

# KAKKU PUNCHED GRID RESISTANCE BOXES

## SERIES KPS

### SPECIAL FEATURES

- Grid material is Fechral (chromium aluminum alloy) having low temperature co-efficient of resistance and high specific resistance.
- Grid junctions are Tig welded for a continuous current path unaffected by vibrations.
- Terminals are designed for two conductors.
- Provided with sufficient number of tapings for ease of adjustment of resistance.
- Draw out design for ease of maintenance.
- Available in open execution and also in enclosures conforming to IP-11, IP-23 & IP-33.

### APPLICATION

KAKKU Punched Grid Resistance Boxes Series KPS are designed for use in power

circuits with working voltages upto 500V and have varied applications such as :-

- Starting and dynamic braking resistors of electric locos.
- Starters, controllers, regulators & slip resistor for AC slipping motors.
- Starters for DC machines.
- Loading resistors for generators and secondaries of transformers.
- Field discharge resistors of synchronous machines.
- Crane duty resistors.
- Neutral Earthing resistors of Sub-stations.
- A.C. motor primary resistors starters.

### TECHNICAL DATA

Ambient Temperature : 50°C  
 Rated Voltage : 500 V AC or DC.  
 Maximum Temperature : 375°C.  
 rise.  
 Resistance & current : See table I and II  
 Value of Standardized Boxes

### OPTIONAL EXTRAS

- Degree of protection other than IP-23 for enclosed type of boxes.
- Any special dimension of open or closed type of Resistance Boxes.
- Suitability for higher ambient temperatures.
- Suitability for higher voltage.

### ORDERING INFORMATION

- Give KAKKU Type.
- Application & CDF ratings.
- Type of enclosures (Open or with enclosure).
- Degree of protection for enclosure.
- Resistance value/Current Value of tailor-made resistance boxes.
- Details of tapings for tailor-made resistance boxes.

TABLE - I

Specification of KPS-I Standardised Punched Grid Open Type Resistance Box					
Sl. No.	Resistance Box. Cat. Code	Continuous Current 'A'	Resistance 'Ω'		No. of Taps
			Per Bank	Per Tap	
1	KPS-I-01	173	0.10	0.020	5
2	KPS-I-02	153	0.125	0.025	5
3	KPS-I-03	125	0.189	0.0378	5
4	KPS-I-04	100	0.30	0.06	5
5	KPS-I-05	86	0.39	0.078	5
6	KPS-I-06	77	0.50	0.10	5
7	KPS-I-07	62	0.755	0.151	5
8	KPS-I-08	50	1.175	0.235	5
9	KPS-I-09	43	1.56	0.312	5
10	KPS-I-10	38	2.05	0.41	5
11	KPS-I-11	31	3.00	**	7
12	KPS-I-12	27	4.075	**	7

\*\* Resistance / Step

KPS-I-11 : 0.445-0.46-0.44-0.445-0.445-0.44-0.305 'Ω'

KPS-I-12 : 0.604-0.625-0.596-0.619-0.618-0.596-0.415 'Ω'

TABLE - II

Specification of KPS-II Standardised Punched Grid Open Type Resistance Box						
Sl. No.	Resistance Box. Cat. Code	Continuous Current 'A'	Resistance 'Ω'		No. of Taps	Eqvt. To BCH Type
			Per Tap	Per Bank		
1	KPS-II-01	225	0.020	0.1	5	WL-10
2	KPS-II-02	200	0.025	0.125	5	WL-12
3	KPS-II-03	150	0.020	0.200	10	WL-20
4	KPS-II-04	134	0.025	0.250	10	WL-25
5	KPS-II-05	118	0.032	0.320	10	WL-32
6	KPS-II-06	113	**	0.400	7	WL-40
7	KPS-II-07	100	**	0.500	7	WL-50
8	KPS-II-08	84	0.062	0.625	10	WL-62
9	KPS-II-09	75	0.080	0.800	10	WL-80
10	KPS-II-10	67	0.10	1.000	10	WL-100
11	KPS-II-11	64	**	1.250	7	WL-125
12	KPS-II-12	57	**	1.600	7	WL-160
13	KPS-II-13	54	0.25	2.0	8	WL-200
14	KPS-II-14	48	0.312	2.50	8	WL-250
15	KPS-II-15	43	0.40	3.20	8	WL-320
16	KPS-II-16	40	0.40	4.0	10	WL-400

