finder
RELAYING INNOVATION

78.12

78.12.1.230.xxxx

IN	78.12-**1200** 78.12-**2400** 78.12-**2402** 78.12-**2482**	U_N (110…240) V AC (50/60 Hz) / U_N 220 V DC U_{min}-U_{max} (100 - 265) V AC ($I_{OUT} = I_N$) U_{min}-U_{max} (88 - 100) V AC ($I_{OUT} = 80\%$ I_N) Sr U_{min}-U_{max} (140 - 370) V DC 78.1P - 2 0.34 W	
	78.12-**1200** 78.12-**2400**	U_N 220 V DC U_{min}-U_{max} (140 - 370) V DC	
OUT	78.12-**1200**	1.25 A (max 2 A - 3 ms) 12 V DC, 15 W [(−20…+40)°C, **IN** 230 V AC] 1 A (max 2 A - 3 ms) 12 V DC, 12 W [50°C, **IN** (100…265)V AC - (140…370)V DC]	
OUT	78.12-**2400** 78.12-**2482**	0.63 A (max 2 A - 3 ms) 24 V DC, 15 W [(−20…+40)°C, **IN** 230 V AC] 0.5 A (max 2 A - 3 ms) 24 V DC, 12 W [50°C, **IN** (100…265)V AC - (140…370)V DC]	
OUT LED (Load)	78.12-**2402** (LED driver)	0.5 A 24 V DC, 12 W (max 2 A - 3 ms)	
🌡	78.12-**1200** 78.12-**2400**	(−40…+50°C (I_N)...+60)°C	
	78.12-**2402**	Ta (−20…+40)°C Tc 70°C 🔘	Ta (−20…+50°C c(UL)us…+60)°C
	78.12-**2482**	(−20…+50 °C c(UL)us…+60)°C	
IP20			

❶
LOAD 1

88.8 mm
60.8 mm
17.5 mm

	8mm	8mm
🔧 0,8 Nm 7,1 Lb-in		
78.12-**1200** 78.12-**2400**	(1x4/2x2.5) mm² (1x12/2x14) AWG	(1x4/2x2.5) mm² (1x12/2x14) AWG
78.12-**2402** (LED DRIVER)	(0.5...2.5) mm² (20...14) AWG 🔘	(0.5...2.5) mm² (20...14) AWG
78.12-**2402** 78.12-**2482** (GENERAL USE)	(0.5...4) mm² (20...12) AWG Cu / CCA / Al-Cu / Cu-Al 85°C c(UL)us	(0.5...4) mm² (20...12) AWG Cu / CCA / Al-Cu / Cu-Al 85°C c(UL)us
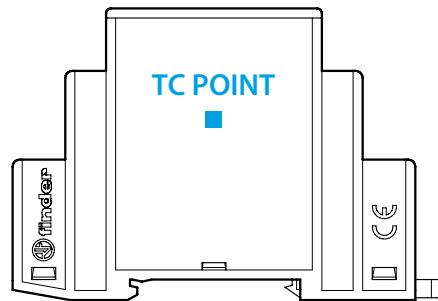
TC POINT
■
78.12.1.230.2402 Tc Point

