



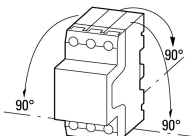
**Motor-protective circuit-breaker, 0.75 kW, 1.6 - 2.5 A, Feed-side screw terminals/output-side push-in terminals, For use with motor starter combinations type MSC...**

**Part no.** PKZM0-2,5-SPI32  
**Catalog No.** 199195  
**Alternate Catalog No.** XTPRSPI322P5BC1NL

## Delivery program

|                                                                                     |          |    |                                                                                    |
|-------------------------------------------------------------------------------------|----------|----|------------------------------------------------------------------------------------|
| Product range                                                                       |          |    | PKZM0 motor protective circuit-breakers up to 32 A                                 |
| Basic function                                                                      |          |    | Motor protection                                                                   |
| For use with                                                                        |          |    | motor starter combinations type MSC...                                             |
|                                                                                     |          |    |  |
| Notes                                                                               |          |    | Also suitable for motors with efficiency class IE3.                                |
| Connection technique                                                                |          |    | Feed-side screw terminals/output-side push-in terminals                            |
| <b>Max. motor rating</b>                                                            |          |    |                                                                                    |
| AC-3                                                                                |          |    |                                                                                    |
| 220 V 230 V 240 V                                                                   | P        | kW | 0.37                                                                               |
| 380 V 400 V 415 V                                                                   | P        | kW | 0.75                                                                               |
| 440 V                                                                               | P        | kW | 1.1                                                                                |
| 500 V                                                                               | P        | kW | 1.1                                                                                |
| 660 V 690 V                                                                         | P        | kW | 1.5                                                                                |
| Rated uninterrupted current                                                         | $I_u$    | A  | 2.5                                                                                |
| <b>Setting range</b>                                                                |          |    |                                                                                    |
| Overload releases                                                                   | $I_r$    | A  | 1.6 - 2.5                                                                          |
|  |          |    |                                                                                    |
| short-circuit release                                                               |          |    |                                                                                    |
|  |          |    |                                                                                    |
| max.                                                                                | $I_{rm}$ | A  | 38.8                                                                               |
| Phase-failure sensitivity                                                           |          |    | IEC/EN 60947-4-1, VDE 0660 Part 102                                                |

## Technical data

|                                                                           |  |    |                                                                                      |
|---------------------------------------------------------------------------|--|----|--------------------------------------------------------------------------------------|
| <b>General</b>                                                            |  |    |                                                                                      |
| Standards                                                                 |  |    | IEC/EN 60947, VDE 0660, UL, CSA                                                      |
| Climatic proofing                                                         |  |    | Damp heat, constant, to IEC 60068-2-78<br>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                   |
| Terminal capacity main cable                    |  |                 |                             |
| Screw terminals                                 |  |                 |                             |
| Solid                                           |  | mm <sup>2</sup> | 1 x (1 - 6)<br>2 x (1 - 6)  |
| Flexible with ferrule to DIN 46228              |  | mm <sup>2</sup> | 1 x (1 - 6)<br>2 x (1 - 6)  |
| Solid or stranded                               |  | AWG             | 18 - 10                     |
| Stripping length                                |  | mm              | 10                          |
| Push-in terminals                               |  |                 |                             |
| Solid                                           |  | mm <sup>2</sup> | 1 x (1 - 6)<br>2 x (1 - 6)  |
| flexible                                        |  | mm <sup>2</sup> | 1 x (1 - 6)<br>2 x (1 - 6)  |
| flexible with ferrules                          |  | mm <sup>2</sup> | 1 x (1 - 6)<br>2 x (1 - 4)  |
| flexible with ultrasonic welded busbar end      |  | mm <sup>2</sup> | 1 x (1 - 10)<br>2 x (1 - 6) |
| flexible with uninsulated wire end ferrule      |  | mm <sup>2</sup> | 1 x (1 - 10)<br>2 x (1 - 6) |
| Solid or stranded                               |  | AWG             | 18 - 8                      |
| Stripping length                                |  | mm              | 12                          |
| Standard screwdriver                            |  |                 | 3.0 x 0.5                   |
| Specified tightening torque for terminal screws |  |                 |                             |
| Main cable                                      |  | Nm              | 1.7                         |

