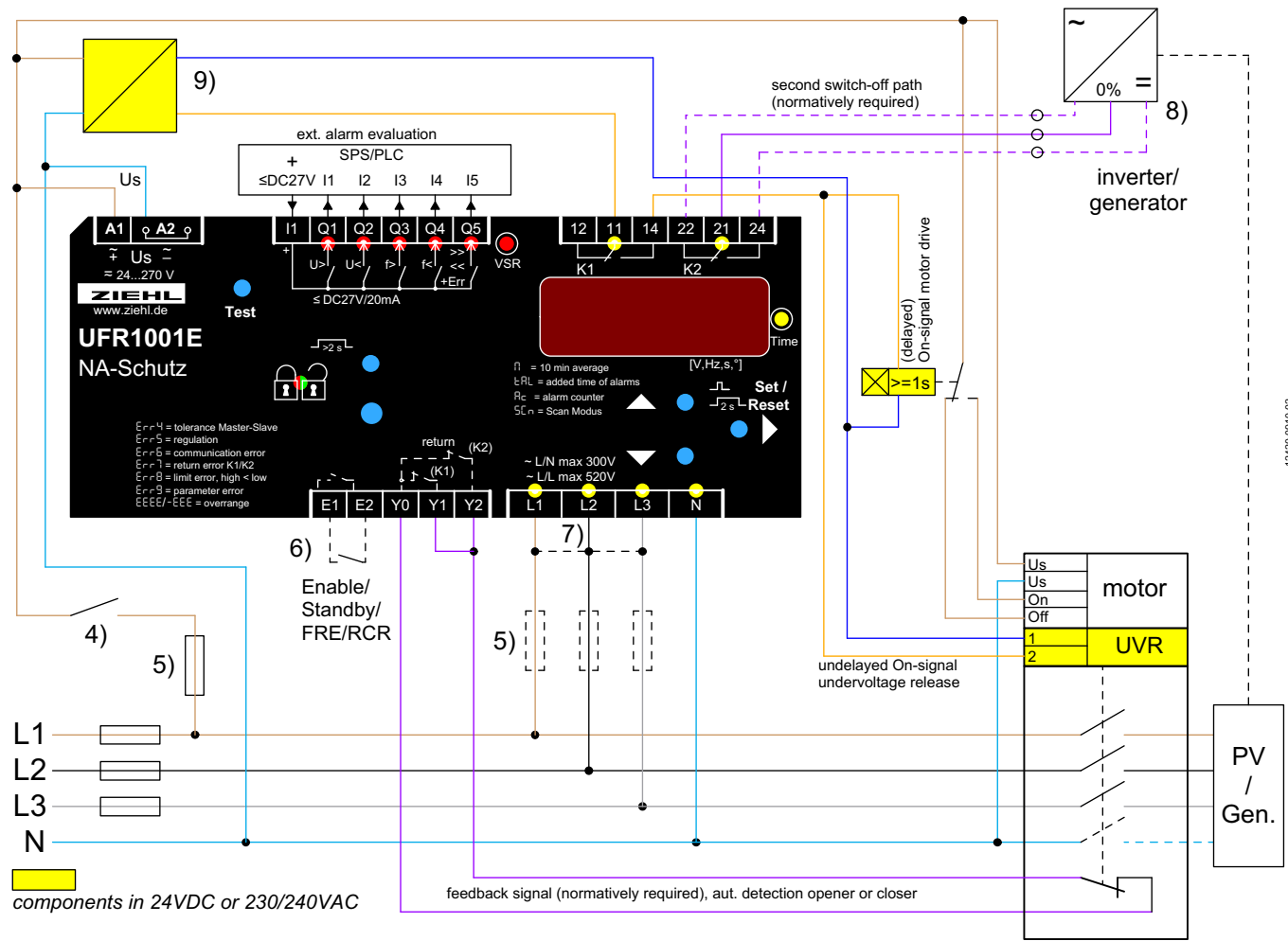


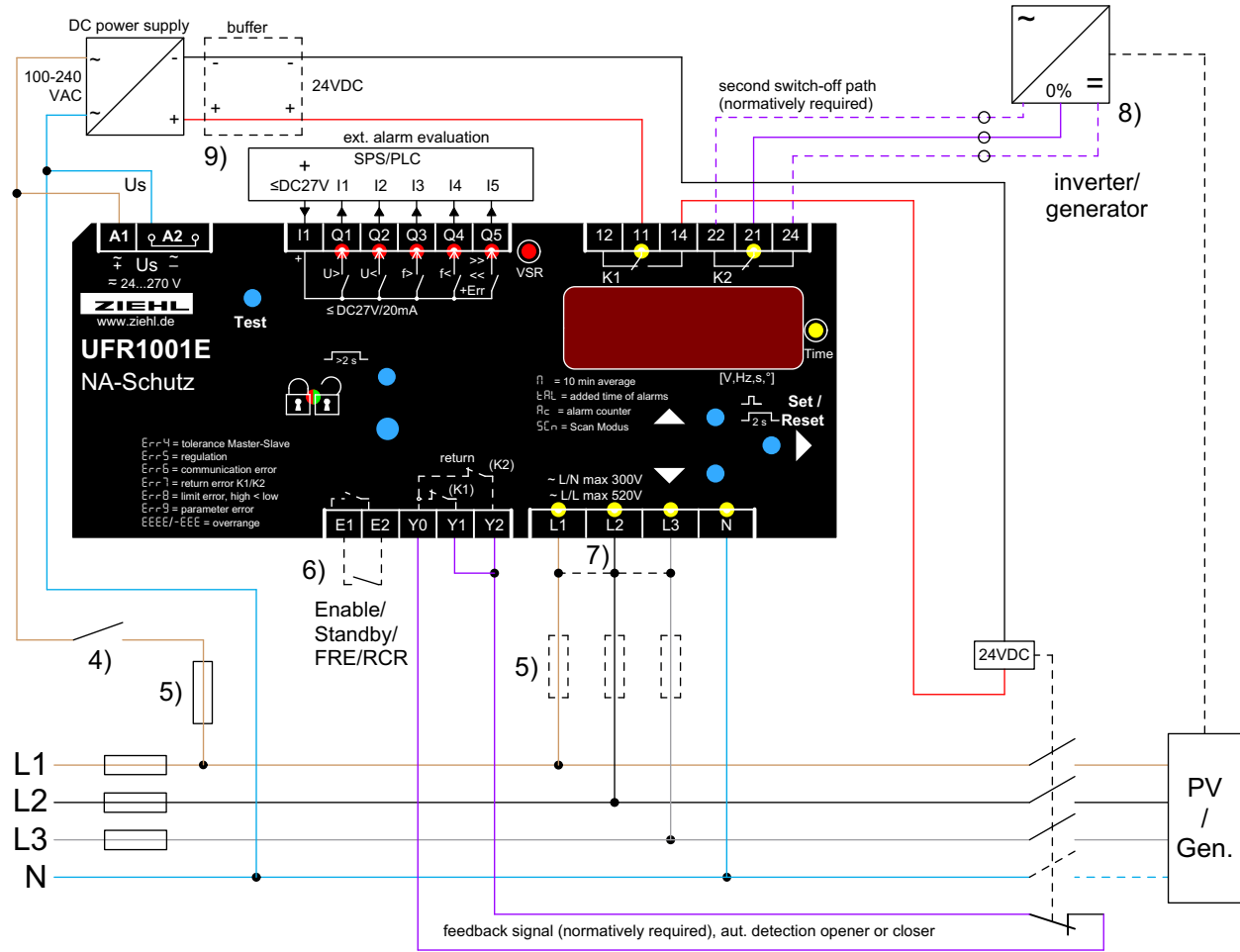
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- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and $U_{5r} / 5t5t5$. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 8) Single-fault safety: shutdown of the self generation plant e.g. by ripple control input 0% with K2. Use coupling relays for contact multiplication if safe isolation is required. (control voltage 24-230VAC or fed over power supply / buffer)
This second switch-off path must be tested separately during commissioning. (t5t2)
- 9) Power supply / buffering. Switches have to withstand undervoltage / voltage breakdown for min. 3 s / 0,3 s (FRT)
