

SIMOVERT MASTERDRIVES Vector Control Compact PLUS Units

Air-cooled converters and inverters

Compact PLUS units



Technical characteristics of the Compact PLUS units

The converter has an integrated brake chopper. For regenerative mode, an external braking resistor is additionally required.

Additional Compact PLUS inverters can be connected to the converter via the DC link busbars. The total rating of the inverters to be connected can be up to the rating of the converter, e.g. a 5.5 kW converter can supply a 4 kW inverter and two 0.75 kW inverters.

A switch-mode power supply unit fed from the DC link supplies the control electronics of the converter. The control electronics can also be supplied with 24 V DC from an external source via the X9 connector strip, e.g. in order to maintain communication with a higher level control unit when the power section is switched off (DC link discharged).

The switch-mode power supply unit of a converter can also supply the power for the control electronics of an additional two inverters.

The control electronics of the inverters are always supplied with 24 V DC from an external source via the X100 connector strip. The position of the X100 connector strip is the same for all units and enables simple wiring of the 24 DC V power supply.

Optional devices

Safe Stop (K80)

With an appropriate external protective circuit, unexpected starting of the drive is prevented in accordance with EN 954-1, Safety Category 3.

Operation from an earth-free power supply (L20)

Converters without radio interference suppression capacitors for connection to IT networks.

