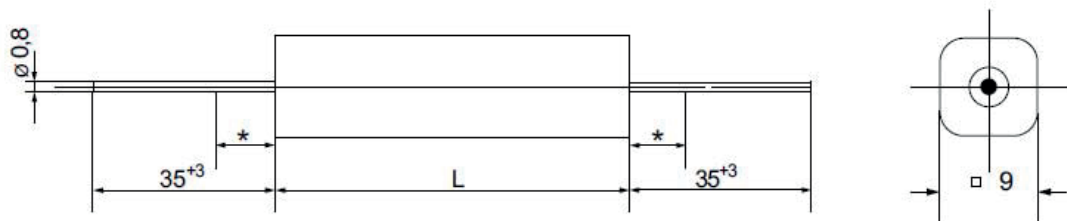


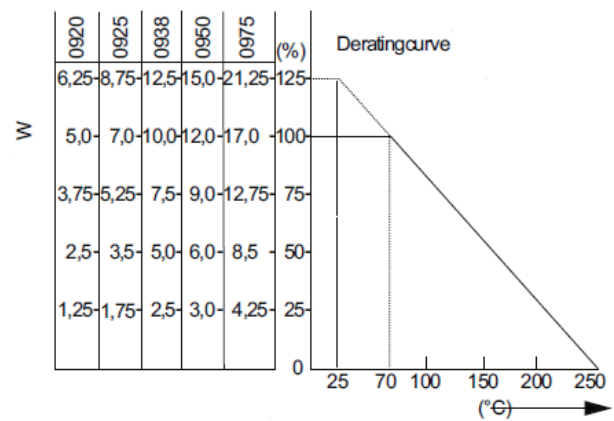
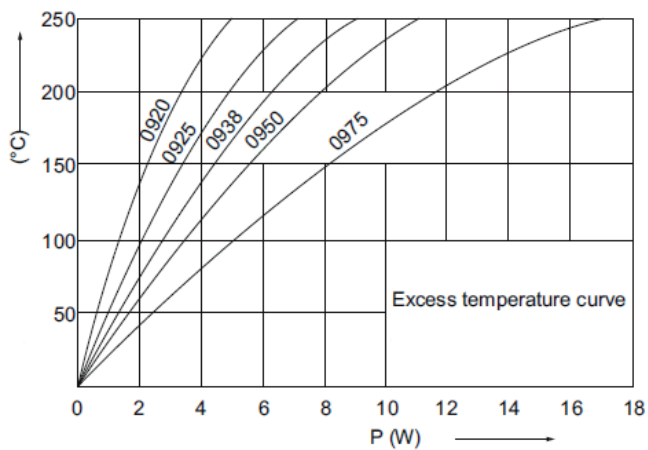


CERAMIC CASE RESISTORS KFD-09 MODEL

TECHNICAL DESIGN



GENERAL FEATURES



GENERAL FEATURES

I Resistori a filo avvolto in cassa ceramica modello KFD sono resistori a bassa potenza, caratteristiche principali di questi resistori sono la compattezza, la possibilità di eseguire una vasta gamma di valori ohmici e le piccole dimensioni che consentono un utilizzo di questi prodotti anche su schede elettroniche. I terminali infatti sono saldabili e facilmente deformabili.

ELECTRICAL CHARACTERISTICS

Nominal resistance	series E 12 (10%), Series E 24 (5%), DIN 41426
Climatic Category (according to IEC 68)	55/255/10
Solderability (260 °C x10s.)	$\leq 1\% + 0,1 \Omega$
Temperature cycling (-55°C / +200°C)	$\leq 2\% + 0,1 \Omega$
Damp heat (21 days 40 °C / 95% r.h.)	$\leq 3\% + 0,1 \Omega$
Resistance range $T_s = 255^\circ\text{C}$	1,000 h : -1.5 fino a +4.0% 10,000 h -2.: 0 fino a +6.0% 100,000 h -3.: 0 fino a +10.0%

The mentioned values apply for 99,7% of all resistors. For low. value-resistors, the mentioned variations may be exceeded by 0,1 Ω .

Reliability : At 70 °C, ambient temperature, 25% r.h. and 255°C surface temperature standard rating for complete failure : $\leq 100 \times 10^{-9}/\text{h}$.

Note :

Ta = Ambient Temperature

Ts = Surface Temperature

For ceramic case resistors, the solderability of connecting wires is limited in the range of 5 mm

GENERAL FEATURES

Style DIN 45921		KFD 09020 (KFD 0918)	KFD 0925	KFD 0938	KFD 0950	KFD 0975
Dimensions	L =	20 ±1 mm (18 ±1 mm)	25 ±1 mm	38 ±1 mm	50 ±1,5 mm	75 ±2 mm
Resistance range	CuNi 10	R051 - R11	R10 - R22	R18 - R39	R27 - R56	R47 - 1R0
	CuNi 44 / NiCr	R12 - 9K1	R24 - 18K	R43 - 33K	R62 - 47K	1R1 - 82K
Resistance tolerances		K (± 10%) CuNi 10 / CuNi 44 / NiCr J (± 5%) CuNi 44 / NiCr				
Power rating P_N		5 W	7 W	9 W	11 W	17 W
Dissipation at Ta=25°C	Ts= 150°C	2,8 W	4,0 W	5,3 W	6,8 W	9,8 W
	Ts= 200°C	4,1 W	6,0 W	7,6 W	9,4 W	14,0 W
	Ts= 255°C	6,25 W	8,75 W	12,5 W	15,0 W	21,25 W
Dissipation at Ta=70°C	Ts= 200°C	2,9 W	4,2 W	5,5 W	7,0 W	10,0 W
	Ts= 250°C	4,3 W	6,2 W	7,8 W	9,7 W	14,4 W
	Ts= 300°C	5,0 W	7,0 W	9,0 W	11,0 W	17,0 W
Dielectric withstanding voltage		≥ 2000 Veff				
Limiting voltage		150 V	200 V	250 V	350 V	500 V
Temperature coefficient		CuNi 10: +350...+450 x 10 ⁻⁶ /K CuNi 44 / NiCr: -80...+200 x 10 ⁻⁶ /K				
Lim. surface temperature		CuNi 10: 200°C CuNi 44 / NiCr: 300°C				
Marking		Cipher stamped, the marking of values according to DIN/IEC 62				