



VERITAS Engineering

Catalog
Of

Current Transformer (CT)



VERITAS Engineering

Brand: VERITAS

Model: VCT-1001

Features:

4mm socket for convenience connecting

Digital Current meter for convenience indicating primary and secondary voltage



Technical Specification

Primary current: 0~2A

Secondary current: 0~200mA

Display of current meter 1: 0~1.999A (3 1/2 digits)

Display of current meter 2: 0~199.9mA (3 1/2 digits)

Current transformer ratio: 10:1

Power source: 220~240VAC, 50Hz



VERITAS Engineering

Catalog
of

Loop Trainer

Brand: VERITAS

Model: VLT-001



Picture: Loop Trainer

Technical Specification:

Power Supply:

DC Power Supply (5V, 2A) - 1 Pcs

Control System:

RF-ID Based Power Controlling (On & Off).

Device:

1. 3 Phase Underground Cable Equivalent Resistor - 3 Unit
2. 10 Tapping Point for Making Fault of Each Phase (Cable)
3. Wheatstone Bridge with Galvanometer - 1 Set

Connecting Cord/Cable:

Both Side Banana Socket (Male- Male Combination)

Length: 6 Inch - 10 Pcs,

Size:

4 Feet x 1 Feet x 6 Inch catalog

Accessories:

1. **Loop Trainer**– 1 Unit
2. **Experimental Catalog** – 1 Unit



VERITAS Engineering

Catalog
Of

PFI Trainer

Brand: VERITAS

Model: VPFT-001



Picture : PFI Trainer

Technical Specification

Capacitor:	1 Nos. (1 X 7.5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 No. (1 X 5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 Nos. (1 X 2.5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 No. 1 KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors with built-in discharge resistor fixed directly connected with busbar
Control System:	RF-ID Based Power Controlling (On & Off).
Auxiliary Device:	1 No. Automatic Power Factor Correction Relay with interlocking auxiliary relay
	4 Nos. TP Magnetic Contactors of adequate rating
	4 Nos. MCB of adequate rating
	4 Nos. Indicating Lamps for Automatic indication.
	1 No. Selector switch for Automatic & Manual operation
	1 Set Selector switch for Manually Load Connection



VERITAS Engineering

	1 Set Selector switch for Manually Capacitor Bank Connection
	1 Set of Control fuses
Load:	1 Set Inductive Load(0.5 KVAR , 1KVAR, 2KVAR, 3 KVAR)
Meter:	1 No. Analog Power Factor meter
Size	2.5' x 2' x 5'

Accessories:

1. **PFI Trainer**– 1 Unit
2. **Inductive Load (7.5 KVAR)** – 1 Unit
3. **Experimental Catalog** – 1 Unit

List of Experiment

1. Observation the wiring of PFI
2. Design, Calculation & Rewiring of PFI (Capacitor, Circuit Breaker, Magnetic Contractor etc)
3. Manually Power Factor Improving by using pure Capacitor(0 – 16 KVAR)
4. Automatically Power Factor Improving by using pure Capacitor Bank (0 – 16KVAR)



