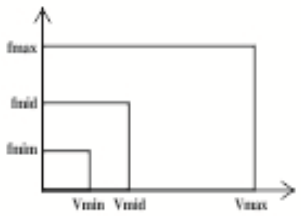
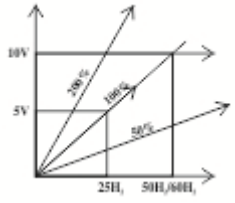
TEXTRO ELECTRONICS

USER MANUEL – AC DRIVE CONTROLLER

PRG NO	DESCRIPTION	RANGE	FACTORY SETTING
P-00	Software Version		
P-01	Acceleration time	0.4 to 99.9 sec	5.0 sec
P-02	Deceleration time	0.4 to 99.9 sec	5.0 sec
P-03	**START/STOP FUNCTION** 0.Digital operator (keypad) 1.Digital operator (keypad) 2.Ctrl circuit terminal (2 wire sequence) 3.Ctrl circuit terminal (3 wire sequence) 4.Ctrl circuit terminal (2 wire sequence) 5.Ctrl circuit terminal (3 wire sequence) 6.Ctrl circuit terminal (2 wire sequence) 7.Ctrl circuit terminal (3 wire sequence)	**SPEED CAN BE VARIED BY** 0.Digital operator (up and down key) 1.Ctrl circuit terminal (pot) 2.Ctrl circuit terminal (pot) 3.Ctrl circuit terminal (pot) 4.Ctrl circuit terminal (mf1 and mf2) 5.Ctrl circuit terminal (mf1 and mf2) 6.Digital operator (up and down key) 7.Digital operator (up and down key)	**0 to 7**
P-04	**Display selection monitoring** 0-Output Frequency 1-Output Voltage 2-Output Current 3-DC Bus voltage 4-Reference Frequency 5-RPM 6-Temperature	0 to 6	0
P-05	**Motor Direction** (setting enable only digital operator, keypad mode) 0-Forward 1-Reverse	0 to 1	0
P-06	Motor Rated Current	Dep on HP	(Amps)
P-07	Current Trip Time	0 to 3.0 sec	0.1 sec
P-08	Minimum output frequency	0 to 50 Hz	1.5 Hz
P-09	Maximum output frequency	0 t0 60 Hz	50 Hz
P-10	Jog frequency reference	0 to 50 Hz	8 Hz

P-11	Jog acceleration time	0.5 to 99.9 sec	5.0 sec
P-12	Jog deceleration time	0.5 to 99.9 sec	5.0 sec
P-13	Mf1 frequency reference	0 to 50.0 Hz	10 Hz
P-14	Mf1 acceleration time	0.5 to 99.9 sec	5.0 sec
P-15	Mf1 deceleration time	0.5 to 99.9 sec	5.0 sec
P-16	Mf2 frequency reference	0 to 50 Hz	15 Hz
P-17	Mf2 acceleration time	0.5 to 99.9 sec	5.0 sec
P-18	Mf2 deceleration time	0.5 to 99.9 sec	5.0 sec
P-19	Frequency minimum	0 to 10 Hz	1.5 Hz
P-20	Voltage minimum	0 to 100 V	18 V
P-21	Mid frequency	0 to 25 Hz	3.0 Hz
P-22	Mid voltage	0 to 250 V	30 V
P-23	Frequency minimum	0 to 60 Hz	50 Hz
P-24	Voltage maximum 	0 to 200/400V	220/415V
P-25	Analog voltage gain 	10 to 200	100%

P-26	Factory Reset to all Parameters	0 to 10	8(reset)
P-27	Motor resistance dep on motor HP read only	0.3 to 48	Upon KW
P-28	External output relay setting 0-Error command to switch ON the relay 1-Relay switch ON selectable frequency 2-Relay ON/OFF with respect to drive Enable or disable	0 to 2	0
P-29	Select the frequency to switch ON the relay	0 to 50 Hz	50.0 Hz
P-30	Set the DC injection break Enable or Disable 0-Internal Break Disable 1-Internal Break Enable	0 to 1	0
P-31	Set the DC injection Breaking Current	0 to (P-06)	1 A
P-32	Set the DC injection Breaking Time at stop	0 to 10 sec	.5 sec
P-33	Motor HP	0.5 to 15 HP	Upon Drive rate
P-34	Torque Boost	0 to 15	0
P-35	Motor poles	2 to 10	4
P-36	Relay ON delay time during Enable		1.0
P-37	Relay OFF delay time after Disable		1.0
P-38	Fan Error 0-Enable 1-Disable	0-1	0
P-39	Deceleration Method 0-Ramp to Stop 1-Coast to Stop	0-1	0
P-40	DC Breaking Frequency		
P-41	Acceleration Boost	0 -100%	0
P-42	Control Mode 0-V/F Mode 1-Solar Mode (Only for Solar Drive)	0-1	1

