



**Trip block, 3 - 12 A, Motor protection, Connection to SmartWire-DT: no,
For use with: PKE12 basic device, PKE32 basic device**



Part no. PKE-XTU-12
Catalog No. 121725
Alternate Catalog No. XTPEXT012B
EL-Nummer (Norway) 0004355184

Delivery program

| | | | |
|----------------|--|--|---|
| Product range | | | Accessories |
| Accessories | | | Trip blocks |
| Basic function | | | Motor protection Motor protection for heavy starting duty |
| | | | |
| Notes | | | Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging. |

Setting range

| | | | |
|---|-------------|---|-----------------------|
| Overload releases | | | |
| | | | |
| Setting range of overload releases | I_r | A | 3 - 12 |
| | | | |
| Overload release, min. | I_r | A | 3 |
| Overload release, max. | I_r | A | 12 |
| Function | | | With overload release |
| Rated uninterrupted current = rated operational current | $I_u = I_e$ | A | 12 |

Motor rating

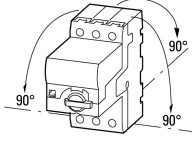
| | | | | |
|----------------------------|---|----|-----|--|
| AC-3 | | | | |
| 220 V 230 V | P | kW | 3 | |
| 380 V 400 V | P | kW | 5.5 | |
| 440 V | P | kW | 5.5 | |
| 500 V | P | kW | 5.5 | |
| 660 V 690 V | P | kW | 7.5 | |
| For use with | | | | PKE12 basic device PKE32 basic device |
| Connection to SmartWire-DT | | | | no |

| Motor output/rated motor current | | Rated motor current | | | | | |
|----------------------------------|------|---------------------|-------|-------|-------|-------|--|
| Motor rating | AC-3 | 220 V | 380 V | 440 V | 500 V | 660 V | |
| | | 230 V | 400 V | | | 690 V | |
| | | 240 V | 415 V | | | | |
| P | | I | I | I | I | I | |
| kW | | A | A | A | A | A | |
| 0.75 | | 3.2 | - | - | - | - | |
| 1.1 | | 4.6 | - | - | - | - | |
| 1.5 | | 6.3 | 3.6 | 3.3 | - | - | |
| 2.2 | | 8.7 | 5 | 4.6 | 4 | - | |
| 3 | | 11.5 | 6.6 | 6 | 5.3 | 3.8 | |
| 4 | | - | 8.5 | 7.7 | 6.8 | 4.9 | |
| 5.5 | | - | 11.3 | 10.2 | 9 | 6.5 | |
| 7.5 | | - | - | - | - | 8.8 | |

Technical data

General

| | | | |
|-----------|--|--|--------------------------------|
| Standards | | | IEC/EN 60947, VDE 0660,UL, CSA |
|-----------|--|--|--------------------------------|

| | | | |
|---|----|--|--|
| Climatic proofing | | | Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature | | | |
| Storage | °C | | - 40 - 80 |
| Open | °C | | -25 - +55 |
| Enclosed | °C | | - 25 - 40 |
| Mounting position | | |  |
| Direction of incoming supply | | | as required |
| Degree of protection | | | |
| Device | | | IP20 |
| Terminations | | | IP00 |
| Protection against direct contact when actuated from front (EN 50274) | | | Finger and back-of-hand proof |
| Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27 | g | | 25 |
| Altitude | m | | Max. 2000 |

Main conducting paths

| | | | |
|---|-------------|-------|--|
| Rated impulse withstand voltage | U_{imp} | V AC | 6000 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated operational voltage | U_e | V AC | 690 |
| Rated uninterrupted current = rated operational current | $I_u = I_e$ | A | 12 |
| Rated frequency | f | Hz | 40 - 60 |
| Max. operating frequency | | Ops/h | 60 |
| Motor switching capacity | | | |
| AC-3 (up to 690V) | | A | 12 |
| AC-4 cycle operation | | | |
| Minimum current flow times | | ms | 500 (Class 5) 700 (Class 10) 900 (Class 15) 1000 (Class 20) |
| Minimum cut-out periods | | ms | 500 |
| Note | | ms | In AC-4 cycle operation, going below the minimum current flow time can cause overheating of the load (motor). For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods. |

Trip blocks

| | | | |
|------------------------------------|--|--------------|---|
| Temperature compensation | | | |
| to IEC/EN 60947, VDE 0660 | | °C | - 5 ... 40 |
| Operating range | | °C | - 25 ... 55 |
| Setting range of overload releases | | $\times I_u$ | 0.25 - 1 |
| short-circuit release | | | Trip block, fixed: $15.5 \times I_r$ delayed approx. 60 ms |
| Short-circuit release tolerance | | | $\pm 20\%$ |
| Phase-failure sensitivity | | | IEC/EN 60947-4-1, VDE 0660 Part 102 |

Design verification as per IEC/EN 61439

| | | | |
|--|------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 12 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0.3 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 0.9 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 0 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 55 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |

| | | |
|--|--|--|
| 10.2.3.1 Verification of thermal stability of enclosures | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | Is the panel builder's responsibility. |
| 10.9 Insulation properties | | |
| 10.9.2 Power-frequency electric strength | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Tripping bloc for power circuit-breaker (EC000617)