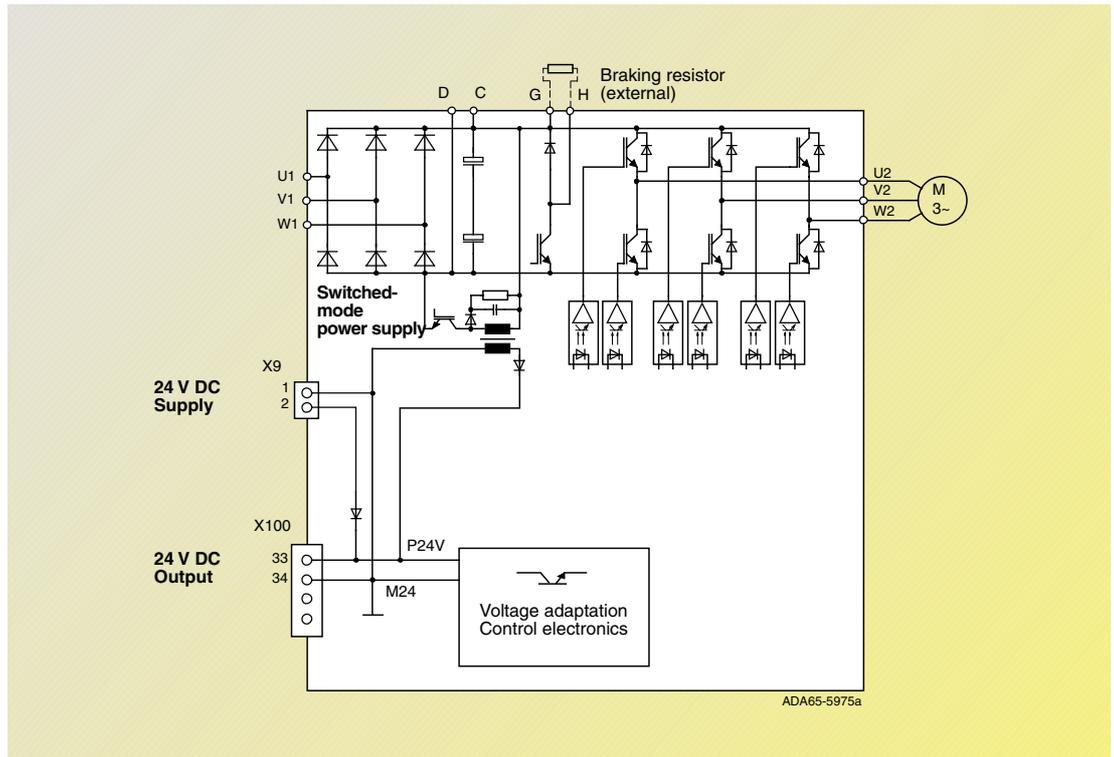


Fig. 3/4 Converter

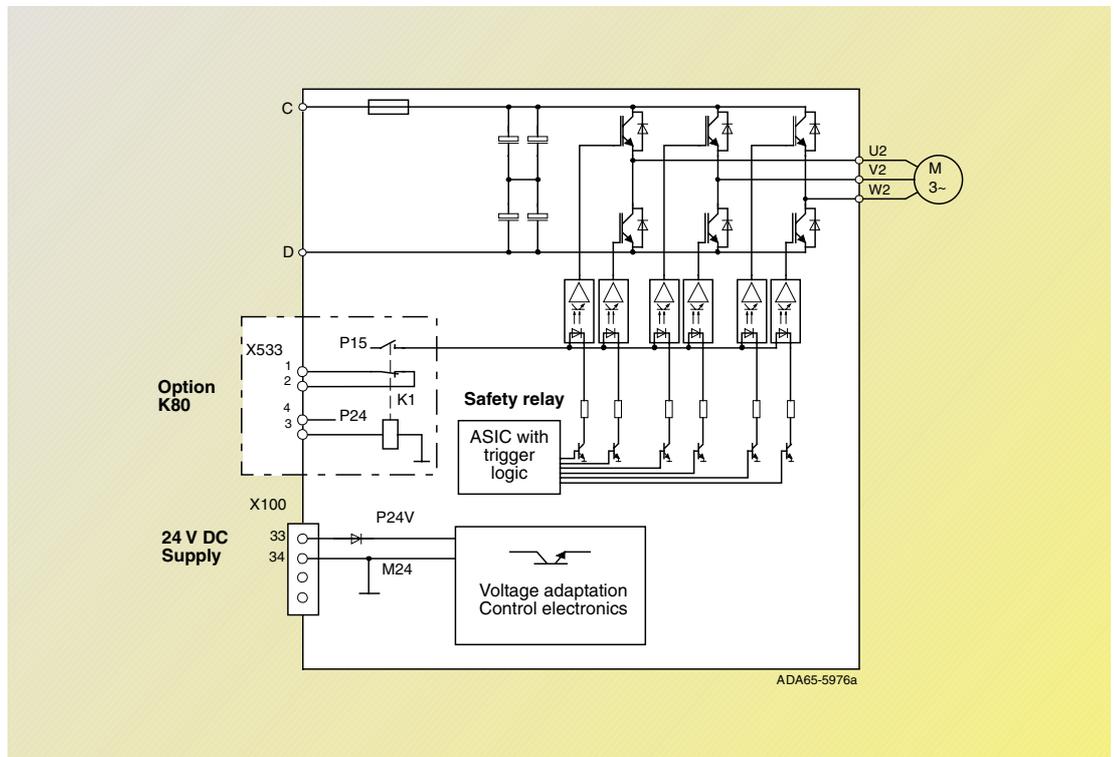


Fig. 3/5 Inverter with "Safe Stop" option

Note:

Rectifier units and inverters are suitable for operation connected to an earth-free power supply. The control electronics are always earthed (PELV circuit).

SIMOVERT MASTERDRIVES Vector Control

Compact and Chassis Units



Air-cooled converters and inverters

Compact and chassis units

Technical characteristics of compact and chassis units

The converter is designed as a single unit, i.e. a converter cannot supply additional inverters via its DC link connections "C" and "D". A braking unit (for regenerative mode) or system components, e.g. dv/dt -filters, are connected to terminals "C" and "D". The converter is connected to a three-phase power system. The pre-charging circuit for charging the DC link capacitors is already integrated.

Inverters are connected to the DC voltage supply via terminals "C" and "D". The DC voltage is supplied, for example, via an AFE self-controlled rectifier/regenerative unit or a rectifier unit. The rectifier unit precharges the DC link capacitors when the DC voltage supply is switched on, i.e. it is not permissible for the inverter to be directly connected to a charged DC busbar.

The A-D and J-L type of construction inverters have integrated DC link fuses as a standard feature. In the case of the E-G chassis units, integrated DC link fuses can be ordered as an option.

The control electronics of converters and inverters are supplied from the DC link via a switch-mode power supply unit. The control electronics can also be supplied with 24 V DC from an external source via the X9 connector strip, e.g. in order to maintain communication with a higher-level control unit when the power section is off (DC link discharged).

