# General information
## Universal motor controllers
## UMC100-FBP

UMC100-FBP is a flexible, modular and expandable motor management system for constant-speed low-voltage range motors.

It's most important tasks include motor protection, prevention of plant standstills and the reduction of down time. This is made possible by early information relating to possible motor problems which avoids unplanned plant standstills. Even if a motor trips, quick diagnosis of the cause of the fault serves to reduce downtime.

UMC100-FBP combines multiple functions in a very compact unit:

### Motor protection
- Overload, underload
- Overvoltage, undervoltage
- Blocked rotor, low / high current
- Phase failure, imbalance, phase sequence
- Earth leakage
- Thermistor protection
- Limitation of starts per time
- One single version with integrated measuring system covers the rated
- Motor current from 0,24 to 63 A

### Motor control
- Integrated motor starter functions like direct, reverse, star-delta, etc. with easy to set parameters
- Additional free programmable logic for application specific control functions
- Expansion modules DX111, DX122 for more I/Os
- Expansion modules VI150, VI155 for 3-phase voltage measuring
- Custom programming possible with ABB DTM software

### Motor diagnostics
- Quick and comprehensive access to all relevant data via fieldbus and/or operator panel
- Current, thermal load
- Phase voltages
- Power factor
- Energy

Further information

| | |
|---|---|
| UMC & FBP Catalogue | 2CDC 190 022 D0204 |
| UMC & FBP Brochure | 2CDC 135 011 B0202 |

### Communication platforms
- Communication-independent basic device
- Freely selectable fieldbus protocol with FieldBusPlug
- Profibus DP
- DeviceNet
- Modbus
- CANopen

### Typical application segments
- Oil & gas
- Cement
- Paper
- Mining
- Steel
- Chemical industry

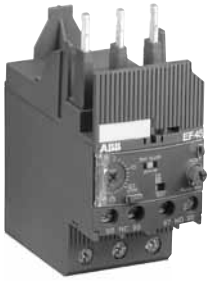
# Thermal & electronic overload relays

## For use with AF09(Z)...AF38(Z); AF09N00(Z)...AF26N1(Z)

## Types TF42, EF19 & EF45

TF42

EF19



EF45

### Ordering details

| For contactors | Setting range (A) | Trip class | Catalog number |
|---|---|---|---|
| **TF42 thermal overload relays** | | | |
| AF09(Z)…AF38(Z), AF09N00(Z)… AF26N1(Z) | 0.10…0.13 | 10 | TF42-0.13 |
| | 0.13…0.17 | 10 | TF42-0.17 |
| | 0.17…0.23 | 10 | TF42-0.23 |
| | 0.23…0.31 | 10 | TF42-0.31 |
| | 0.31…0.41 | 10 | TF42-0.41 |
| | 0.41…0.55 | 10 | TF42-0.55 |
| | 0.55…0.74 | 10 | TF42-0.74 |
| | 0.74…1.00 | 10 | TF42-1.0 |
| | 1.00…1.30 | 10 | TF42-1.3 |
| | 1.30…1.70 | 10 | TF42-1.7 |
| | 1.70…2.30 | 10 | TF42-2.3 |
| | 2.30…3.10 | 10 | TF42-3.1 |
| | 3.10…4.20 | 10 | TF42-4.2 |
| | 4.20…5.70 | 10 | TF42-5.7 |
| | 5.70…7.60 | 10 | TF42-7.6 |
| | 7.60…10.0 | 10 | TF42-10 |
| | 10.0…13.0 | 10 | TF42-13 |
| | 13.0…16.0 | 10 | TF42-16 |
| | 16.0…20.0 | 10 | TF42-20 |
| | 20.0…24.0 | 10 | TF42-24 |
| | 24.0…29.0 | 10 | TF42-29 |
| | 29.0…35.0 | 10 | TF42-35 |
| | 35.0…38.0 | 10 | TF42-38 |
| **EF19 electronic overload relays** | | | |
| AF09(Z)…AF38(Z), AF09N00(Z)… AF26N1(Z) | 0.10…0.32 | 10E, 20E, 30E | EF19-0.32 |
| | 0.30…1.00 | 10E, 20E, 30E | EF19-1.0 |
| | 0.80…2.70 | 10E, 20E, 30E | EF19-2.7 |
| | 1.90…6.30 | 10E, 20E, 30E | EF19-6.3 |
| | 5.70…18.9 | 10E, 20E, 30E | EF19-18.9 |
| **EF45 electronic overload relays** | | | |
| AF26(Z)…AF38(Z), AF26N1(Z) | 9.00…30.0 | 10E, 20E, 30E | EF45-30 |
| | 15.0…45.0 | 10E, 20E, 30E | EF45-45 |