

ATCOM CATALOG – HEAT TRACE CONTROL PANEL

DESCRIPTION

The ATCOM panel is an independent control system for heat-trace applications (both freeze-protection and process-maintain). Functionalities include Power Distribution, Sensor Monitoring, Alarming, and Data Delivery.

The panel is microprocessor based, controlling up to 48 circuits at 120-480VAC. A weather-proof touchscreen allows users to select between various control methods: Line-Temperature based, Ambient based, or Manual. Up to 4 field RTDs can be assigned to each circuit, providing a thorough overview of the application status.

Alarms are generated for temperature, current, and ground fault leakage. Users can modify setpoints and other circuit data via the touchscreen. Project-specific setpoints are conveniently preassigned to each panel, in a true turn-key nature.

A Remote-Access software is also provided, allowing users to access the touchscreen directly from their computer. Communications with the plant DCS is also available for full data delivery.



ATCOM CATALOG – HEAT TRACE CONTROL PANEL

FEATURES

- NEMA 4/4X Enclosure
- Power Distribution
 - Main Breaker
 - Panel Board
 - Circuit Breakers
- Circuit Count: 12-48
- Circuit Rating: 30-40A @ 120-480VAC
- Ground Fault Tripping
- Through-Door Main Disconnect
- Solid State Relay Control
 - Line-Temperature Based
 - Ambient Based
- 16" Industrial Touchscreen HMI
- Sensor Mapping, Monitoring, & Alarming
 - Current (A)
 - Ground Fault Leakage (mA)
 - Temperate (°F)
- System Audit Test Feature
- Remote Access Software & Phone App
- DCS Data Delivery & Dry Contact Alarm
 - Optional Fiberoptic Converter
- Optional Enclosure Heating/Cooling
- UL 508A Listed
- Optional C1D2
 - Type Z Air Purge & Pressurization

HTP-01		MONITOR SCREEN (CKT 1-12)				AMBIENT(°F): 27.2		PANEL(°F): 58.5		00 : 00 : 00	
CKT #	DESCRIPTION	AMPS	AMP LO ALRM SP	GFI (mA)	GFI TRIP SP	GFI RESET BUTTON	TEMP(°F) [LOWEST]	CONTROL TEMP SP	TEMP LO ALRM SP	TEMP HI ALRM SP	RTD TYPE
1 (ENABLED)	HT05 HP DRUM	18	16	1	30	RESET	183.5	180	170	620	LINE-SENSING
2 (ENABLED)	HT10	0	16	0	30	RESET	274.9	180	170	620	LINE-SENSING
3 (ENABLED)	HT11	13	10	2	30	RESET	178.3	180	170	620	LINE-SENSING
4 (ENABLED)	HT17 BOIL W	5	10	1	30	RESET	157.1	180	170	620	LINE-SENSING
5 (ENABLED)	HT18	9	7	3	30	RESET	181.7	180	170	620	LINE-SENSING
6 (ENABLED)	HT1 GROUND	0	10	1	30	RESET	188.9	180	170	620	LINE-SENSING
7 (ENABLED)	HT2	0	13	0	30	RESET	175.3	180	170	620	LINE-SENSING
8 (ENABLED)	HT3	16	13	1	30	RESET	184.6	180	170	620	LINE-SENSING (MULTIPLE)
9 (ENABLED)	HT4	7	5	2	30	RESET	27.2	50	-50	150	AMBIENT
10 (ENABLED)	HT6 INS37	0	7	1	30	RESET	722.8	180	170	620	LINE-SENSING
11 (ENABLED)	HT7	15	13	4	30	RESET	182.1	180	170	620	LINE-SENSING
12 (DISABLED)	HT22	0	8	0	30	RESET	27.2	50	-50	150	AMBIENT

