

# SIMOVERT MASTERDRIVES Vector Control

## Compact PLUS, Compact and Chassis Units



General technical data

Compact PLUS units  
Compact and chassis units



Fig. 3/1  
Compact PLUS units



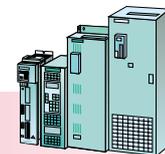
Fig. 3/2  
Compact units



Fig. 3/3  
Chassis units

# SIMOVERT MASTERDRIVES Vector Control

## System Description



### System layout

Compact PLUS/compact and chassis units · cabinet units

### SIMOVERT MASTERDRIVES converters

The SIMOVERT MASTERDRIVES Vector Control series of converters consists of modular, high-performance components. These components can be combined for individual applications.

#### Converters and inverters

The SIMOVERT MASTERDRIVES are available as:

- **converters** for connection to a 3-phase AC system.
- **inverters** for connection to DC buses which are supplied with power by rectifier or rectifier/regenerative units.

The system of components enables a uniform layout, irrespective of whether converters or inverters are used. The components can be installed side by side in almost any combination, even if they are different in size, enabling considerable space savings to be made.

As system modules, they can be used to obtain the right solution to match any drive task, whether single or multi-motor.

The SIMOVERT MASTERDRIVES converter series covers a power output ranging from 0.55 kW to

2300 kW (see Fig. 2/1), application cabinets up to 6000 kW.

The units have a uniform connection system: the line-voltage and DC link terminals are located on top and the motor terminals at the bottom.

The modular and uniform design of the electronic options enables optimized matching to all drive requirements with regard to both technology and communication.

Easy handling and installation and a high level of uniformity were essential factors in the development of the SIMOVERT MASTERDRIVES. This is demonstrated by the standardized housings, mounting and connection levels, as well as by the connections to signal and bus cables.

The SIMOVERT MASTERDRIVES are available as Compact PLUS units, compact units, chassis units and as cabinet units.

- **Compact PLUS units** are the specialists for limited space conditions. The "BOOKSIZE" format in IP20 degree of protection and the ideal connection

system of the units makes the design of extremely compact multi-motor drives possible. Compact PLUS units can be mounted into 300 mm deep cabinets.

- **Compact units** are designed in the space-saving "BOOKSIZE" format with IP20 degree of protection. The units are simply hung from a standard DIN G rail and secured at the bottom of the cabinet with a screw fastening. Compact units can be mounted into  $\geq 400$  mm deep cabinets.
- **Chassis units** are designed with IP00 degree of protection. The covers conform with the safety regulations to DIN VDE 0113, Part 5 and DIN VDE 0106, Part 100 (VBG 4). IP20 degree of protection can also be achieved with an optional enclosure kit.

The Compact PLUS units as well as the compact and chassis units can be installed without any space between them.

- **Cabinet units** are supplied as converters with IP20 degree of protection as standard. Cabinets with higher degrees of protection are also available.

The converter cabinet units are ready-to-connect cabinets for single and group drives with options available for every possible application.

Designs available:

- Single-quadrant operation, 6/12 pulse, line-commutated
- Four-quadrant operation, 6-pulse, line-commutated
- Four-quadrant operation, self-commutated with Active Front End.

#### Rectifier units and rectifier/regenerative units

##### Types of DC voltage supply units

There are two types of DC supply units for supplying one or more inverters:

- The **rectifier unit** is a 6-pulse rectifier bridge with pre-charging circuit and enables the flow of energy from the power system to the DC voltage bus (single-quadrant operation).

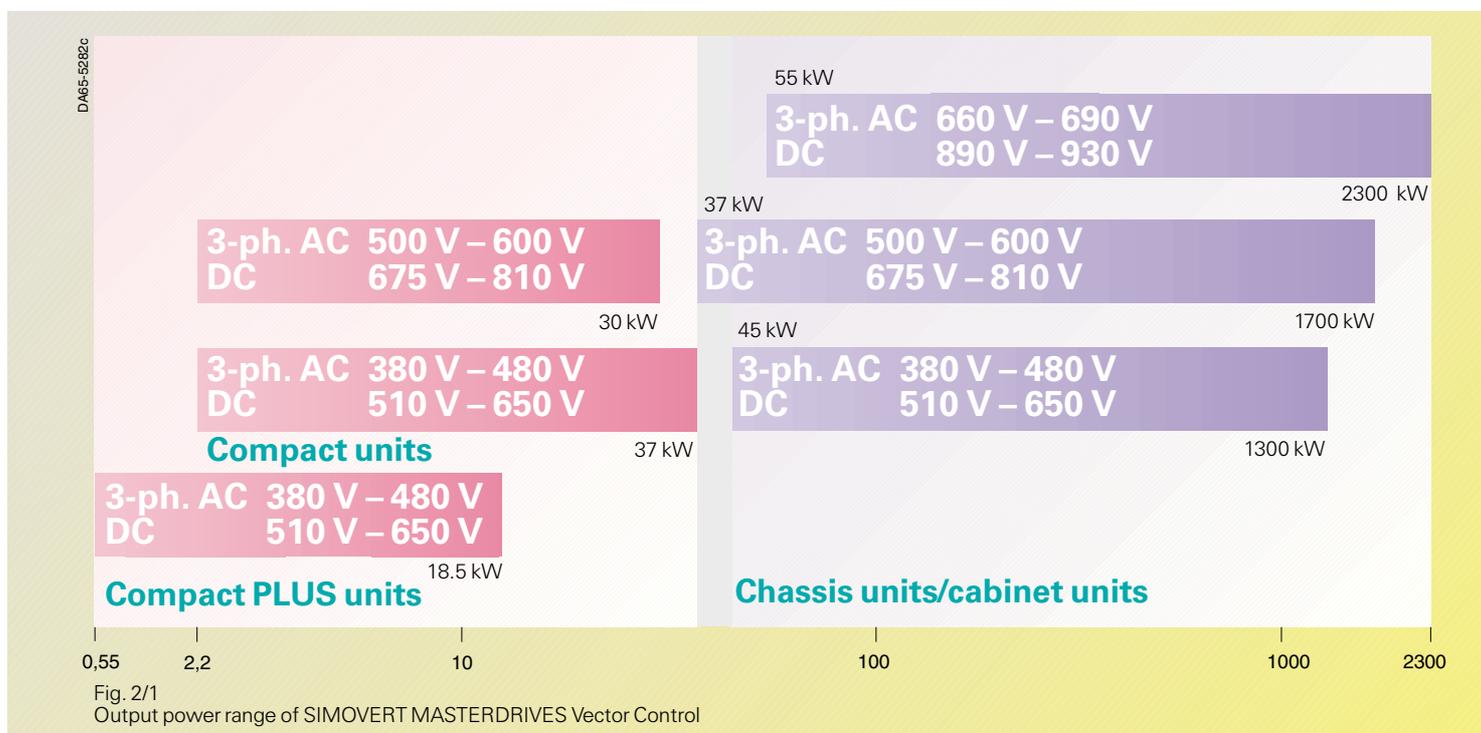


Fig. 2/1 Output power range of SIMOVERT MASTERDRIVES Vector Control