To ensure compliance with the off-delay time (3 s) in the event of undervoltage, it is possible to use in conjunction with suitable 24VDC contactors / undervoltage release the following power supply units can be used e.g. WAGO 787 1122, J.Schneider AC C-TEC 2403



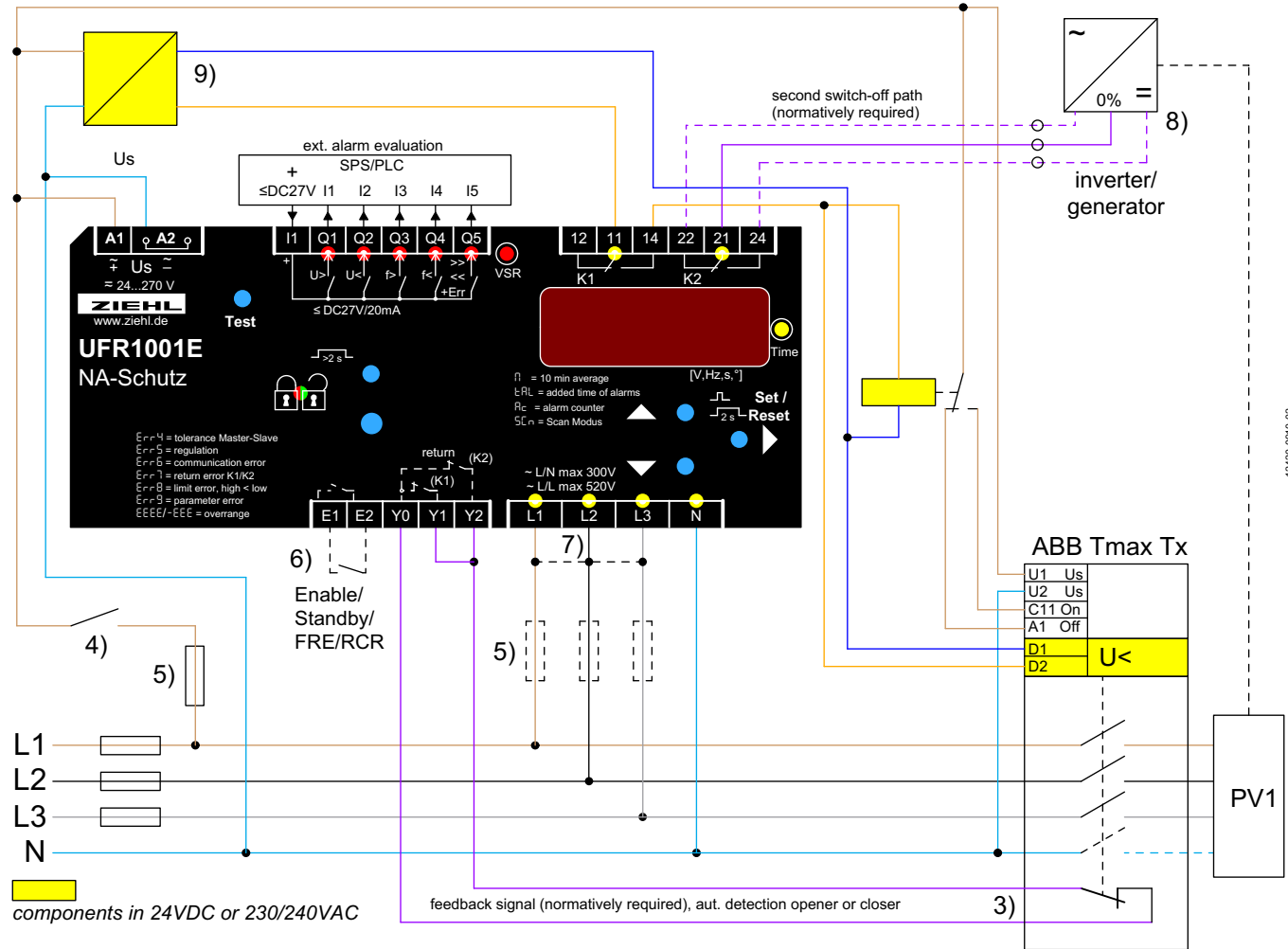
VDE-AR-N 4105:2018-11



- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and $U_{5r} / 5t_{5r}$. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 8) Single-fault safety: shutdown of the self generation plant e.g. by ripple control input 0% with K2. Use coupling relays for contact multiplication if safe isolation is required. (control voltage 24-230VAC or fed