

DATA SHEET

LEADED POWER RESISTORS

CRF - PRECISION FLAMEPROOF wirewound

UP TO 5.0 W



Product Specification – Jun. 18, 2003 V.0



Power Wirewound resistors
flame retardant, safety version

Specification

Type		CRF253-4	CRF254-4	CRF256-4	CRF257-4
Power rating	P_{40} P_{70}	2,5 2,0	3,0 2,5	4,0 3,5	5,0 4,3
Resistance range		see Page 2			
E-series		E 24			
Tolerance	%	± 5			
Temperature coefficient	$10^{-6} * K^{-1}$	120 ± 50			
max. cont. working voltage	V_{RMS}	$\sqrt{P_{70} \cdot R}$			
Insulation voltage (1min.)	V_{RMS}	max. 75V			
Insulation resistance	Ω	not insulated			
Derating linear	°C	70 ... 350 (0W)			
Climatic category		55/200/56			
Temperature range	°C	- 55 ... 350			
Thermal resistance	KW^{-1}	140	112	80	65
Failure rate (Total, ϑ_0 max., 60% conf. lev.)	$10^{-9} * h^{-1}$	appr. 10, depends on value			
Endurance (P_{70} , 70°C, 1000h)	$\left[\frac{\Delta R}{R} \right] \%$	± 5,0 average			
Damp heat, steady state (40°C, 93% r. h., 56d)	$\left[\frac{\Delta R}{R} \right] \%$	± 5,0			
Climatic sequence (IEC 115-1/23)	$\left[\frac{\Delta R}{R} \right] \%$	± 2,0			
Resistance to soldering heat (260°C, 10s, 3mm)	$\left[\frac{\Delta R}{R} \right] \%$	± 0,5			
Solderability	s	2,5 Flowtime, solderglobule test, IEC 60068-2-20			
Terminal strength	$\left[\frac{\Delta R}{R} \right] \%$	± 0,2			
Terminal tensile strength	N	50			
Marking		printed in clear			

Series CRF

Power Wirewound resistors flame retardant, safety version

Type	Resistance range	
	min.	max.
CRF253-4	* 1R0	330R
CRF254-4	* 1R0	330R
CRF256-4	* 1R0	330R
CRF257-4	* 1R0	330R

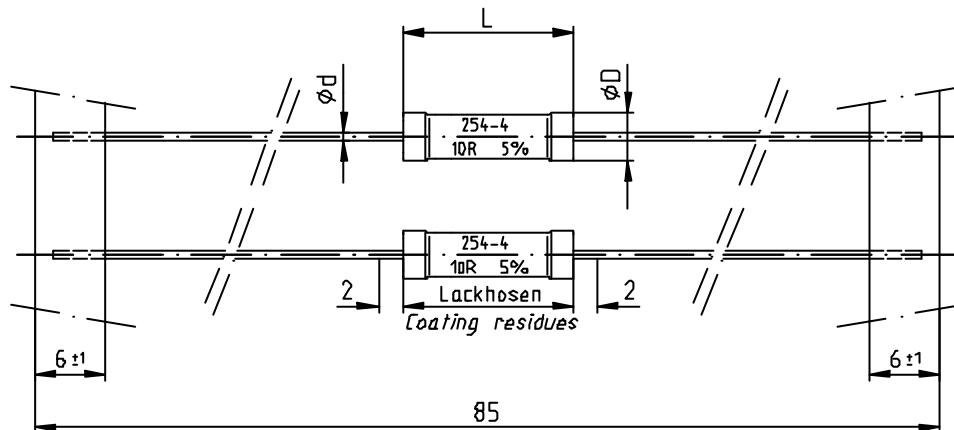
Note:

The special construction of resistance values $\geq 10R$ results in an immediate interruption when mains voltage (220V/240V_{RMS}) is applied. No flames, no explosion. After fusing the resistance value is $> 100K\Omega$. For other voltages test suitability in the application!

* Resistance values $< 10R$ are flame retardant.

The interruption mechanism is not clearly defined and has to be tested in the final application!

Dimensions in mm:



Type	L max.	ØD max.	Ød
CRF253-4	14,5	4,0	0,65
CRF254-4	12,6	6,0	0,80
CRF256-4	17,0	6,0	0,80
CRF257-4	19,0	8,5	0,80

Series CRF



Power Wirewound resistors flame retardant, safety version

Packaging:

Type	Packaging	Pieces	Pack.-Code
CRF253-4	taped/Ammopack	1000	T
CRF254-4	taped/Ammopack	1000	T
CRF256-4	taped/Ammopack	1000	T
CRF257-4	taped/Ammopack	500	T

Ordering example:	CRF 254-4	5	T	15R
	Type	Tolerance	Pack.-Code	R-Value