

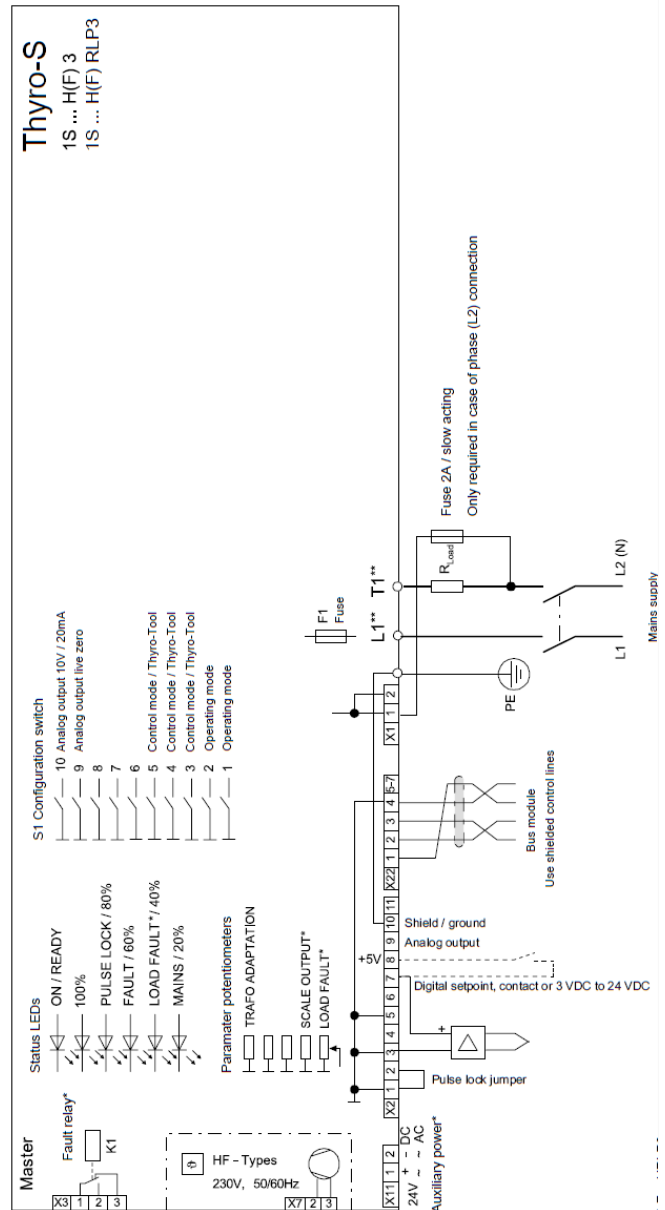
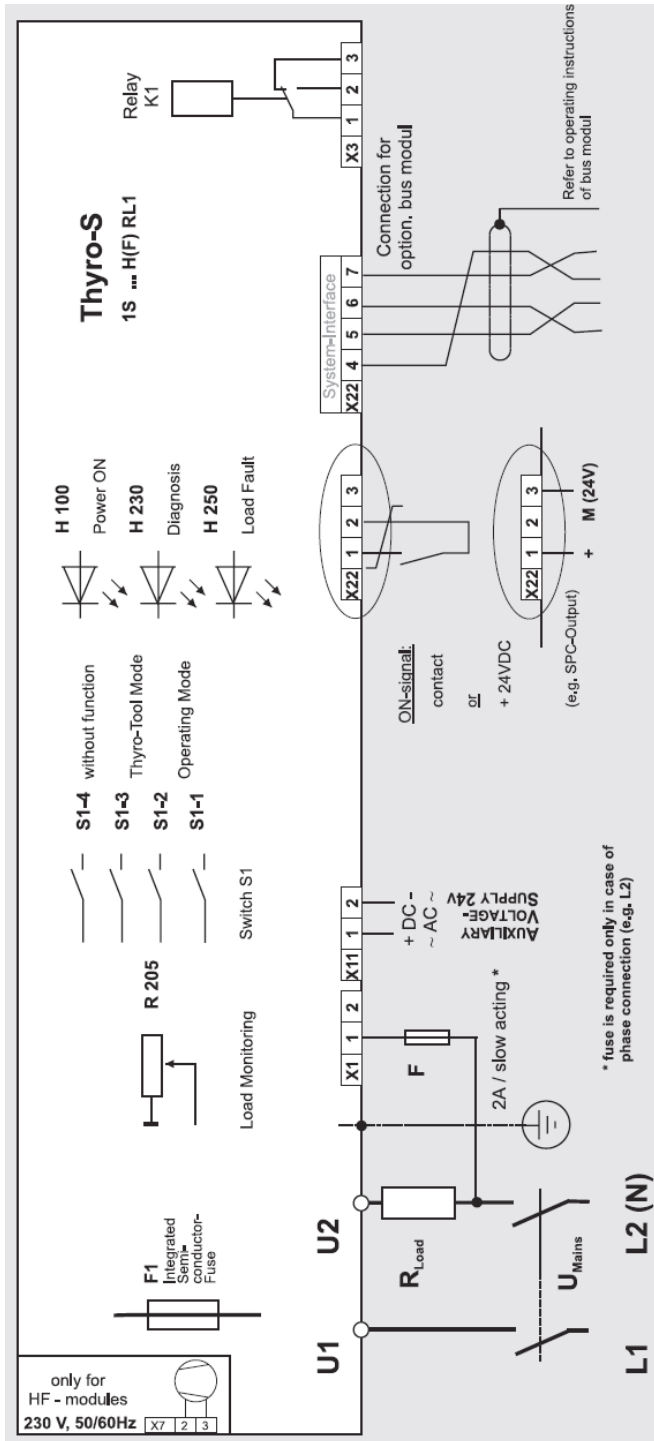
Tech Note 58500012A: Replacing Thyro-S...1 with Thyro-S...3