over power supply / buffer) This second switch-off path must be tested separately during commissioning. (t5t2)
- 9) Power supply / buffering. Switches have to withstand undervoltage / voltage breakdown for min. 3 s / 0,3 s (FRT) To ensure compliance with the off-delay time (3 s) in the event of undervoltage, it is possible to use in conjunction with suitable 24VDC contactors / undervoltage release the following power supply units can be used e.g. WAGO 787 1122, J.Schneider AC C-TEC 2403



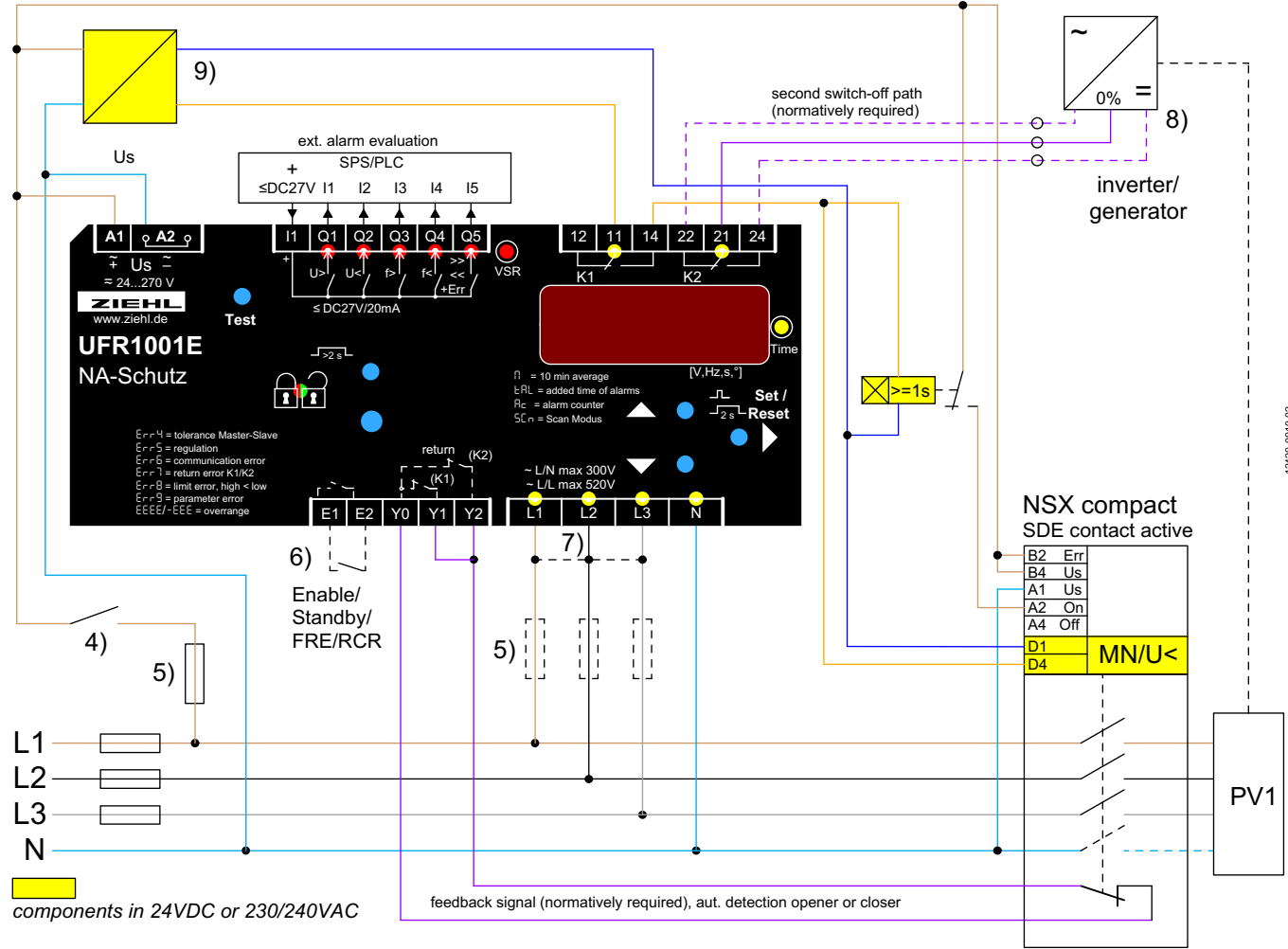
VDE-AR-N 4105:2018-11



- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and $U_{s-} / 5 \leq U_{s-}$. