



PHASECON

Reg. No.: 1980/000466/07 VAT No.: 4210107597

P6800 BURST FIRE/PHASE CONTROL THYRISTOR CONTROL CARD

Cost savings through standardisation.

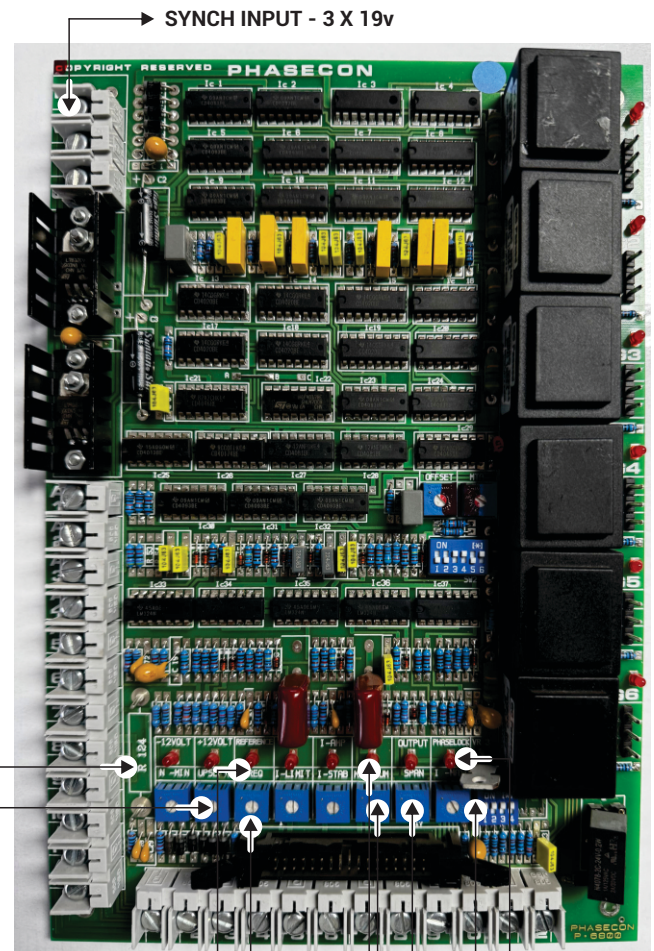
APPLICATIONS

- Electric element heat control
- Transformer primary power control
- Solid state contactor replacement
- Induction furnace control

UNIQUE FEATURES

Digital CMOS counters for accurate balanced phase control

- High-frequency pulse trains to thyristors
- Switch programming for required applications
- Minimum and maximum clamp of phase shift
- Process instrumentation interface 4-20 mA
- On-board instantaneous overcurrent trip
- Multi-plug connection for easy connection
- Auto/manual phase shift control
- Through-hole plated PCB with solder mask and component layout silk-screen



R-124

UNIQUE FEATURES
Burden resistor for
current transformers.

$$\text{Value } (\Omega) = \frac{2.5(\text{V}) \times \text{CT rating } (:1)}{\text{Line current (A)}}$$

UPSLOPE

Soft start or response
adjustment. Set fully
clockwise upon start-up
and adjust CCW if the
system is erratic.

REFERENCE

Status of control input.
ON = Max input.

RUN LED

Status of run relay.
ON = running.

I-MAX

Maximum current
adjustment.

FREQUENCY

Adjusts size of
burst fire block.
Normal adjustment
in center.

MINIMUM

Process interface
null adjustment.

SPAN

Process interface
maximum adjustment.

PHASE LOCK LED

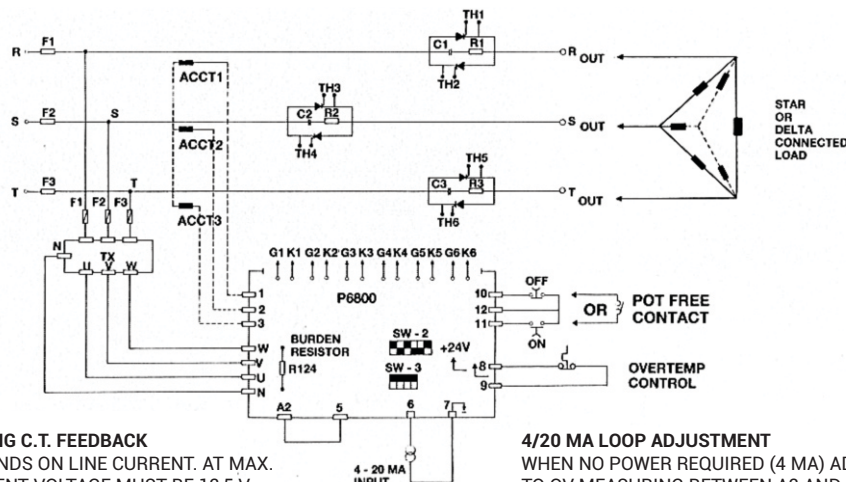
Indicates phase rotation.
Clockwise = on.
Card only fires in
clockwise direction

P6800 BURST FIRE/PHASE CONTROL THYRISTOR CONTROL CARD

SPECIFICATIONS:

- Supply : 18 V, 4 wire from Phasecon synchronisation/supply transformer.
- Thyristor gate pulses : 500 mA repetitive pulses generated over 1 m. The first pulse being 200 μ s followed by 100 μ s pulses..
- Heat control input : 0 to +5 V DC.
- Process control input : 0 to +5 V DC or 1-5 mA, 2 to 10 mA, or 4 to 20 mA.
- Current feedback : From 3 CTs.

APPLICATION DETAILS



WHEN USING C.T. FEEDBACK
R124 DEPENDS ON LINE CURRENT. AT MAX. LINE CURRENT VOLTAGE MUST BE 12.5 V. THEN ADJUST FULL FIRING ANGLE WITH 1-MAX POT.

4/20 MA LOOP ADJUSTMENT
WHEN NO POWER REQUIRED (4 MA) ADJUST POT MIN. TO OV MEASURING BETWEEN A2 AND A3.
WHEN FULL POWER REQUIRED ADJUST POT, SPAN TO 5V MEASURING BETWEEN A2 AND A3.

SWITCH	PROGRAMMING
SW2-1	- Burst fire select
SW2-2	- Phase control select
SW2-3	- Current stability
SW2-4	- Current AMPL bypass
SW2-5	- Direct set
SW2-6	- Enable
SW3-1 to 4	- mA control load select

OUR MANUFACTURING PROGRAMME INCLUDES

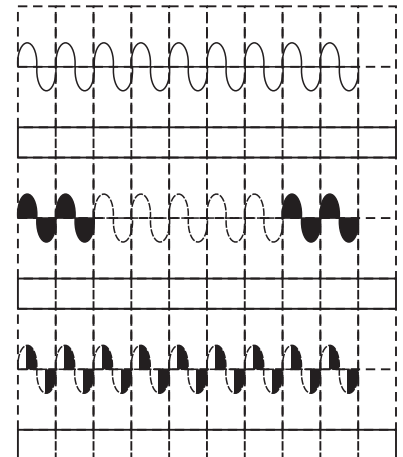
- 1 phase and 3 phase variable speed drives
- 1 phase and 3 phase regenerative drives
- AC motor soft starters
- Furnace control panels
- Transformer primary power controllers
- DC injection braking of AC motors
- Welding equipment current ramp up and down controllers
- Water cooled solid state stacks

ILLUSTRATION OF BURST FIRE VERSUS PHASE CONTROL

Supply Wave Form (50 Hz)

Burst Firing

Phase Control



PHASECON

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REPRESENTATIVE