### Main conducting paths

|                                                         |                                 |                   |         |
|---------------------------------------------------------|---------------------------------|-------------------|---------|
| Rated impulse withstand voltage                         | U <sub>imp</sub>                | V AC              | 6000    |
| Overvoltage category/pollution degree                   |                                 |                   | III/3   |
| Rated operational voltage                               | U <sub>e</sub>                  | V AC              | 690     |
| Rated uninterrupted current = rated operational current | I <sub>u</sub> = I <sub>e</sub> | A                 | 2.5     |
| Rated frequency                                         | f                               | Hz                | 40 - 60 |
| Current heat loss (3 pole at operating temperature)     |                                 | W                 | 5.16    |
| Impedance per pole                                      |                                 | mΩ                | 270     |
| Lifespan, mechanical                                    | Operations                      | x 10 <sup>6</sup> | 0.1     |
| Lifespan, electrical (AC-3 at 400 V)                    |                                 |                   |         |
| Lifespan, electrical                                    | Operations                      | x 10 <sup>6</sup> | 0.1     |
| Max. operating frequency                                |                                 | Ops/h             | 40      |
| Motor switching capacity                                |                                 |                   |         |
| AC-3 (up to 690V)                                       |                                 | A                 | 2.5     |

### Trip blocks

|                                                       |  |                  |                                            |
|-------------------------------------------------------|--|------------------|--------------------------------------------|
| Temperature compensation                              |  |                  |                                            |
| to IEC/EN 60947, VDE 0660                             |  | °C               | - 5 ... 40                                 |
| Operating range                                       |  | °C               | - 25 ... 55                                |
| Temperature compensation residual error for T > 40 °C |  |                  | ± 0.25 %/K                                 |
| Setting range of overload releases                    |  | x I <sub>u</sub> | 0.6 - 1                                    |
| short-circuit release                                 |  |                  | Basic device, fixed: 15.5 x I <sub>u</sub> |
| Short-circuit release tolerance                       |  |                  | ± 20%                                      |
| Phase-failure sensitivity                             |  |                  | IEC/EN 60947-4-1, VDE 0660 Part 102        |

### Rating data for approved types

|                      |  |    |     |
|----------------------|--|----|-----|
| Switching capacity   |  |    |     |
| Maximum motor rating |  |    |     |
| Three-phase          |  |    |     |
| 200 V<br>208 V       |  | HP | 0.5 |
| 230 V<br>240 V       |  | HP | 0.5 |
| 460 V<br>480 V       |  | HP | 1   |
| 575 V<br>600 V       |  | HP | 1.5 |

|                                                |      |               |
|------------------------------------------------|------|---------------|
| Single-phase                                   |      |               |
| 230 V<br>240 V                                 | HP   | 0.17          |
| Short Circuit Current Rating, type E           | SCCR |               |
| 240 V                                          | kA   | 65            |
| 480 Y / 277 V                                  | kA   | 65            |
| 600 Y / 347 V                                  | kA   | 50            |
| Accessories required                           |      | BK25/3-PKZ0-E |
| Short Circuit Current Rating, group protection | SCCR |               |
| 600 V High Fault                               |      |               |
| SCCR (fuse)                                    | kA   | 50            |
| max. Fuse                                      | A    | 600           |
| SCCR (CB)                                      | kA   | 50            |
| max. CB                                        | A    | 600           |

## Design verification as per IEC/EN 61439

|                                        |    |     |
|----------------------------------------|----|-----|
| Technical data for design verification |    |     |
| Operating ambient temperature min.     | °C | -25 |
| Operating ambient temperature max.     | °C | 55  |

