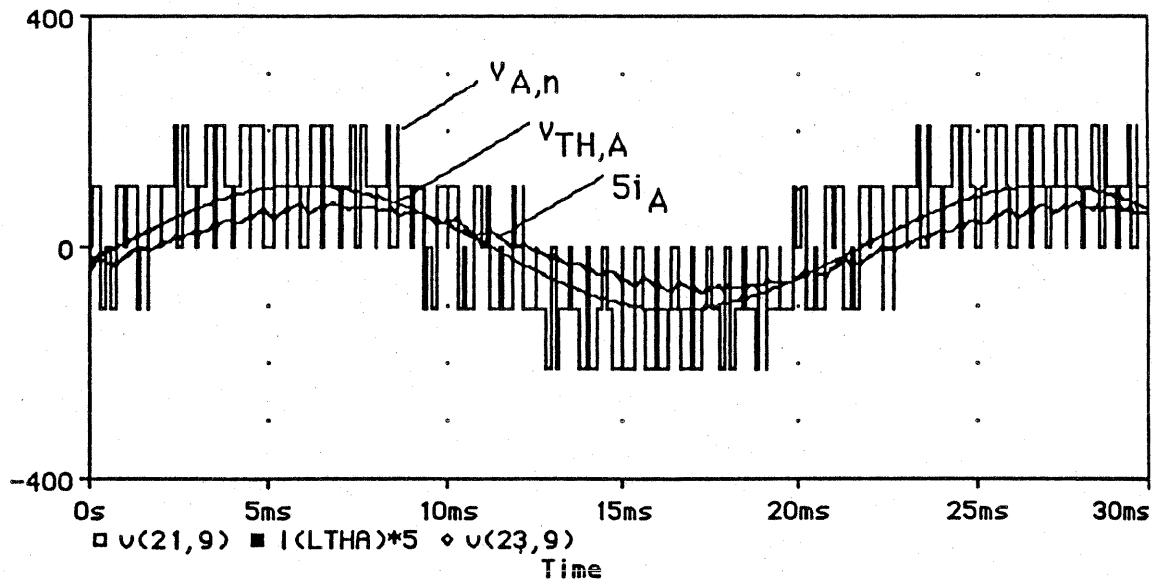


Problem 8-13



```

PWMINV3.CIR
* 3-Phase PWM Inverter
* Power Electronics: Simulation, Analysis & Education.....by N. Mohan.
.OPTIONS abstol=0.001A, chgtol=0.001C, itl5=0, reltol=0.01, vntol=0.005
.LIB PWR_ELEC.LIB
.PARAM RISE=0.499ms, FALL=0.499ms, PW=0.001ms, PERIOD=1ms
*
VCNTLA 60 0 SIN(0 0.95V 47.619 0 0 0)
XLOGICA 60 0 61 62 PWM_TRI
*
VCNTLB 70 0 SIN(0 0.95V 47.619 0 0 -120)
XLOGICB 70 0 71 72 PWM_TRI
*
VCNTLC 80 0 SIN(0 0.95V 47.619 0 0 -240)
XLOGIC 80 0 81 82 PWM_TRI
*
SWA1 1 21 61 0 AC_SWITCH
XDA1 21 1 SW_DIODE_WITH_SNUB
*
SWA2 21 0 62 0 AC_SWITCH
XDA2 0 21 SW_DIODE_WITH_SNUB
*
SWB1 1 31 71 0 AC_SWITCH
XDB1 31 1 SW_DIODE_WITH_SNUB
*
SWB2 31 0 72 0 AC_SWITCH
XDB2 0 31 SW_DIODE_WITH_SNUB
*
SWC1 1 41 81 0 AC_SWITCH
XDC1 41 1 SW_DIODE_WITH_SNUB
*
SWC2 41 0 82 0 AC_SWITCH
XDC2 0 41 SW_DIODE_WITH_SNUB
*
RTHA 21 22 2.0
RTHB 31 32 2.0
RTHC 41 42 2.0
*
LTHA 22 23 10.0mH IC=-7.07A
LTHB 32 33 10.0mH IC=-7.07A
LTHC 42 43 10.0mH IC=14.14A
*
VTHA 23 9 SIN(0 105.73V 47.619 0 0 -12.36)
VTHB 33 9 SIN(0 105.73V 47.619 0 0 -132.36)
VTHC 43 9 SIN(0 105.73V 47.619 0 0 -252.36)
VD 1 0 313.97V
*
.MODEL AC_SWITCH VSWITCH( RON=0.01 )
.TRAN 10us 30ms 0 10us uic
.PROBE
.END

```