

GNR-1200A Industrial Controls Training System

Purpose

The Hampden **Model GNR-1200A** Industrial Controls Training System provides students with practical "hands-on" experience in designing, wiring, checking out, and troubleshooting "real-world" motor control systems. Instructor-controlled real world faults can be inserted in each module.

Description

The Hampden Industrial Controls Training System consists of a $\frac{3}{4}$ " thick wood core white melamine panel, 41 $\frac{1}{2}$ "H x 41 $\frac{1}{2}$ "W, on which are mounted interchangeable unitized control modules. The student selects just the components needed for a particular system, secures them on the panel with Nylatch® fasteners and wires them in accordance with the control diagram. All control components are suitably rated for use with Hampden **Series 100** Rotating Machines or machines up to and including 1-HP. All components are factory wired to Hampden HB-3M, 5-way, color-coded, captive head binding posts.

Module List

GNR-1200-10A Pushbutton module consisting of two pushbuttons, one red, one green, N.O. and N.C., complete with (c/w) four faults.

GNR-1200-11A Selector switch module consisting of one 3-position selector switch, one toggle switch SPDT, and c/w four faults.

GNR-1200-15A Indicator lamp module consisting of two $\frac{1}{2}$ " lamps- one red and one green - c/w two faults.

GNR-1200-20A Magnetic starter module consisting of one 3-pole magnetic starter c/w four faults.

GNR-1200-21A Manual starter module consisting of one single-phase manual starter c/w two faults.

GNR-1200-21 Manual starter module consisting of one three-phase manual starter c/w two faults.

GNR-1200-22A Reverse starter module consisting of one three-phase reverse starter c/w four faults.

GNR-1200-27A Contactor module consisting of one 3-pole contactor c/w four faults.

GNR-1200-30RA/LA Industrial control relay module, right or left-hand, consisting of one 4-pole contactor with two N.O. and two N.C. contacts c/w four faults.

GNR-1200-31 Overload relay module consisting of 3-pole overload relay with one N.O. and one N.C. contact c/w three faults.

GNR-1200-32A Time delay module consisting of one time delay relay with one timed N.O. and N.C. contact with timing from 0.1 to 600 second. Unit comes c/w three faults.

GNR-1200-33A Solid state relay module consisting of one transistorized relay with a 120V AC coil and two N.O. and two N.C. contacts rated 120V AC, 10 amp, c/w four faults.

GNR-1200-34 Latching relay module consisting of one latching delay relay with one N.O. and one N.C. contact, c/w four faults, and 120V AC input.

GNR-1200-35 Circuit breaker module consisting of one 3-pole circuit breaker-5A c/w three faults.

GNR-1200-38A Control transformer module complete with one transformer with tapped primary of 104, 179 and 208V and secondary of 120V AC, c/w two faults.

GNR-1200-40 Drum switch module consisting of one drum switch for single-phase, three-phase, and DC forward and reverse control c/w three faults.

GNR-1200-41A Sequence control timer module consisting of two N.O. or N.C. contacts c/w four faults.

GNR-1200-42 Float switch module consisting of one N.O. or N.C. switch c/w two faults.

GNR-1200-43 Limit switch module consisting of one limit switch with one N.O. or N.C. contact c/w two faults.

GNR-1200-44 Photoelectric reflector module.

GNR-1200-45 Photoelectric transmitter-receiver module consisting of one photoelectric receiver with one N.O. and one N.C. contact c/w three faults and 120V AC input.

GNR-1200-48 Proximity detector module consisting of one proximity detector with one N.O. and one N.C. contact c/w two faults and 120V AC input.

GNR-1200-50A Resistor module consisting of three 10 ohm tapped resistors.

GNR-1200-51 Field rheostat module consisting of one 300 ohm 100 watt fuse-protected rheostat.

GNR-1200-65 Diode module with six diodes rated 400 PRV 20A.

GNR-1200-74 Reverse motor module consisting of one reversing motor with reduction gear c/w three faults and 120VAC input.

GNR-1200-80A

DC control relay module consisting of one DC control relay with two N.O. and two N.C. contacts c/w four faults.

GNR-1200-81A

DC contactor module consisting of one DC contactor with one main contact and one auxiliary contact c/w four faults.

GNR-1200-82A

DC time delay relay module consisting of one DC time delay relay with one N.O. and one N.C. contact c/w four faults.

GNR-1200-85A

SCR supply module consisting of one solid state DC motor control c/w four faults.

GNR-1200-A

Interconnection cord set lug to lug.

GNR-1200-B

Interconnection cord set plug to plug.

GNR-1200-SP 1/3 HP squirrel cage induction motor with prony brake mounted on a base with four feet.

GNR-1200ML-2 Micro Logix 1200 PLC module, 24 AC inputs, 16 relay contact outputs.

GNR-1200-MWS Double-faced mobile work station, 76" high, 48" wide by 29" deep. Unit provides two sets of switch-controlled three-phase outputs, main circuit breaker, and 120VAC duplex receptacle. Each work area consists of two module mounting frame sets. Storage is provided for 21 single size modules as well as motor modules.

A typical complement of Hampden **Model**

GNR-1200A modules would consist of:

- | | |
|---------------------------|------------------|
| (3) GNR-1200-10 | (2) GNR-1200-43 |
| (1) GNR-1200-11 | (1) GNR-1200-50A |
| (1) GNR-1200-15 | (1) GNR-1200-51 |
| (2) GNR-1200-20A | (1) GNR-1200-65 |
| (1) GNR-1200-21 | (3) GNR-1200-80A |
| (1) GNR-1200-22A | (3) GNR-1200-81A |
| (2) GNR-1200-27A | (2) GNR-1200-82A |
| (2 sets) GNR-1200-30RA/LA | (1) GNR-1200-85A |
| (2) GNR-1200-32A | (1) GNR-1200-A |
| (2) GNR-1200-38A | (1) GNR-1200-B |
| (1) GNR-1200-40 | (1) GNR-1200-SP |
| (1) GNR-1200-41A | (1) GNR-1200-MWS |
| (1) GNR-1200-42 | (1) Manual Set |



Dimensions (w/Bench): 76"H x 48"W x 29"D
Shipping Weight: 800 lbs.

Hampden®
ENGINEERING CORPORATION