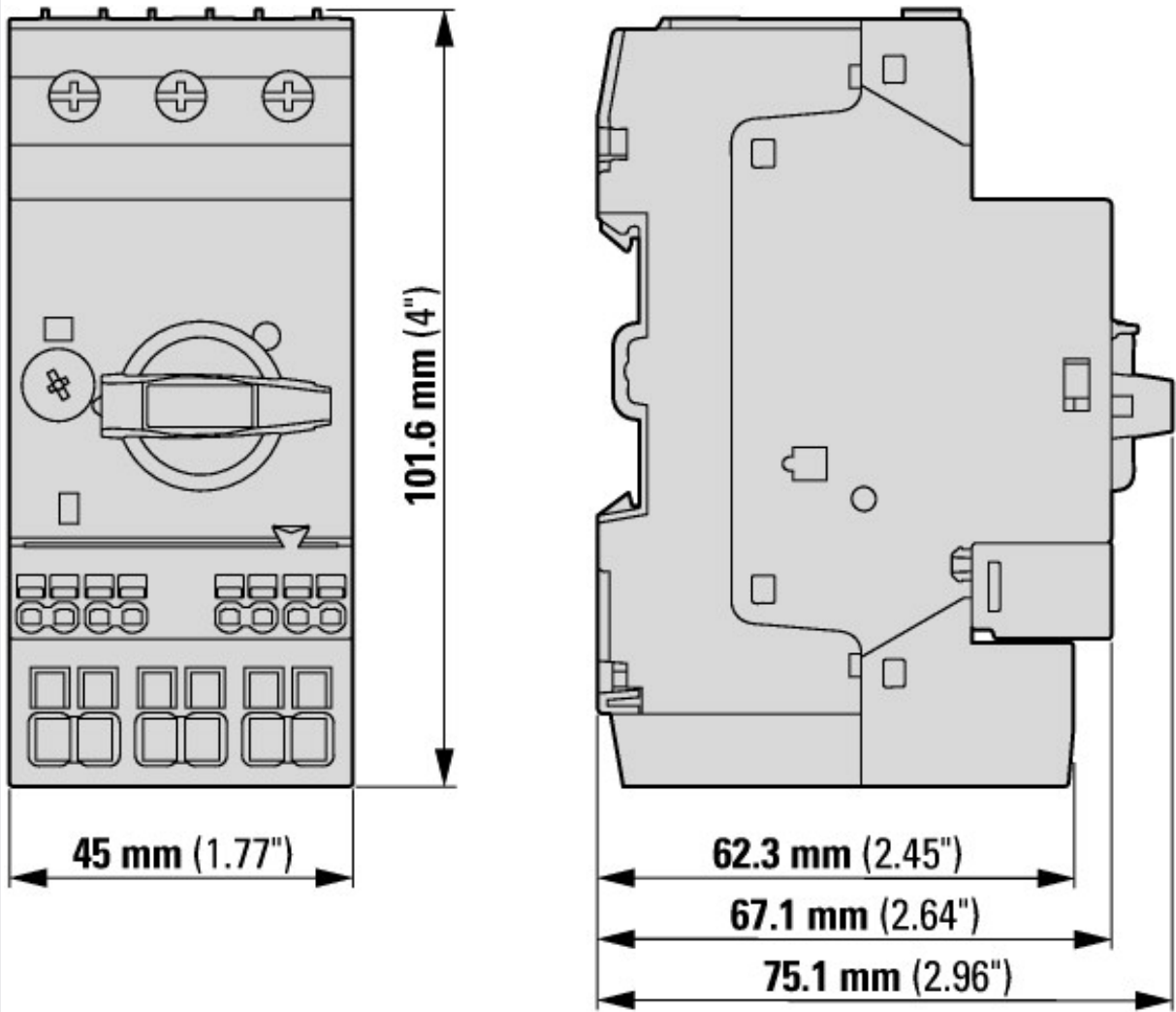
## Technical data ETIM 7.0

|                                                                                                                                                                                                       |    |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|
| Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)                                                                                                            |    |                                          |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss10.0.1-27-37-04-01 [AGZ529016]) |    |                                          |
| Overload release current setting                                                                                                                                                                      | A  | 1.6 - 2.5                                |
| Adjustment range undelayed short-circuit release                                                                                                                                                      | A  | 39 - 39                                  |
| With thermal protection                                                                                                                                                                               |    | Yes                                      |
| Phase failure sensitive                                                                                                                                                                               |    | Yes                                      |
| Switch off technique                                                                                                                                                                                  |    | Thermomagnetic                           |
| Rated operating voltage                                                                                                                                                                               | V  | 690 - 690                                |
| Rated permanent current Iu                                                                                                                                                                            | A  | 2.5                                      |
| Rated operation power at AC-3, 230 V                                                                                                                                                                  | kW | 0.37                                     |
| Rated operation power at AC-3, 400 V                                                                                                                                                                  | kW | 0.75                                     |
| Type of electrical connection of main circuit                                                                                                                                                         |    | Spring clamp connection                  |
| Type of control element                                                                                                                                                                               |    | Turn button                              |
| Device construction                                                                                                                                                                                   |    | Built-in device fixed built-in technique |
| With integrated auxiliary switch                                                                                                                                                                      |    | No                                       |
| With integrated under voltage release                                                                                                                                                                 |    | No                                       |
| Number of poles                                                                                                                                                                                       |    | 3                                        |
| Rated short-circuit breaking capacity Icu at 400 V, AC                                                                                                                                                | kA | 150                                      |
| Degree of protection (IP)                                                                                                                                                                             |    | IP20                                     |
| Height                                                                                                                                                                                                | mm | 102                                      |
| Width                                                                                                                                                                                                 | mm | 45                                       |
| Depth                                                                                                                                                                                                 | mm | 75                                       |

