

Stelron Components Inc.
Simplified Wiring
Recommended Set Up
For Mitsubishi FR-E700 Series Inverter

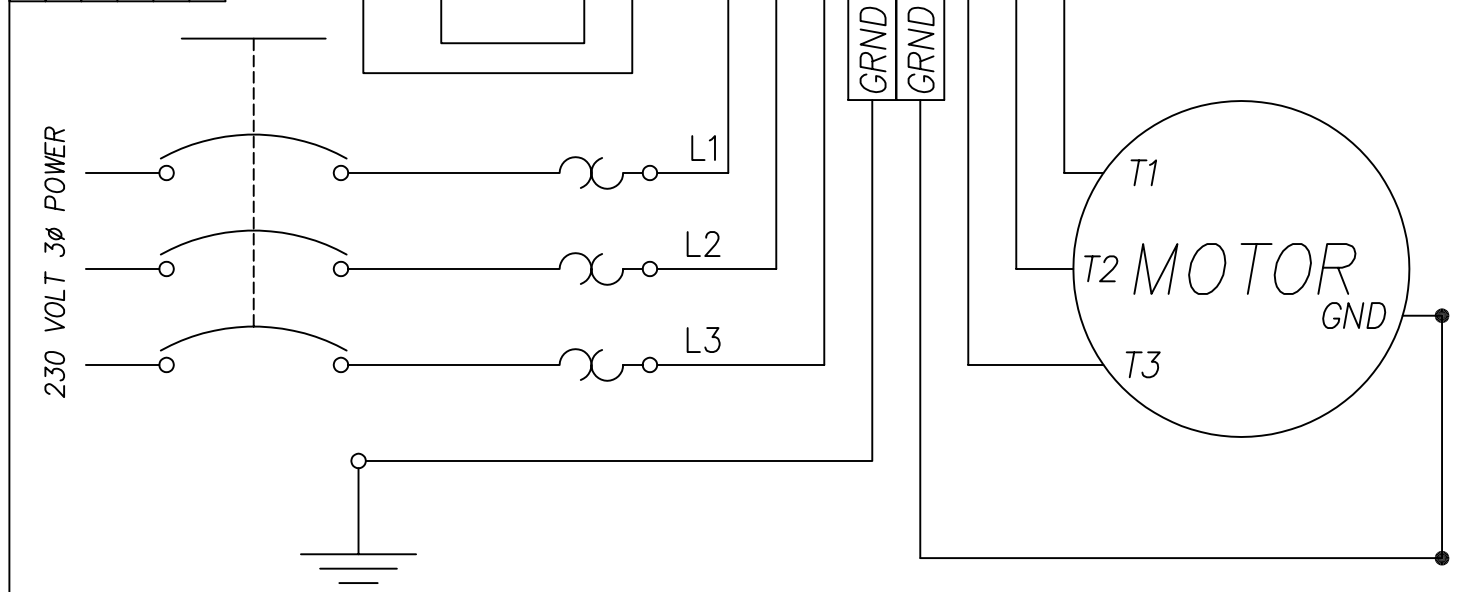
PAGE 1	230V 3 Phase AC Wiring
PAGE 2	460V 3 Phase AC Wiring
PAGE 3	Programming Setup
PAGE 4	Programming Setup with 2nd Accel-Decel

REFER TO MITSUBISHI FR-E700 INSTRUCTION MANUAL FOR COMPLETE WIRING INFORMATION
(REFER TO PAGE 21 FOR TERMINAL BLOCK LAYOUT)

STELTRON

SCALE	FULL	DRIVE IN	DFS
DATE	5/11/04	REVISED	
TITLE	BASIC FR-E720 WITH BRAKE RESISTOR		
DRAWING NO.	FRE720-BRAKE		
	PLOT C 1=1		

PART NUMBER	C.BRKR	FUSE
FR-E720-.4K-NA	5 AMP	12 AMP
FR-E720-.75K-NA	10 AMP	20 AMP
FR-E720-1.5K-NA	15 AMP	35 AMP
FR-E720-2.2K-NA	20 AMP	45 AMP
FR-E720-3.7K-NA	30 AMP	70 AMP



SELECT SPEED
RUN OR JOG

RUN SPEED
JOG SPEED

MITSUBISHI
SERIES FR-E720
AC DRIVE

HIGH-DUTY BRAKE RESISTOR

(FR-ABR)