\*\* Resistance / Step

KPS-II-06 : 0.048 - 0.112 - 0.176 - 0.224 - 0.286 - 0.352 - 0.400 'Ω'

KPS-II-07 : 0.060 - 0.140 - 0.220 - 0.280 - 0.360 - 0.442 - 0.500 'Ω'

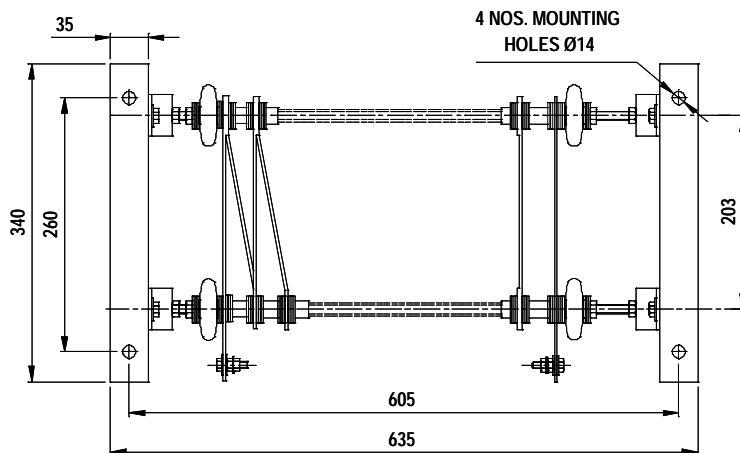
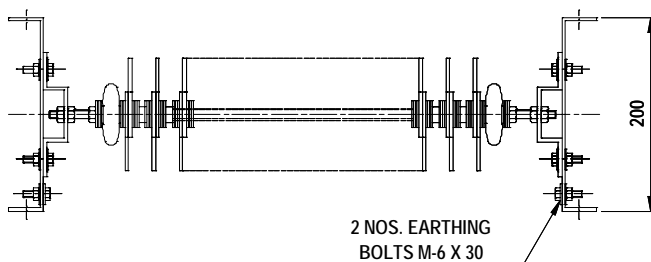
KPS-II-11 : 0.150 - 0.350 - 0.550 - 0.700 - 0.900 - 1.100 - 1.250 'Ω'

KPS-II-12 : 0.187 - 0.437 - 0.690 - 0.875 - 1.125 - 1.375 - 1.600 'Ω'

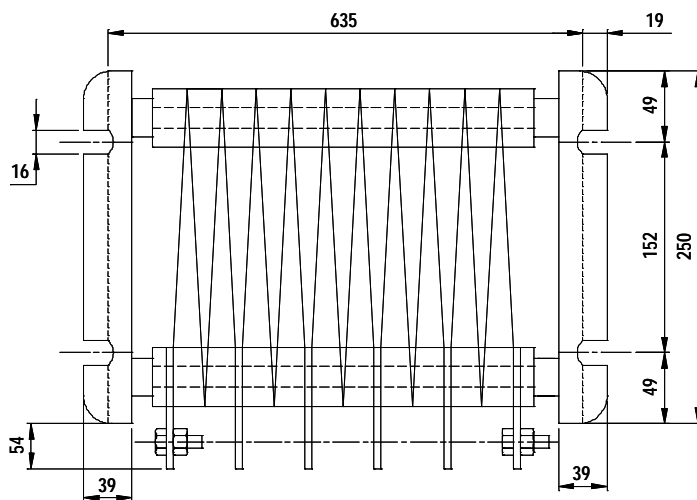
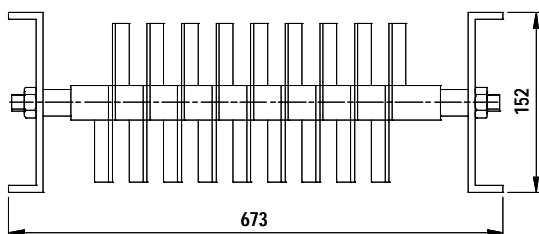
*Product improvement is a continuous process at KAKKU. Hence data given in this catalogue is subject to revision without notice*



Symbol Of Reliability



**RESISTANCE BOX  
SERIES KPS- I**



**RESISTANCE BOX  
SERIES KPS- II**