iNVOEE VC610 SERIES INVERTERS DEDICATED FOR MACHINE TOOLS
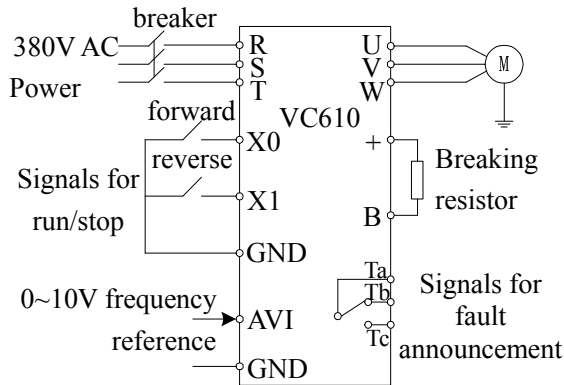## ——— Quick Setup Guide v1.03

☞ **The wiring diagram**

IMPORTANT NOTICE

For giving full play to the characteristics of the inverter，after the wiring，the parameter of the motor must be set, and self-studying must be performed, otherwise, the inverter can not work properly!

☞ **Afer the installation of system，and all parameters is reset to their initial value**（need not for new inverter，[F07.05]=4 can be used for resetting all parameters to initial values）**, the following 3 steps can conform the correct function of the system:**

Step 1: input parameters of the rating plate: (for motors without rating plate, initial values for corresponding ones can be used)

Input parameters in group F02 according to rating plate of the motor: rating frequency [F02.01], rating voltage [F02.02], rating current [F02.03] and rating speed [F02.05].

⚠ **Notice: please input the parameters according to the motor rating plate accurately. Accurate parameter is beneficial for the performance upgrading. Otherwise, inaccurate ones can lead to losing of torque, even the fault working. Setting the rating current [F02.03] can not enhance the output torque. No load current of motor [F02.04] can be set by inverter automatically and can be left unchanged.**

Step2: parameter self-studying of motor

1）Setting [F02.06]=1，let the inverter enter into state for self-studying，and "P.tESt" is displayed.
2）After running, the inverter begin to study the parameter of the motor automatically. If inverter study the parameter successfully，"SUCCE" is displayed on the panel. Otherwise, "FAILd" is displayed and [F02.06] will hold "1", and the self-studying process will repeat again following next running.

⚠ **Notice：By self-studying, inverter can test and save parameters apart from those on rating plate. With these paremeters, torque and performance characteristics can be enhanced. Although the self-study can be performed without disassembling the belt of machine tool, better result can be achieved by setting the gear to the lowest or even neutral position. Rating plate parameter inputting and Self-studying need redo after changing the motor.**
The motor shaft keep still about 6 seconds after the begin of self-studying. Then the shaft will speed up, and speed down after study automatically. Do not touch the machine during the whole process for avoiding unexpected injury.

Step3: calibrating the shaft speed of the machine tool

In the control system of machine tool, set the designed max speed parameter (Nmax). Then set a speed and start the shaft, record the output frequency of inverter (Fo) and the actual speed of shaft (Nz). The output frequency of inverter can be observed on the panel in monitor state (by press ESC key can shift to monitor state, and by press ►► can find "F.oUt"), and the actual speed (Nz) of machine tool can be watched on the control system panel. With these information, [F00.00] and [F01.18] can be set by following equation:

$$[F00.00]= [F01.18]=(Nmax×Fo)/Nz$$

☞ **Setting [F01.11] and [F01.12] can adjust the time of speed acceleration or reduction. The following breaking resistor is recommended:**

Motor power	3.0kW and lower	4.0~7.5kW	9.0~18.5kW
Recommended resistor	100Ω/600W	60Ω/1000W	40Ω/1500W