S.NO	ERROR CODE	STATUS	DOUBLE SHOOT AND CORRECTION
1	ER-01	Under Voltage	**DC bus voltage is low** 1.For single phase ,it may be less than 200V DC 2.For three phase ,it may be less than 440V DC 3.Check the input AC voltage 4.It should be >170V AC for 1 phase 5.It should be >360V AC for 3 phase 6.Check loose connection in input terminals
2	ER-02	Over voltage	**DC bus voltage is high** 1.For single phase ,it may be greater than 400V DC 2.For three phase , it may be greater than 640V DC 3.Check the input AC voltage 4.It should be <270V AC for 1 phase 5.It should be <560V AC for 3 phase 6.Inverter may have to low acc/dec time, adjust Acc/dec to enough time
3	ER-03	Peak Current	**Instantaneous current is higher than rated Inverter current** 1.inverter may have too low acc/dec time ,adjust Acc/dec to enough time 2.Check motor terminals short circuit 3.Motor capacity may be higher than drive capacity 4.Motor load may be higher than inverter capacity 5.check any loose connections 6.Avoid contractor in output side ,if used ,dual Starter & MCB etc
4	ER-04	Over load	**Motor current is higher than rated current** 1.Motor load may be higher than inverter capacity 2.If it happens frequently, adjust current sense Time 3.If necessary , increase current set value 4.Reduce the output load 5.Check V-F pattern, improper pattern will let over Current

5	ER-05	Fan not connected	**Cooling fan may be fault** 1.Check the cooling fan is running 2.If cooling fan failing ,replace 12V DC fan with Proper direction
6	ER-06	Motor lead short circuited	1.Check the motor terminal short circuit 2.Motor register may be to low check the star (or) Delta connection 3.Motor capacity may be higher than drive capacity
7	ER-07	Over Break Current	1.During breaking time if break current exceed the Motor current 2.If it happens ,adjust the breaking current and time 3.If necessary replace the external break register
8.	ER-08	Heat sink over temperature	**Over temperature in IGBT module** 1.Check the cooling fan is running 2.Check output load 3.Check any friction in the load side
9	ER-09	Output terminal short circuit	1.check the motor connection short 2.Peak current 3.contact the Textro electronics

1. **V-F pattern**

P-19 to P-24 used to setting the voltage to frequency pattern for different load conditions. When V-F Pattern is changed , user has to switch OFF And ON. So that only the changed parameters comes to Effect.

2 .**Display monitor selection**

User can monitor Hz,AC voltage,AC current,DC bus voltage and RPM

P-04, 0 for Hz

1. For AC voltage
2. For AC current
3. For DC bus voltage
4. For Reference Hz
5. For RPM

3. Analog voltage gain

Output voltage=.2xHzx(analog voltage gain/100); if Hz=50

The gain 100 will result 0 to 10 voltage for full scale frequency. This voltage can be used to Synchronize the another drive at required Hz.

4. **Current sense time**

Some case motor may have variable load conditions, so frequent tripping may happen. In such case The current sensing time can be changed from .1 sec to required time up to 3.0 seconds.

5 .**Direction control**

1. If start /stop is from keypad, then forward /reverse is taken from parameter P-05.

2. If connector is selected for start stop option ,then the start and stop function like forward/stop or Reverse /stop ,when common point is connected to forward and reverse connectors respectively.

6. Jog multifunction 1 and multifunction 2

Jog frequency multifunction 1 and multifunction 2 frequency can be set in P-10,P-13 and P-16 Respectively and there corresponding acceleration,deceleration time also settable.there functions can Can be connecting common terminal to corresponding terminals.

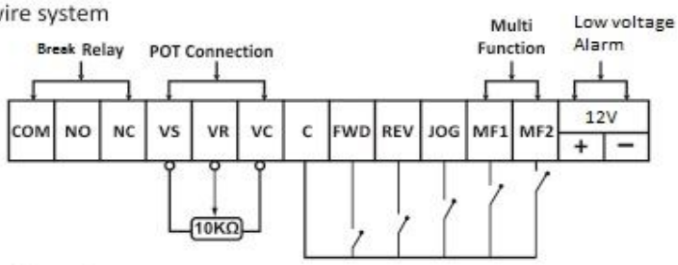
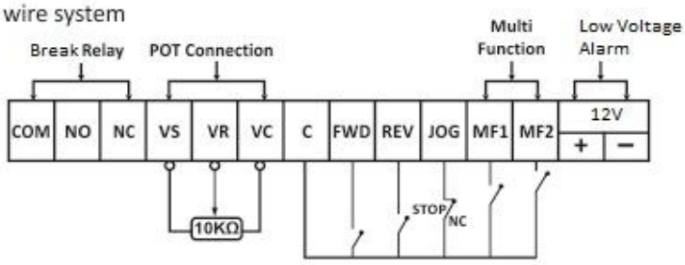
Special function : Program P-03 = 4 for 2 wire system

Program P-03 = 5 for 3 wire system

The function of the above program multifunction mf1,mf2 terminal used for speed inc/dec (ferather touch) type

Control Terminal

Two wire system



Three wire system