AC MOTOR CONTROL BY INVERTER TRAINER
Model Number : GOTT-ACMCBI-152

DESCRIPTION
The trainer has been created for learning of speed control of AC motor with inverter controller. Can be control both open-loop and close-loop method. Used frequency inverter as speed control unit.
The individual units of an experimental set-up are connected via 4-mm. safety sockets which are arranged in large, synoptically graphical symbols or current flow diagrams. Due to the vertical arrangement of the experimental panels, the experimental set-up can be seen from a far distance and can be adapted step by step to the course of the lessons or lectures.

PRODUCT MODULES

FREQUENCY INVERTER    CODE 152-003
- Input : 3 x 415VAC/50-60 Hz
  (IL, N 1.6A continuous, IL, N (60S) 2.6A max.)
- Output : 0-100 % of power supply (IINV1.7A, Imax (60S) 2.7A, SINV 1.1kVA, PM,N 0.55kW, PM,N 0.75 HP)
- Port : 1 Port control (DB-15) for link control panel
- Torque characteristics : Constant torque 160% in 1 min
  Variable torque 160% in 1 min
  High starting torque 180% for 0.5 sec
- Control characteristics : Frequency range 0.2-132 Hz, 1-1000Hz
- Speed control range : Open loop 1:15 of synchronous speed
  Close loop 1:120 of synchronous speed
- Rang Type : Linear, Sine shaped
- Display : LED 6 digit

POWER SUPPLY CONSOLE    CODE 152-001
There are six modules as per follows:
- Socket Outlet 240/415VAC
- Power Socket 240/415VAC
- Power Supply 240VDC 1A
- Double Outlet 2P + PE 16A 240VAC
- Schuko Socket 2P + PE 16A 240VAC
- Main Power Supply 240/415VAC

CONTROL PANEL    CODE 152-002
- Digital input : 6 points (12, 18, 19, 17, 19, 33)
- Analog input : 3 points (0~10 V, 4~20 mA, Common)
- Analog output : 2 points (+40, -55)
- Input port : DB 25 connect to inverter

RESISTIVE LOAD    CODE 152-004
- Resistance : 1~7 Steps

FREQUENCY METER    CODE 152-005
- Range : 46~54 Hz
- Accuracy : Class 1.5
- Voltage coil : 240VAC

AC VOLTMETER    CODE 152-006
- Type : Moving coil
- Range : 0~500 VAC
- Accuracy : Class 1.5

DC VOLTMETER    CODE 152-007
- Type : Moving coil
- Range : 0~300 VDC
- Accuracy : Class 1.5
AC MOTOR CONTROL BY INVERTER TRAINER
Model Number : GOTT-ACMCBI-152

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MODEL NUMBER</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC AMMETER</td>
<td>AC Ammeter 0-1.5A</td>
<td>152-008</td>
</tr>
<tr>
<td>DC AMMETER</td>
<td>DC Voltmeter 0-300V</td>
<td>152-009</td>
</tr>
<tr>
<td>THREE PHASE WATTMETER</td>
<td>Wattmeter 1000W 415VAC 3P</td>
<td>152-010</td>
</tr>
<tr>
<td>LAMP LOAD 220 VAC 40 W X 5</td>
<td>Lamp type: Incandescent</td>
<td>152-011</td>
</tr>
</tbody>
</table>

TACHO GENERATOR
Power : 150W
Exciting voltage : 220 VDC
Output voltage : 220 VDC at 4000 rpm
Current limit : 1.46 A

DC GENERATOR
Speed : 2000rpm
Output : Max. 20VDC

THREE PHASE INDUCTION MOTOR
Power : 170kW
Voltage rate : 415VAC
Current rate : 0.45A
Speed : 1500 rpm
Connection: Δ & Y

U-LINK
For connecting junction point
Quantity 40 pcs
- Length 50 cm (30 pcs)
- Length 100 cm (10 pcs)

SAFETY CONNECTING LEAD
High level : DIN standard A4 with two shelves
Material: Aluminium
Side Frame: T shape
Size: 3-Layer 1450mm Length

VERTICAL FRAME
Horizontal : Aluminium
Size: 3-Layer 1450mm Length

EXPERIMENT TOPICS:
- Start-stop control induction motor with key pad
- Start-stop control induction motor with external signal
- Motor control reversing
- Motor speed control by variation frequency type
- Motor speed control by DC voltage (0-10V)
- Fixed time frequency increment start motor and stop according to frequency decrement
- Fixed time frequency increment start motor and stop motor with DC brake
- Motor speed control by frequency increment and decrement with panel SW
- Motor speed control by speed selection with panel SW
- Motor speed control by Jog frequency type
- Open-loop motor control
- Close-loop motor control

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:
<table>
<thead>
<tr>
<th>ITEM</th>
<th>MODEL NUMBER</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC MOTOR CONTROL BY INVERTER TRAINER</td>
<td>GOTT-ACMCBI-152</td>
<td>152-000</td>
</tr>
</tbody>
</table>

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