

# **ABOUT**

# THE COMPANY

KWK Resistors India Private Limited, formed in 2013 as a Joint Venture between three leading Power Resistor manufacturers - K S Instruments Pvt Ltd, India; Krah Group, Germany and Widap, Switzerland.

Although, KWK is a relatively new organization, it draws its strengths from the experience of the production team that was transferred from KSI. Each of the JV partners have over 40 years of design and manufacturing experience!

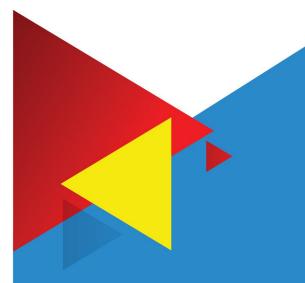
KWK can offer solutions across the broad spectrum of your requirements, from a fraction of a watt to hundreds of kilowatts, from SMDs to Wire wounds, Punched Grids, Metal Clad and everything you need!

We have successfully provided solutions to many critical applications including Aeroplanes, Defense equipment's, Healthcare equipment's, Elevators, Cranes, Material handling systems apart from generic electrical and electronic applications.

A large volume of our sales is in custom Resistors and assemblies. So, we have learnt to listen closely to our customer's requirements and deliver products of the highest quality each time.

Together, as KWK, we are committed to produce resistors that will surpass all your expectations. We invite you to look around the website for products of interest. The product search function in the website is particularly useful to find resistor ranges that could suit your new developments or current requirements. If you still can't find what you are looking for in the website, please drop us an email or call us, we are sure we can provide the solution you are looking for!





# **Application**

KWK Resistors India, work with all leading designers and manufacturers of Elevators, Crane and Material Handling systems. KWK products are widely used as braking resistors. We design and supply cement coated wire wound resistors, Metal encased braking resistors and high power Punched grid resistors. These are specifically designed for high energy applications.

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  Wire Wound Braking Resistor
- → **KSR** Radial Type
- → **KSE**Radial Type Edge Wound
- → ULS50/100

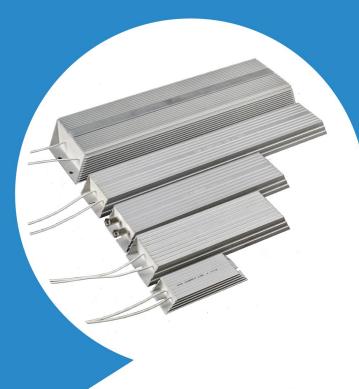
  Ultra Slim Resistors Aluminium Housed Resistors
- → KHBR

  Custom High Power Braking Resistor

# KABR

# **METAL CLAD BRAKING RESISTOR**

KABR series are a range of Metal encased Dynamic braking resistors. These resistors are economical and compact. This series of resistors offer excellent load life stability. Power dissipation of up to 1000W is available in this series. Assemblies of these resistors to achieve higher powers, can be done with ease.



# **Application**

- Brake resistors for VFDs ←
- Elevators, Lifts and Cranes ←
- General Electrical applications including 
  for Discharge ,Pre charge
  - Air Heating ←
  - Electrical Panels ←

# Mounting

- Standard mounting involves simple screw fixing ← in the defined mounting pitch
- Please refer product series datasheet for mounting 

  pitch for each series
- Please use heat sink as recommended in datasheet ←

#### **Termination**

Termination can be UL approved cables or Flat ← terminals for screw fixing

#### **Features**

- → Excellent Electrical stability, reliability and mechanically very rigid.
- → Non Inductive types available.
- → Termination style can be UL Approved Cables or Flat terminals for screw fixing.
- → Custom terminations & Vertical mounting arrangements possible.
- → Stacking solution available.

### **Technical Specification**

**Power Rating** 

60W to 1kW

Resistance Range

R10 to 7K5

**Tolerance** 

1% to 10%

Technology



# KAHB

# **METAL CLAD HIGH POWER BRAKING RESISTOR**

KAHB series are a Series of high power dynamic braking resistors with an aluminum casing. These resistors are compact and economical. This series resistors offer excellent load life stability. Power dissipation of up to 5000W is available in the KAHB series. For lower wattages, refer KABR series. Custom wattage can be designed and supplied on request.



# **Application**

- Brake resistors for VFDs ←
- General Electrical applications including for ← Discharge ,Pre charge
  - Elevators, Lifts and Cranes ←
    - Electrical Panels ←

# Mounting

- Standard mounting involves simple screw fixing ← in the defined mounting pitch
- Please refer product series datasheet for mounting  $\leftarrow$  pitch for each series
- Please use heat sink as recommended in datasheet ←

#### **Termination**

Termination can be UL approved cables or ← Flat terminals for screw fixing

### **Features**

- → Excellent Electrical stability, reliability and mechanically very rigid.
- → Non Inductive version available.
- → Termination style can be UL Approved Cables or Flat terminals for screw fixing.
- → Custom terminations & Vertical mounting arrangements possible.

