



***LOW TENSION
INSTRUMENT TRANSFORMERS***

KS INSTRUMENTS LLP

www.ksinstruments.net

ABOUT US

KS Instruments LLP, popularly known as KSI, was established in 1973. KSI has been widely known as a leading designer and manufacturer of Power resistors and allied products.

In 2014, the resistor business was separated as KWK Resistors India Pvt Ltd to better manage the fast-growing business with the focus that it needs.

KSI continued to manufacture Electrical Junction boxes for Power generation industry. Towards end of 2016, we developed and tested a wide range of Low Tension Instrument Transformers.

In this catalogue, we showcase the various product ranges in the Instrument transformer category. We assure to continue providing world class components and aiming to surpass your expectations all the time.

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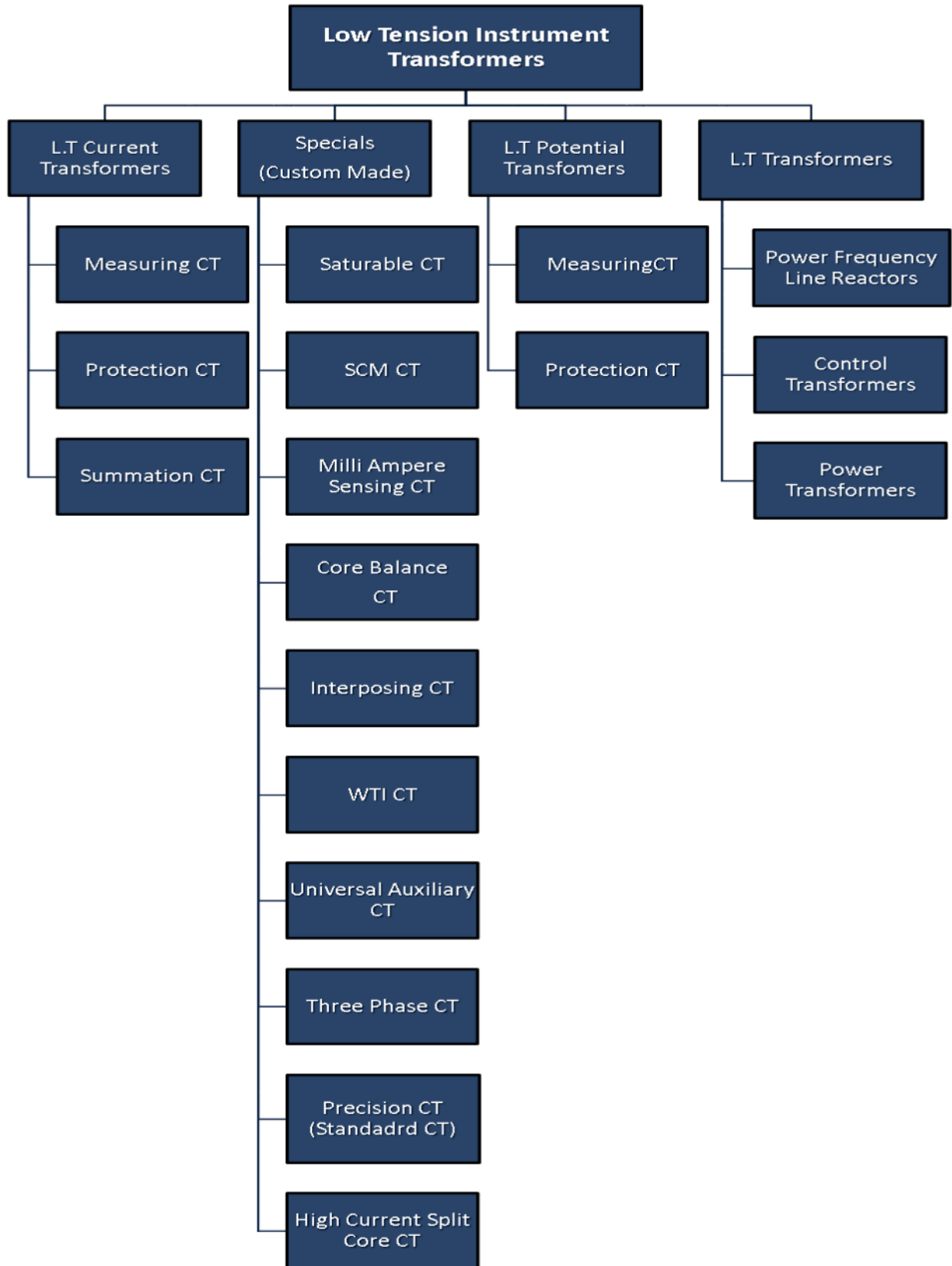
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PRODUCT RANGE