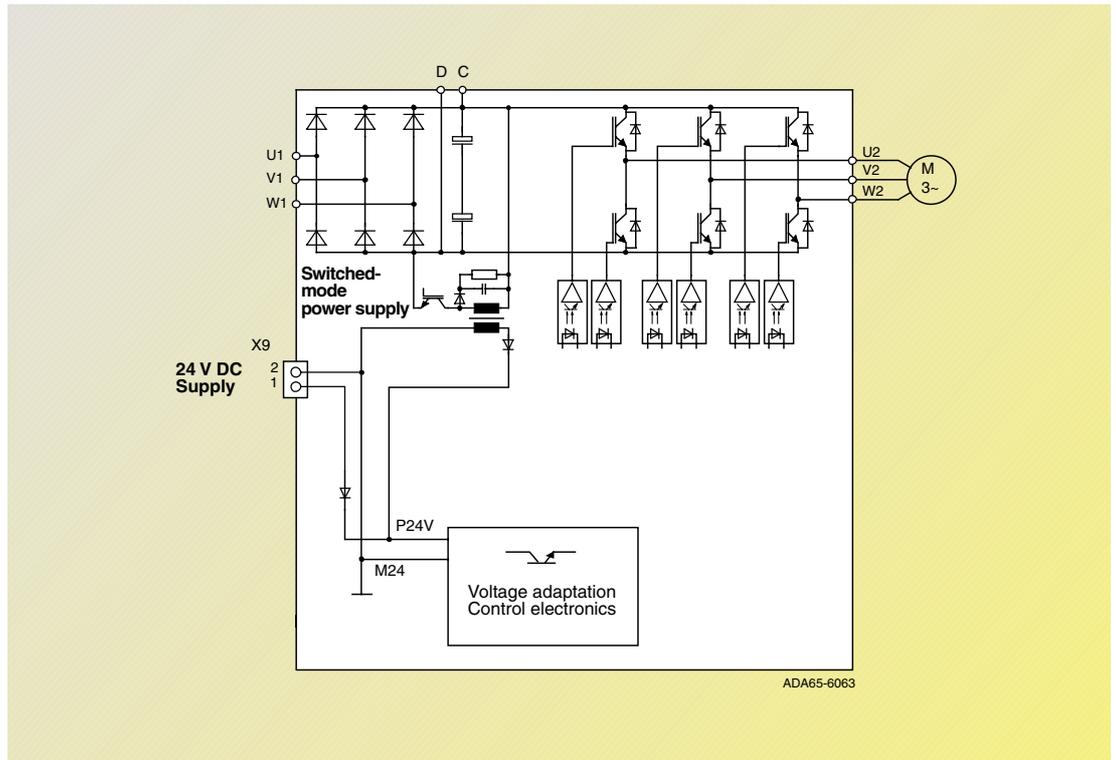


Fig. 3/6
Converters

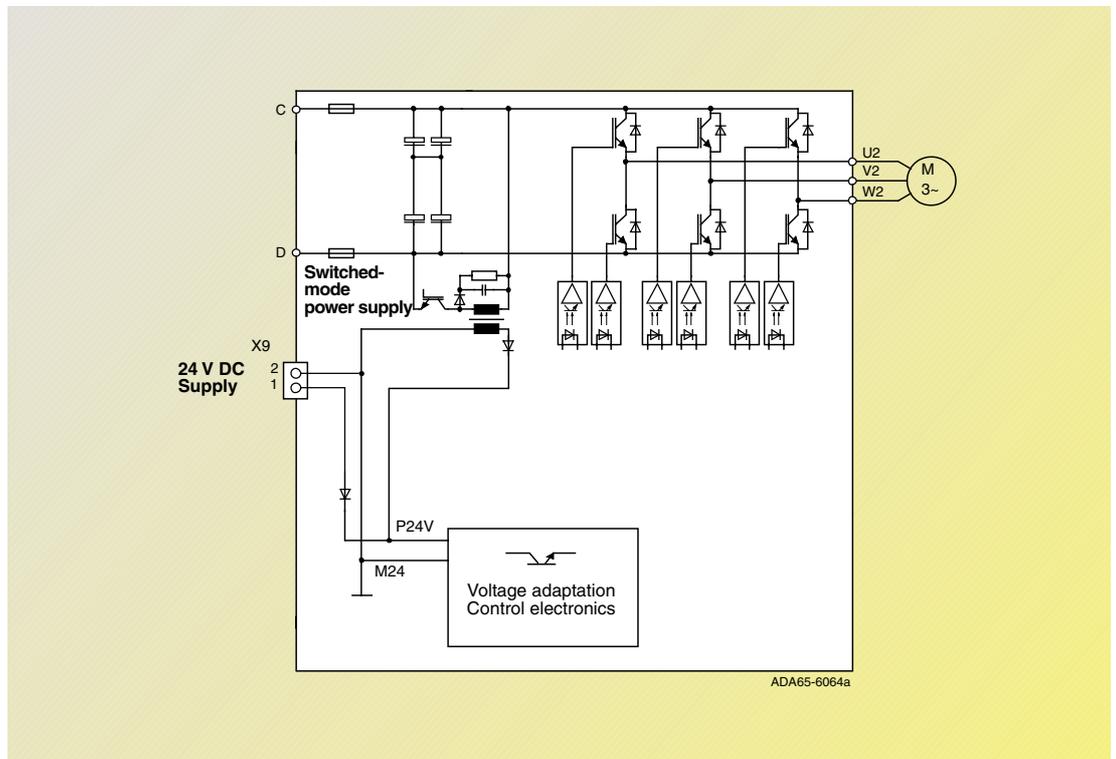


Fig. 3/7
Inverters