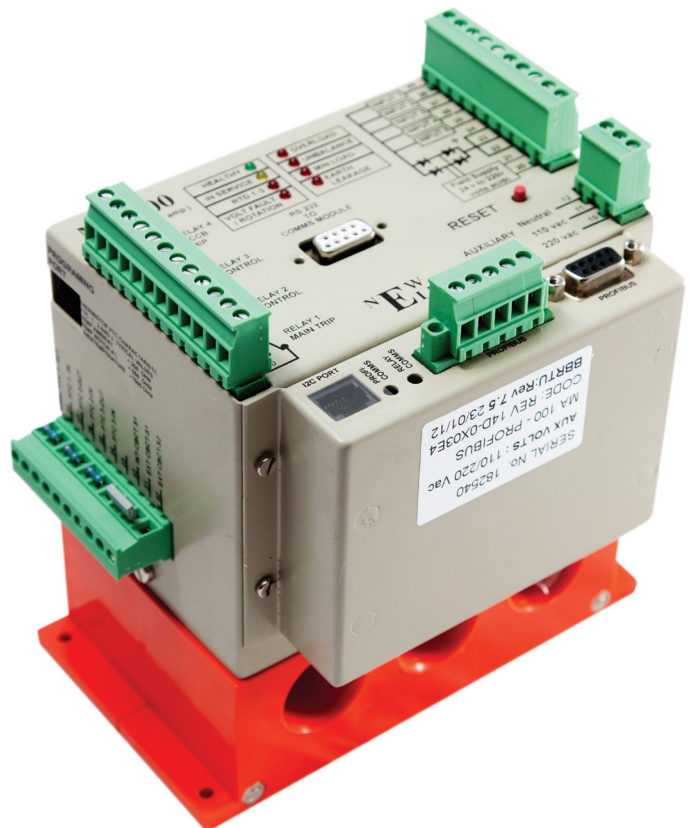


MA Relay Ordering Information

Standard Motor Protection Relay Kits



About

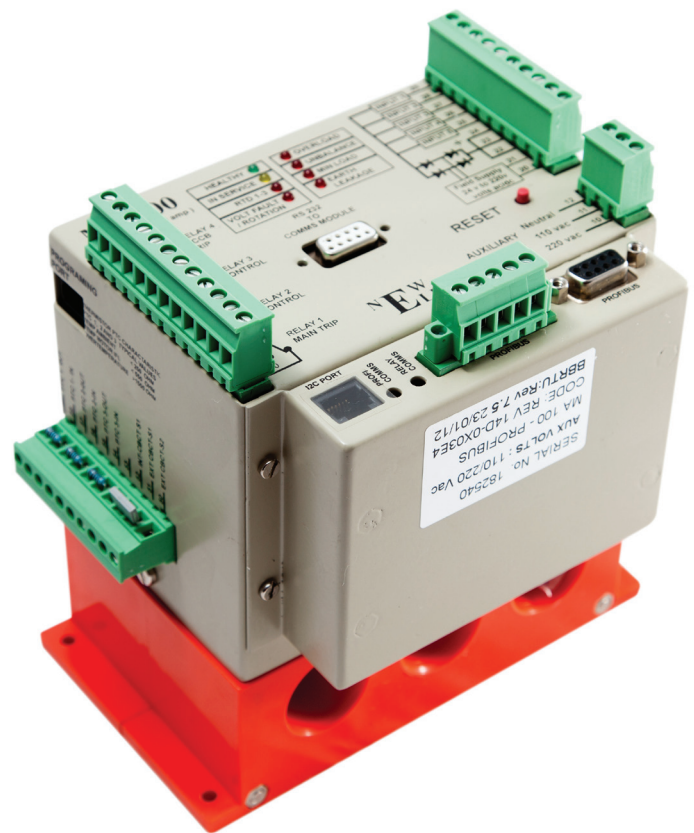
The MA Motor Protection and Control Relay is an ISO 9001:2008 compliant, three-phase motor protection relay, designed and manufactured in South Africa. Used as either a standalone Electronic Motor Protection Relay or as part of an automation network process communicating to a PLC, this motor control relay is equipped with 5 digital inputs accepting field supply voltages from 24V to 220V AC or DC and 4 potential free C/O contacts, 2 of which are programmable.

Thermal curves (Class 3 to 35), to IEC 60255-8, 3 x PTC 100 inputs, earth leakage, earth fault and short-circuit protection, load loss protection, over and undervoltage protection and voltage symmetry are all features available through the range 5 to 250A. The integrated C.T. block also includes the earth leakage core balance C.T.

Indication LEDs address the need of maintenance personnel involved in fault-finding, while the free NewElec frontend software enables recording of the motor performance.

