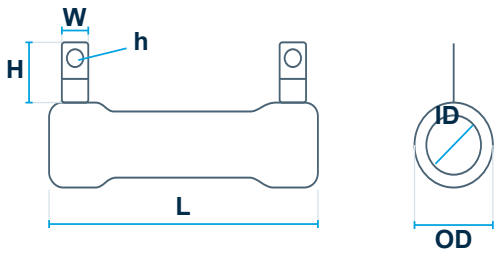
TL SERIES

Vitreous Enamelled Power Wirewound Resistors



Outline drawing



L, OD, ID, H, W and h are listed below.

11 models with power ratings spanning 5-400 W.

Enamelled wirewound construction, a wide resistance range and high-temperature load capability.

Selection data and dimensions (mm)

Type	Power (W)	Range (Ω)	Insul. (V)	L	OD	ID	H	W	h
TL-5	5	0.1-2 k	500	25	6.35	3.96	6.5	3.2	1.5
TL-10	10	0.1-3 k	500	25.4	11.2	7.9	10	4.8	2.4
TL-20	20	0.1-5 k	1000	50.8	11.2	7.9	14	6.4	4
TL-25	25	0.1-5 k	1000	50.8	14.3	7.9	14	6.4	4
TL-50	50	0.1-10 k	1000	101.6	14.3	7.9	14	6.4	4
TL-100	100	1-15 k	1000	165.1	19.1	12.7	19	6.4	4
TL-120	120	1-15 k	1000	181	19.1	12.7	19	6.4	4
TL-175	175	1-20 k	3000	215.9	28.6	19.1	22	8	5.6
TL-200	200	1-25 k	3000	255	28.6	19.1	22	8	5.6
TL-225	225	1-25 k	3000	266.7	28.6	19.1	22	8	5.6
TL-400	400	1-40 k	3000	310	35.5	22.6	22	10	6

Tolerance ±5% (J) / ±10% (K) · Insulation voltage is DC or AC peak.

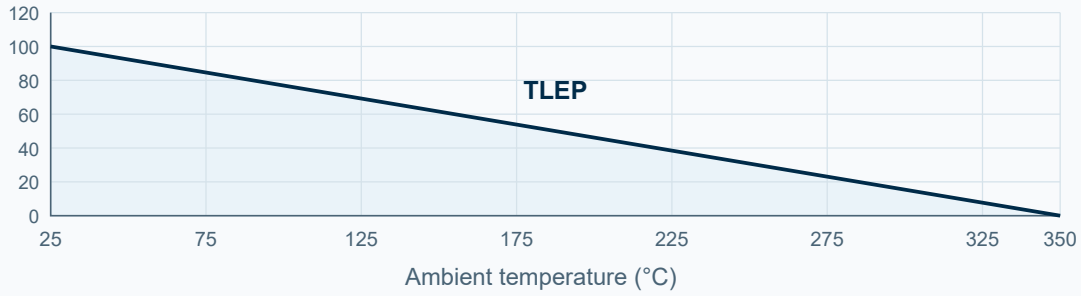
TCR values listed are 250 and 400 ppm/°C. Model mapping is unspecified.

TL-5 L appears as “25.” in the source. It is shown as 25 mm pending confirmation.

TL SERIES

Power Derating and Test Characteristics

Ambient temperature and rated load



The sloped line is labelled TLEP in the source.
Confirm its applicability to individual TL models.

Performance tests

Test method standards listed in the source GB/T 5729 and IEC 115-1

Test	Requirement	Conditions
Solderability	Solder flows freely	235 ± 5 °C, 2 s, solder bath
Overload	|ΔR| ≤ 1%R + 0.05 Ω	10 × P_n, 5 s
Rapid temperature change	|ΔR| ≤ 1%R + 0.05 Ω	-55 / +200 °C, 5 cycles
Bump	|ΔR| ≤ 1%R + 0.05 Ω	390 m/s², 4000 bumps
Shock	|ΔR| ≤ 1%R + 0.05 Ω	490 m/s², 11 ms, 18 shocks
Vibration	|ΔR| ≤ 2%R + 0.05 Ω	10-500 Hz, 98 m/s², 6 h
Temperature rise	< 245 °C	Apply rated power P_n
Steady damp heat	|ΔR| ≤ 5%R + 0.05 Ω	40 ± 2 °C, 93 (+2/-3)% RH, 56 h
Room-temperature endurance	|ΔR| ≤ 5%R + 0.05 Ω	Room temperature, P_n, 1000 h

P_n is rated power and ΔR is the change in resistance after the test.