



VERITAS Engineering

Catalogue

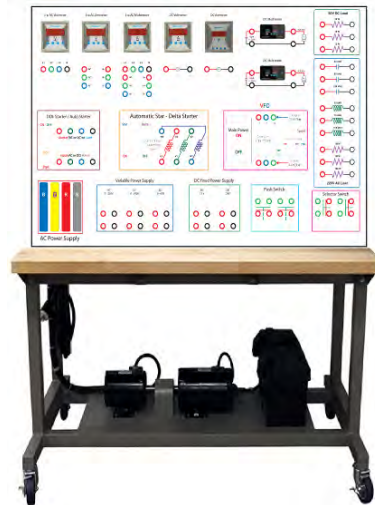
of

DC Machine Lab Trainer

DC Machine Lab Trainer

Model: DMLT-01

Brand : VERITAS



Picture: DC Machine Lab Trainer

Technical Specification

Single Phase Induction motor

Full Transparent 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated input Voltage: 220 V-AC (5%)
Rated Input Current: 0.10A (5%)
Rated Speed: 1400 rpm (5%)
Rated Power: 22W (5%)
Capacitor: 2uF
Dimension(Length x Diameter): (250mmx170mm)
Motor Outside Shaft Length: 35mm

Universal motor:

Full Transparent 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Input Voltage: 120 V-AC/DC (5%)
Rated Input Current: 1.0 A
AC/DC (5%)
Rated Speed: 8400 rpm (AC) (5%)
Rated Speed: 10000 rpm (DC) (5%)
Rated Power: 120W (5%)
Dimension(Length x Diameter) :
(150mmx150mm)
Motor Outside Shaft Length: 40mm

**Three Phase Induction motor (Y-Connection):**

Full Transparent (Minimum) 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Input Voltage: 400 V
AC (5%) Three Phase 3-wire
Rated Input Current: 0.085A (5%)
Rated Speed: 1450 rpm (5%)
Rated Power: 65W (5%)
Dimension (Length x Diameter): (250mm x 170mm)
Motor Outside Shaft Length: 40mm

Phase Rotor winding motor (Y-Connection)

Full Transparent 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Input Voltage: 400 V-AC (5%)
Rotor Excitation Voltage:
50~100V (3-Phase Line to Line)
Rated Speed: 1500 rpm (5%)
Dimension (Length x Diameter): (250mm x 170mm)
Motor Outside Shaft
Length: 40mm

DC Permanent magnet motor/Generator:

Full Transparent 6mm
Thickness Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Voltage: 220 V DC (5%)
Rated Current: 0.42A (5%)
Rated Speed: 3300 rpm (5%)
Rated Power: 92.4 W (5%)
Dimension (Length x Diameter): (150mm x 150mm)
Motor Outside Shaft Length: 40mm

Three Phase AC/DC Power Supply:

Rated Input Voltage: 400 V-AC (5%)
Three Phase 4-wire
Rated Output Voltage: 400V AC (5%)
Three Phase 4-wire
Rated Output Voltage: 0~400 V AC (5%) ,
Three Phase 4-wire
Rated Output Current: 5 AC (5%)
Rated Output
DC Fixed Voltage: 0V, 60V, 120V DC (5%) , 5Amp
DC Variable Voltage: 0~ 220 V DC (5%) , 5Amp
Short Circuit Protection Facility
4mm safety jack Connection facility
Air cooling system facility

DC Compound wound motor

Full Transparent 6mm Thickness



Fiber/Acrylic Body
4mm safety jack Connection facility
Dimension (Length x Diameter): (150mm x150mm)
Motor Outside Shaft Length: 45mm

Short Shunt:

Rated Voltage: 220V DC(5%)
Rated Current: 0.125A(5%)
Armature Current 0.055(5%)
Shunt Current: 0.07 (5%)
Rated Speed: 1100 rpm(5%)
Rated Power: 15W (5%)

Long Shunt:

Rated Input Voltage: 220VDC (5%)
Rated Input Current: 0.25A(5%)
Rated Speed: 2000 rpm(5%)
Rated Power: 30W (5%)

DC Shunt-wound motor:

Full Transparent 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated input Voltage: 220 VDC (5%)
Rated input Current:0.7Amp (5%)
Shunt field Current:0.10Amp (5%)
Armature Current: 0.60Amp (5%)
Rated Speed: 7000rpm(5%)
Rated Power: 154W(5%)
Dimension(Length x Diameter): (150mmx150mm)
Motor Outside Shaft Length: 40mm

DC Series wound motor:

Full Transparent 6mm Thickness
Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Voltage: 100 V DC(+ 5%)
Rated Current: 0.41A(5%)
Rated Speed: 6600 rpm(5%)
Rated Power: 41W (5%)
Dimension (Length x Diameter): (150mm x150mm) (Minimum)
Motor Outside Shaft Length : 40mm

Synchronous motor (Y Connection):

Full Transparent
6mm Thickness Fiber/Acrylic Body
4mm safety jack Connection facility
Rated Input Voltage: 400 V AC (5%)
Rated Input Current: 0.20A(5%)
Rotor Field Excitation Voltage: 50 VDC(5%)
Rated Speed: 1500 rpm (5%)
Rated Power: 140W(5%)
Dimension (Length x diameter): (260mm x180mm)



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Motor Outside Shaft Length: 40mm

Size: 3 Feet x 5 Feet x 2 Feet (L x H x W) (With Stand)

Accessories:

1. DC Machine Lab Trainer with All Motor (DMLT-01) – 1 Set
2. **Connecting Cord/Cable : 1 Set**
Both Side Banana Socket (Male-Male Combination)
Length: 24 Inch – 10 Pcs,
Length: 39 Inch – 20 Pcs.
3. **Experimental Catalog – 1 Unit**

List of Experiment

1. The construction of DC motor and winding resistance measurement.
2. Starting method of shunt motor and speed control.
3. Non-load characteristic experiment of shunt generator.
4. Load characteristic experiment of the shunt generator.
5. Load characteristic experiment of the compound generator.
6. Load characteristic experiment of shunt motor.
7. Load characteristic experiment of series motor.
8. Load characteristic experiment of compound motor.
9. Efficiency measurement of shunt motor by loss separation method.
10. Forward-and-reverse operation method of DC motor.