

# TOSHIBA CONNECTION DIAGRAMS

## A. Wye-connected Dual Voltage (low/high voltage)

(9 Leads)

POLE	ODP	TEFC & EXP
2P	1 1/2 HP-7 1/2 HP	1 1/2 HP-5HP
4P	1HP-5HP	1HP-5HP
6P	3/4 HP-5HP	3/4 HP-5HP
8P	3/4 HP-5HP	3/4 HP-5HP

### A-1 Across the Line Starting

LOW VOLTAGE	HIGH VOLTAGE
T4 - T5 - T6	T4 T5 T6
T7 T8 T9	T7 T8 T9
T1 T2 T3	T1 T2 T3
LINE	LINE

## B. Delta-connected Dual Voltage

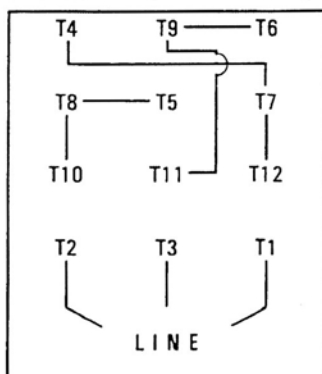
(12 Leads)

POLE	ODP	TEFC & EXP
2 P	10HP-250HP	7 1/2 HP-150HP
4 P	7 1/2 HP-200HP	7 1/2 HP-150HP
6 P	7 1/2 HP-125HP	7 1/2 HP-125HP
8 P	7 1/2 HP-100HP	7 1/2 HP-100HP

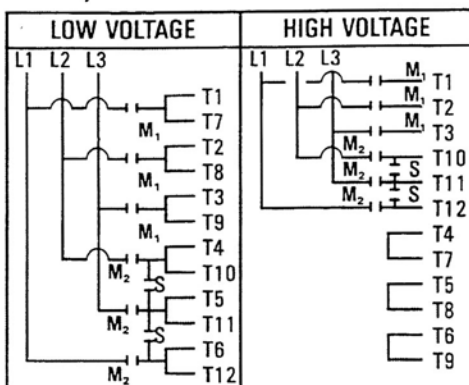
### B-1 Across the Line Starting

LOW VOLTAGE	HIGH VOLTAGE
T4 T9 T6	T4 T9 - T6
T8 T5 T7	T8 - T5 T7
T10 T11 T12	T10 T11 T12
T2 T3 T1	T2 T3 T1
LINE	LINE

### B-2 575 Volt Connection (see Note 1)

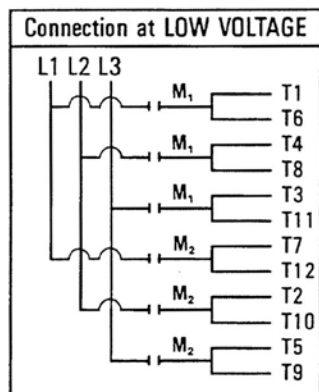


### B-3 Wye Start Delta Run



	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close
S	Close	Open

## B-4 Part Winding Starting (see Note 2)



	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close

M<sub>2</sub> should be energized within 2 seconds after M<sub>1</sub> is energized.

## NOTES:

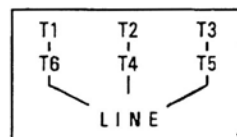
- 230/460 Volt Motors can be used on 575 Volt network in accordance with B-2 connection.
- 4 pole and 6 pole motors are satisfactory for Part Winding starting at low voltage.