JUMPER

CLOSE TO RUN
OPEN TO STOP

SELECT ROTATION
FORWARD OR REVERSE

T1
T2 MOTOR
T3
GND

REFER TO MITSUBISHI FR-E740 INSTRUCTION MANUAL FOR COMPLETE WIRING INFORMATION
(REFER TO PAGE 21 FOR TERMINAL BLOCK LAYOUT)

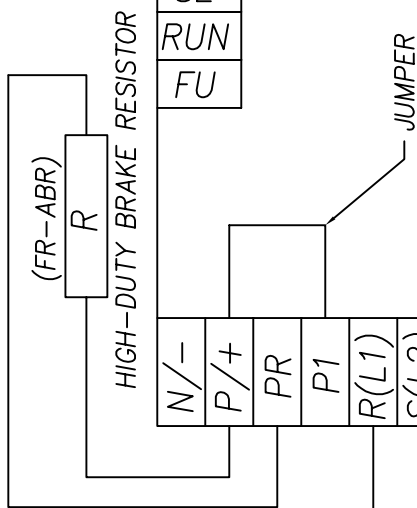
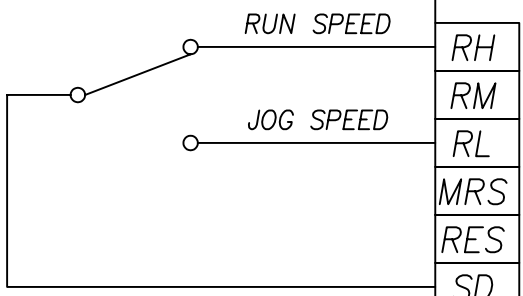
STELTRON

SCALE	FULL	DRIVE IN	DFS
DATE	5/11/04	REVISED	
TITLE	PLOT C 1=1		
DRIVING INCL.	BASIC FR-E740 WITH BRAKE RESISTOR		
DRIVING INCL.	FR-E740-BRAKE		

MITSUBISHI
SERIES FR-E740
AC DRIVE

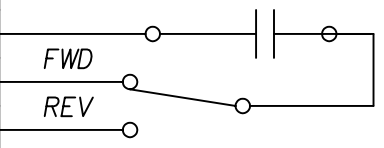
PART NUMBER	C.BRKR	FUSE
FR-E740-.4K-NA	5 AMP	5 AMP
FR-E740-.75K-NA	5 AMP	8 AMP
FR-E740-1.5K-NA	10 AMP	10 AMP
FR-E740-2.2K-NA	15 AMP	20 AMP
FR-E740-3.7K-NA	20 AMP	35 AMP

SELECT SPEED
RUN OR JOG



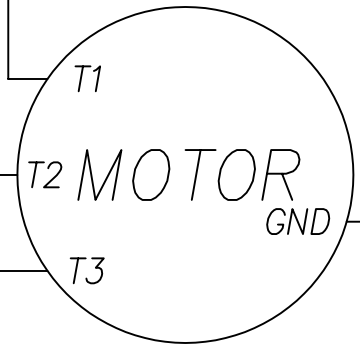
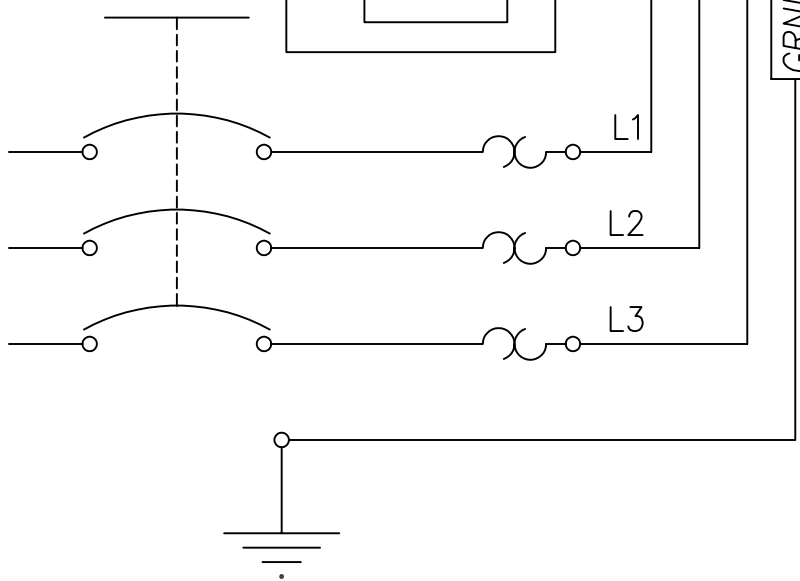
- A
- B
- C
- 10
- 2
- 5
- 4
- SD
- STF
- STR
- SD