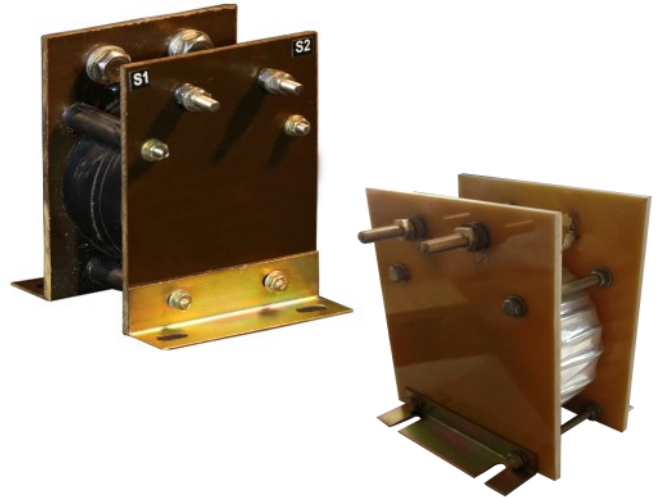


KWM SERIES - WOUND PRIMARY MEASURING CURRENT TRANSFORMERS

KWM Series are a range of Measuring Current Transformers. These CTs measure current flowing through primary conductor by converting them to measurable value. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that's not listed in this datasheet.

Features:

- Can be manufactured to IS-16227, IEC-61869 or C-57.
- Wide range of transformer ratios available.
- High accuracy class available.
- Dual Ratios can be given.
- Available as PVC tape insulated, Varnished fiber glass tape insulated or Resin cast .



Applications:

- Control Panels, Measuring instruments, Monitoring Systems, Power Distribution Units and Laboratories etc.

Electrical Specifications:

| Characteristics | | Condition | |
|------------------------------|--|--|--|
| System Voltage | | 0.66KV/0.72KV | |
| Rated Secondary Current | | 5A or 1A | |
| Dielectric withstand Voltage | | 3KV for 1 minute | |
| Operating Frequency | | 50Hz/60Hz | |
| Overload withstand current | | 1.2 x rated current continuously | |
| Class of Insulation | | A - For Tape Wound B - For Resin Cast | |
| Standard Ambient Conditions | | -5°C to +45°C | |
| Altitude | | Up to 1000mtrs above mean sea level | |

| Primary Current | Secondary Current | Accuracy Class | Output (Burden) |
|-----------------|---------------------------------------|--|-----------------|
| 1A to 200A | 1A, 5A or as per customer requirement | CL-5, CL-3, CL-1, CL-0.5, CL-0.2, CL-0.1, CL-0.5S, CL-0.2S | 1 VA to 30 VA |

Ordering Details:

KWM C R A B M

- KWM - Series Model
- C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast)
- R - Transformer Ratio (Primary /Secondary Current - As per above Table)
- A - Class of accuracy (As per above Table)
- B - Output (Burden) (As per above Table)
- M - Mounting Clamps (Optional)

Example: KWM TP 50/5 3.75VA CL-1 M - KWM PVC Tape Insulated 50/5A Class 1 @ 3.75VA Burden with mounting clamps.

Disclaimer: Product specifications, data and dimensions are subject to change without any prior notice to improve performance, reliability and design.

KRM SERIES - RING TYPE MEASURING CURRENT TRANSFORMERS

KRM Series are a range of Measuring Current Transformers. This series of Ring type, also called as window type, allow bus bars or cables to be passed through the CT and act as a Primary for the CT. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that's not listed in this datasheet.

Features:

- Can be manufactured to IS-16227, IEC-61869 or C-57.
- Wide range of transformer ratios available.
- High accuracy class available.
- Dual Ratios can be given.
- Available as PVC tape insulated, Varnished fiber glass tape insulated, Resin cast or Molded Case (ABS or Glass Filled Nylon).