VERITAS Engineering

Catalog
Of

**Power Generation, Transmission &
Distribution Training System with
Sub-Station**



VERITAS Engineering

Brand: VERITAS

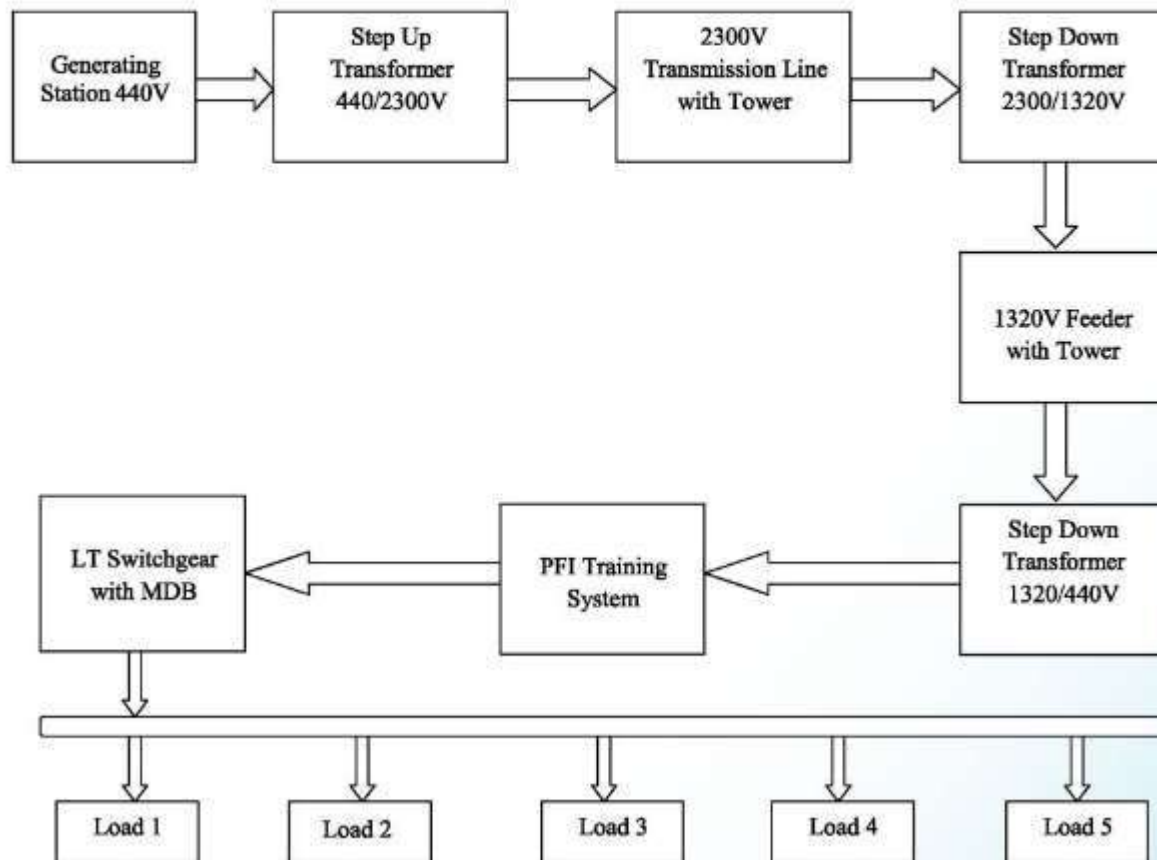
Model: VGTD-001

Technical Specification

Control System:

RF-ID Based Power Controlling (Optional).

Power Generation, Transmission & Distribution Training System with Sub-Station



1. Generating Station 440V

Power: 10KW,
Voltage: 440V, 3- ϕ , 50 Hz
Speed: 1500 RPM
Gasoline Generator
4 Stroke Single Cylinder Engine
Engine Type: Horizontal



2. Step Up Sub-station 440/2300V

Transformer: – 1 Nos
Rating: 440V/2300V, 12 KVA
Connection: Y- Δ
Efficiency: Minimum 90%
Type: Dry Type Air Cooling
Tap Changing: +- 10%
Digital Ammeter (AC): 5A – 1 Nos
CT Ratio: 12:1 – 1 Nos
Digital Voltmeter (AC): 500V – 1 Nos
PT Ratio: 10:1 – 1 Nos
Multifunctional Digital Watt Meter (W, VAR, VA, I_L , I_P , V_L , V_P , $\cos\theta$): – 1 Nos



3. Primary Transmission Line 2300V

Span: 2 Meter
Tower: - 2 Nos
Materials: Stainless Steel (1" x 1" Angle Bar),
Dimension: 1.5 Feet x 1.5 Feet x 5 Feet
No of Cross Arm: 3
No of Circuit: 2
Earth Wire On Top of the Tower with Lightning Arrester
Insulator:
Disk Type Insulator (String)
No of Disk: 18 each Tower
Materials: Wooden
Color: Coffee
Conductor:
Size: 7x18
Materials: Copper/Aluminum/ACSR
Length: 6 x 2 Meter



