

Brake rectifier
FWR



Brake rectifier
HWR



Protective element
PE-400/150/5



Switching rectifier
SGL

Brake rectifier
BGL+EGL



PINTSCH BUBENZER
is certified according to
DIN EN ISO 9001:2008



Reliable



High Performance



Robust



Easy Maintenance



Compact



Tried and Trusted

Main Features

- EMC compatibility
- Top-hat rail mounted
- Combinable with Brake Control Unit BCU2001
- Integrated protective element
- Integrated spark quench element

Specific Features for the rectifiers BGL and EGL

- Prepared for switching AC and DC circuits simultaneously
- Installation in cabinet

Specific Features for the protective element PE 400/150/5

- To be connected parallel to the output of the rectifiers BGL, EGL and SGL to increase the interruption capacity

Specific Features for the rectifiers FWR and HWR

- Prepared for switching AC and DC circuits simultaneously
- Installation in junction box

Specific Features of the switching rectifier SGL

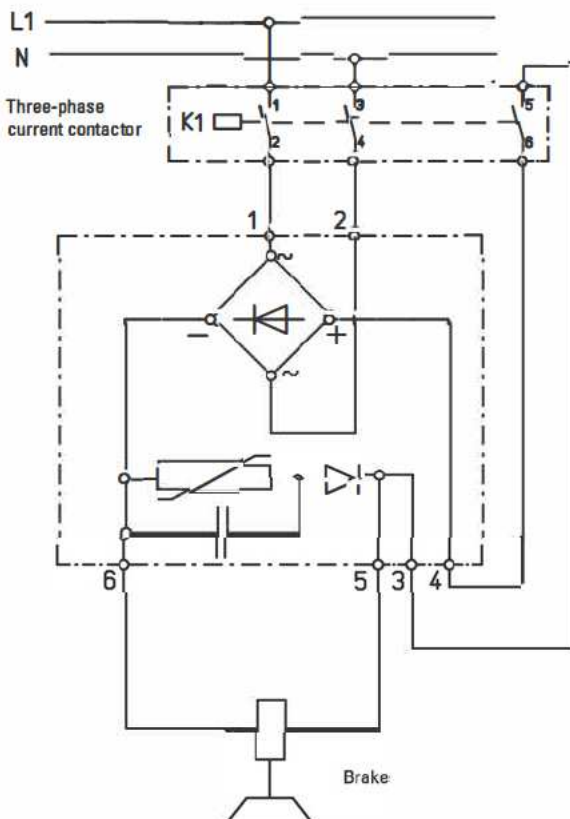
- Prepared for switching AC and DC circuits simultaneously
- Switches from bridge rectification to half-wave rectification
- Four time settings 0,5 s, 1 s, 1,5 s, 2 s adjustable
- Applying brakes at elevated temperatures
- Accelerated brake release (Overexcitation with AC power supply voltage = 2 x DC coil voltage)
- Accelerated brake effect (Standard excitation with AC power supply voltage = DC coil voltage)

