



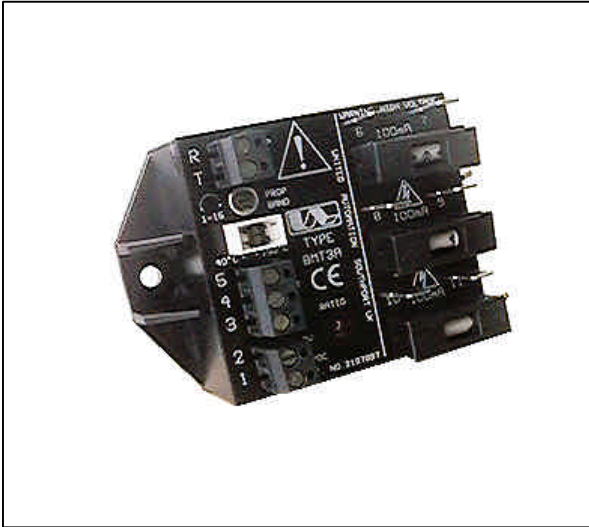
3 PHASE BURST FIRING 0-40°C / 0-150°C TEMPERATURE CONTROLLER

BMT-3A
X10298

INTRODUCTION
This microprocessor based dual range temperature control module incorporates the unique MONO-LINK™ - Gate to Gate firing feature which uses single path hard firing for each phase thyristor pair eliminating cathode firing connections. The burst firing circuit prevents fast changes in load current thus inhibiting Radio Frequency Interference.

APPLICATIONS
Virtually all resistive heater load, (within temperature limitations) including air curtains, space heating, drying and other heating and ventilating applications.

- FEATURES**
- Zero volts switching (RFI free).
 - MONO-LINK™ - Gate to Gate firing
 - Power ratio indicator.
 - No phase timing or matching required.
 - Temperature feedback via thermistor.
 - Dual temperature range.



INSTALLATION AND DIMENSIONS

SET TEMP CONTROL FOR TERMINALS 3,4 AND 5
4-20mA SIGNAL MANUAL POT. DC SIGNAL

UNIT SUPPLY 9-12V ≈ 100mA

THERMAL RESPONSE TIMES

PROPORTIONAL ONLY PROPORTIONAL & INTEGRAL
e.g. FAST THERMAL RESPONSE e.g. SLOW THERMAL RESPONSE

40°C → 150°C
SWITCH SELECTS TEMPERATURE RANGE

GATE CONNECTIONS FOR UP TO THREE PAIRS OF INVERSE PARALLEL THYRISTORS

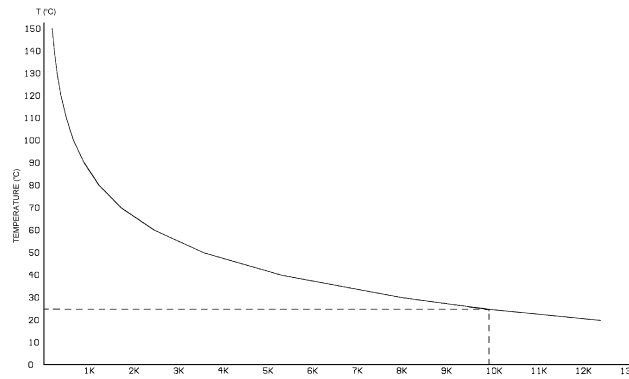
WARNING
SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK.

NOTE
AC INPUT SUPPLY MUST BE ISOLATED FROM SIGNAL

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INSTALLATION

RESISTANCE / TEMPERATURE CURVE FOR BETATHERM 10K3A1 SENS



SPECIFICATIONS

Set Temperature pot Thermistor 10K3A1 100mA	5K 0-150°C	Temperature control options Input supply	0-40°C or 0-150°C 10 to 18V ac/dc @
Cycle time base	1s nominal	Line voltage	110V to 440V +/-10%
Trigger output I max	800mA	Line frequency	50/60 Hz
Isolation voltage	5KV	Integral gate fuses	F100mA ceramic (HRC)
Unit operating temp	0 to 65°C	Max. Peak voltage	600V
Unit storage temp	-20 to 85°C	Prop band	1-15%

FUSING:

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (semiconductor - MCB) for unit/device protection. On initial 'switch on' some loads may need an increased Factor of Safety (F of S) for unit and /or unit protection. Appropriate protection for unit supply (HRC F1A). See SRA Datasheet for further information

CE MARKING

This product family carries a "CE marking". For information see recommendation section and contact our sales desk. (See Declaration of Conformity).

RECOMMENDATION

Other documents available on request, which may be appropriate for your applications.

CODE	IDENTITY	DESCRIPTION
X10229	RFI	Filtering recommendation - addressing EMC Directive
X10213	ITA	Interaction, uses for phase angle and for burst fire control.
X10255	SRA	Safety requirements - addressing the Low Voltage Directive (LVD) including :- Thermal data/cooling ; "Live" parts warning & Earthing requirements; Fusing recommendations.
AP02/4	COS	UAL Conditions of sale

NOTE It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.E wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. (For International standards refer to I.E.C directive IEC 950).

ORDER CODE

State part number: BMT-3A.

Optional extras include: Supply transformer, Power stack, Betatherm 10K3A1 thermistor.



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