

Series HG(HA)

Single-stage compressors

Bock Innovations

ESP Electronic
Single Phase

The ESP System Electronic Single Phase

Phase converter from single to three phase AC

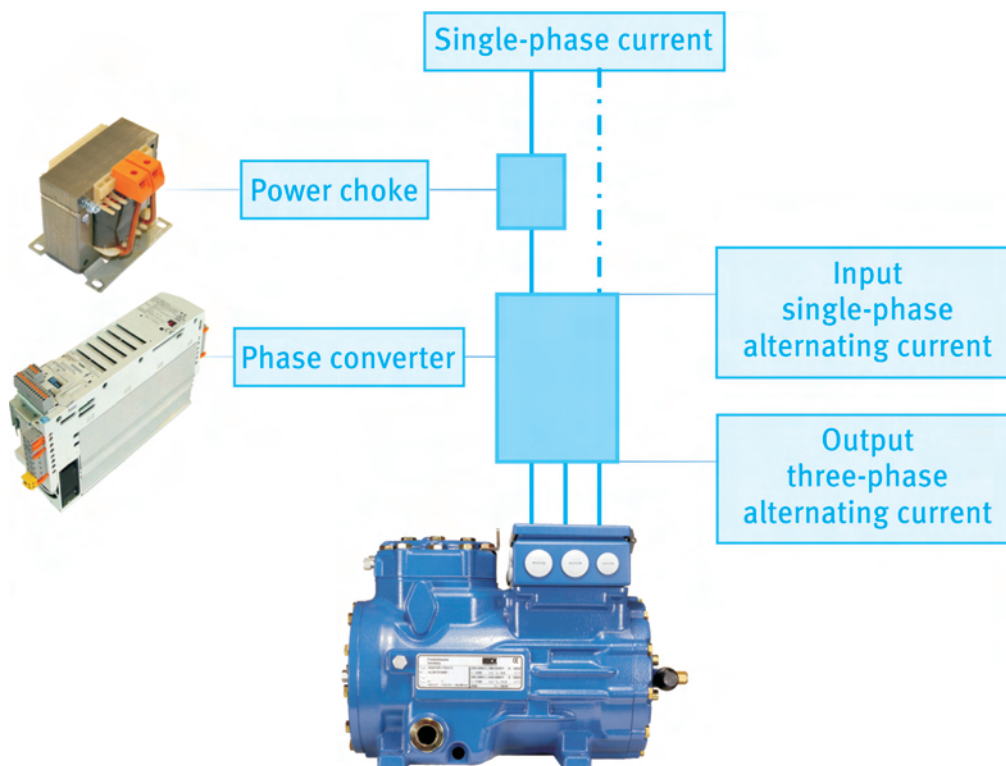
Available as an option for HG(HA)12P

The ESP System consists of a phase converter and a power choke to limit the power. This unit converts single phase input power to three phase output power and therefore enables the compressor model HG(HA)12P to operate with a standard three phase AC motor using a single phase mains supply. The unit is designed to be fitted into a switch cabinet.

Another option is to have the possibility of stepless speed capacity control. The parts for this are a suction pressure transducer and a programming and reatout hand-held terminal.

For the compressors HGX12P/90-4 S and HGX12P/110-4 S with R404A please note:

$t_0 = -5\text{ °C} / t_c = +50\text{ °C}$ may not be exceeded.



At a glance

The Advantages:

- › Standard three phase AC compressor can be used on a single phase supply.
- › Soft compressor start from zero to nominal speed, time controlled and monitored.
- › **Up to 40 % lower start-up power consumption than using star delta-start.**
- › No start-up or operating condensers or relays required.
- › Contact free switching of main phases, no switch protection needed.
- › Option available for stepless speed capacity control.

Technical data

Unit designation ESP 1/3 - 2,2

consisting of: phase converter and power choke

Phase converter:

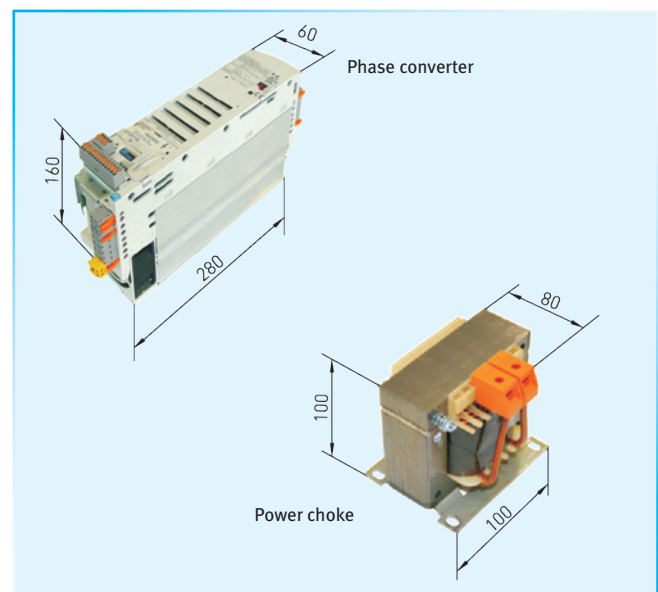
Protection	IP 20
Max. output current under continuous load	9,5 A
Max. output power	2,2 kW
Input	AC 230/240 V - 1 - 50/60 Hz
Output	AC 230/240 V - 3 - 50/60 Hz
Permissible control range (compressor)*	30 - 60 Hz

* only for extension to stepless speed capacity control

Power choke:

Protection	IP 20
Power consumption:	AC 230/240 V - 1 - 50/60 Hz 18 A

Dimensions



Scope of supply:

- › ESP 1/3 - 2,2, comprising phase converter, programmed and tuned to the compressor and also a power choke to control the power. Both units are intended for use in switching cabinets.
- › Input: Single phase AC 230/240 V
- › Output: Three phase AC 230/240 V

Accessories: (only possible ex-works, not retrofit)

Extension of function to stepless speed capacity control 30-60 Hz comprising:

- › Suction pressure transducer 4-20 mA
- › Programming and readout hand-held terminal