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 8) Single-fault safety: shutdown of the self generation plant e.g. by ripple control input 0% with K2. Use coupling relays for contact multiplication of if safe isolation is required. (control voltage 24-230VAC or feeded over power supply / buffer)
This second switch-off path must be tested separately during commissioning. ($t_{s-} \leq t_{s-}$)
- 9) Power supply / buffering. Switches have to withstand undervoltage / voltage breakdown for min. 3 s / 0,3 s (FRT)
To ensure compliance with the off-delay time (3 s) in the event of undervoltage, it is possible to use in conjunction with suitable 24VDC contactors / undervoltage release the following power supply units can be used e.g. WAGO 787 1122, J.Schneider AC C-TEC 2403



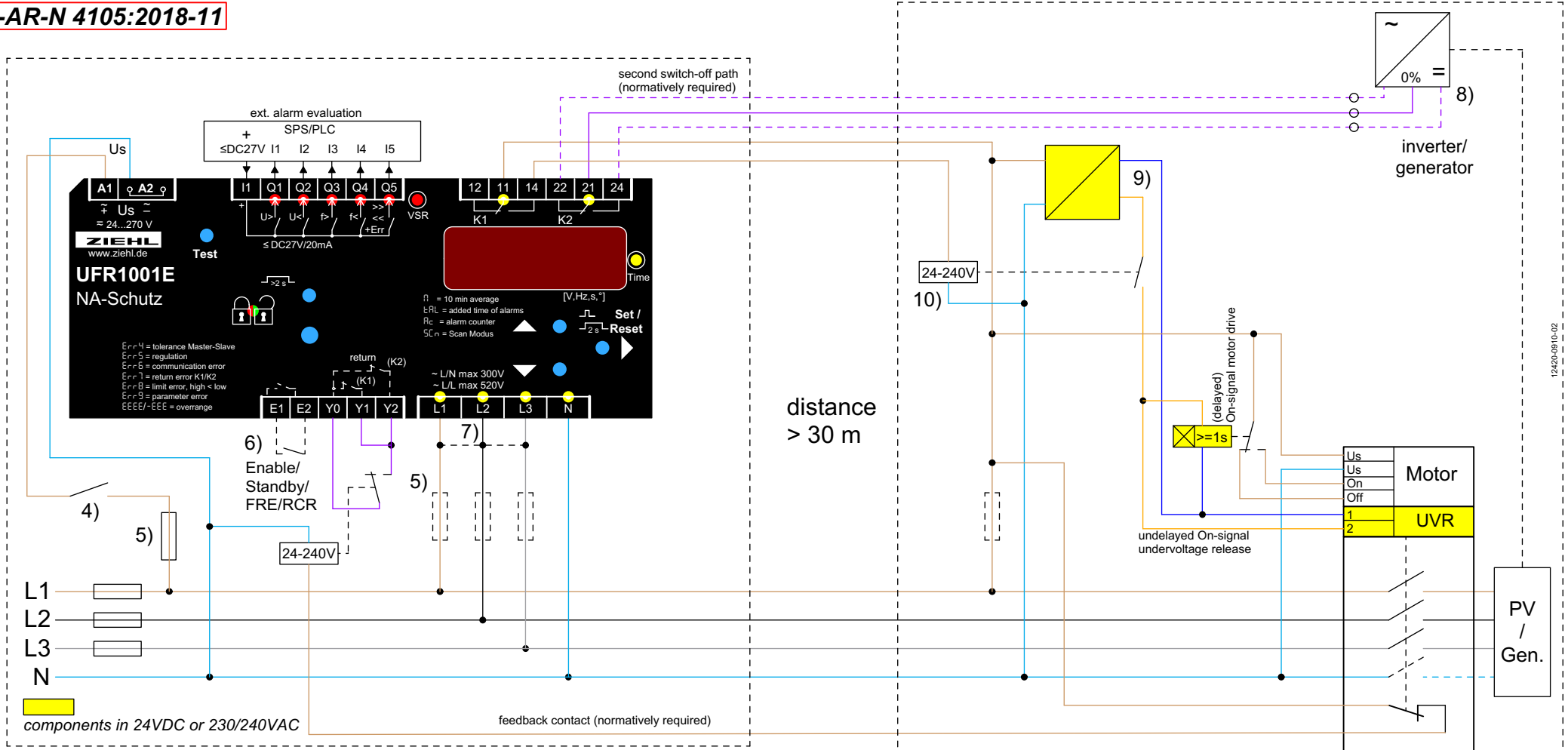
VDE-AR-N 4105:2018-11



- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and $U_{sc} / 5t_{bY}$. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 8) Single-fault safety: shutdown of the self generation plant e.g. by ripple control input 0% with K2. Use coupling relays for contact multiplication of if safe isolation is required. (control voltage 24-230VAC or feeded over power supply / buffer) This second switch-off path must be tested separately during commissioning. (t5t2)
- 9) Power supply / buffering. Switches have to withstand undervoltage / voltage breakdown for min. 3 s / 0,3 s (FRT) To