Applications:

- Control Panels, Measuring instruments, Monitoring Systems, Power Distribution Units and Laboratories etc.



Electrical Specifications:

| Characteristics | Condition |
|------------------------------|--|
| System Voltage | 0.66KV/0.72KV |
| Rated Secondary Current | 5A or 1A |
| Dielectric withstand Voltage | 3KV for 1 minute |
| Operating Frequency | 50Hz/60Hz |
| Overload withstand current | 1.2 x rated current continuously |
| Class of Insulation | A - For Tape Wound & Molded Case B - For Resin Cast |
| Standard Ambient Conditions | -5°C to +45°C |
| Altitude | Up to 1000mtrs above mean sea level |

| Primary Current | Secondary Current | Accuracy Class | Output (Burden) | Min ID |
|-----------------|---------------------------------------|--|-----------------|--------|
| 50A to 5000A | 1A, 5A or as per customer requirement | CL-5, CL-3, CL-1, CL-0.5, CL-0.2, CL-0.1, CL-0.5S, CL-0.2S | 1 VA to 30 VA | 30mm |

Ordering Details:

KRM C R A B M

- KRM - Series Model
- C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast, MC - Molded Case)
- R - Transformer Ratio (Primary /Secondary Current - As per above Table)
- A - Class of accuracy (As per above Table)
- B - Output (Burden) (As per above Table)
- M - Mounting Clamps (Optional)

Example: KRM TP 50/5 3.75VA CL-1 M - KRM PVC Tape Insulated 50/5A Class 1 @ 3.75VA Burden with mounting clamps.

Disclaimer: Product specifications, data and dimensions are subject to change without any prior notice to improve performance, reliability and design.

KWP SERIES - WOUND PRIMARY PROTECTIVE CURRENT TRANSFORMERS

KWP Series are a range of Protective Current Transformers. These CTs are used to activate the protective relay in case of a fault current and isolate a part of or the full system from the main supply. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that's not listed in this datasheet.

Features:

- Can be manufactured to IS-16227, IEC-61869 or C-57.
- Wide range of transformer ratios available.
- Standard accuracy class and Special accuracy class for balanced schemes are available.
- Available as PVC tape insulated, Varnished fiber glass tape insulated or Resin cast .

Applications:

- Control Panels, Monitoring Systems, Protective Systems etc.



Electrical Specifications:

| Characteristics | Condition |
|------------------------------|--|
| System Voltage | 0.66KV/0.72KV |
| Rated Secondary Current | 5A or 1A |
| Dielectric withstand Voltage | 3KV for 1 minute |
| Operating Frequency | 50Hz/60Hz |
| Overload withstand current | 1.2 x rated current continuously |
| Class of Insulation | A - For Tape Wound B - For Resin Cast |
| Standard Ambient Conditions | -5°C to +45°C |
| Altitude | Up to 1000mtrs above mean sea level |

| Primary Current | Secondary Current | Accuracy Class | Accuracy Limit factor (ALF) | Output (Burden) |
|-----------------|---------------------------------------|--|-----------------------------|-----------------|
| 1A to 200A | 1A, 5A or as per customer requirement | Standard - 5P, 10P, 15P, Special - PS and XPS | 5, 10, 15, 20 & 30 | 1 VA to 30 VA |

Ordering Details:

KWP C R A F B M - (For Standard Protective Purpose)
 KWP C R V_k I_m R_{ct} A - (For Special Protective Purpose for Balance schemes)

KWP - Series Model
 C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast)
 R - Transformer Ratio (Primary /Secondary Current - As per above Table)
 A - Class of accuracy (As per above Table)
 F - Accuracy Limit Factor (As per above Table)
 B - Output (Burden) (As per above Table)
 M - Mounting Clamps (Optional)

For Specials Protective Purpose V_k - Knee Pint Voltage, I_m - Magnetizing Current, R_{ct} - Secondary Winding Resistance to be provided.