Tower for Transmission Line

4. Step Down Sub-station 2300/1320V

Transformer: – 1 Nos
Rating: 2300V/1320V, 12 KVA
Connection: Δ - Δ
Efficiency: Minimum 90%
Type: Dry Type Air Cooling
Tap Changing: +- 10%
Digital Ammeter (AC): 5A – 1 Nos
CT Ratio: 12:1 – 1 Nos
Digital Voltmeter (AC): 500V – 1 Nos
PT Ratio: 10:1 – 1 Nos
Multifunctional Digital Watt Meter (W, VAR, VA, I_L , I_p , V_L , V_p , $\cos\theta$): – 1 Nos



5. Distribution Line (Feeder) 1320V

Span: 2 Meter
Tower: - 2 Nos
Materials: Stainless Steel (1" x 1" Angle Bar),
Dimension: 15" x 15" x 4 Feet
No of Cross Arm: 3
No of Circuit: 2
Earth Wire On Top of the Tower with Lightning Arrester
Insulator:
Disk Type Insulator (String)
No of Disk: 18 each Tower
Materials: Wooden
Color: Coffee
Conductor:
Size: 7x12
Materials: Copper/Aluminum/ACSR
Length: 6 x 2 Meter



Tower for Distribution Line

6. Step Down Sub-station 1320/440V

Transformer: – 2 Nos
Rating: 1320V/440V, 12 KVA
Connection: Δ – Y (4 Wire)
Efficiency: Minimum 90%
Type: Dry Type Air Cooling
Tap Changing: +- 10%
Digital Ammeter (AC): 5A – 1 Nos
CT Ratio: 12:1 – 1 Nos
Digital Voltmeter (AC): 500V – 1 Nos
PT Ratio: 2:1 – 1 Nos



PFI Trainer: 9KVAR PFI – 1 Nos

4 Stages PFI

Automatic & Manual Capacitor Connection System

LT Switchgear: 50Amp LT Panel Control with MCCB – 1 Nos

Lightning Arrester Arrangement – 1 Unit

Multifunctional Digital Watt Meter (W, VAR, VA, I_L , I_p , V_L , V_p , $\cos\theta$): – 1 Nos

7. Secondary Distribution Line 440V

Distributor Length: 3 Meter

Distributor Type: One Ended Distributor, 2 Ended Distributor & Ring Distributor

Consumer Connection Point: 5

Phase: Single Phase & Three Phase

Pole: - 4 Nos

Materials: Stainless Steel,

Dimension: 6" x 6" x 3 Feet

No of Cross Arm: 3

No of Circuit: 1

Earth Wire On Top of the Tower with Lightning Arrester

Insulator:

Pin Type & Saddle Insulator

No of Insulator: 4 each Pole

Materials: Ceramic

Color: Coffee

Conductor:

Size: 7x12

Materials: Copper

Length: 4 x 3 Meter

8. Consumer Load

1. 100W, 220V Load – 3 Unit
2. 260W, 220V Load – 3 Unit
3. 1200W, 440V Load – 1 Unit
4. 3000W, 440V Load – 1 Unit
5. 4200W, 440V Load – 1 Unit



Distribution Panel with PFI



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Catalog
Of

Potential Transformer (PT)



VERITAS Engineering

Brand: VERITAS

Model: VPT-1001

Features:

4mm socket for convenience connecting

Digital voltage meter for convenience indicating primary and secondary voltage



Technical Specification

Primary voltage: 0~300V

Secondary voltage: 0~30V

Display of voltage meter 1: 0~1999V (3 1/2 digits)

Display of voltage meter 2: 0~199.9V (3 1/2 digits)

Voltage transformer ratio: 10:1

Power source: 220~240VAC 10% 50Hz



VERITAS Engineering

Catalog
Of

Switchgear & Protection Trainer

Brand: VERITAS

Model: VSPT-001

Technical Specification

Power Supply:

Rated Input Voltage: 400 V AC ($\pm 5\%$) Three Phase 4-wire

Rated Output Voltage: 400 V AC ($\pm 5\%$) Three Phase 4-wire

Rated Output Current: 5 AC ($\pm 5\%$)

Control System:

RF-ID Based Power Controlling (On & Off).