❷

2a — 2b — 2c

❸
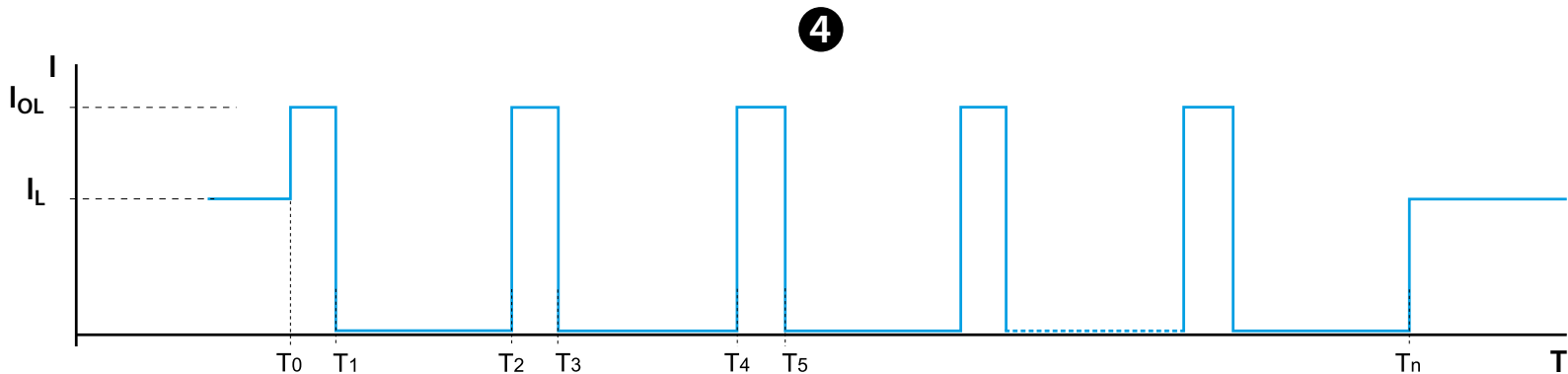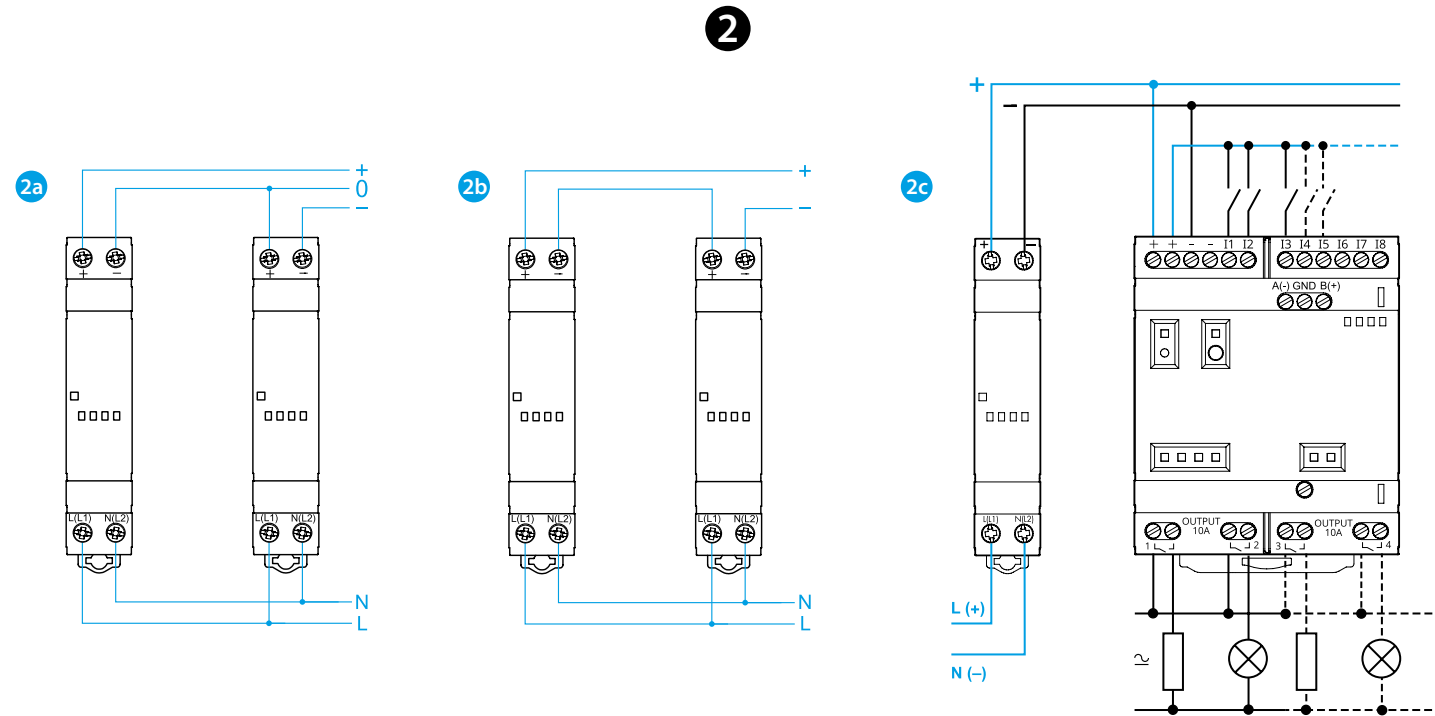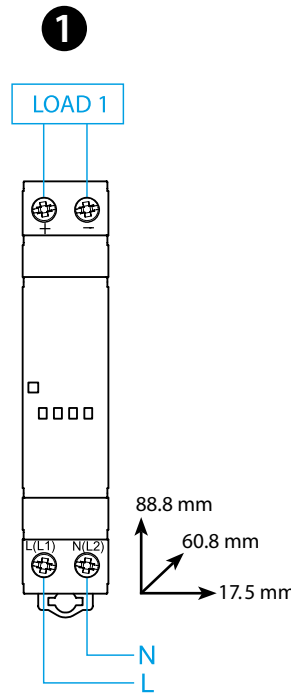
78	U_N	**LED**
OK	√	▬▬▬▬
Sh	√	▮▮▮▮▮▮▮▮▮
ThL	√	OFF