BGL-PE400/150/3 - EGL-PE400/150/5

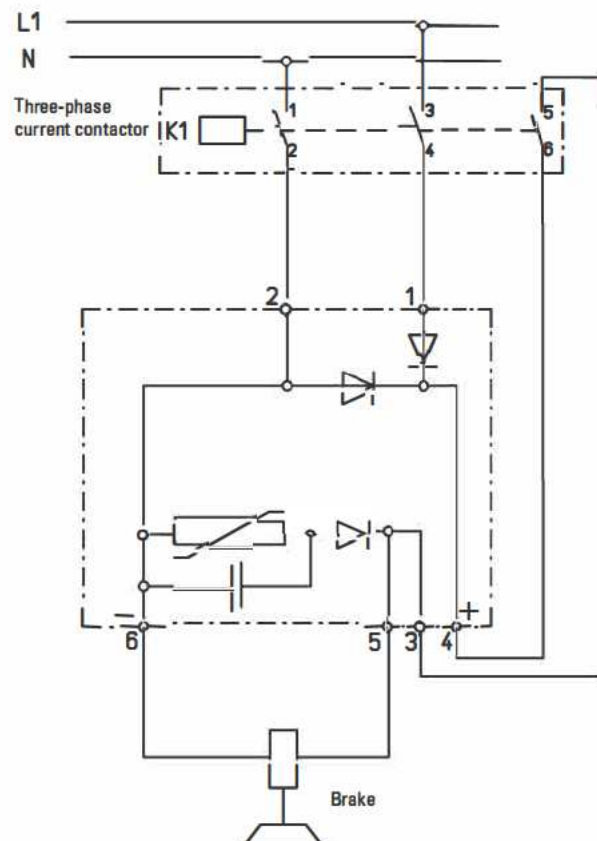
Principal circuit diagram

Rev. 03-09

Bridge rectification with module BGL



Half-wave rectification with module EGL



Technical data

Brake rectifier BGL-PE400/150/3

| | |
|---|-------------------|
| AC line voltage: | AC 460V; 50/60 Hz |
| Permissible rated coil voltages: | DC 24V...390V |
| Maximum brake current: | 2,5A |
| Maximum continuous output of the internal protective circuit: | 3W |
| Disconnection peak at maximum coil current: | ≤450V |
| Ambient temperature: | -40° C ... +50° C |
| Protection class: | IP 20 |

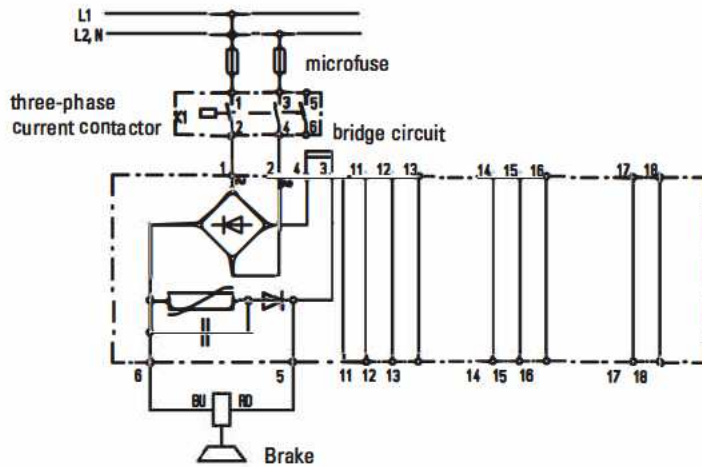
Brake rectifier EGL-PE400/150/5

| | |
|---|-------------------|
| AC line voltage: | AC 460V; 50/60 Hz |
| Permissible rated coil voltages: | DC 24V...220V |
| Maximum brake current: | 5A |
| Maximum continuous output of the internal protective circuit: | 5W |
| Disconnection peak at maximum coil current: | ≤450V |
| Ambient temperature: | -40° C ... +50° C |
| Protection class: | IP 20 |

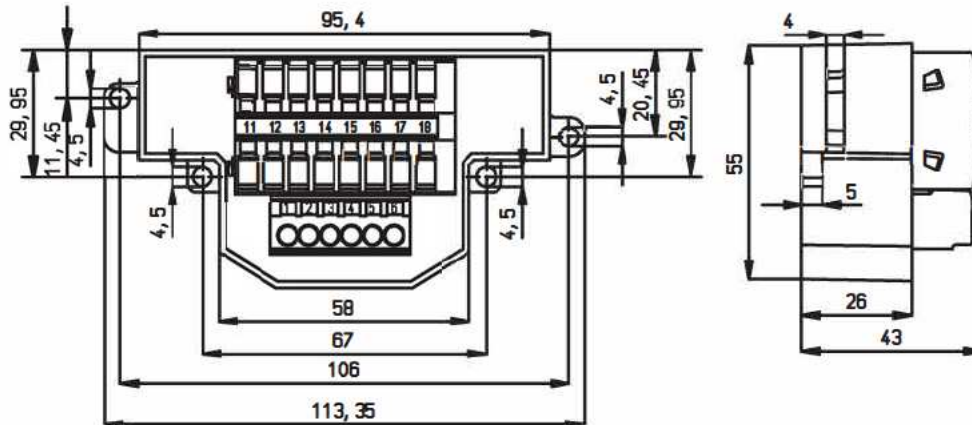
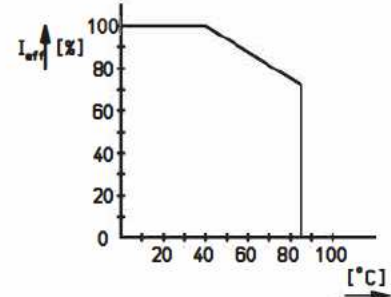
Full wave rectifier FWR-PE400/150/3

