Precision Electronic Components Mfg. Co.

Premium Grade Components

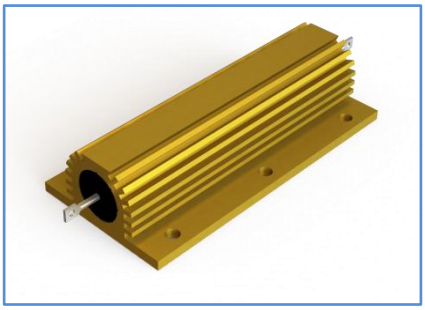
For Original, Innovative and Cost-Effective Solutions to demanding Specifications

Committed to Quality Since 1972

Aluminium Housed, Chassis Mount — PHA75-150 Series

Key Features:

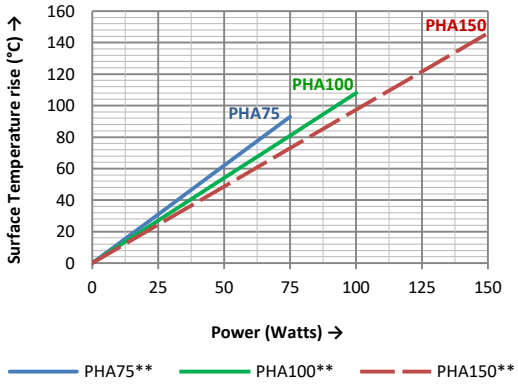
- External Aluminium Encasing.
- Power Rating 75W, 100W, 150W.
- Excellent stability in operation.
- Non-Inductive and Close Tolerance types.
- All Welded Construction for Maximum Reliability.
- Moulded Construction for Excellent Environmental Protection.



Electrical Specifications and Environmental Characteristics			
Electrical Specifications	PHA75	PHA100	PHA150
Tolerance	Standard ±5% and ±10%. Also available ±1%, ±2% and ±3%		
Tolerance for low Ω values	Typically ≥ R10 ±5%; ≤ R095 ±10%		
TCR	Typical values < 1K 100ppm/°C; > 1K 25ppm/°C. For lower TCR's please contact PEC		
Resistance Value	R05 - 50K	R05 - 70K	R05 - 100K
Resistance Value for Non Inductive version	R05 - 12K5	R05 - 17K5	R05 - 25K
Limiting element voltage	1400 V	1900 V	2500 V
Voltage proof AC (Peak)	6363 V	6363 V	6363 V
Voltage proof AC (Peak) for Non Inductive version	4500 V	4500 V	4500 V
Voltage proof AC (rms)	4500 V	4500 V	4500 V
Voltage proof AC (rms) for Non Inductive version	3182.5 V	3182.5 V	3182.5 V
Power Dissipation @25°C (With Heat Sink)	75 Watts	100 Watts	150 Watts
Power Dissipation @25°C (Without Heat Sink)	45 Watts	50 Watts	55 Watts
Insulation Resistance (Dry)	10,000MΩ minimum	10,000MΩ minimum	10,000MΩ minimum
Climatic Category	55/200/56	55/200/56	55/200/56

Additional Specifications	
Power Derating	At high ambient temperature, allowed Power Rating reduces linearly to zero at 200°C
Low inductive (PHAN)	Specify by adding N after PHA Series code, e.g. PHAN
Resistor Element	Wire Wound Resistor
Resistor Body	Anodized Extruded Aluminium Profile

Power Vs Surface Temperature Rise



**The resistor is standard heat sink mounted using a proprietary heat sink compound. Heat sink area (approx.): 995sq.cm.

B-51, Electronic Complex, ECIL PO, Hyderabad, India 500062.
Telephones ++91 (0)40 27120283, 27126228 Fax 27126221.
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Website www.peccomponents.com

This publication provides indicative information. A contract for supply or purchase should be jointly agreed to separately.

Errors and omissions excepted (E & OE). Specifications are subject to change.

Drafted/Revised Date: - 12/02/2022

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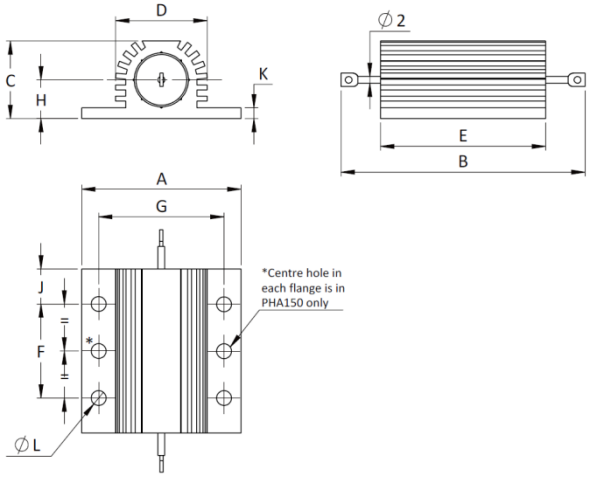
Performance Characteristics		
Test Methods	**Test Conditions**	**Test Limits**
Endurance at Room Temperature	1.5Hrs ON, 0.5Hrs OFF for 1000Hrs	ΔR <3% + 0R05
Robustness of Terminations	As per BS-CECC Clause 4.14.2, 20N Tensile Force	ΔR <0.25% + 0R05
Resistance to Soldering Heat	As per BS-CECC Clause 4.15.2,260°C, 10 Seconds	ΔR <1% + 0R05
Rapid Change of Temperature	-55°C/200°C, 5 Cycles as per BS-CECC Clause 4.16	ΔR <0.5% + 0R05

Component Drawing:



Dimensions (mm):

Size	A (Max)	B (Max)	C (Max)	D (Max)	E (Max)	F±0.3	G±0.3	H (Max)	J (Max)	K (Max)	L±0.25
PHA75	47.5	72.0	24.1	27.3	48.7	29.0	37.0	11.8	10.4	3.7	4.4
PHA100	47.5	88.0	24.1	27.3	65.2	35.0	37.0	11.8	15.4	3.7	4.4
PHA150	47.5	121.0	24.1	27.3	97.7	58.0	37.0	11.8	20.4	3.7	4.4

Application Notes: The resistor should be mounted on a heat sink of correct thermal resistance for adequate power dissipation. A Heat sink compound can be used between the resistor base and the heat sink chassis mounting surface to achieve maximum heat transfer. Power uprating is not advisable, even when proprietary heat sinks with lower thermal resistance are used. The hot spot temperature must not exceed 200°C.

To Order – Please Specify:

PEC Type	Ohmic Value	Tolerance	Packing Style	Release Condition	Special Request If Any.
PHA75	0.1 Ohm-0R1/R10 1 Ohm-1R0 1 KOhm-1K0 10.7 KOhm-10K7	1%-F 2%-G 5%-J 10%-K	Bulk-B	Commercial-X	Standard-S Others-M Please Specify

SAMPLE PART NUMBER: PHA75-0R1-FBXS

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