Power Connections

For single phase heaters operated phase to phase or phase to neutral.

Left page: Thyro-S 1S ... H(F) RL1

Right page: Thyro-S 1S ... 3



Required connections:

Thyro-S...1 (Thyro-S 1S...3)

Mains phase 1 to Thyro terminal U1 (L1).

Thyro terminal U2 (T1) to heater A.

Heater B to neutral or mains phase 2 and Heater B via fuse to X1.1 as reference.

If the unit is supplied with a fan, the fan has to be supplied via X7 as specified.

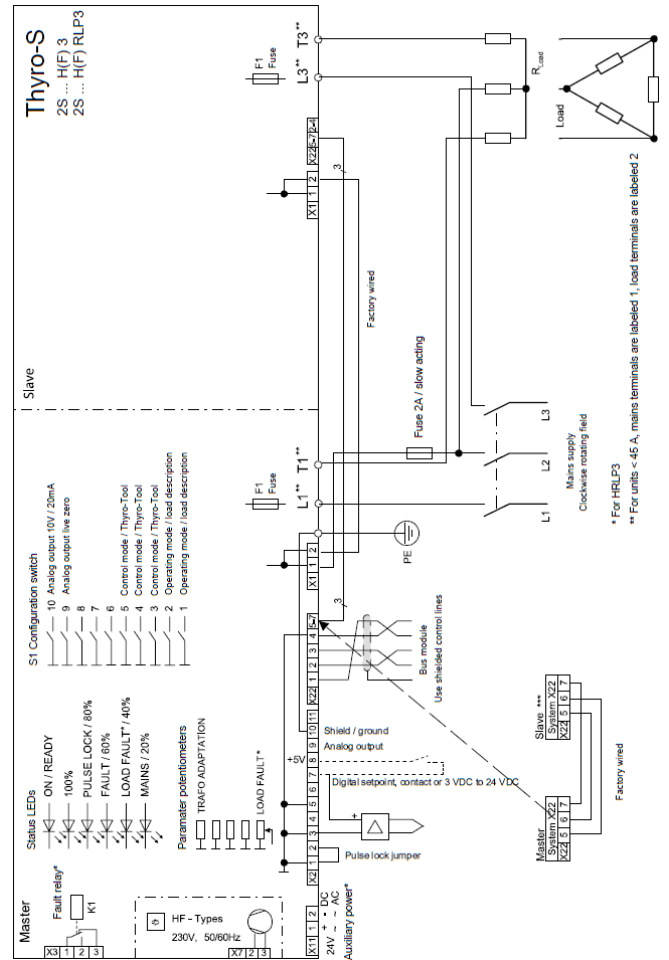
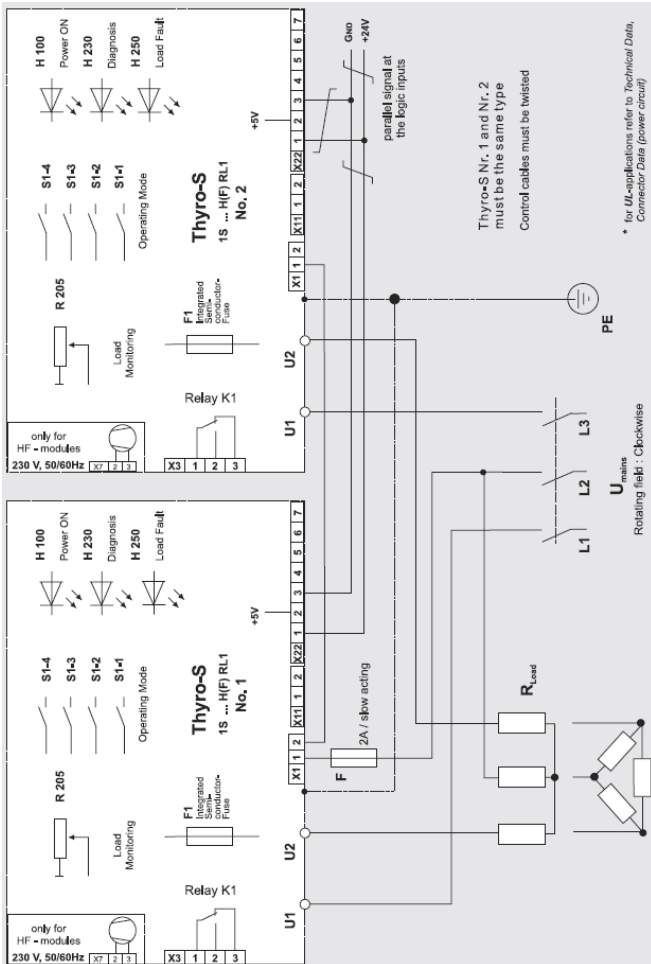
24V auxiliary voltage can be supplied to X11.