ensure compliance with the off-delay time (3 s) in the event of undervoltage, it is possible to use in conjunction with suitable 24VDC contactors / undervoltage release the following power supply units can be used e.g. WAGO 787 1122, J.Schneider AC C-TEC 2403

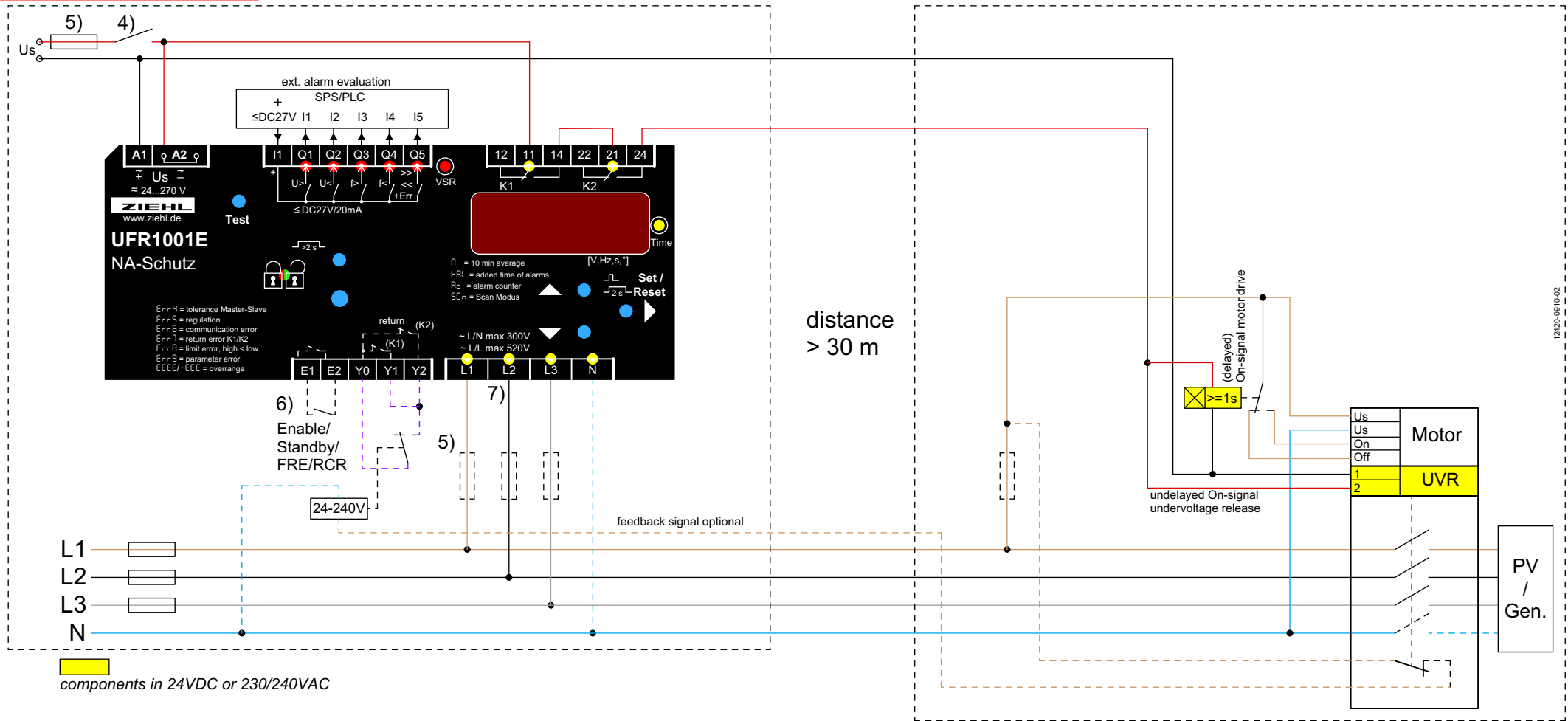


VDE-AR-N 4105:2018-11



- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and $U_{5r} / 5t_{5r}$. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 8) Single-fault safety: shutdown of the self generation plant e.g. by ripple control input 0% with K2. Use coupling relays for contact multiplication of if safe isolation is required. (control voltage 24-230VAC or feeded over power supply / buffer) This second switch-off path must be tested separately during commissioning. (5t5t2)