Protection Features:

- Thermal Overload Protection
- Locked Rotor Protection
- Running Stall / Jam Protection
- Unbalanced Current Protection
- Single Phasing Protection
- Minimum Load / Underload Protection
- Earth Leakage Protection
- Earth Fault Protection
- Short-Circuit Protection
- Starts per Hour Limitation
- Over / Undervoltage / Phase Rotation
- MCCB / Contactor Co-ordination
- Latched LED Trip Indication
- Fault Recording
- 3-Phase Recorder
- N/O Signalling Contacts
- 5 Digital Inputs
- Profibus DP
- Modbus RTU
- Canbus



A South African Company to be Proud of



Complete Motor Protection Solution to Suite :

0.18 - 2.2 KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Indication LEDs address the need of maintenance personnel involved in fault-finding, while the free NewElec frontend software enables recording of the motor performance.





Complete Motor Protection Solution to Suite :

0.37 - 4.00 KW Motor



Standard Kit

Product Code	Description
FPR0137	MA10
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0705	MA10 with Canbus
Modbus	FPR0181	MA10 with Modbus
Profibus	FPR0744	MA10 with Profibus

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Complete Motor Protection Solution to Suite :

3 - 22 KW Motor



Standard Kit

Product Code	Description
FPR0143	MA50
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

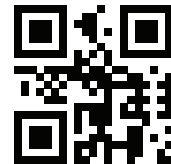
Protocol	Product Code	Description
Canbus	FPR0734	MA50 with Canbus
Modbus	FPR0735	MA50 with Modbus
Profibus	FPR0733	MA50 with Profibus

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Indication LEDs address the need of maintenance personnel involved in fault-finding, while the free NewElec frontend software enables recording of the motor performance.





Complete Motor Protection Solution to Suite :

5.5 - 47 KW Motor



Standard Kit

Product Code	Description
FPR0138	MA100
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0774	MA100 with Canbus
Modbus	FPR0131	MA100 with Modbus
Profibus	FPR0737	MA100 with Profibus

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Complete Motor Protection Solution to Suite :

11 to 110 KW Motor



Standard Kit

Product Code	Description
FPR0139	MA250
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0704	MA250 with Canbus
Modbus	FPR0132	MA250 with Modbus
Profibus	FPR0130	MA250 with Profibus

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Thermal curves (Class 3 to 35), to IEC 60255-8, 3 x PTC 100 inputs, earth leakage, earth fault and short-circuit protection, load loss protection, over and undervoltage protection and voltage symmetry are all features available through the range 5 to 250A. The integrated C.T. block also includes the earth leakage core balance C.T.

Indication LEDs address the need of maintenance personnel involved in fault-finding, while the free NewElec frontend software enables recording of the motor performance.





Complete Motor Protection Solution to Suite :

18.5-132 KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CTX0013	CT 300/5 5va Class 1 MR2 36mm ID
BTX0002	C.B.C.T. 1000/1 MOH Steel 104 mm ID
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Complete Motor Protection Solution to Suite :

18.5-150 KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CTX0051	CT 400/5 5va Class 1 MR2 36mm ID
BTX0003	C.B.C.T. 1000/1 MOH Steel 150 mm ID
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Complete Motor Protection Solution to Suite :

22-200KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CTX0053	CT 500/5 5va Class 1 MR2 36mm ID
BTX0004	C.B.C.T. 1000/1 MOH Steel 150 mm ID
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Complete Motor Protection Solution to Suite :

32-275 KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CTX0052	CT 600/5 5va Class 1 MR2 36mm ID
BTX0003	C.B.C.T. 1000/1 MOH Steel 150 mm ID
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Indication LEDs address the need of maintenance personnel involved in fault-finding, while the free NewElec frontend software enables recording of the motor performance.





Complete Motor Protection Solution to Suite :

45-400 KW Motor



Standard Kit

Product Code	Description
FPR0708	MA5
CTX9999	CT 800/5 5va Class 1 MR2 36mm ID
BTX0004	C.B.C.T. 1000/1 MOH Steel 150 mm ID
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0016	USB to RS232 CONVERTER
WEBCD	Free Product Software

Available to communicate via:

Protocol	Product Code	Description
Canbus	FPR0783	MA5 with Canbus
Modbus	FPR0133	MA5 with Modbus
Profibus	FPR0750	MA5 with Profibus

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Complete Motor Protection Solution to Suite :

Accessories: MA RDU 2X16 Kit:



Standard Kit

Product Code	Description
FPR0707	MA 2x16 Remote Display Unit
CAB0006	Cable DB9 Male to Male RS232 2M NEWEL 14
CAB0008	RDU216 Dongle (NEWEL 15)

Accessories: MA RDU 216 Battery Operated in Toolbox Kit:



