

**AC POWER CONTROL SPECIFICATIONS  
AND APPLICATION CIRCUITS FOR  
LAC-SAC-HAC-TAC SERIES  
STACKS**

**APC**

X10322

**INTRODUCTION**

To help assess the specifications for the TYPE of stack you require we need to generate a 'type' order code. General selection (e.g. Phasing and Power), type of load, method of control and possible optional feed back systems, all have to be considered and could affect the type of stack needed.

**Single Phase Stacks (Line to Neutral) and 2 Phase (Line to Line) @ typical voltage ratings**

RATED LINE CURRENT (A)	KVA AT 240V	KVA AT 415V
15 A	4	6
25 A	6	10
50 A	12	21
70 A	17	29
100 A	24	42
150 A	35	62
200 A	46	83
250 A	58	104
300A	69	125
400 A	96	166

THIS REFERENCE TABLE REFERS TO APPLICATION CIRCUIT 1.

- 2 WIRE 2 PHASE AS PHASE TO PHASE
- 2 WIRE 1 PHASE AS PHASE TO NEUTRAL

**Three Phase Stacks and Power Formulae @ typical voltage ratings**

RATED LINE CURRENT (A)	KVA AT 415V
25 A	18
50 A	36
75 A	54
100 A	72
150 A	108
200 A	144
250 A	180
300A	215
400 A	287

	<u>STAR LOAD</u>	<u>DELTA LOAD</u>
<b>LEG VOLTAGE</b>	<u>SUPPLY VOLTAGE</u> 1.73	LINE VOLTAGE
<b>LEG AMPERES</b>	LINE AMPERE	<u>LINE AMPERE</u> 1.73
<b>LEG POWER</b>	LEG AMPERES X LEG VOLTS	
<b>Total O/P Power (VA)</b>	SUPPLY VOLTS X LINE AMPERES X 1.73	

**Ordering Code**

STACK TYPE LAC/SAC/HAC/TAC.  
 50 - 600 SUPPLY VOLTAGE.  
 1 TO 9 APPLICATION CIRCUIT (PAGE 2).  
 15 TO 300 LINE CURRENT (RMS).  
 A - B - L PHASE ANGLE - BURST FIRE OR ON/OFF LOGIC TRIGGERING  
 1 TO 10 CONTROL OPTIONS (SEE TABLE)

**Control Options**

- |                      |                          |
|----------------------|--------------------------|
| 1 MAN (EXT. 5K. POT) | 6 LOGIC INPUT            |
| 2 0 TO 1V INTO 5K    | 7 0 TO 10mA INTO 500R    |
| 3 0 TO 5V INTO 5K    | 8 4 TO 20mA INTO 240R    |
| 4 0 TO 10V INTO 5K   | 9 CONTACT CLOSURE        |
| 5 0 TO 20V INTO 5K   | 10 OTHER - PLEASE DETAIL |

e.g. LAC - 240 - 1 - 50 A 3

STACK (TAC) \_\_\_\_\_  
 SUPPLY VOLTAGE (240V) \_\_\_\_\_  
 APPLICATION CCT (1Ø) \_\_\_\_\_  
 LINE CURRENT (A) \_\_\_\_\_  
 TYPE OF FIRING (PHASE ANGLE) \_\_\_\_\_  
 CONTROL OPTIONS (0-5V INTO 5K) \_\_\_\_\_