Tech Note 58500012A: Replacing Thyro-S...1 with Thyro-S...3

Power Connections

For three phase heaters connected in delta or star without neutral.

Left page: 2x Thyro-S 1S ... H(F) RL1
 Right page: 1x Thyro-S 2S ... 3



Required connections:

2x Thyro-S 1S...1 (1x Thyro-S 2S...3)

Mains phase 1 to Thyro terminal U1 (L1).
 Mains phase 3 to Thyro terminal U1 of 2nd unit (L3).
 Mains phase 2 to heater L2.

Heater L2 via fuse to X1.1 of 1st unit as reference.

Thyro terminal U2 (T1) to heater L1.
 Thyro terminal U2 of 2nd unit (T3) to heater L3.

If the unit is supplied with a fan, the fan has to be supplied via X7 as specified.

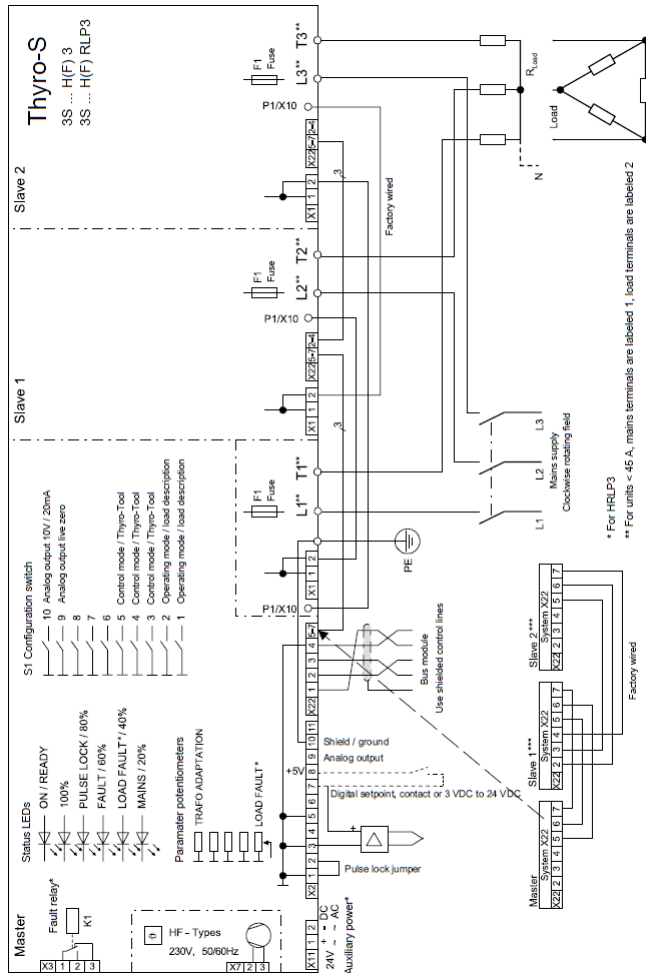
24V auxiliary voltage can be supplied to X11.

Tech Note 58500012A: Replacing Thyro-S...1 with Thyro-S...3

Power Connections

For three phase heaters with 3 controlled legs.
Mainly used for open delta or star with neutral.

Below: 1x Thyro-S 3S ... 3



Required connections: Thyro-S 3S...3

Mains phase 1 to Thyro terminal L1.

Mains phase 2 to Thyro terminal L2.

Mains phase 3 to Thyro terminal L3.

Thyro terminal T1 to heater L1.

Thyro terminal T2 to heater L2.

Thyro terminal T3 to heater L3.

If the unit is supplied with a fan, the fan has to be supplied via X7 as specified.

24V auxiliary voltage can be supplied to X11.

Fieldbus Communication

Thyro-S ... 1 requires one communication port for each controlled phase (module). If a 3 phase heater is controlled with 2x Thyro-S, two cables and ports on the bus module are required. To setup the PLC for the connected Thyro-S units, the correct type Thyro-S...H1 or HRL1 needs to be chosen.

Thyro-S ... 3 requires one communication port for each Thyro-S. If a 3 phase heater is controlled with a 2S, only one cable and port on the bus module is required. To setup the PLC for the connected of the Thyro-S...3 unit, the equivalent type of Thyro-A...H1, HRL1 or HRLP1 needs to be chosen.

Installed	PLC Configuration
1S...H3	1A...H1
2S...H3	2A...H1
3S...H3	3A...H1
1S...HRLP3	1A...HRLP1
2S...HRLP3	2A...HRLP1
3S...HRLP3	3A...HRLP1

Fieldbus Communication (Anybus)

Please contact technical.support@aei.com