

## LEGEND

Selection of electrical connections according to mains voltage available and compressor nameplate specifications.

Attention ! Compressor are protected by thermistors, connect thermistors only at terminals 1 and 2 of module A1. Do not connect mains voltage. See diagram ! Maximum thermistor test voltage 3V. Cold resistance of thermistors  $\leq$  750  $\Omega$ .

## Fans are thermal-protected.

Direct On Line or Star–Delta Start  $(Y/\Delta)$ Direct On Line or Star (Y) Part Winding Start Direct On Line (use bridges / jumpers)

## **Recommended Control Circuit**

- A1 = Electronic Module for M1
- A2 = Oil Differential Pressure Switch
- A3 = Capacitor and Relay Assembly
- A5 = Terminal Box Compressor
- A6 = Electronic Module DEMAND COOLING
- A7 = Terminal Box Condensing Unit
- B1 = Room Thermostat
- C1 = Run Capacitor M2
- C2 = Run Capacitor M1
- C3 = Start Capacitor M1
- F1 = Fuse for Control Circuit
- F3 = Pressure Control Switch
- F31 = Pressure Cut-Out
- F32 = Safety Pressure Cut-Out
- F10 = Thermal Protection Switch M2
- F11 = Overcurrent Thermal Protector
- F12 = Thermal Protection Switch M3
- H1 = Signal Lamp A1
- H2 = Signal Lamp A2

- K2 and K3 only with Star–Delta Start (Y/ $\Delta$ )
- K4 Only with Star (Y) Part Winding Start
  - H3 = Signal Lamp A6 DEMAND COOLING
  - H4 = Signal Lamp F3 Discharge pressure too high
  - H5 = Signal Lamp F3 Suction pressure too low
  - K1 = Contactor M1
  - K2 = Y–Contactor M1
  - K4 = Contactor M1 for second Part Winding
  - K5 = Contactor M2
  - K51 = Contactor M21
  - K52 = Contactor M22
  - K55 = Contactor M3
  - K11 = Time Delay Relay 1.....3s for  $Y/\Delta$  Start
  - K12 = Time Delay 1s  $\pm$  0.1 for Part Winding Start
  - K14 = Time Delay for Unloaded Start
  - M1 = Compressor Motor
  - M2 = Fan Motor / Condenser
  - M21= Fan Motor / Condenser
  - M22= Fan Motor / Condenser
  - M3 = Motor Cylinder Head Cooling
  - N1 = Speed Control Fan
  - Q1 = Main Switch

- R2 = Crankcase Heater
- X1 = Terminal Block
- Y21 = Solenoid Valve Capacity Control 1
- Y22 = Solenoid Valve Capacity Control 2
- Y3 = Solenoid Valve Unloaded Start M1
- Y4 = Solenoid Valve for Inter-Stage Liquid Line
- Y5 = Solenoid Valve for Liquid Injection
- Y6 = Solenoid/ Injection Valve DEMAND
- COOLING

## Cable Colours:

- WH White
- GY Grey
- BK Black
- BN Brown
- BU Blue
- RD Red
- OG Orange
- Green / Yellow