Example: KWP TP 50/5 3.75VA 5P10 M - KWP PVC Tape Insulated 50/5A Class 5P10 @ 3.75VA Burden with mounting clamps.
 KWP TP 50/5 PS M V_k=10V, I_m@V_k/2 <150mA, R_{ct}≤0.2Ω - KWP PVC Tape Insulated 50/5A Class PX with mounting clamps.

Disclaimer: Product specifications, data and dimensions are subject to change without any prior notice to improve performance, reliability and design.

KRP SERIES - RING TYPE PROTECTIVE CURRENT TRANSFORMERS

KRP Series are a range of Protective Current Transformers. This series of Ring type, also called as window type, allow bus bars or cables to be passed through the CT and act as a Primary for the CT. These CTs are used to activate the protective relay in case of a fault current and isolate a part of or the full system from the main supply. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that's not listed in this datasheet.



Features:

- Can be manufactured to IS-16227, IEC-61869 or C-57.
- Wide range of transformer ratios available.
- High accuracy class available.
- Dual Ratios can be given.
- Available as PVC tape insulated, Varnished fiber glass tape insulated, Resin cast or Molded Case (ABS or Glass Filled Nylon).

Applications:

- Control Panels, Monitoring Systems, Protective Systems etc.

Electrical Specifications:

| Characteristics | Condition |
|------------------------------|--|
| System Voltage | 0.66KV/0.72KV |
| Rated Secondary Current | 5A or 1A |
| Dielectric withstand Voltage | 3KV for 1 minute |
| Operating Frequency | 50Hz/60Hz |
| Overload withstand current | 1.2 x rated current continuously |
| Class of Insulation | A - For Tape Wound & Molded Case B - For Resin Cast |
| Standard Ambient Conditions | -5°C to +45°C |
| Altitude | Up to 1000mtrs above mean sea level |

| Primary Current | Secondary Current | Accuracy Class | Accuracy Limit factor (ALF) | Output (Burden) | Min ID |
|-----------------|---------------------------------------|--|-----------------------------|-----------------|--------|
| 50A to 5000A | 1A, 5A or as per customer requirement | Standard - 5P, 10P, 15P, Special - PS and XPS | 5, 10, 15, 20 & 30 | 1 VA to 30 VA | 30mm |

Ordering Details:

KRP C R A F B M - (For Standard Protective Purpose)
 KRP C R A V_k I_m R_{ct} - (For Special Protective Purpose for Balance schemes)

KRP - Series Model
 C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast, MC - Molded Case)
 R - Transformer Ratio (Primary /Secondary Current - As per above Table)
 A - Class of accuracy (As per above Table)
 F - Accuracy Limit Factor (As per above Table)
 B - Output (Burden) (As per above Table)
 M - Mounting Clamps (Optional)

For Specials Protective Purpose V_k - Knee Pint Voltage, I_m - Magnetizing Current, R_{ct} - Secondary Winding Resistance are provided by Customer.

Example: KRP TP 50/5 3.75VA 5P10 M - KRP PVC Tape Insulated 50/5A Class 5P10 @ 3.75VA Burden with mounting clamps.
 KRP TP 50/5 PS M V_k = 10V, I_m @V_k/2 <150mA, R_{ct} ≤0.2Ω - KRP PVC Tape Insulated 50/5A Class PX with mounting clamps.

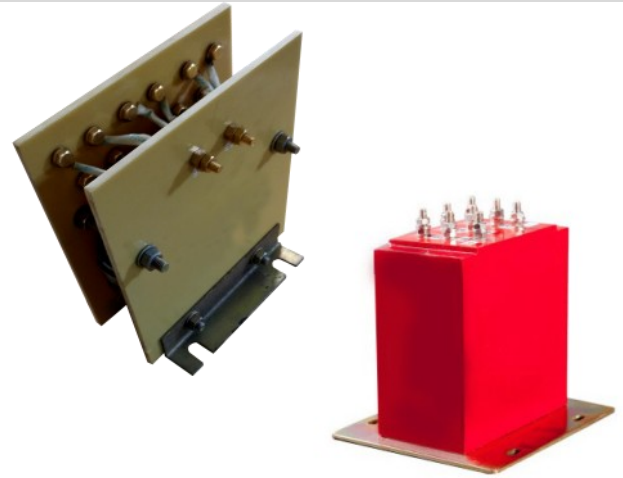
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KSU SERIES - SUMMATION CURRENT TRANSFORMERS

KSU Series are range of Summation current transformers. Summation CTs are used sum secondary currents of several main CTs and supply to a single meter or relay. Please feel free to get in touch with us if you need something that's not listed in this datasheet.

