

## ESP System Electronic Single Phase

### Phase converter from single to three phase AC

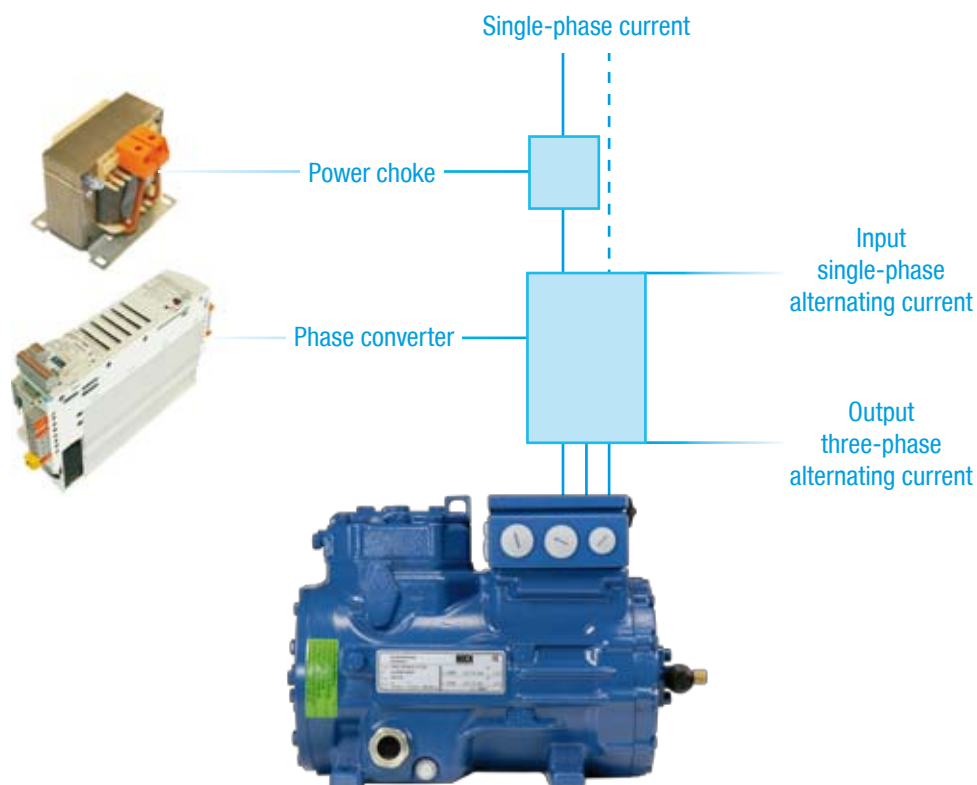
Available as an option for HG(HA)12P

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 readout hand-held terminal.



For the compressors HGX12P/90-4 S and HGX12P/110-4 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

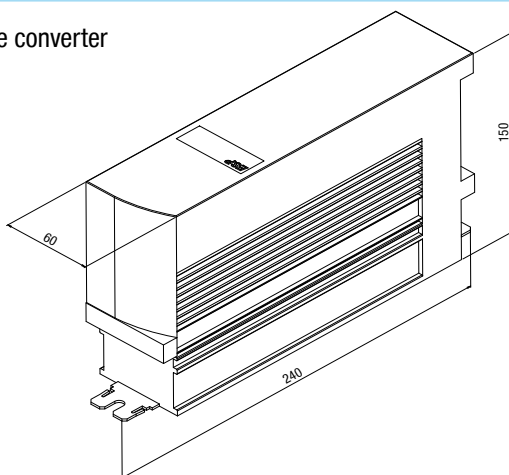
\* only for extension to stepless speed capacity control

#### Power choke:

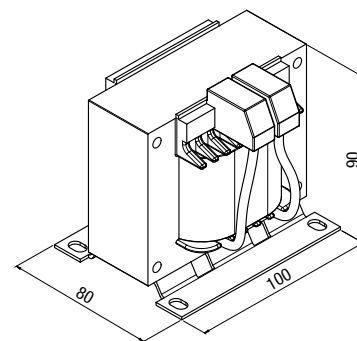
Protection	IP 20
Power consumption	AC 230/240 V - 1 - 50/60 Hz 18 A

### Dimensions

Phase converter



Power choke



dimensions in mm

### 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