78.12-2402

TÜV SÜD
c(UL)us LISTED
IND. CONT. EQ.
E361251

15
SELV

78.12-2482

c(UL)us LISTED
IND. CONT. EQ.
E361251

15
SELV

❹

I
I_{OL}
I_L

T0 T1   T2 T3   T4 T5   Tn   T

ENGLISH

78.12 SWITCH MODE POWER SUPPLY
❶ WIRING DIAGRAM
❷ WIRING DIAGRAM EXAMPLES
  2a Dual connection
  2b Series connection
  2c 78.1P - 2482 + type 8A-OPTA wiring
❸ LED
  U   AC/DC Supply
       AC Supply - 78.12.1.230.2402
  Sh   Short circuit
  ThL Thermal limit
❹ Hiccup mode (short circuit protection)
  I_{OL} - **Overload current**
  I_L - **Load current**
  Under normal conditions, the 78 Series Power Supply supplies the
  current required by the load (I_L). However, under abnormal conditions
  (I_{OL}) such as a short circuit or heavy overload (T0) the output voltage
  will be rapidly reduced to zero-followed by the current (T1).
  After approximately 2 seconds (T1 to T2), the power supply checks
  for the persistence of the anomaly over the time period T2 to T3
  (30 to 100ms-dependent on the type of anomaly). If the anomaly persists,
  as shown above, the current is again reset to 0 A for a further 2s (T3 to T4).
  This "hiccup" process is repeated until the anomaly is removed (Tn),
  whereon the power supply then returns to normal working.
  NOTE
  Efficiency (@ 230 V AC) 85% (78.12-2400, 78.12-2402 and 78.12-2482).
  Efficiency (@ 230 V AC) 87% (78.12-1200).
  Conducted and radiated emissions: class B (EN 55022).
  Thermal protection: internal, with Vout shutdown.
  Start-up delay: <1s.
  78.12.1.230.1200, 2400 and 2482:
  **These products can be used without special requirements concerning
  wiring. However, to ensure compliance with EN 61204-3: 2019, the
  length of the connection cables between the output terminals and
  the load must not exceed 30 m.**
  78.12.1.230.2402 (TUV approval statement):
  **This product can be used without special requirements concerning
  wiring. However, to ensure compliance with EN 61204-3: 2019,
  EN 61347-2-13, and EN 61347-1, the length of the connection cables
  between the output terminals and the load must not exceed 30 m.
  In accordance with EN 61347-1, Clause 7.1 k, reinforced insulation
  is provided between the output and all other live parts, and basic
  insulation applies between all internal live parts and the external
  surface of the casing. According to EN 61347-1 Clause 7.1 g, the
  LED driver relies on the luminaire enclosure for protection against
  accidental contact with live parts.**
  NOTE
  If the equipment is used in a manner not specified by the manufacturer,
  the protection provided by the equipment may be impaired**.**

finder