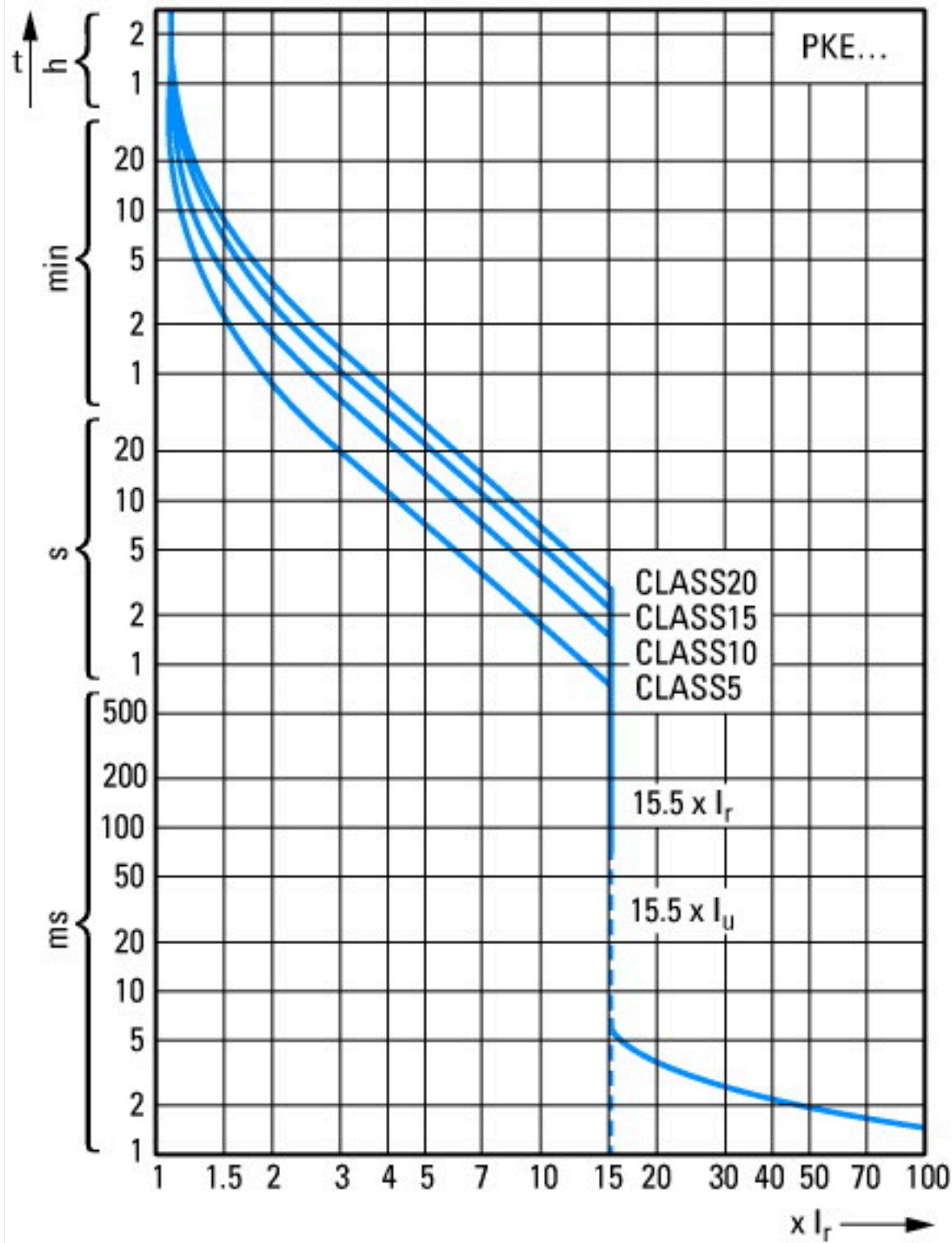
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Releasing block for circuit breakers (ecl@ss10.0.1-27-37-04-10 [AKF008013])

| | | |
|--|---|--------------------|
| Overload release current setting | A | 3 - 12 |
| Initial value of the undelayed short-circuit release - setting range | A | 46.5 |
| End value adjustment range undelayed short-circuit release | A | 186 |
| Rated permanent current I _u | A | 12 |
| Voltage type for actuating | | Self powered |
| Rated control supply voltage U _s at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage U _s at AC 60HZ | V | 0 - 0 |
| Rated control supply voltage U _s at DC | V | 0 - 0 |
| Number of poles | | 3 |
| Short-circuit release function | | Delayed |
| With ground fault protection function | | No |
| Type of motor protection | | Electronic release |

Approvals

| | | |
|--------------------------------------|--|---|
| Product Standards | | UL 508; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking |
| UL File No. | | E36332 |
| UL Category Control No. | | NLRV |
| CSA File No. | | 165628 |
| CSA Class No. | | 3211-05 |
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |

Characteristics



Tripping characteristics

Additional product information (links)

IL034011ZU Trip block for solid-state motor-protective circuit-breaker PKE12, PKE32

IL034011ZU Trip block for solid-state motor-protective circuit-breaker PKE12, PKE32

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL034011ZU2018_03.pdf

MN03402004Z PKE12, PKE32 and PKE65 motor-protective circuit-breakers; overload monitoring of Ex e motors

MN03402004Z PKE12, PKE32 and PKE65 motor-protective circuit-breakers; overload monitoring of Ex e motors - Deutsch / English

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03402004Z_DE_EN.pdf

Motor starters and "Special Purpose Ratings" for the North American market

http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf

Busbar Component Adapters for modern Industrial control panels

http://www.moeller.net/binary/ver_techpapers/ver960en.pdf