HOME
CKT 1 - 12
CKT 13 - 24
CKT 25 - 36
CKT 37 - 48

HAND OFF AUTO

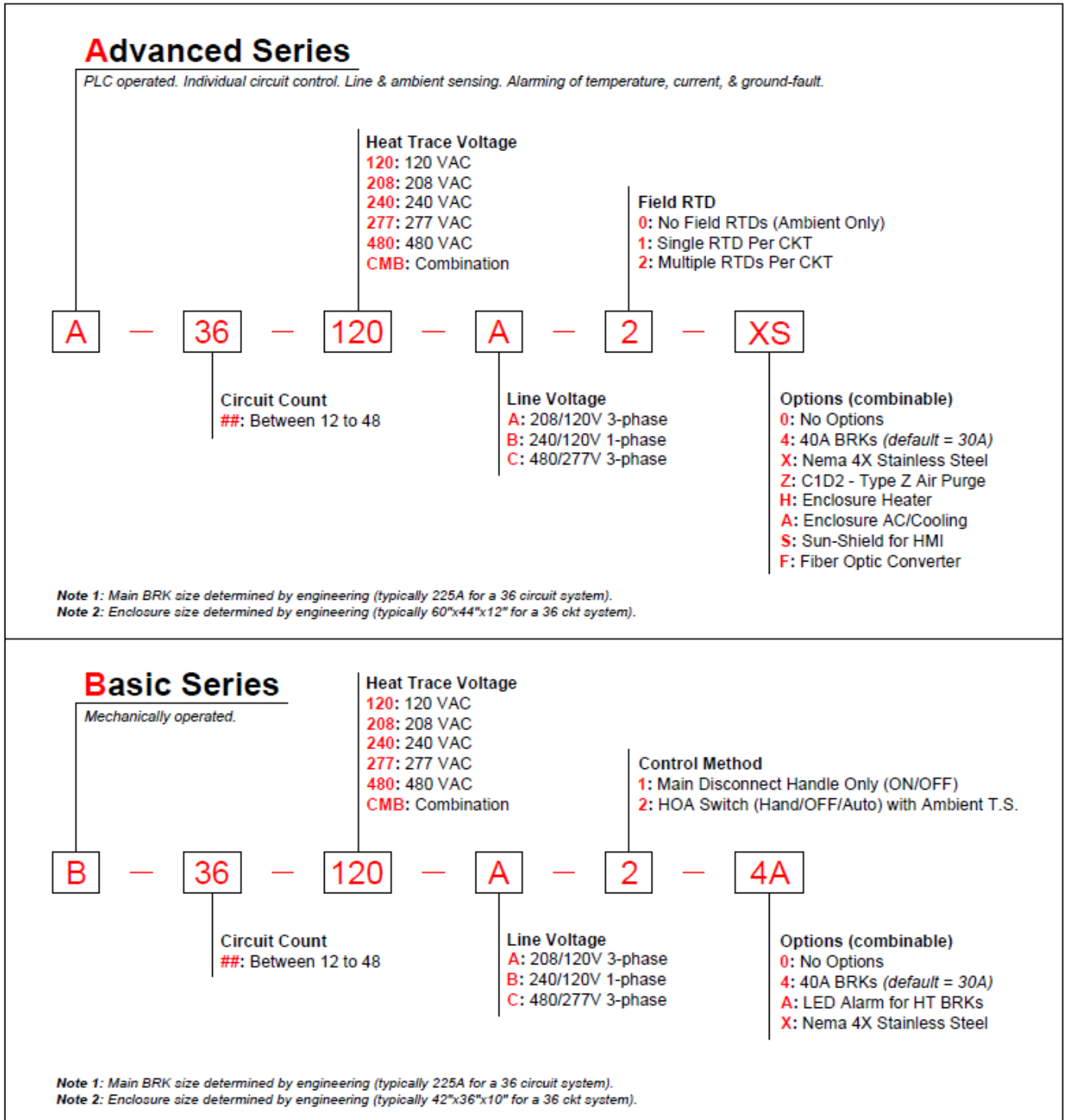
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SELECTION

A-Series: PLC Operated

B-Series: Mechanically Operated

(see comparison chart on next page)



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SPECIFICATIONS

Operating Temperature	-4 to 104°F <i>(enclosure heater recommended for freezing temperatures)</i>
Area Classification	Ordinary or Class 1 Div 2
Enclosure Rating	NEMA 4 Steel or NEMA 4X Stainless Steel
Enclosure Mounting	Wall Mount or Floor Mount
Line Voltage	120 – 480VAC, 3-Phase
Main Breaker Rating	600VAC, 3-Phase, 100-250A, Thermal Magnetic
Input	RTD (100 Ohm Platinum 3-Wire)
Output	Solid State Relay (TRIAC)
Max Output Rating	40A per circuit
Short Circuit Current Rating	10kA
Alarms	Temperature (high/low), Amperage (low), Ground Fault (high/trip)
Communication	Ethernet, Modbus TCP/IP
Temperature Rating	T4
Approvals	UL (Ordinary & Class 1 Division 2, Groups A,B,C,D); File # E489368

SERIES COMPARISON

Features	B-Series	A-Series
Power Distribution	YES	YES
GFEP Tripping	YES	YES
Circuit Count up to 48	YES	YES
120-480VAC	YES	YES
Touchscreen Display	NO	YES
Through-Door Main Disconnect	YES	YES
HOA Switch	YES	YES
Ambient Based Control	YES	YES
Line-Sensing Based Control	NO	YES
Amperage Monitoring & Alarms	NO	YES
Line-Temperature Monitoring & Alarms	NO	YES
GFI mA Monitoring & Alarms	NO	YES
Breaker Power Alarm	YES	YES
System Audit Test Feature	NO	YES
Remote Access	NO	YES
DCS Data Delivery	NO	YES
Dry Contact Alarm	YES	YES

ATCOM CATALOG – HEAT TRACE CONTROL PANEL

DEFINITIONS

- **PLC & HMI:** The PLC software is written and supported by the ATCOM engineering team. The touchscreen HMI is user-friendly, displaying the live operating data of the heat trace (12 circuits per page).
 - **Remote Access:** The user may access the panel via a provided computer/phone software. This will simulate a replica of the touchscreen, navigable with a mouse & keyboard (or smart phone).
- **Sensor Monitoring:** The panel will monitor the following heat-trace data in real time:
 - **Current:** Amperage from the circuit breakers is recorded via Current Transducers.
 - **Temperature:** Field RTDs will be landed in the panel for line-temperature readings. Up to four RTDs can be assigned to a circuit.
 - **GFI (Ground Fault Interrupt):** Ground fault is recorded in the value of milli-amperage.
- **Alarms:** All the sensor readings will have a low/high alarm that will appear in the form of a flashing red beacon on the user interface. The user may acknowledge alarms and reset tripped circuits. Pilot LED lights will also be installed on the panel door; primarily for Primary Power, 24V Power, PLC Alarm, and Pressure Alarm.
- **Audit System Test:** This feature will activate all the heat-trace for a short duration, allowing the user to check on the operating status of their system during off-season months.
- **DCS Data Delivery:** The operating data can be readily collected by the plant DCS via Modbus TCP/IP protocol. A Dry Contact alarm relay is also provided for customers who wish to land a simple 24VDC signal to their network.

