

POWER FACTOR CONTROLLERS

POWER FACTOR CONTROLLERS



BHARTIA INDUSTRIES LIMITED
we care for you



Power Factor Controllers

RG-A/E Series (Economic Models)

General

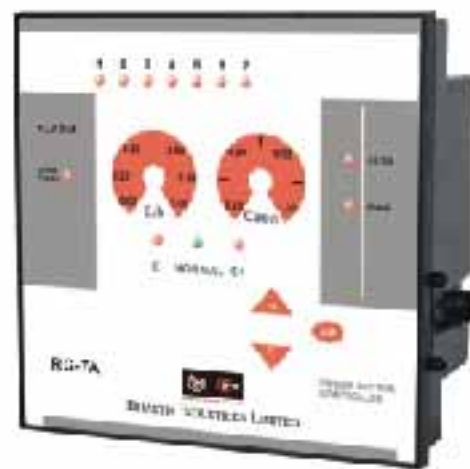
Power factor controllers are used to measure the power factor of the load and then control the capacitor banks of central reactive power compensation units.

The measured power factor is compared with the set values in order to provide system compensation.

RG-A/E series are microcontroller based digital equipments.

Features

- Economic models for balanced load compensation.
- Automatic / Manual mode selection with indicator light.
- C/k potentiometer to adjust capacitor step response.
- $\cos\phi$ potentiometer to adjust target $\cos\phi$ value.
- Over Voltage Alarm.
- Automatic disconnection of all capacitor steps in case of mains failure over 200 msec.
- Flush mounting with rear terminals.
- Non-flammable enclosure.
- IEC 61000-6-2, IEC 61000-6-4, IEC 61010-1



| MODELS | RG-7A | RG-7E |
|-------------------------------|--|---------|
| SPECIFICATIONS | | |
| Functions | | |
| Capacitor Steps | 7 | 7 |
| Cos ϕ Setting | 0.85<cos ϕ <1 (inductive) | |
| C/k Setting | 0.02-1.00 | |
| Electrical Parameters | | |
| Operating Voltage (Un) | 230 VAC \pm 10%; 50/60 Hz | |
| Operating Current | 50mA-5.5A (.../5A Current Transformer) | |
| Network Type | 3-phase / 4-wire (Star) 3-phase / 3-wire (Delta) - optional | |
| Power Consumption | <2VA (Current Circuit) | |
| Time Delay Between Steps | <6VA-12VA (Voltage Circuit) | |
| Output Contact | 3A, 750 VA | |
| Mechanical Parameters | | |
| Enclosure | Non-flammable | |
| Equipment Protection | Double Insulation (□), Measurement Category III | |
| Ambient Operating Temperature | -5°C, +55°C | |
| Ambient Humidity | 95% | |
| Degree of Protection | IP40 (front panel) | |
| Connection / Installation | Terminal / Flush-mounting with rear terminals | |
| Dimensions | 144x144mm | 96x96mm |
| Weight / each | 1 kg | 0.5 kg |

Power Factor Controllers

RG-T / RG3-T SERIES

General


RG-T series are for compensation of balanced loads.

RG3-T series are ultimate solution for compensation of unbalanced loads. The compensation is realized by the reactive power of the system through 3 current transformers from 3 phases. This makes RG3-T series a unique solution for unbalanced load compensation.

Features

- Measurement of A, V, PF, Cos ϕ , ΣW , ΣVA , ΣVAR (W, VA, VAR for RG-3T).
- Automatic / Manual mode selection.
- C+ / NORMAL / C- condition lights.
- Automatic calculation of C/k value.
- Target cos ϕ adjustment.
- Insufficient Compensation Alarm.
- Over Compensation Alarm.
- Programmable Over Voltage Protection & Alarm for capacitors.
- Automatic disconnection of all capacitor steps in case of mains failure over 200 msec.
- Non-flammable enclosure.
- 5 different programs option.
- IEC 61000-6-2, IEC 61000-6-4, IEC 61010-1.



| MODELS | RG-T | RG3-T |
|-------------------------------|--|-------|
| SPECIFICATIONS | | |
| Electrical Parameters | | |
| Operating Voltage (Un) | 230 VAC \pm 10%; 50/60 Hz | |
| Operating Current | 50mA-5.5A | |
| Capacitor Steps | 5,6,8,12 | 8,12 |
| Network Type | 3-phase / 4-wire (Star) 3-phase / 3-wire (Delta) - optional | |
| Accuracy | 1% \pm digit(V,I,cos ϕ); 2% \pm digit(W, VAR, VA) | |
| Current Transformer Ratio | 5...10,000 / 5A | |
| Power Consumption | <2VA (Current Circuit) <3VA-10VA (Voltage Circuit) | |
| Cos ϕ Setting | 0.85<cos ϕ <1 (inductive) | |
| C/k Setting | 0.02-1.00 | |
| Time Delay Between Steps | 2-1800 sec. (for switch-on & switch off separately) | |
| Over Voltage Setting | 240-275V AC | |
| Output Contact | 3A, 750 VA | |
| Mechanical Parameters | | |
| Equipment Protection | Double Insulation(), Measurement Category III | |
| Ambient Operating Temperature | -5 $^{\circ}$ C, + 55 $^{\circ}$ C | |
| Ambient Humidity | 95% | |
| Degree of Protection | IP 40 (front panel) | |
| Connection / Installation | Terminal / Flush-mounting with rear terminals | |
| Dimensions | 144x144mm, 96x96mm only for 6 steps RG-6T | |
| Packing Weight | 0.6kg, 0.45-only for 6 steps RG-6T | |

DESCRIPTION

| | |
|-----------|---|
| RG-5T- | Power Factor Controller with 5 steps (144x144mm) |
| RG-6T- | Power Factor Controller with 6 steps (96x96mm) |
| RG-8T- | Power Factor Controller with 8 steps (144x144mm) |
| RG-12T- | Power Factor Controller with 12 steps (144x144mm) |
| RG-3-8T- | 3-phase Power Factor Controller with 8 steps (144x144mm) |
| RG-3-12T- | 3-phase Power Factor Controller with 12 steps (144x144mm) |

BHARTIA INDUSTRIES LIMITED

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| | | | | | | | | | |
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Since product improvement is a continuous process, the data furnished in this brochure may undergo revision without prior notice.