Control Board:

Reversible Relay: 1EA

Three Phase Energy Meter: 1 EA

BAS Bar: 4EA

Circuit Breaker: 3EA (10Amp)

Cartridge Fuse: 3EA (10Amp)

HRC Fuse: 3EA (15Amp)

Thermal Overload Relay: 1 EA

Phase fault Relay: 1EA

Digital Timer: 2EA

Magnetic Contractor: 3EA

Selector Switch: 2 EA



Others Device:

4mm safety jack Connection facility

Air Cooling system facility

Short Circuit Protection Facility

Accessories:

- 1 Training Manual
- 4mm safety banana socket
- Three Phase Induction Motor – 1 pcs



VERITAS Engineering

Catalog
Of

Transmission System Trainer

Brand: VERITAS

Model: VTST-001



Picture : Transmission System Trainer

Technical Specification

Capacitor:	1 Nos. (1 X 7.5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 No. (1 X 5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 Nos. (1 X 2.5) KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors
	1 No. 1 KVAR Bank of TP, 415V ~ 440V dry type Power Capacitors with built-in discharge resistor fixed directly connected with busbar
Control System:	RF-ID Based Power Controlling (On & Off).
Auxiliary Device:	1 No. Automatic Power Factor Correction Relay with interlocking auxiliary relay
	4 Nos. TP Magnetic Contactors of adequate rating
	4 Nos. MCB of adequate rating
	4 Nos. Indicating Lamps for Automatic indication.
	1 No. Selector switch for Automatic & Manual operation
	1 Set Selector switch for Manually Load Connection



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	1 Set Selector switch for Manually Capacitor Bank Connection
	1 Set of Control fuses
Load:	1 Set Inductive Load(0.5 KVAR , 1KVAR, 2KVAR, 3 KVAR)
Meter:	1 No. Analog Power Factor meter
Size	2.5' x 2' x 5'

Accessories:

1. **Transmission System Trainer with Load**– 1 Unit
2. **Experimental Catalog** – 1 Unit



VERITAS Engineering

Catalog
Of

Universal Electrical Trainer

Brand: VERITAS

Model: UET-001



Picture : **Universal Electrical Trainer**

Technical Specification

Power Supply:

1. Input & Output voltage: 1 ϕ = 220V AC, 50Hz ; 3 ϕ = 380 - 400V AC, 50Hz.
2. Variable AC Power Supply (0 - 250V, 2A, 1 ϕ)
3. Fixed DC (12Volt, 5 Amp & 5 Volt, 2Amp) Power Supply
4. Variable DC (0 - 15 Volt) Power Supply
5. AC Load Connection Facility (Power Socket) - 4 Pcs

Control System:

RF-ID Based Power Controlling (On & Off).

Output Capacity:

Resistive Load: 220V, Capacity 1- ϕ & 3- ϕ = 1200 W;
Inductive Load: 220V, Capacity 1- ϕ & 3- ϕ = 900 VAR ;
Capacitive Load: 220V, Capacity 1- ϕ & 3- ϕ = 250 VAR ;

Measuring instrument facilities:

Digital Multimeter with Frequency Meter - 1 Pcs,
Ammeter Analog (0 - 500 mAmp, AC & DC) - 1 Pcs,
Ammeter Analog (0 - 1 Amp, AC & DC) - 2 Pcs,
Ammeter Analog (0 - 2 Amp, AC & DC) - 1 Pcs,
Ammeter Analog (0 - 5 Amp, AC & DC) - 1 Pcs,
Voltmeter Analog (0 - 30 Volt AC&DC) - 1 Pcs,
Voltmeter Analog (0 - 300 Volt AC) - 1 Pcs,
Wattmeter Digital (0 - 3000 Watt) - 2 Pcs,
Power Factor Meter (Analog) - 1 Pcs,



Load:

