

POWER TYPE METAL CLAD WIRE-WOUND RESISTORS

FH/FHN

Features:

- Small size, high power rating and high performance. (Heatproof cement molding)
- Excellent short time overload.
- Low temperature coefficient.
- Excellent load life stability.
- Self-extinguish material is used in molding.
- Both standard winding type (FH) and non-inductive winding type (FHN) are available.

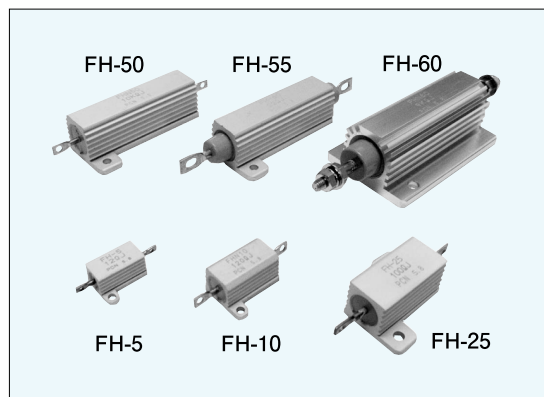
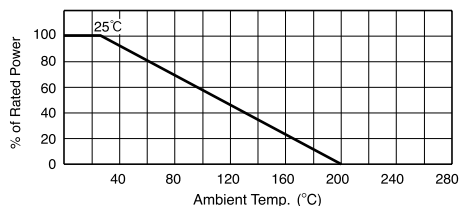


FIG.1

Type	Wattage Rating (W)		Resistance Range (Ω)		Resistance Tolerance (%)	MAX Working (V)		Dielectric Strength (V)	Operating Temp. (°C)	MAX Weight (g)
	Chassis Mounted	Free Air	Inductive(FH)	Non-Inductive (FHN)		FH	FHN			
FH-5	5	3	0.05 ~ 3K	0.1 ~ 1K	±0.5(D) R ≥ 10Ω	120	70	500	-55 ~ +200	3
FH-10	10	6	0.02 ~ 6K	0.03 ~ 2.3K	±1 (F) R ≥ 0.1Ω	245	180	1000		7
FH-25	20	8	0.012 ~ 15K	0.02 ~ 5.5K	±2 (G)	500	300	2000		15
FH-50	30	10	0.01 ~ 40K	0.02 ~ 12K	±3 (H)	1300	600	2000		33
FH-55	30	10	0.01 ~ 40K	0.02 ~ 12K	±5 (J)	1300	600	2000		35
FH-60	50	15	0.1 ~ 18K	0.05 ~ 9K	±10 (K)	1400	800	3000		70

Ambient Temp. Derating Curve

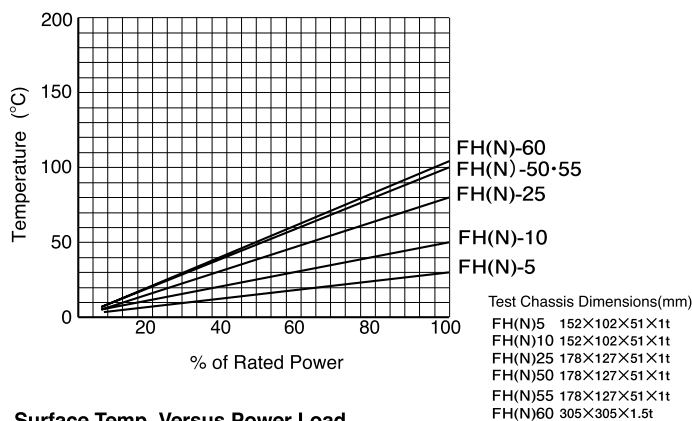


Temp. Coefficient

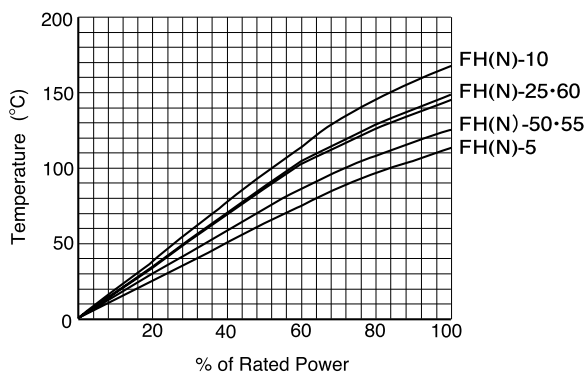
(Standard Temp. +25°C Test Temp. -55°C, +125°C, +200°C)

