Relays for the protection of EEx e motors

- *Certificates for use as category 3 - Directive ATEX 94/9/EC*
- *For 3-phase motors up to 1000 Vac*
- *Currents from1,5 to 630 A and higher*
- *With thermal memory*
- *Visual indication of tripping cause*

Protections

- $I>$ **Overload**
- **Phase imbalance or phase loss**
- $+t°$ **Overtemperature**

ATEX

Protection of motors in explosive or hazardous areas

As of the 30th of June, 2003, in the European Union, the products marketed or placed in service in potentially explosive areas must conform to Directive ATEX 94/9/EC

These relays are applicable for EEx motors with intensities of up to 630A and above, which run in potentially explosive areas such as petrochemical industries, plastics factories, etc.

The relay is installed outside the explosive area.

Relay to be used with the external display module

With the same features and applications as the G17 relay, the BG17 relay incorporates an external display module which shows the status of the relay and allows it to be reset from outside of the panel or the motor control center (MCC).

As the BG17 is designed for use with the ODG display module, it does not include the LED signals on the front of the relay itself.

G

BG

Protections			$I>$ $+t°$	$I>$ $+t°$
Models			**G 17**	**BG 17**
Adjustment range	I_B (A)		5 - 17,7	5 - 17,7
Motor 400 V	HP		3 - 10	3 - 10
50/60 Hz	kW		2,2 - 7,5	2,2 - 7,5
Code no. according	230 Vac	single phase	10723	10733
to the relay	115 Vac	single phase	10722	10732
voltage supply	24 Vdc		10720	10730
For I_N of the motor below the minimum setting I_B			Pass the motor cables several times (n) through the corresponding holes in the relay I_B = n x I_N	
For I_N of the motor above the maximum setting I_B			Use 3 CT's .../5 and pass their secondary twice (n=2) through the relay holes	
External display module / Code no.			No	ODG / 12505

Characteristics	G 17 and BG 17
Thermal memory / Overload trip	Yes / From 1,1 x I_B
Maximum motor nominal voltage	1000 V
15 adjustable tripping curves	Cold tripping times at 6 x I_B from 2 to 30s
Phase imbalance protection	Over 40%. Tripping time < 3s
PTC min/max cold resist. / Average trip resistance	100 Ω / 1500 Ω - 2750 Ω
Reset mode	Manual and remote
Signalling LED's	4 LED's: ON + one for each protection
Single phase auxiliary power supply	
• Voltage Us	115 - 230 Vac (+15% -6%) / 24 Vdc (±10%)
• Frequency	50/60 Hz (from 49 to 61,2 Hz)
• Consumption	2,5 VA (115 - 230 Vac) / 1,5 W (24 Vdc)
• Protection fuse	GL 6 A
Output contacts	1 relay with 1 NO + 1 NC
• Switching capacity in abnormal conditions	I_{th}: 5A; AC15 - 250V - 2A; DC13 - 30V - 2A
• Short-circuit resistance	1000 A
Terminals max. section / Screw torque	2,5 mm², No. 22 - 12AWG / 20Ncm, 1.8 LB - IN
Protection degree / weight / mounting	IP20 / 0,5 Kg / DIN rail
Storage temperature	-30°C +70°C
Operation temperature	-15°C +60°C
Standards	EN 5081-2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 60529, EN 60947-5-1, UL 508 EN 60947-1, EN 60947-4-1, EN 60255-8, EN 954-1, EN 60079-14, EN 60034-1, EN 50019

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ODG display module

This module, which is the size of a pushbutton of Ø22 mm, is mounted outside on the panel door or on the front of the motor control center (MCC), and is connected to the relay by means of a 2 meters long flat cable.
Weight: 0,05 Kg.

ATEX Certificaction

Relays G and BG are certificate for use as category 3, with ATEX marked:

CE Ex II (3) G EEx e

PTB approval:

G and BG relays have been approved by the **Physikalisch-Technische Bundesanstalt-PTB** for the protection of EEx e protected explosion motors (DIN EN 50019 / DIN VDE 0170 /DIN VDE 0171 part 6) according to the stipulations and requirements of PTB.

PTB report no. PTB Ex 3.43-30004/00

Ex PTB Ex 3.43 - 30004/00

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