Features:

- Available in both measuring and protective series.
- Can be manufactured to IS-6949 or to other standards as required.
- Available as PVC tape insulated, Varnished fiber glass tape insulated or Resin cast.



Electrical Specifications:

| Characteristics | | Condition | |
|------------------------------|--|--|--|
| System Voltage | | 0.66KV/0.72KV | |
| Rated Secondary Current | | 5A or 1A | |
| Dielectric withstand Voltage | | 3KV for 1 minute | |
| Operating Frequency | | 50Hz/60Hz | |
| Overload withstand current | | 1.2 x rated current continuously | |
| Class of Insulation | | A - For Tape Wound & Molded Case B - For Resin Cast | |
| Standard Ambient Conditions | | -5°C to +45°C | |
| Altitude | | Up to 1000mtrs above mean sea level | |

| Primary Current | Secondary Current | Accuracy Class | Output (Burden) |
|-----------------------|-----------------------|---|-----------------|
| 1A, 5A or as required | 1A, 5A or as required | for measuring series: CL-1, CL-0.5, CL-0.2 for protective series: 5P, 10P, 15P | 1 VA to 30 VA |

Ordering Details:

KSUx C P/S A B M

- | | | |
|------|----------------------|--|
| KSUx | - Series Model | (KSUM - Measuring Series, KSUP - Protective Series) |
| C | - Construction Style | (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast) |
| P | - Primary Currents | (Number of Primary Current need to be mentioned e.g. 5+5+5, 1+1+1, 5+5,1+1) |
| S | - Secondary Current | (As per above Table) |
| A | - Class of accuracy | (As per above Table) |
| B | - Output (Burden) | (As per above Table) |
| M | - Mounting Clamps | (Optional) |

Example: KSUM TP 5+5+5/5 CL-1 30VA M - KSUM PVC Tape Insulated 5+5+5/5A Class 1 @ 30VA with mounting clamp - Measuring series.

SPECIAL SERIES**KSC - SATURABLE CURRENT TRANSFORMERS:**

The Saturable Current Transformers are used in *Generator Field Forcing*. Designed and manufactured for your specific requirement.

Available as:

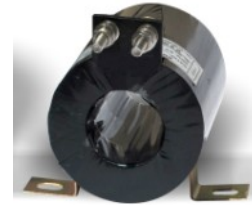
1. PVC Tape Insulated.
2. Varnished Tape Insulated.
3. Resin Cast.

**KSCM - SCM CURRENT TRANSFORMERS:**

The SCM, Short time Current Maintenance, Current Transformers are used as source for relays and meters to *Maintain the Field* to generate the same load or under fault condition till the relay operates. Designed and manufactured for your specific requirement.

Available as:

1. PVC Tape Insulated.
2. Varnished Tape Insulated.
3. Resin Cast.

**KMA - MILLI AMPERE SENSING CURRENT TRANSFORMERS:**

The Milli Ampere Sensing Current Transformers are used for *Feedback and Control in Electronics*. Designed and manufactured for your specific requirement.

Available as:

1. PVC Tape Insulated.
2. Varnished Tape Insulated.
3. Resin Cast.
4. Molded Case (ABS or Glass Filled Nylon)

**KCBT - CORE BALANCE CURRENT TRANSFORMERS:**

The Core Balance Current Transformers, CBCT, are used for *Earth Leakage Protection*. The secondary of the CBCT is connected to an amplifier to get sufficient power to operate the relay. Designed and manufactured for your specific requirement.

Available as:

1. PVC Tape Insulated.
2. Varnished Tape Insulated.
3. Resin Cast.

**KIC - INTERPOSING CURRENT TRANSFORMERS:**

The Interposing Current Transformers, ICTs, are used to *Balance, match or isolate* the current supply for the equipment connected to it. ICTs are installed between Main CT and Equipment whose current supply has to be matched.