Type	Temp. Coefficient (ppm/°C)			
	±30	±50	±100	±500
FH-5	30Ω ≤ R	0.1Ω ≤ R < 30Ω	0.05Ω ≤ R < 0.1Ω	-
FH-10	50Ω ≤ R	0.1Ω ≤ R < 50Ω	0.05Ω ≤ R < 0.1Ω	0.02Ω ≤ R < 0.05Ω
FH-25	200Ω ≤ R	0.1Ω ≤ R < 200Ω	0.05Ω ≤ R < 0.1Ω	0.012Ω ≤ R < 0.05Ω
FH-50	400Ω ≤ R	0.1Ω ≤ R < 400Ω	0.05Ω ≤ R < 0.1Ω	0.01Ω ≤ R < 0.05Ω
FH-55	400Ω ≤ R	0.1Ω ≤ R < 400Ω	0.05Ω ≤ R < 0.1Ω	0.01Ω ≤ R < 0.05Ω
FH-60	1KΩ ≤ R	0.2Ω ≤ R < 1KΩ	0.1Ω ≤ R < 0.2Ω	-
FHN5	10Ω ≤ R	0.1Ω ≤ R < 10Ω	-	-
FHN10	30Ω ≤ R	0.1Ω ≤ R < 30Ω	0.05Ω ≤ R < 0.1Ω	0.03Ω ≤ R < 0.05Ω
FHN25	50Ω ≤ R	0.1Ω ≤ R < 50Ω	0.05Ω ≤ R < 0.1Ω	0.02Ω ≤ R < 0.05Ω
FHN50	100Ω ≤ R	0.1Ω ≤ R < 100Ω	0.05Ω ≤ R < 0.1Ω	0.02Ω ≤ R < 0.05Ω
FHN55	100Ω ≤ R	0.1Ω ≤ R < 100Ω	0.05Ω ≤ R < 0.1Ω	0.02Ω ≤ R < 0.05Ω
FHN60	500Ω ≤ R	0.4Ω ≤ R < 500Ω	0.05Ω ≤ R < 0.4Ω	-

Surface Temp. Versus Power Load. (on chassis)



Surface Temp. Versus Power Load. (Free air)



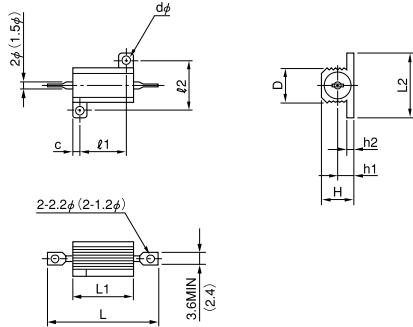
PCN Corporation

Sagamihara Business Office

4-3-17 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa-Pref., JAPAN 252-0231
 Phone : 81-42-776-0931 Fax : 81-42-776-0940 E-mail : sales@pcn.co.jp

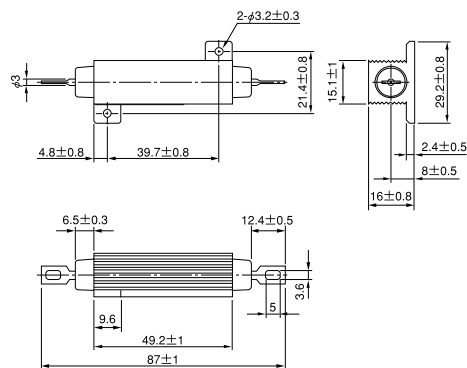
POWER TYPE METAL CLAD WIRE-WOUND RESISTORS **FH / FHN**

FH(N) 5~FH(N)50
 () : FH(N)5

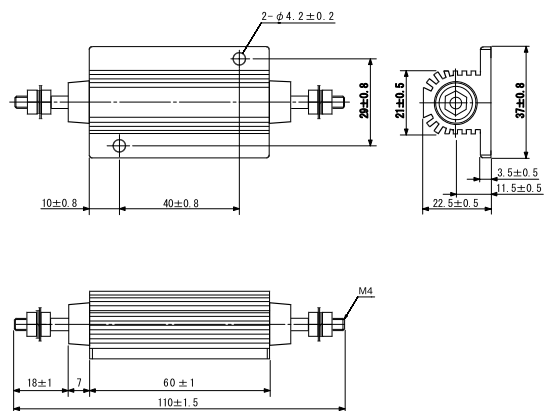


Type	Dimensions (mm)											
	L±1.5	L1±1	L2±0.8	ℓ1±0.8	ℓ2±0.8	D±1	H±0.8	d±0.3	c±0.8	h1±1	h2±0.5	M
FH-5	29	15.3	16.4	11.3	12.5	8.5	8	2.3	2	4	1.6	—
FH-10	35	19	20	14.3	15.9	10.8	10	2.4	2.4	5.3	2.4	—
FH-25	49	27	28	18.3	19.8	13.5	14	3.2	4.4	7.1	2.4	—
FH-50	71	49.2	29.2	39.7	21.4	15.1	16	3.2	4.8	8	2.5	—

FH(N) 55



FH(N)60



Performance:(Following figures are not applied to the resistors less than 0.1Ω)

Terminal Strength	(1) Pull Test (30 sec MIN) RH-5 10N, RH-10 22N, RH-25 RH-50 RH-55 44N (2) Torque Test (5~15 sec) RH-60 2.7N·m	±(0.2%+0.05Ω)
Heat Resistance	200°C 2Hr	±(0.5%+0.05Ω)
Dielectric Strength	FIG.1 1min.	±(0.2%+0.05Ω)
Insulation Resistance	DC500V	1000MΩ MIN
Short Time Over Load	5×Wattage Rating 5 sec	±(0.5%+0.05Ω)
Moisture Resistance	Temp. 40°C Moisture 95% 1/10×Wattage Rating (1.5Hr ON 0.5Hr OFF) Repeat 500Hr	±(0.5%+0.05Ω)
Load Life	Load Rating (chassis mounted) 1.5Hr ON 0.5Hr OFF Repeat 1000Hr	FH(N)5~FH(N)55 ±(1%+0.05Ω) FH(N)60 ±(3%+0.05Ω)
Vibration	10Hz~55Hz~10Hz (1 min) 2Hr each of paralleled and right angle	±(0.2%+0.05Ω)

How to order

FH-60 **100Ω** **F**
 Type Resistance Tolerance

- in case of Non-inductive type use RHF
- Standard Resistance E-24 Series J (±5%)



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