



C45



GL16



OD-GL



PBM B..



PBM HE

Fanox Motor Protection Relays efficiently prevent engine burnouts saving costly repairs and prevent dreaded unnecessary downtime in any important processes. High numbers of motor faults occur on a daily basis and are mainly due to:

Overloads – Locked Rotor – Phase failure or imbalance – Heavy bursts of long duration – Overheating
Over 60% of failures are due to causes not detected by conventional protection systems, causing excessive heat in windings, leading to a drastic reduction in the electrical life of motors.

Significant technical advantages of Fanox protection devices include:

- Standards conformity : IEC 255, IEC 947, IEC 801, EN50081-2
- Identification of tripping cause, permitting instant identification and action to eliminate faults
- Built-in current detection (*motor cables pass through relay*) for ease of wiring and installation
- Immediate detection of phase loss, even with engine running at low loads, to avoid costly breakdowns
- Continuous thermal image memory of heating/cooling of the starting cycles, work overload and stoppages

type	current setting	motor rating 400V	description
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C series - Basic motor protection

Overload - Phase imbalance

Applicable to protect motor requiring dependable and accurate protection for all types of starting (*trip classes 10, 20 and 30*). Motor control centre (MCC), Pumps, Compressors, Ventilators, Centrifugal machines, Conveyors, Cranes, Valves, Air conditioning, Machine tools, etc.

- Trip Class (*selectable*): IEC 947-4-1 10 - 20 - 30

C Series motor protection relay - Control voltage: 230 VAC (*24 VAC/DC available on request*)

C9	3 - 9.3A	1.5 - 4 kW	basic electronic motor protection relay
C21	9 - 21.6A	7.5 - 12 kW	basic electronic motor protection relay
C45	20 - 45.2A	11 - 22 kW	basic electronic motor protection relay

For larger sizes, use C9 with external CTs.

GL series - Motor protection

Overload - Phase imbalance - Over temperature - Phase sequence

For motors requiring dependable and accurate protection for all types of starting for MCC's, Pumps, Compressors, Ventilators, Conveyors, Machine Tools, Industrial Refrigeration and in general for over temperature (*by means of PTC sensor*) and incorrect phase sequence protection.

- Trip Class (*selectable*) : IEC 947-4-1 5 - 10 - 15 - 20 - 25 - 30 - 35

GL series - motor protection relay - Control voltage: **230 VAC** (*24 VAC/DC available on request*)

GL16	4 - 16.7A	2.2 - 7.5 kW	complete electronic motor protection relay
GL40	15 - 40A	7.5 - 18.5 kW	complete electronic motor protection relay
GL90	40 - 91A	22 - 45 kW	complete electronic motor protection relay
GL200	60 - 200A	37 - 110 kW	complete electronic motor protection relay

For larger sizes, use GL16 with external CTs

External display modules for C and GL series (*mounts through std Ø 22 mm p/button hole*)

- To visualise relay status and reset from exterior of electrical panel

OD-C	external display/ reset control kit	C9/21/45
OD-GL	external display/ reset control kit	GL16/40/90/200

PBM series - Motor management system *RS485 ModBus RTU communication*

Overload - Phase imbalance or failure - Over temperature - Phase sequence JAM detection - Locked rotor detection - Neutral over current - Undercurrent.

PBM Motor Management System for complete protection, control and monitoring as an integral solution for Motor Control Centres (MCC's) adaptable to all requirements, providing detailed multifunctional fault reports with self-diagnosis, installation monitoring and statistics.

- Non-volatile memory stored information coherence
- Number of motor start-ups (*medium and maximum current of last start-up*)
- Operating hours counter
- Earth toroidal disconnection monitoring
- Number of faults (*since last reset*)
- PTC sensor open circuit and short circuit detection

PBM series motor management system - control voltage: **100/230 VAC/DC** (*24/48 VDC on request*)

PBM B11	0.8 - 6A	0.75 - 2.2 kW	advanced motor management system
PBM B51	4 - 25A	1.5 - 11 kW	advanced motor management system

For larger sizes, use PBM B11 with external CTs

External LCD display module (HMI) for PBM series (*optional*) *panel cutout (H) 50 x (W) 100 mm*

- To visualise/configure relay status and reset from exterior of electrical panel

PBM HE	display	external HMI LCD display and control keypad	for PBM-B
CDCN1	cable	connection cable for above HMI to PBM (1 meter)	for PBM-B