CLOSE TO RUN
OPEN TO STOP



SELECT ROTATION
FORWARD OR REVERSE

460 VOLT 3Ø POWER



Stelron Recommended Simplified Setup Mitsubishi Inverter Drives

The following is a list of the parameters that we recommend setting on the Mitsubishi inverters. They can be verified and modified using the programming panel. We recommend using the high, medium and low speed contacts for speed control. The setting for normal run speed should be the high-speed contact. The setting for the low-speed contact should be a jog speed (10 HZ). The setting for accel/decel times is a starting point and can be increased or decreased but should not be less than (.2) seconds. Refer to Mitsubishi inverter control manual supplied with the control for wiring. Refer to Mitsubishi inverter control manual for other programming and control options.

Parameter number	Setting	Units	Description
79	0	None	Mode
21	1	None	Time Increment Accel.
1	60	Hz	Maximum Frequency
2	0	Hz	Minimum Frequency
4	Hz normal running	Hz	High Speed
5	Hz for ½ run speed	Hz	Medium Speed
6	10	Hz	Low Speed
7	.4	Seconds	Acceleration Time
8	.4	Seconds	Deceleration Time
9	Motor nameplate rating	Amps	Motor Rated Amps
71	3	None	Std Motor Type
80	Motor nameplate rating	Kilowatts	Motor Rated KW
81	Number of motor poles	Number	6=1200, 4=1800, rpm
83	Motor nameplate rating	Volts	Motor Rated Voltage
96	1	None	Auto Tune
30	1	None	Regenerative select
70	10	%	Brake duty

After setting the parameters in the above table refer to the Mitsubishi FR-E700 manual pages 114-118 to execute the auto tuning procedure. Parameter number 96 is set to 3 by the auto tuning procedure. Parameter number 96 should be changed back to 0 for normal running. The auto tune parameters will be retained by the FR-E700.

Stelron Recommended Simplified Setup Mitsubishi Inverter Drives

The following is a list of the parameters that we recommend setting on the Mitsubishi inverters. They can be verified and modified using the programming panel. We recommend using the high, medium and low speed contacts for speed control. The setting for normal run speed should be the high-speed contact. The setting for the low-speed contact should be a jog speed (10 HZ). The setting for accel/decel times is a starting point and can be increased or decreased but should not be less than (.2) seconds. Refer to Mitsubishi inverter control manual supplied with the control for wiring. Refer to Mitsubishi inverter control manual for other programming and control options.

Parameter number	Setting	Units	Description
79	0	None	Mode
21	1	None	Time Increment Accel.
1	60	Hz	Maximum Frequency
2	0	Hz	Minimum Frequency
4	Hz normal running	Hz	High Speed
5	Hz for ½ run speed	Hz	Medium Speed
6	10	Hz	Low Speed
7	.4	Seconds	Acceleration Time
8	.4	Seconds	Deceleration Time
9	Motor nameplate rating	Amps	Motor Rated Amps
71	3	None	Std Motor Type
80	Motor nameplate rating	Kilowatts	Motor Rated KW
81	Number of motor poles	Number	6=1200, 4=1800, rpm
83	Motor nameplate rating	Volts	Motor Rated Voltage
96	1	None	Auto Tune
30	1	None	Regenerative select
70	10	%	Brake duty
*44	1	Seconds	2 nd acceleration time
*45	1	Seconds	2 nd deceleration time
*183	3	Reassign contact	Reassigns MRS to RT

* These parameters are used for assigning and using a second acceleration /deceleration rates. To select the second acceleration/deceleration rates short “MRS” contact to “SD” (“MRS” will be reassigned to “RT”).

After setting the parameters in the above table refer to the Mitsubishi FR-E700 manual pages 114-118 to execute the auto tuning procedure. Parameter number 96 is set to 3 by the auto tuning procedure. Parameter number 96 should be changed back to 0 for normal running. The auto tune parameters will be retained by the FR-E700.