# **Technical Specification**

#### **Power Rating**

1250W to 5kW

#### Tolerance

1% to 10%

### Technology



# SLIM PROFILE AL HSD RESISTOR

KSAH style is a range of high quality, high stability Aluminium housed Power resistors designed for direct heat sink attachment. This is also one of the slimmest profile available in this power range. A wide range of resistance values are available in powers of 100W to 500W. Design of higher wattage resistors for special applications can be done with ease. This series is RoHS compliant.



# **Application**

- Pre charge, Discharge applications ←
  - Medical Equipment ←
    - Railway ←

### Mounting

- Standard mounting involves simple screw fixing in ← the defined mounting pitch
- Please refer product series datasheet for mounting ← pitch for each series
- Please use heat sink as recommended in datasheet ←

#### **Termination**

UL approved cables ←

### **Features**

- → Excellent Heat transfers and small dimensions
- → Non Inductive types possible (please contact KWK).
- → UL approved cables used for terminations.
- → Custom terminations & Vertical mounting arrangements possible.
- → Stacking solution available.

### **Technical Specification**

### **Power Rating**

150W to 500W

### Resistance Range

1R0 to 3K0

#### Tolerance

1% to 10%

#### Technology



# **KCBR**

# WIRE WOUND BRAKING RESISTOR

KCBR is a high quality, high stability Dynamic Braking Resistor series, designed to suit inverter drives of various makes. A wide range of resistance values are available in 0.5kW to 12kW Braking Resistors. The specially designed Helical Coil type resistor elements are used for high efficiency and faster cooling. Design of higher wattage resistors for special application can be done with ease.



# **Application**

- Brake resistors for VFDs ←
- Elevators, Lifts and Cranes ←
  - Electrical Panels ←
- General Electrical applications including for 
  continuous power application

### Mounting

- Standard mounting involves simple screw fixing in ← the defined mounting pitch
- Please refer product series datasheet for mounting ← pitch for each series

### **Termination**

Ceramic connector, touch protected for ← customer cable fixing

### **Features**

- → Medium to High resistance values with high overload capacity.
- → Stainless Steel enclosure with separate terminals compartment.
- → IP20 enclosure. Easy to install and use base or wall mountable.
- → Thermal cutoff offered as on option.
- → Drip proof cover & enclosure can be provided.
- → Axial fan can be fitted on request.

# **Technical Specification**

**Power Rating** 

500W to 12kW

Resistance Range

2R8 to 250R

Tolerance

5%

Technology

Helically wound coil, IP20 enclosure



# KSR **RADIAL TYPE**

# KSR series is a range of high stability, Wire Wound Power Resistors with Non flammable Silicon Cement Coating designed for continuous power applications. A wide range of resistance values are available in this series of Resistors.

Non-Inductive and Variable type resistors are also offered in this series. Customization on termination and mounting can be done with ease.



# **Application**

- General Electrical applications including for 
  continuous power application
  - Pre charge, Discharge applications ←

### Mounting

Provided mounting clamps or custom mounting 

arrangements

### **Termination**

Screw connections, Faston or soldering options ←

### **Features**

- → Wide range of resistance values available.
- → Fixed, Variable and Non-inductive versions on offer.
- → High thermal capacity suitable for high pulse applications.
- → Good electrical stability, reliability and mechanically very rigid.
- → Custom termination & mounting arrangements possible.

### **Technical Specification**

**Power Rating** 

25W to 1kW

Resistance Range

R62 to 620K

**Tolerance** 

1% to 5%

Technology

Wire wound, silicon coated



# KSE

# RADIAL TYPE EDGE WOUND

KSE series is a range of high stability, Edge Wound Power Resistors with Non-flammable Silicon Cement coated designed for continues power applications. A wide range of resistance values are available in this series of Resistors. Variable type resistors are also offered in this series.



# **Application**

- General Electrical applications including for ← continuous power application
  - Pre charge, Discharge applications ←

### Mounting

Provided mounting clamps or custom ← mounting arrangements

### **Termination**

Screw connections, Faston or soldering options ←

### **Features**

- → Wide range of resistance values available.
- → Fixed, Variable versions on offer.
- → High thermal capacity suitable for high pulse applications.
- → Good electrical stability, reliability and mechanically very rigid.
- → Custom terminal on & mounting arrangements possible.

