Eaton Brightlayer application or a third-party power/building management system.

The parametric data reported is:

- Number of open/close operations for Source 1 and Source 2 main contacts; percentage of operations performed compared to UL 1008 (transfer switch standard) threshold; a notification is issued when operation threshold is reached
- Total number of load overcurrent events that have occurred with event date/time stamp and duration
- Total number of Source 1 and Source 2 overvoltage events that have occurred with event date/time stamp, phase and voltage
- Total duration (days/hours/minutes) transfer switch is under load (electric current flow)
- Total number of days that have elapsed since transfer switch was last exercised and date/time stamp of last exercise
- Open/close actuation time of Source 1 and Source 2 main contacts and load disconnect time for open in-phase transition
- Protection status of integral surge protection device (SPD) installed at Source 1, Source 2 and Load connection
- Health status of integral Source 1 and Source 2 circuit breaker

03/07/23	Main Contact	Operations	11:23:15 AM
	Operation Count	UL 1008 Threshold	Operation Status
Source 1 open	1234	6000	
Source 1 close	1234	6000	
Last reset on	05/12/15 11:23		20%
			S1
	Operation Count	UL 1008 Threshold	0 100
Source 2 open	1000	6000	
Source 2 close	1000	6000	14%
Last reset on	05/12/15 11:23		
			0 S2 100

	Back	Reset All Counters	Main Menu
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Maintenance Watch

Maintenance Watch permits service personnel to schedule up to four quarterly inspections and one annual major maintenance to a specific calendar date that recurs each year. A load test can be programmed for a monthly or quarterly cadence.

An automated notification is issued 10 days prior to each scheduled due date and includes task information to guide the service technician. Notifications can be viewed locally on the ATC-900 display or remotely via an Eaton HMi RAC device, Eaton Brightlayer application or a third-party power/building management system. A notification can be resolved by the user to postpone (up to 21 days), dismiss (decision not to perform) or complete (performed) the task. When a task is marked as complete, a date and time stamp is recorded. A total of seven quarterly inspections, seven major maintenances and seven load tests can be viewed in a summary table on the ATC-900 screen. Maintenance Watch or any of its individual elements (quarterly inspection, major maintenance, load test) can be enabled or disabled by programmable setpoint.

11/21/22	Maintenance Watch	12:10:00 PM			
Major Maintenance Due : 12/01					
Guidelines					
. Check connections -conduct temperature/thermographic scan, measure and record mV drop -if equipped with bypass isolation, operate					

- -ii equipped with bypass isolation, operate
- 2. Inspect/test for signs of overheating or main contact corrosion
- inspect test for signs of overheading of main contest control of inspect main contacts, other current carrying parts, insulating materials, control connection, plugs, harnesses, and cabinet sealing

Next

01/07/23	N	laintenance Watc	h 1	1:23:15 AM				
No Pending Notification Due								
Major Maint. Completed		Qtrly Insp. Completed	Load Test Completed					
12/01/21 10:20 A 12/01/22 10:20 A		2/10/22 10:20 A 6/10/22 10:20 A 9/10/22 10:20 A	2/10/22 10:20 A 6/10/22 10:20 A 9/10/22 10:20 A 12/10/22 10:20 A					
Main Menu	Back							

HMi Remote Annunciator Controller (RAC)

Users can remotely manage multiple ATSs from one intuitive 7-inch touchscreen display that includes ATS Health and Maintenance Watch information.



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