

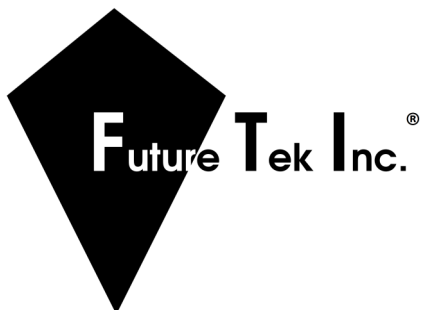
“Real-World” Trainers For “Real-World” Jobs

# MCT300 Motor Control Trainer

The MCT300 Motor Control Trainer is unique in that it provides real interactive training which includes physically connecting industry parts and electrical devices. There are no patch cords or plug-in terminals which do not always provide clear instruction and accurate demonstration of the lab experiences. This trainer uses real industry components which allow the student to experience what might actually be encountered in the field. Developing a good understanding of electrical systems and components is vital to every student as they develop their skills. The MCT300 gives them the resources and insight to develop new skills or sharpen their existing knowledge.

## TRAINER COMPETENCIES

- *Basic Motor Controls*
- *Advanced Motor Controls*
- *AC Drive Operation*
- *Dynamic Braking*
- *Motion Control*
- *Photoelectric Control*



## An Overview

Model MCT300 provides students with the opportunity to practice with multiple motors, starters, pushbuttons, timers, and simulate a number of industry motor control scenarios. An AC drive is also featured for students to develop motor speed control and motor braking skills. This model is designed to allow motor control students to experiment with small horsepower manual motor starters, single magnetic motor starters, multiple motor starter installation, forward/reversing motors, multiple control station wiring, and time delay controls. The trainer also provides training with limit and proximity switching as well as polarized reflective photoelectric controls. This unit features (2) three phase motors, a control cabinet that contains starters, timers, and indicator lights, and an individual control station cabinet which contains control pushbuttons, switches, and other components. This trainer simulates a situation in which the starters and timers are located at one location while the pushbuttons that control the motors are located at a different location. The greatest advantage to this trainer is its versatility in offering a wide variety of learning experiences. The instructor or student can develop many different motor control scenarios that meet the demands of needed training experiments.

The student guide includes a set of 15 project schematics that guide the student through several different motor control scenarios. Each of the projects require between 1 1/2 to 2 hours to complete for a total of over 30 hours of hands-on training. However, this trainer is not limited to just the 15 projects provided in the student guide, Model MCT300 provides unlimited flexibility in hands-on lab assignments and offers the student or instructor the ability to customize many additional lab experiences to meet your training demands.



Front View



Back View



Control Panel Interior

## SPECIFICATIONS

**Height:** 68"  
**Width (Base):** 32"  
**Length:** 48"



AC Drive

### Components Include:

Qty	Component	Qty	Component
2	1/3 HP, 208-220/440 Volt Three Phase Motor	2	Forward/Reverse Pushbuttons, Yellow, NO/NC
1	115V-230V 1HP AC Drive	1	Two Position Selector Switch, NO
1	80W Braking Resistor for AC Drive	2	LED, Indicator Light, Red
1	2 Unit Stack Light with Base and Extension	2	LED, Indicator Light, Green
1	AC Proximity Switch	2	LED, Indicator Light, Yellow
1	Reflective Photo Sensor with Reflector	1	NEMA1, Electrical Enclosure, 12x20x8
1	120V Buzzer, Panel Mount	1	NEMA1, Electrical Enclosure, 12x14x6
1	150VA, Control Transformer	1	NEMA1, Electrical Enclosure, 6x6x4
4	IEC Three Phase Motor Starters	1	1 Pole Safety Fuse Holder, DIN Mount
4	IEC Auxiliary Blocks for Starters	1	3 Pole Safety Fuse Holder, DIN Mount
3	IEC Overloads for Starters	1	25' Fish Tape
1	Rev Kit Line Side	1	MCT300 Student Manual
1	Rev Kit Load Side	<b><i>Power supply components attached to trainer are listed below and are assembled before shipment</i></b>	
2	Limit Switches	10'	12/5 SJ Cord
2	Contact Relays	1	NEMA, 20 AMP, 250 V, 4 –Wire Trist Lock Plug
2	11 Pin Contact Relay Bases	3	15 AMP, Fuses for Safety Switches, NON
1	Multifunctional Time Delay Relay	1	Three Phase, 240V Safety Switch, 30A
1	11 Pin Time Delay Relay Base	1	Plug Cover Lockout Device
2	Stop Pushbuttons, Red, NC	1	Steel Body Safety Lockout Padlock
2	Start Pushbuttons, Green, NO	1	Safety Lockout Tag
1	Emergency Stop Pushbutton, NC		



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