Standard Kit

Product Code	Description
FPR0817	MA RDU 216 Battery Operated in Toolbox

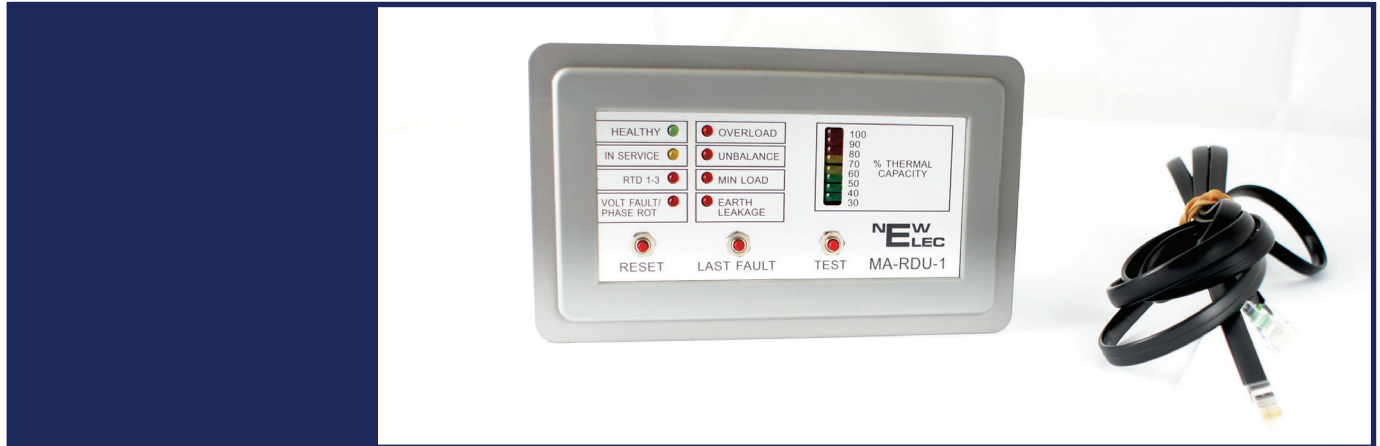
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Complete Motor Protection Solution to Suite :

Accessories: MA F LED Remote Display Unit Kit:



Standard Kit

Product Code	Description
FPR0210	MA F LED Remote Display Unit
CAB0010	2M UTP Fly Lead For F LED NEWEL16

Accessories: MA RDU 2X16 Kit:



Standard Kit

Product Code	Description
CAB0004	Cable DB9 RS232 Male to Female MA-Laptop
CAB0013	DB9 Female to RJ12 150mm NEWEL18
CAB0016	USB to RS232 Converter
WEBCD	Free Product Software

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Complete Motor Protection Solution to Suite :

Comms Modules:



Standard Kit

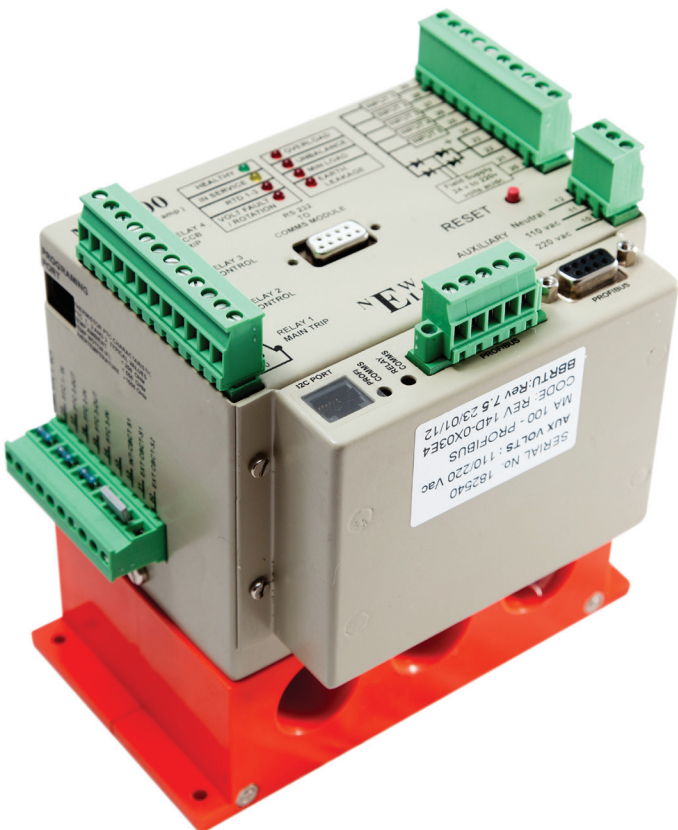
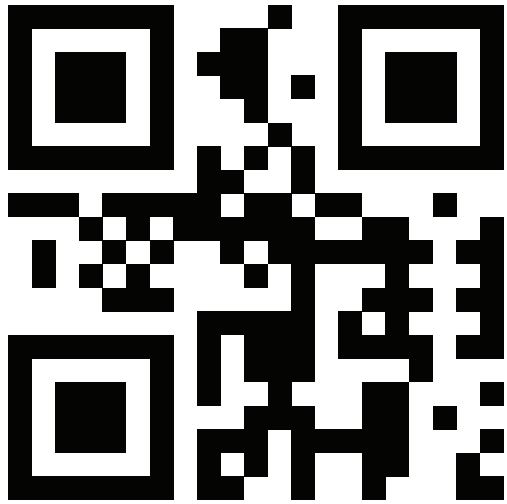
Product Code	Description
FPR0767	MA Canbus BBRTU
FPR0769	MA Modbus BBRTU
FPR0768	MA Profibus BBRTU

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