# **Technical Specification**

### **Power Rating**

35W to 1.5kW

#### Resistance Range

R05 to 30R

#### **Tolerance**

1% to 5%

### Technology

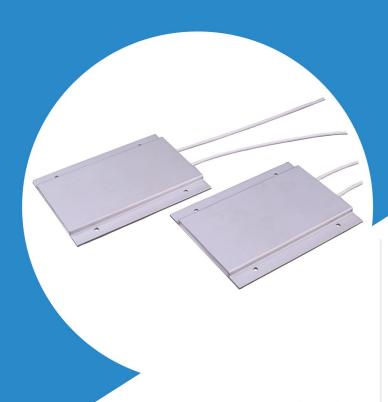
Edge wound, silicon coated



# ULS50/100

# ULTRA SLIM RESISTORS – ALUMINIUM HOUSED RESISTORS

ULS series are Ultra slim power resistors where resistive element is encased in an ultra slim aluminium profile. Specially finds application with limited space availability in systems like EVs, Instruments, Drivers and Frequency converters.



# **Application**

- Pre charge, Discharge applications ←
  - Medical Equipment ←
  - General electrical application ←

### Mounting

- Standard mounting involves simple screw fixing in  $\leftarrow$  the defined mounting pitch
- Please refer product series datasheet for mounting ← pitch for each series
- Please use heat sink as recommended in datasheet ←

### **Termination**

UL approved cables ←

### **Features**

- → Ultra Slim Best suited where space really matters.
- → Excellent short term overload & continuous power performance.
- → Excellent Electrical stability, reliability and mechanically very rigid.
- → UL approved cables used for terminations.
- → Customized terminations are possible.

# **Technical Specification**

**Power Rating** 

50W to 100W

Resistance Range

3R3 to 1K

Tolerance

+/-5% to +/-10%

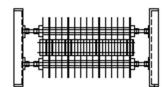
Technology





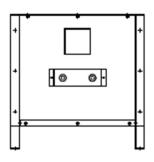
### **CUSTOM HIGH POWER BRAKING RESISTOR**

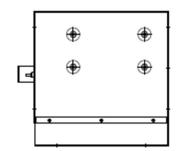
# IP00 Type





# IP20 Type





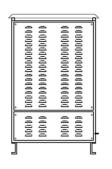
### **Features**

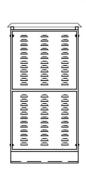
- Rigid construction. ←
- High performance. ←
- Suitable for high pulse application. ←

# Features

- Resistive Element Type ← Punched Grids/ Strip Grids/ Wire formed Grids
- Resistive Element Materials ← Stainless Steel–SS304/SS310/ NiCr Alloy/ FeCrAl Alloy
  - Power Rating ← Upto 1MW Continuous
  - Resistance Tolerance ← ±5% & ±10%
    - Duty Cycle ← Upto 100%
  - Insulation Resistance  $\leftarrow$   $\geq 100 M\Omega$  @500V DC
    - Dielectric Strength ← ≥2.5KV for 1 minute
  - Temperature Rise (Standard consideration) ← 375°C on ambient

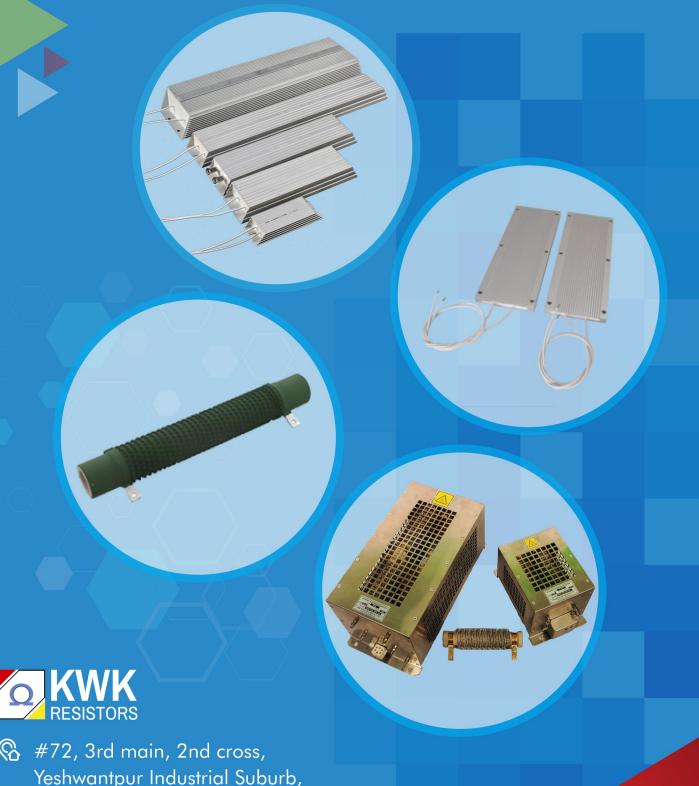
# IP32 Type





- → Cooling Option Natural cooled/Air cooled
- → Connection Terminals Type Copper bus bars/ Aluminium bus bars/ Connectors
- → Enclosure Material
  Powder coated steel/ Galvanized steel/ Stainless Steel
- → Mounting Type
  Wall mountable/ Floor mountable
- → Environmental Protection class Up to IP32
- → Accessories (Optional) Thermal Cut-off (160°C) Temperature Sensors Gland Plates & Cable Glands









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