Center tap Transformer (220/12 - 12 Volt, 7 Amp) - 2 Pcs,
Resistor (1Ω - $120\text{K}\Omega$) (Different Value) - 21 Pcs,
Inductor (220 Volt AC, 1H) - 6 Pcs,
Capacitor (220 Volt AC, $2.5\mu\text{F}$ - 3Pcs & $3.5\mu\text{F}$ - 3 Pcs) -6 Pcs,
Calling Bell - 1 Pcs,
Fixed Incandescent Bulb Holder - 6 Pcs,
Ammeter & Voltmeter Equivalent Resistor - 2 Pcs
Variable Resistor 1) $10\text{K}\Omega$ - 1 Pcs 2) $100\text{K}\Omega$ - 1 Pcs
Bridge Rectifier Set (Diode 6A, Capacitor 2200 uf, 35 V & 100uf , 16V and 7805 IC) - 1 Set
Indicator (220 V AC - 3 Pcs & 12V AC/DC - 3 Pcs)
Rechargeable Battery (Different Value) - 6 Pcs

Switching Device:

Switch Piano Type
1. SPST - 4 Pcs,
2. SPST Push Button - 4 Pcs,
3. SPDT - 2 Pcs,
4. Fuse - 2 Pcs.
Industrial Type (Round)
1. Selector Switch - 2 Pcs
2. Push Switch (NO-NC) - 2 Pcs

Connecting Cord/Cable :

Both Side Banana Socket (Male-Male Combination)
Length: 12 Inch - 10 Pcs,
Length: 24 Inch - 20 Pcs,
Length: 48 Inch - 10 Pcs.
Length: 72 Inch - 10 Pcs.
Size: 5 Feet x 2 Feet x 2.5 Feet

List of Experiment

1. Identification of Electrical Measuring Instruments
2. Verification of Ohm's Law
3. Verification of Series Ckt
4. Verification of Parallel Ckt
5. Power Measurement of Electrical Load
6. Calling Bell Controlling from 3 point with Indicating Lamp
7. One Bulb Controlling from 2 Point(SPDT)
8. Three Bulb Controlling from 3 Point(Separately)
9. Using Fuse/MCB in Electrical Circuit
10. Prepare a Series Board for Testing
11. Verification of KCL
12. Verification of KVL
13. Verification of Thevenin's Theorem
14. Verification of Super Position's Theorem



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15. Determining the R & L of a RL Series Circuit
16. Determining the R & C of a RC Series Circuit
17. Determining the R, L & C of a RLC Series Circuit
18. Determining the Power Factor of a RLC Series Circuit
19. Determining the R, L & C of a RLC Parallel Circuit
20. Determining the Resonance frequency of Series Circuit
21. Determining the Resonance frequency of Parallel Circuit
22. Measure Line & Phase Voltage and Current of Star Connected Load
23. Measure Line & Phase Voltage and Current of Delta Connected Load
24. Measure Power of Balanced Star Connected Load(1 Wattmeter Method)
25. Measure Power of Balanced Delta Connected Load(1 Wattmeter Method)
26. Measure Power & Neutral Current of a Unbalanced Star Connected Load
27. Measure Power of 3-phase Load(By 2 Wattmeter Method)
28. Determination of Turn Ratio of a Transformer
29. Observation the step up & Step Down Working System of Transformer
30. Open Circuit Test of a Transformer
31. Short Circuit Test of a Transformer
32. Determination of Voltage Regulation of a Transformer
33. Extension the Range of Voltmeter
34. Extension the Range of Ammeter
35. measurement of low resistance by Ammeter–Voltmeter method.
36. Perform the measurement of frequency by a frequency meter.
37. Perform the measurement of power factor by a power factor meter.
38. Perform the handling of PT.
39. Measure the single phase power by ammeter, voltmeter and wattmeter.
40. Measure the three phase power by two wattmeter method.
41. Measure the three phase power by one wattmeter method.



VERITAS Engineering

Catalog
of

Variac



VERITAS Engineering

Brand: VERITAS

Model: VVAC-3000



Technical Specification

1 phase

Input Voltage: 220V AC, $\pm 10\%$

Variable Output Voltage: 0 ~ 250V AC

Power: 3000VA

Output Current: 12A

4mm Safety Socket for Terminal Connection