



C45



GL16



OD-GL



PBM B



PBM HE

Fanox motor protection relays efficiently prevent engine burnouts saving costly repairs and preventing downtime in 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

Significant technical advantages of Fanox protection devices include:

- Continuous thermal image memory of heating/cooling of the starting cycles, work overload and stoppages
- Immediate detection of phase loss, even with engine running at low loads, to avoid costly breakdowns
- Identification of trip cause, permitting instant identification and action to eliminate faults
- Built-in current detection (*motor cables pass through relay*)

type	current setting	motor rating 400V	description
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C series basic motor protection (H) 78 x (W) 45 x (D) 95 mm

C series motor protection relays incorporate built-in CTs (*current transformers*) for ease of wiring and installation. All protection settings are made from front face of the protection relay.

- Thermal memory / overload trip: Yes / from $1.1 \times I_n$
- Maximum motor nominal voltage: 1000 VAC
- Trip classes (IEC 947-4-1): 12 - 20 - 30
- Phase imbalance protection: Over 40%. Tripping time <3 sec
- Reset mode: Manual or remote
- Standards conformity: IEC 255, IEC 947, IEC 801, EN50081-2
- Control voltage: 230 VAC (*115 VAC and 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

GL series motor protection same as C series (above) but with additional protection modes

- 3 phase motors, DIN rail mountable (H) 80 x (W) 478 x (D) 99 mm **GL200** (W) 130 mm
- Trip classes (IEC 947-4-1): 5 - 10 - 15 - 20 - 25 - 30 - 35
- Phase sequence protection: Selectable ON - OFF (*actuate during motor start-up*)
- PTC min/max (cold) - average trip: 25Ω/1500Ω - 3600Ω/1800Ω

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

PBM series motor management system (H) 80 x (W) 78 x (D) 99 mm

Integral solution for motor control centres adaptable to all requirements.

Multi-function fault reports:

4 fault reports with following information: dates - measurements - status bits - inputs and outputs

Self-diagnosis, installation monitoring and statistics:

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

Overload - PTC - JAM - Locked rotor - Neutral fault

Auxiliary supply:	110/230 VAC/DC (<i>24/48 VDC on request</i>)		
Inputs:	1 x PTC - 1x Toroidal transformer (<i>external earth fault</i>)		
Outputs:	2 x NO/NC contacts		
Communication:	RS485 ModBus RTU		

PBM B1	0.8 - 6A	0.75 - 2.2 kW	advanced motor management system
PBM B5	4 - 25A	1.5 - 11 kW	advanced motor management system

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

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

PBM HE	external HMI display and control	for relay	PBM B
CDCN1	connection cable for above HMI to relay	(1m)	PBM B