Available as:

1. PVC Tape Insulated.
2. Varnished Tape Insulated.
3. Resin Cast.



SPECIAL SERIES**KWTI - WTI CURRENT TRANSFORMERS:**

The WTI, Winding Temperature Indication, Current Transformer are used in Oil Cooled Transformers to *monitor the Transformer Winding Temperature* to activate High Temperature Alarms, Circuit Breakers and coolers. Designed and manufactured for your specific requirement.

Available as:

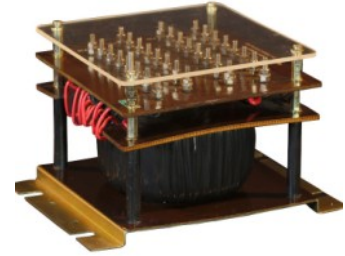
1. Varnished Tape Insulated.

**KUAT - UNIVERSAL AUXILIARY CURRENT TRANSFORMERS:**

The Universal Auxiliary Current Transformers, UACT, are used as *interposing CTs for protection to obtain various combination from a single CT*. Designed and manufactured for your specific requirement.

Available as:

1. PVC Tape Insulated Coils.
2. Varnished Tape Insulated Coils.
3. Resin Cast Coils.

**KTP - THREE PHASE CURRENT TRANSFORMERS:**

Three Phase Current Transformers are available in Ring type. They are designed as per IS-2705 and we can design and manufacture for your specific requirements.

Available as:

1. PVC Tape Insulated Coils.
2. Varnished Tape Insulated Coils.
3. Resin Cast.

**KPC - PRECISION CURRENT TRANSFORMERS:**

The Precision or Standard Current Transformers are with High Accuracy Class of 0.1. They are used for Laboratory and Test Benches. They are designed as per IS-2705.

Available as:

1. With Multi Ratio Primary and Secondary Combinations enclosed in a Box.
2. Secondary Current 1A & 5A.

**KHSC - HIGH CURRENT SPLIT CORE CURRENT TRANSFORMERS:**

High Current Split Current Transformers are used where the primary conductor is difficult to open for installation of regular Ring type CTs.

Available as:

1. PVC Tape Insulated Coils.
2. Varnished Tape Insulated Coils.
3. Resin Cast Coils.

Application:

Furnaces, Electroplating Plants and Short Circuit Tests etc.,



KPM SERIES - MEASURING POTENTIAL TRANSFORMERS

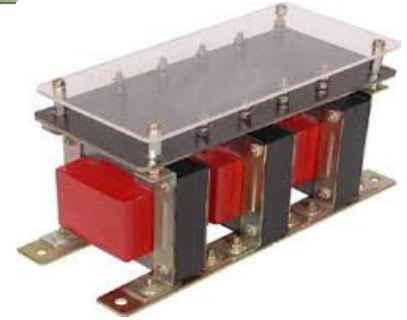
KPM Series are range of Measuring Potential or Voltage transformers. These PTs measure high voltage on primary by stepping down them to measurable value. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that's not listed in this datasheet.

Features:

- Can be manufactured to IS-16227, IEC-61869 or C-57.
- Singles and Three Phase units are available.
- Multi Windings can be given.
- Available as PVC tape insulated Coils, Varnished fiber glass tape insulated Coils or Resin cast coils.

Applications:

- Control Panels, Monitoring Systems, Protective Systems etc.,



Electrical Specifications:

| Characteristics | | Condition | |
|------------------------------|--|--|--|
| System Voltage | | 63.5V to 0.72KV | |
| Rated Secondary Voltage | | 110V or 110/√3 | |
| Dielectric withstand Voltage | | 3KV for 1 minute | |
| Operating Frequency | | 50Hz/60Hz | |
| Overload withstand current | | 1.2 x rated current continuously | |
| Class of Insulation | | A - For Tape Wound B - For Resin Cast | |
| Standard Ambient Conditions | | -5°C to +45°C | |
| Altitude | | Up to 1000mtrs above mean sea level | |

| Primary Voltage | Secondary Voltage | Accuracy Class | Output (Burden) |
|-------------------------------|--------------------|----------------------------|-----------------|
| 63.5, 110, 415, 440, 660, 720 | 110, 110/√3 (63.5) | CL-3, CL-1, CL-0.5, CL-0.2 | 1 VA to 30 VA |

Ordering Details:

KPM C R A B M

- KPM - Series Model
- C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast)
- R - Transformer Ratio (Primary /Secondary Voltage - As per above Table)
- A - Class of accuracy (As per above Table)
- B - Output (Burden) (As per above Table)
- M - Mounting Clamps (Optional)

Example: KPM TP 240/110 5VA CL-3 M - KPM PVC Tape Insulated 240V/110V Class 3 @ 5VA Burden with mounting clamp.