Principal circuit diagram

Rev. 10-10



load diagram



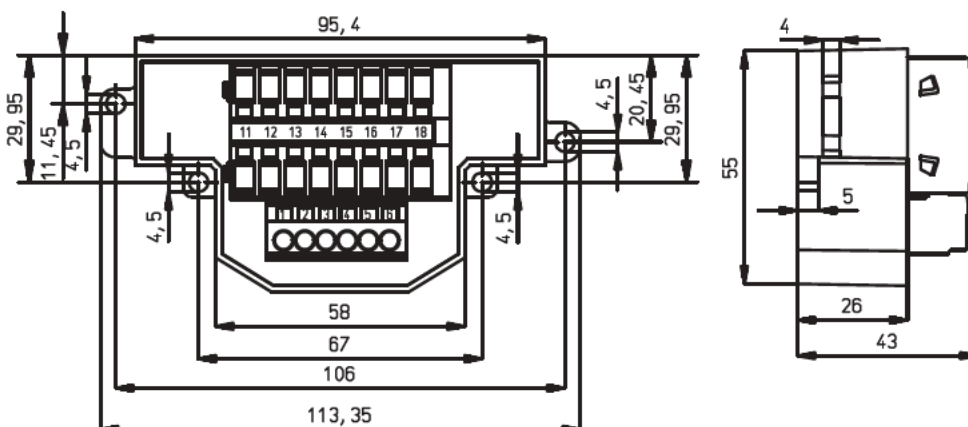
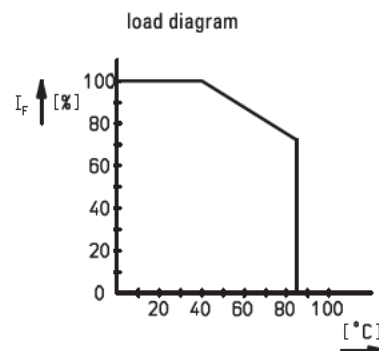
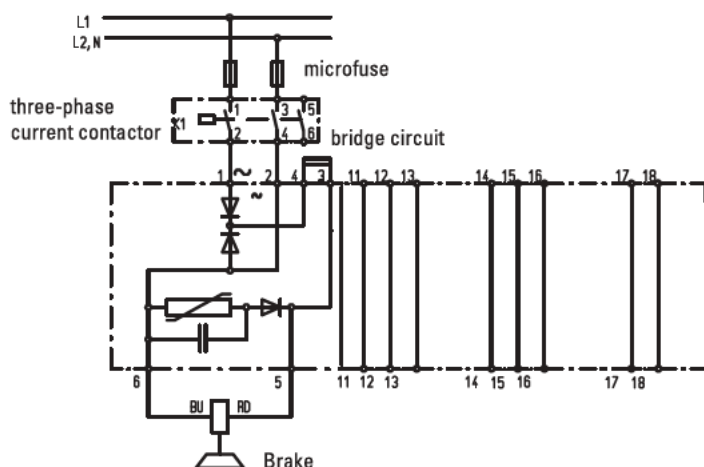
Technical data