- 9) Power supply / buffering. Switches have to withstand undervoltage / voltage breakdown for min. 3 s / 0,3 s (FRT) To ensure compliance with the off-delay time (3 s) in the event of undervoltage, it is possible to use in conjunction with suitable 24VDC contactors / undervoltage release the following power supply units can be used e.g. WAGO 787 1122, J.Schneider AC C-TEC 2403
- 10) Coupling relay extends switch-off time (total switch-off time must be $\leq 100ms$)

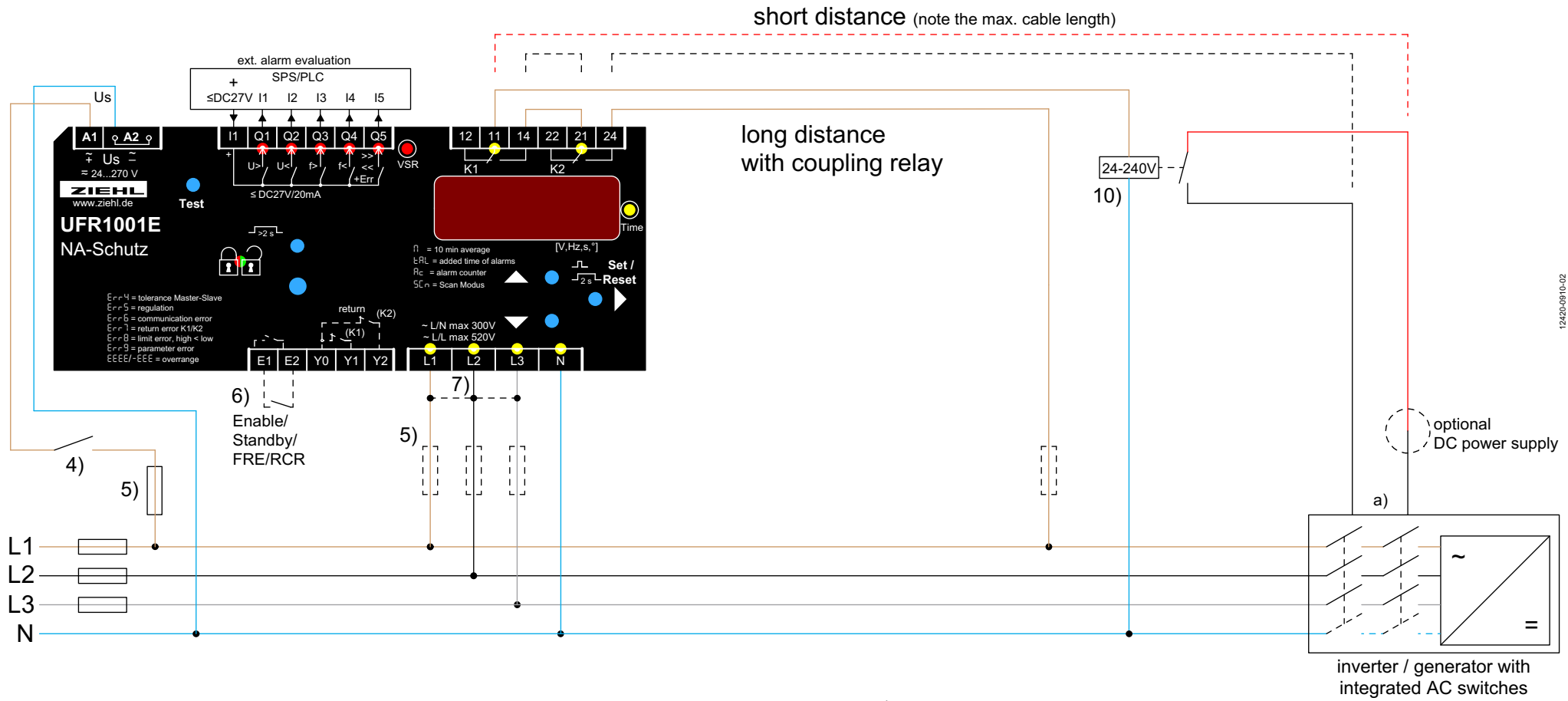
VDE-AR-N 4110:2018-11



- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and U_s / 5. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)



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a)	Manufacturer	input module	connectors	max. cable length	ext. power supply
	SMA	MD.IO-40	A1 + A4	100 m	nein
	Solar Edge	Wechselrichter	5V + L1	-	nein

- 4) Switch off of plant without recording an alarm
- 5) Fuses only when line protection necessary, e.g. 16 A
- 6) contact closed and Us. / 5t6t. (default setting) = Standby, K1+2 switched off (e.g. by ripple control receiver or clock,...)
- 7) 1 phase Application connect L1-L2-L3, 2 phase Application L1 / L2+L3 (only Pr 5, 7, 10, 13, 20)
- 10) Coupling relay extends switch-off time (total switch-off time must be <= 100ms)