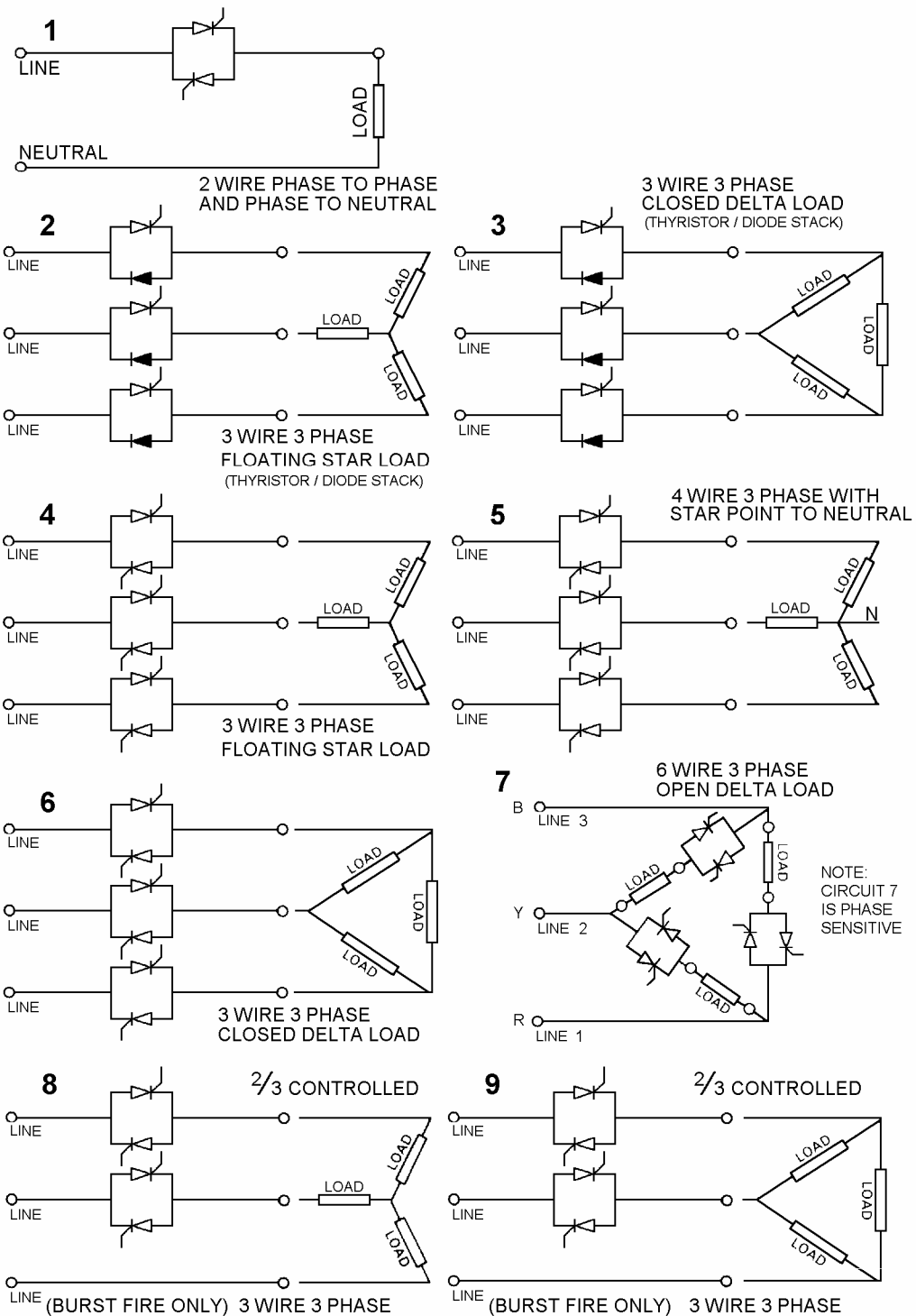
**SAMPLE SELECTED IS: -**

AC CONTROLLER, FOR 240V SINGLE PHASE, INVERSE PARALLEL THYRISTOR STACK, 50A RATED MAXIMUM LINE CURRENT, PHASE ANGLE FIRING, CONTROLLED BY 0-5V INTO 5K.

**Optional extras**

**CT** - CURRENT TRANSFORMER  
**FEEDBACK MODULES CIRCUITS** - ('V' OR 'I' FEEDBACK)  
**SPARES** - HS FUSES, POWER DEVICES, FIRING CIRCUITS.  
**SUPPRESSION** - TYPICALLY FOR RFI, FILTERS SNUBBERS AND VDR'S.  
 PLEASE DO NOT HESITATE IN CONTACTING US FOR ANY FURTHER INFORMATION REGARDING ANY OF THE ABOVE ITEMS

# APPLICATION CIRCUITS



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Date 12/09/03



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