| | |
|--|---|
| Coil voltage of the connected brake | DC 24V ... 390V |
| Max. voltage of supplying alternating current network | AC 460V - 50/60 Hz |
| Max. Output current I_{eff} at $T_A = < 50^\circ C$ | 2,5 A |
| Max. Output current I_{eff} at max. T_A 85°C | 1,8 A |
| Protection fuse in the AC input voltage line to the rectifier (In the selection of fuse is permissible on the $I^2 t$ limit load integral to eight) | FF 4A microfuse switching capacity H |
| Permitted limit integral $I^2 t$ | 700A ² s (t < 10ms) |
| Max. energy absorption of a shut-off | 150 J |
| Max. continuous power of the internal protective circuit (average value) | 3W |
| Shut-off peak at max. coil current | < 450V |
| Ambiente temperature T_A | -40° C ... +85° C |
| Permissible cross section of connection wire | 0,2 ... 2,5 mm AWG 24 ... 14 |
| Weight | 0,3 kg |
| Protection class | IP 65 components seal / IP20 terminals |
| Mark of conformity | CE / RoHS conform |

Full wave rectifier HWR-PE400/150/5

Principal circuit diagram

Rev. 10-10



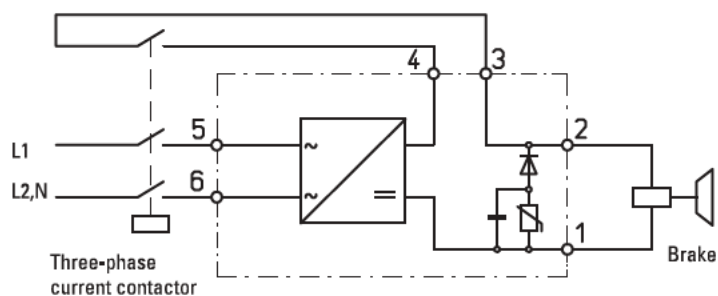
Technical data

| | |
|--|---|
| Coil voltage of the connected brake | DC 24V ... 240V |
| Max. voltage of supplying alternating current network | AC 550V - 50/60 Hz |
| Max. Output current I_{eff} at $T_A = < 50^\circ\text{C}$ | 5 A |
| Max. Output current I_{eff} at max. T_A 85°C | 3,6 A |
| Protection fuse in the AC input voltage line to the rectifier (In the selection of fuse is permissible on the $I^2 t$ limit load integral to eight) | FF 4A microfuse switching capacity H |
| Permitted limit integral $I^2 t$ | 700A ² s (t <10ms) |
| Max. energy absorption of a shut-off | 150 J |
| Max. continuous power of the internal protective circuit (average value) | 5W |
| Shut-off peak at max. coil current | < 450V |
| Ambiente temperature T_A | -40° C ... +85° C |
| Permissible cross section of connection wire | 0,2 ... 2,5 mm AWG 24 ... 14 |
| Weight | 0,3 kg |
| Protection class | IP 65 components seal / IP20 terminals |
| Mark of conformity | CE / RoHS conform |

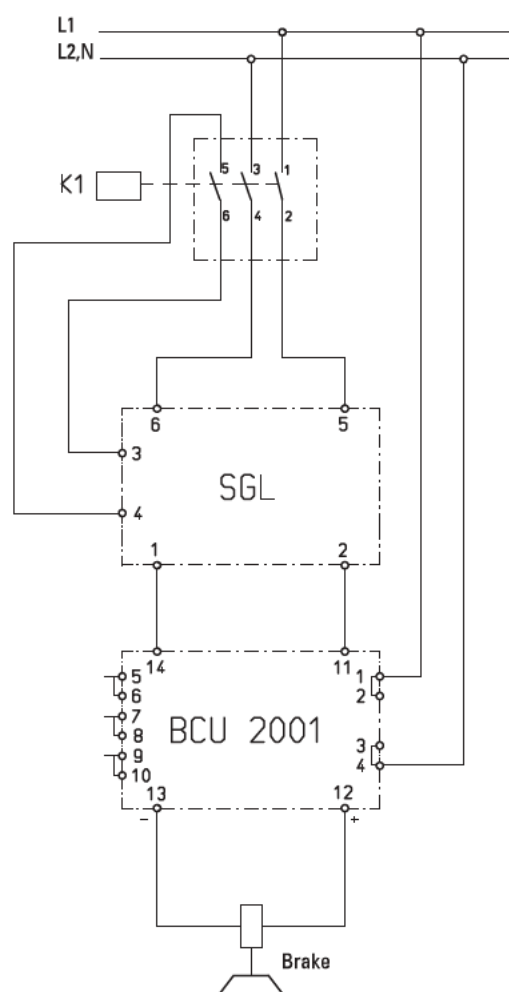
Switching rectifier SGL

Principal circuit diagram

Rev. 03-09



Switching rectification with module SGL



Switching rectification with module SGL combined with the Brake Control Unit BCU2001

