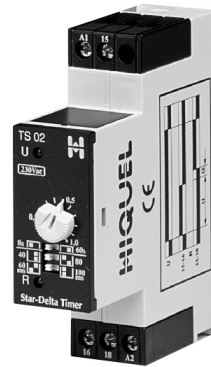
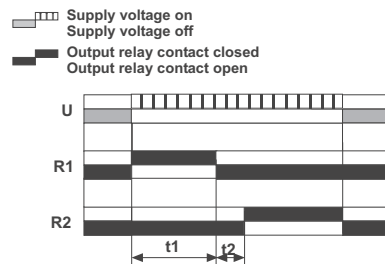


# TS overview

- ◆ single or dual supply voltage options
- ◆ 2 x SPNO output relay
- ◆ 2 star period time ranges
- ◆ 4 dwell times selected by dip switch
- ◆ LED indicators for power supply and relay status
- ◆ 22.5mm DIN rail mount housing or 11pin plug in housing



Star-delta start timer

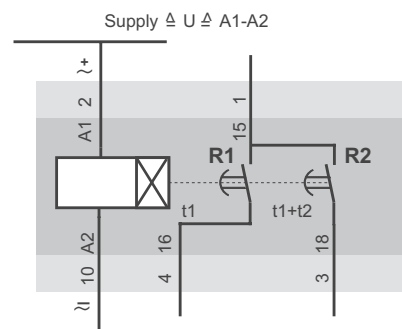
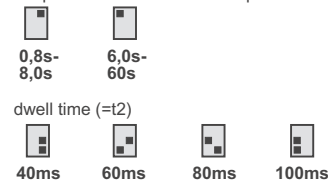


Remove supply voltage before making any changes to either time range or timing function.

On the application of the supply voltage the star relay pulls in immediately for the duration of the star time set. When the star time expires the star relay drops out and the dwell time begins. At the end of the dwell time the delta relay pulls in. When the supply voltage is removed the delta relay drops out and the time relay resets ready for the next timing cycle.

### Time ranges

star time (=t1) required delay time is set using the potentiometer on the front plate



## specification

supply voltage variation	nominal voltage +10% / -15%
frequency range	48 - 63 Hz
max. delay time	100% of the selected range
repeat accuracy	< 1% of the selected range
output relay specification	max. 10A 230V~
Ue/Ie AC-15*	120V/5A 240V/4A
Ue/Ie DC-13*	24V/4A
	EN 60947-5-1 VDE 0435
expected life time	SPNO
mechanical	1 x 10 <sup>7</sup> operations
electrical	1 x 10 <sup>5</sup> operations
screws	pozidrive 1
screw tightening torque	0,6...0,8Nm
operating conditions	-20 to +60 °C non condensing

\* EN 60947-5-1 VDE 0435

## ordering information

part no	supply	output	relay type	HIQUEL <sup>®</sup>	housing type
TS02	230V~	6VA	2 SPNO	yes	A
TS03	24V~=	1W	2 SPNO	yes	A
TS05	115V~	6VA	2 SPNO	yes	A
TS06	415V~	6VA	2 SPNO	yes	A
TS42	230V~ / 24V~=	6VA / 1W	2 SPNO	no	G
TS44	115V~ / 24V~=	6VA / 1W	2 SPNO	no	G
TS72	230V~ w. transf.	2VA	2 SPNO	no	G
TS74	115V~ w. transf.	2VA	2 SPNO	no	G

other voltages on request