## C. Delta-connected Single Voltage

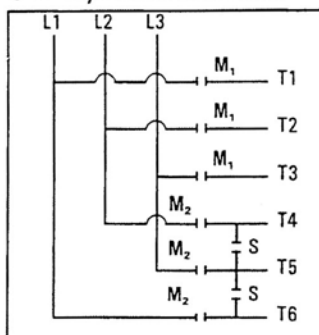
(6 Leads)

POLE	ODP	TEFC & EXP
2 P	300HP-350HP	200HP-300HP
8 P	125HP-250HP	125HP-250HP

### C-1 Across the Line Starting



### C-2 Wye Start Delta Run



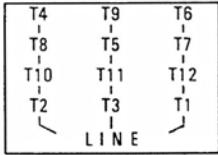
	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close
S	Close	Open

# TOSHIBA CONNECTION DIAGRAMS (CONT.)

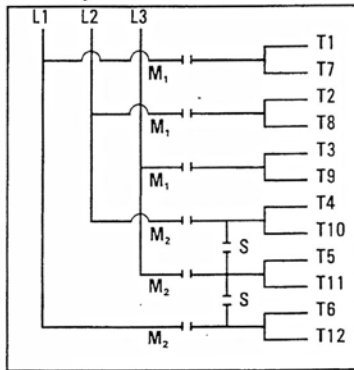
## D. Delta-connected Single Voltage (12 Leads)

POLE	ODP	TEFC & EXP
2 P	400HP-600HP	—
4 P	250HP-400HP	200HP-400HP
6 P	150HP-300HP	150HP-300HP

### D-1 Across the Line Starting

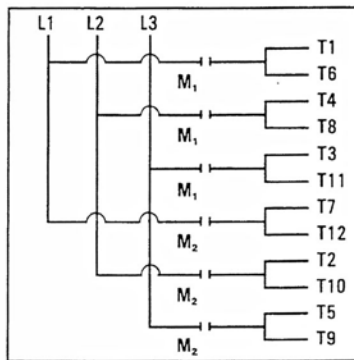


### D-2 Wye Start Delta Run



	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close
S	Close	Open

### D-3 Part Winding Starting (4 pole and 6 pole motors)



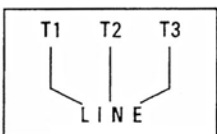
	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close

M<sub>2</sub> should be energized within 2 seconds after M<sub>1</sub> is energized.

## E. Wye-connected 575 Volt Motors (3 Leads)

POLE	ODP	TEFC & EXP
2 P	1½HP-7½HP	1½HP-5HP
4 P	1HP-5HP	1HP-5HP
6 P	¾HP-5HP	¾HP-5HP
8 P	¾HP-5HP	¾HP-5HP

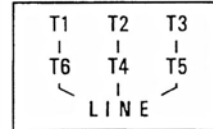
### E-1 Across the Line Starting



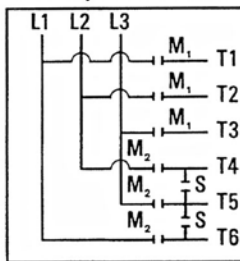
## F. Delta-connected 575 Volt Motors (6 Leads)

POLE	ODP	TEFC & EXP
2 P	10HP-500HP	7½HP-300HP
4 P	7½HP-400HP	7½HP-400HP
6 P	7½HP-300HP	7½HP-300HP
8 P	7½HP-250HP	7½HP-250HP

### F-1 Across the Line Starting



### F-2 Wye Start Delta Run

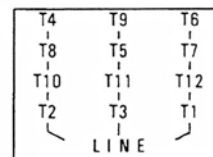


	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close
S	Close	Open

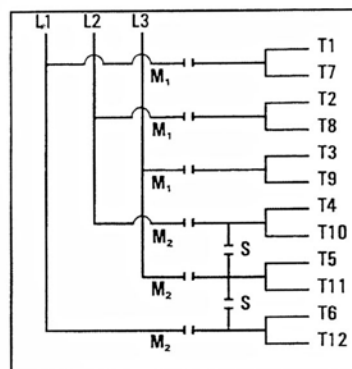
## G. Delta-connected 575 Volt Motors (12 Leads)

POLE	ODP
2 P	600HP

### G-1 Across the Line Starting



### G-2 Wye Start Delta Run



	Start	Run
M <sub>1</sub>	Close	Close
M <sub>2</sub>	Open	Close
S	Close	Open