KPP SERIES - PROTECTIVE POTENTIAL TRANSFORMERS

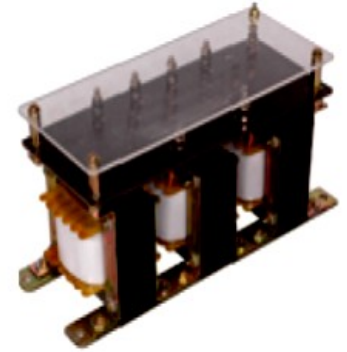
KPP Series are range of Protective Potential or Voltage transformers. These PTs are used to activate the protective relay in case of a abnormal voltage and isolate a part of or the full system from the main supply. Apart from the standard ranges, we can design and manufacture for your specific requirements. Please feel free to get in touch with us if you need something that’s not listed in this datasheet.

Features:

- Manufactured as per IS-16227, IEC-61869 & C-57 as required by customer.
- Singles and Three Phase units are available.
- Multi Windings can be given.
- Available as PVC tape insulated Coils, Varnished fiber glass tape insulated Coils or Resin cast coils.

Applications:

- Control Panels, Monitoring Systems, Protective Systems etc.,



Electrical Specifications:

| Characteristics | Condition |
|------------------------------|--|
| System Voltage | 30V to 0.72KV |
| Rated Secondary Voltage | 110V or 110/√3 or 110/3 |
| Dielectric withstand Voltage | 3KV for 1 minute |
| Operating Frequency | 50Hz/60Hz |
| Overload withstand current | 1.2 x rated current continuously |
| Class of Insulation | A - For Tape Wound B - For Resin Cast |
| Standard Ambient Conditions | -5°C to +45°C |
| Altitude | Up to 1000mtrs above mean sea level |

| Primary Voltage (V) | Secondary Voltage (V) | Accuracy Class | Output (Burden) |
|-----------------------------------|----------------------------------|-------------------|-----------------|
| 30, 63.5, 110, 415, 440, 660, 720 | 110, 110/√3 (63.5), 110/3 (36.6) | 3P, 6P, 5PR, 10PR | 1 VA to 30 VA |

Ordering Details:

KPP C R A B M

- KPP - Series Model
- C - Construction Style (TP - PVC Tape Insulated, TF - Varnished Fiber Glass Insulated, RC - Resin Cast)
- R - Transformer Ratio (Primary /Secondary Voltage - As per above Table)
- A - Class of accuracy (As per above Table)
- B - Output (Burden) (As per above Table)
- M - Mounting Clamps (Optional)

Example: KPP TP 240/110 5VA 3P M - KPM PVC Tape Insulated 240V/110V Class 3P @ 5VA Burden with mounting clamp.

LINE REACTORS, CONTROL AND POWER TRANSFORMERS**KLR - POWER FREQUENCY LINE REACTORS:**

Single and Three Phase Power Frequency Line Reactors up to 300 Amps.
Designed and manufactured as per customer specific requirement.

**KCT - CONTROL TRANSFORMERS:**

Single and Three Phase Control Transformers up to 10KVA.
Designed and manufactured for your specific requirement.

**KPT - Power TRANSFORMERS:**

Single and Three Phase Power Transformers up to 100KVA.
Designed and manufactured for your specific requirement.



Please feel free to contact us for any assistance required to choose the right solution. We are also able to design Custom Transformer Solutions based on your requirements.

K S INSTRUMENTS LLP

Reg. Office: B-81, Industrial Estate, Rajajinagar, Bengaluru-560044.India
Works: #72, 3rd main, 2nd stage, Industrial suburb, Yeshwanthpur, Bengaluru-560022.India
Ph.:+91-80-23370038, Tele/Fax:+91-80-23370046 Email: contact@ksinstruments.net