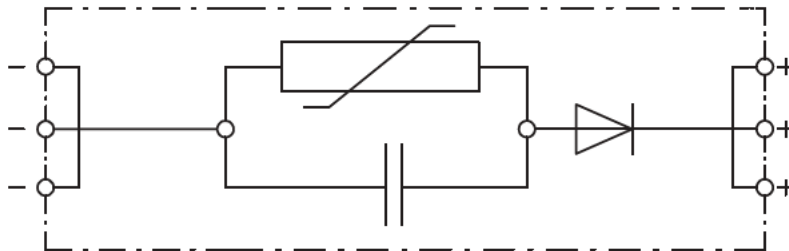
Technical data

| | |
|---|--------------------------|
| AC line voltage: | AC 220V...484V; 50/60 Hz |
| Maximum brake current for 2 s: | 8A |
| Maximum continuous output of the internal protective circuit: | 5 W |
| Permanent brake current: | 4A |
| Time settings by DIP switch: | 0,5 s, 1 s, 1,5 s, 2,0 s |
| Ambient temperature: | -40° C ... +50° C |
| Protection class: | IP 20 |

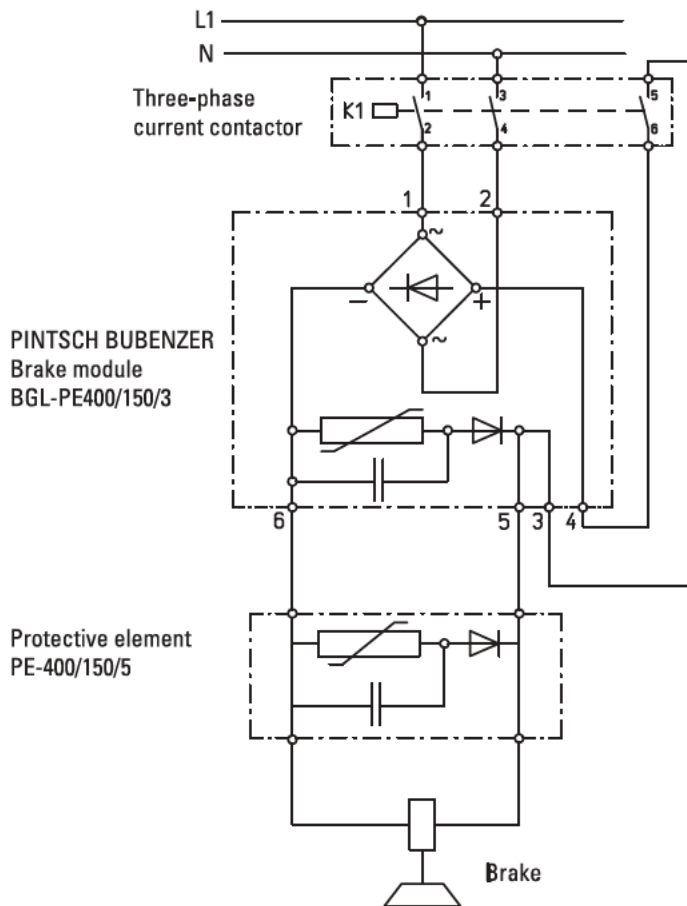
Protective element PE-400/150/5

Principal circuit diagram

Rev. 03-09



Protective element
PE-400/150/5



Bridge rectification with
module BGL combined
with the protective element
PE-400/150/5

Technical data

| | |
|---|-------------------|
| Maximum brake voltage: | DC 400V |
| Maximum brake current: | 5A |
| Maximum continuous output of the internal protective circuit: | 5W |
| Disconnection peak at maximum coil current: | ≤ 450V |
| Ambient temperature: | -40° C ... +50° C |
| Protection class: | IP 20 |