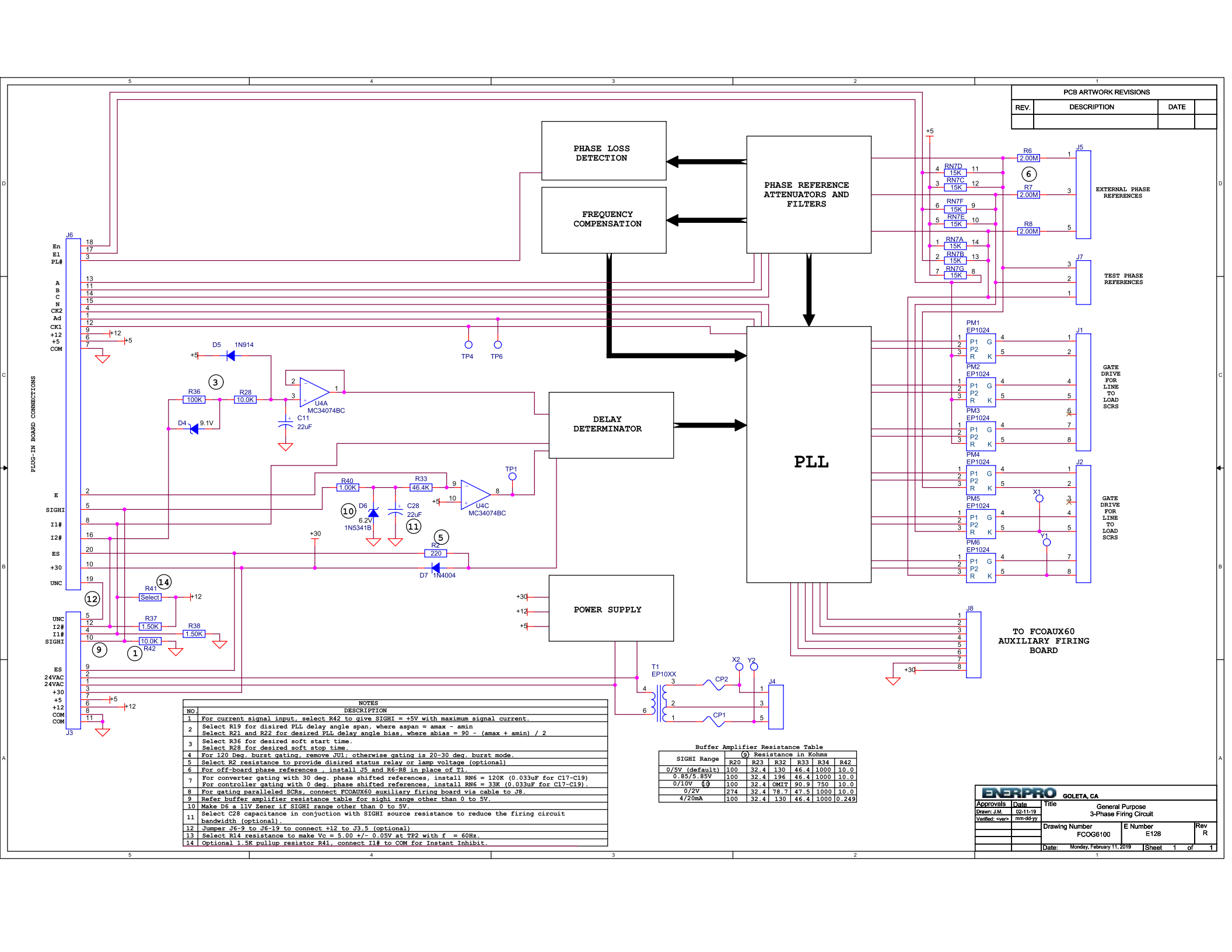

NOTES	
NO	DESCRIPTION
1	For current signal input, select R42 to give SIGHI = +5V with maximum signal current.
2	Select R19 for disired PLL delay angle span, where aspan = amax - amin Select R21 and R22 for desired PLL delay angle bias, where abias = 90 - (amax + amin) / 2
3	Select R36 for desired soft start time. Select R28 for desired soft stop time.
4	For 120 Deg. burst gating, remove JU1; otherwise gating is 20-30 deg. burst mode.
5	Select R2 resistance to provide disired status relay or lamp voltage (optional)
6	For off-board phase references , install J5 and R6-R8 in place of T1.
7	For converter gating with 30 deg. phase shifted references, install RN6 = 120K (0.033uF for C17-C19) For controller gating with 0 deg. phase shifted references, install RN6 = 33K (0.033uF for C17-C19).
8	For gating paralleled SCRs, connect FCOAUX60 auxiliary firing board via cable to J8.
9	Refer buffer amplifier resistance table for sighi range other than 0 to 5V.
10	Make D6 a 11V Zener if SIGHI range other than 0 to 5V.
11	Select C28 capacitance in conjuction with SIGHI source resistance to reduce the firing circuit bandwidth (optional).
12	Jumper J6-9 to J6-19 to connect +12 to J3.5 (optional)
13	Select R14 resistance to make Vc = 5.00 +/- 0.05V at TP2 with f = 60Hz.
14	Optional 1.5K pullup resistor R41, connect I1# to COM for Instant Inhibit.

Buffer Amplifier Resistance Table

SIGHI Range	⑨ Resistance in Kohms					
	R20	R23	R32	R33	R34	R42
0/5V (default)	100	32.4	130	46.4	1000	10.0
0.85/5.85V	100	32.4	196	46.4	1000	10.0
0/10V ⑩	100	32.4	OMIT	90.9	750	10.0
0/2V	274	32.4	78.7	47.5	1000	10.0
4/20mA	100	32.4	130	46.4	1000	0.249

ENERPRO GOLETA, CA

Approvals	Date
Drawn: J.M.	02-11-19
Verified: <ver>	mm-dd-yy

Title: General Purpose 3-Phase Firing Circuit

Drawing Number: FCOG6100 | E Number: E128 | Rev: R

Date: Monday, February 11, 2019 | Sheet 1 of 1