

**Topic:** **Regenerative operation COMBIVERT R6-S 25R6S3R-xxxx with decoupling diodes**

This information contains a wiring diagram for regenerative operation with a KEB COMBIVERT R6S 25R6S3R-xxxx with decoupling diodes.

**Range of validity**

Regenerative unit of R6-S series with part No. : 25R6S3R-xxxx

further products on request

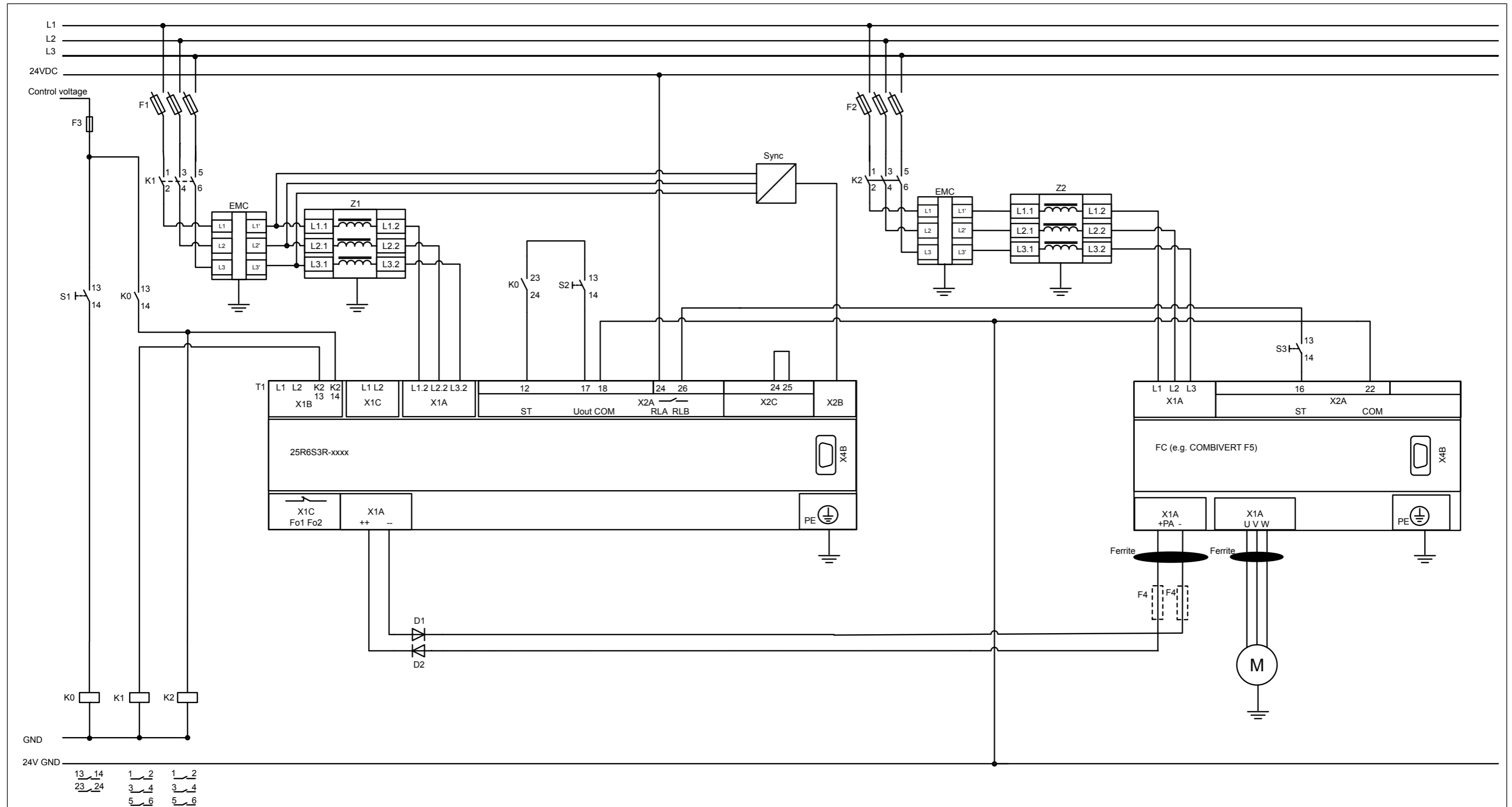


Figure 1: Regeneration KEB COMBIVERT R6-S 25R6S3R-xxxx with decoupling diodes

F1	Line fuse R6 type aR/gR	
F2	Line fuses frequency inverter	
F3	10A fuse for control gL/gG	
F4	Optional dc-fuses type aR/gR	The conductor size and the dc-fuses must be dimensioned to the dc-current of the load..
S1/K0	Power on/off	
S2/S3	External control release	
K1	regenerative contactor	
K2	mains contactor	
EMC	EMC-Filter	
Sync	Synchronisation unit (max. length of phase wire 1m)	
Z1	commutation reactor R6	
Z2	mains choke / harmonic filter / frequency inverter	
T1	Power supply / regenerative 25R6S3R-xxxx	
	X1A	power circuit terminals
	X1B	Connector for mainscontactor
	X1C	Connection for precharging and dc-fuses
	X2A	Control terminal strip
	X2B	Connection for synchronization line
	X2C	Activation of the line contactor self-holding
	X4B	HSP5 operator interface
D1/D2	Decoupling diodes (see annex of instruction manual)	
FC	Frequency inverter	
M	Motor	

*Table 1: Legend to figure 1*

## Attention

### Destruction of regenerative unit!

- ▶ External precharge  $\leq 10s$ .
- ▶ Load extraction only when relay 1 is ready for operation
- ▶ In case of failure the mains contactor with S1/K1 must disconnect from the supply system.

### Instructions

The parallel operation of frequency inverter and R6-S causes in regeneration operation a circulating current. It depends on the inductance of the mains choke The entire regenerative power is 70...90% of the R6-S regenerative power.