




**ELECTRICAL MACHINE TRAINER**

Model Number : GOTT-EMT-1543

**DESCRIPTION**

The Standard Lab has been designed for experiments and testing in Electrical Machines in education. The machines are basically industrial models, self protect kind, with coupling half joint, especially equipped to be suitable for students training in laboratory. For this purpose the winding ends are connected to 4 mm safety socket in a metal housing on top of which a clear synoptic diagram is engraved as an educational terminal board. The student can easily understand operation and winding connection. Also most of the accessories and instruments designed in Panel System A4 is high in standard. The machines power is approximately a maximum of 400W, as the supply requirement for the system operation requires 230/415V, 60Hz.

**PRODUCT MODULES**

DC COMPOUND MOTOR	CODE 159-001	SINGLE PHASE SYNCHRONOUS GENERATOR	CODE 159-006	PERMANENT SPLIT CAPACITOR MOTOR	CODE 159-003	THREE PHASE INDUCTION MOTOR	CODE 159-004
Power: 240W Voltage: 230VDC Current: 1A Speed: 1500rpm Excitation Voltage: 230VDC Excitation Current: 0.5A		Power: 370W Voltage: 230VAC Current: 1A Speed: 1500rpm Excitation Voltage: 12VAC Excitation Current: 1.4A		Power : 250W Voltage: 230VAC Current: 1A Frequency: 50HZ Speed: 1400rpm		Power: 370W Voltage: 380/660VAC Current: 0.64/1.12A Speed: 1420/1720 RPM Connection: Δ & Y	
							
THREE PHASE SYNCHRONOUS GENERATOR	CODE 159-005	DC SEPARATELY EXCITED MOTOR	CODE 159-002	ELECTRICAL METER	CODE 588-038	DC MEASUREMENT UNIT	CODE 159-008
Power: 370W Voltage: 415VAC Current: 1.0A Excitation Voltage: 12VDC Excitation Current: 1.4A Speed: 1500rpm Connection: Y		Power: 240W Voltage: 230VDC Current: 1.0A Excitation Voltage: 230VDC Excitation Current: 1.0A Speed: 1500rpm		Voltmeter range: 0...500VAC Ammeter range: 0...5A Input: AC 230V, 50Hz 1-Phase		Voltmeter range: 0...500VDC Ammeter range: 0...5A Output: 230VDC Input: AC 230V, 50Hz 1-Phase	
							
BULBS	CODE 159-013	THERMAL OVERLOAD RELAY	CODE 191-003	LIMIT SWITCH	CODE 159-011	SIMULATE SWITCH BOARD	CODE 159-012
Input : AC 230V, 50Hz 1-Phase Incandescent Lamp x 3units		Rated Voltage : 230VAC Rated Current : 2.8A-10A		Rated Voltage : 230VAC Limit Switch x 2units		Rated voltage : 230VAC Push Button x 3 units	
							

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<b>THREE PHASE FCCB</b> <b>CODE 159-009</b> Protection Fuse 4A x 3 units Pilot Lamps L1, L2 & L3 Fault Current Circuit Breaker 3Poles Input: AC 415V, 50Hz 3-Phase 	<b>THREE-PHASE CONTACTOR</b> <b>CODE 159-014</b> Rated Voltage : 415VAC Rated Current : 10A Coil Voltage: 230VAC 3 Each 	<b>RHEOSTAT</b> <b>CODE 159-015</b> Protection Fuse 3A x 2 units Excitation Resistor: 0~1kΩ Armature Resistor: 0~100Ω 	<b>Y-DELTA TIMER RELAY</b> <b>CODE 159-016</b> Coil Voltage: 230VAC Contact: NO & NC Time : 0...60seconds 
<b>DC MOTOR CONTROL UNIT</b> <b>CODE 192-004</b> Output: 0...230VDC Fixed 230VDC Input: AC 230V, 50Hz 1-Phase 	<b>TACHOMETER</b> <b>CODE 192-008</b> RPM Range: 0...9999rpm Input: AC 230V 	<b>TACHO GENERATOR (OPTIONAL ITEM)</b> <b>CODE 159-017</b> Speed: 2000rpm Output: Max. 20VDC 	<b>STEPPER MOTOR UNIT (OPTIONAL ITEM)</b> <b>CODE 159-021</b> Frequency Ranges: 5Hz, 50Hz, 100Hz, 500Hz, 1kHz & 5kHz Counter Reset function Direction: CW or CCW 
<b>EMERGENCY SWITCH</b> <b>CODE 191-007</b> Rated voltage : 230VAC Emergency off button with pull-unlatching 	<b>U-LINK</b> <b>CODE 159-019</b> For connecting junction point 	<b>VERTICAL FRAME</b> <b>CODE 297-000</b> High level : DIN standard A4 with two shelves Material: Aluminium Side Frame: T shape Size: 3-Layer 1450mm Length 	<b>ROTATE SPEED SENSOR</b> <b>CODE 159-018</b> Used with DC Motor Control Unit / Tachometer 
<b>SAFETY CONNECTING LEAD</b> <b>CODE 237-001</b> 4mm connecting leads 			

**EXPERIMENT TOPICS :**

- Starting control
- Self-Lock Control
- First connection for contactor (KM)
- Second connection for contactor (KM)
- Third connection for contactor (KM)
- Fourth connection for contactor (KM)
- The working principles of forward and reverse rotation control circuits of switch interconnects
- Forward and reverse rotate control circuits of contactor interconnect (1)
- Forward and reverse rotate control circuits of contactor interconnect (2)
- Auto stop control by travel switch
- The connection of changing star to delta
- Operates the DC Motor & DC Generator
- DC Motor & DC Generator Usage

**Manuals:**

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

**General Terms:**

- (1) Accessories will be provided where applicable.
- (2) Manual & Training will be provided where applicable.
- (3) Design & specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

**Warranty:**

2 Years

**ORDERING INFORMATION :**

ITEM	MODEL NUMBER	CODE
ELECTRICAL MACHINE TRAINER	GOTT-EMT-1543	159-000
TACHO GENERATOR	GOTT-TAGEN-159	159-017
STEPPER MOTOR UNIT	GOTT- STEPPER MOTOR UNIT	159-021

\* Proposed design only, subject to changes without any notice.