1 Description

1.1 Case styles

Nine SpindAx models cover the range of power ratings. There are two styles and three sizes of case which depend on the power rating of the model. Size 1 and size 2 cases have ingress protection to IP20; size 3 case to IP00.

The model in the size 1 case is cooled by natural convection. The models in sizes 2 and 3 cases are fan cooled.

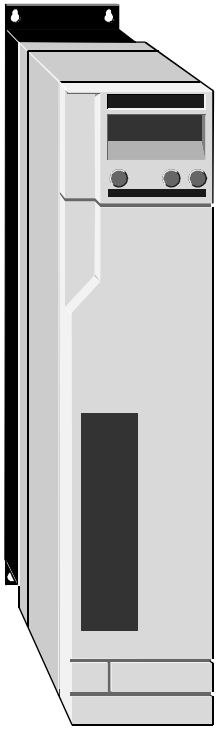

Figure 1–1 Size 1 case used on models DB140, DB220

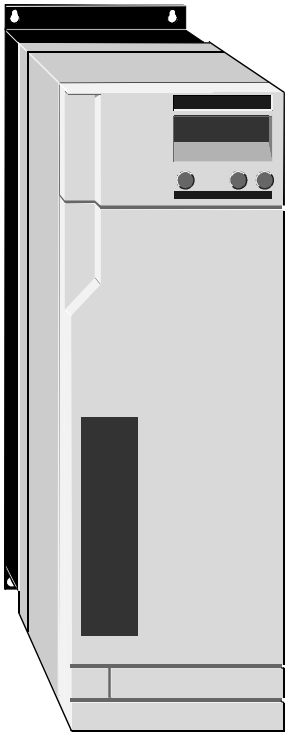

Figure 1–2 Size 2 case used on models DB420, DB600, DB750, DB1100S

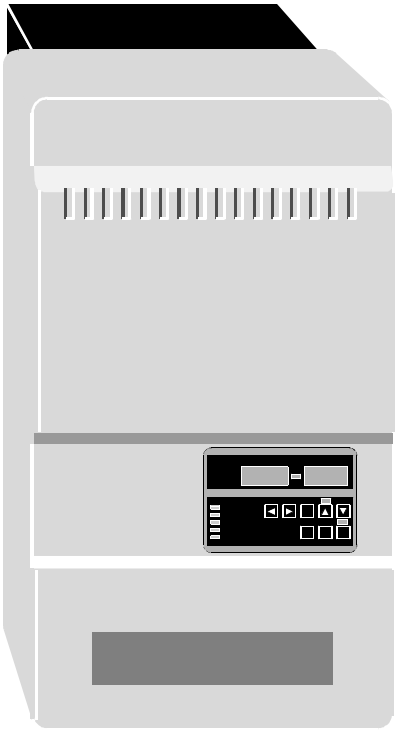

Figure 1–3 Size 3 case used on models DB1500, DB2200

1.2 Method of operation

Power circuits

The AC supply is rectified and smoothed to apply a constant voltage on a DC bus. This DC bus supplies a pulse-width modulated IGBT power stage that delivers AC power at variable frequency and voltage to the motor.

Depending on the model, an external DC choke is required for the DC bus. An external braking resistor can be connected to the DC bus in order to enhance the braking capabilities of the Drive.

When the recommended wiring techniques are used, the Drive retains EMC compatibility.

Controlling the Drive

Operation of the Drive is controlled by programming a number of software parameters. These parameters have default values that enable the Drive to be run without any initial programming.

The Drives have a Control Keypad which is located on the front panel of the case. The Control Keypad is used for the following:

- To change parameter values
- To stop and start the Drive
- To display the operating status of the Drive

An RS485 serial communications port allows the Drive to be controlled remotely using a host PC or plc.

1.3 How best to use this User Guide

This User Guide is arranged logistically: reading from beginning to end will take you in the correct order through the basic steps of installing the Drive and getting it running with a motor.

To make subsequent adjustments to the parameters, refer to Chapter 10, *List of Parameters*.