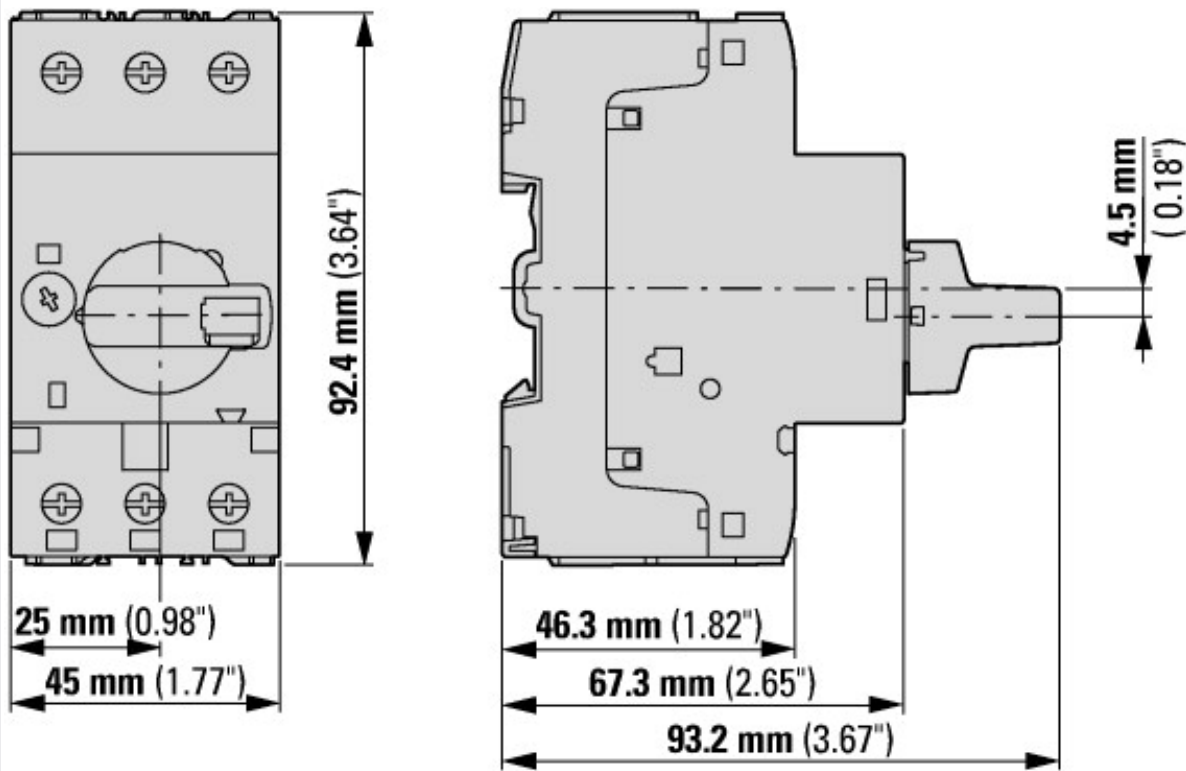
## Approvals

|                                      |  |                                                                                          |
|--------------------------------------|--|------------------------------------------------------------------------------------------|
| Product Standards                    |  | IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; 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                                                                                       |
| Suitable for                         |  | Branch circuit: Manual type E if used with terminal, or suitable for group installations |

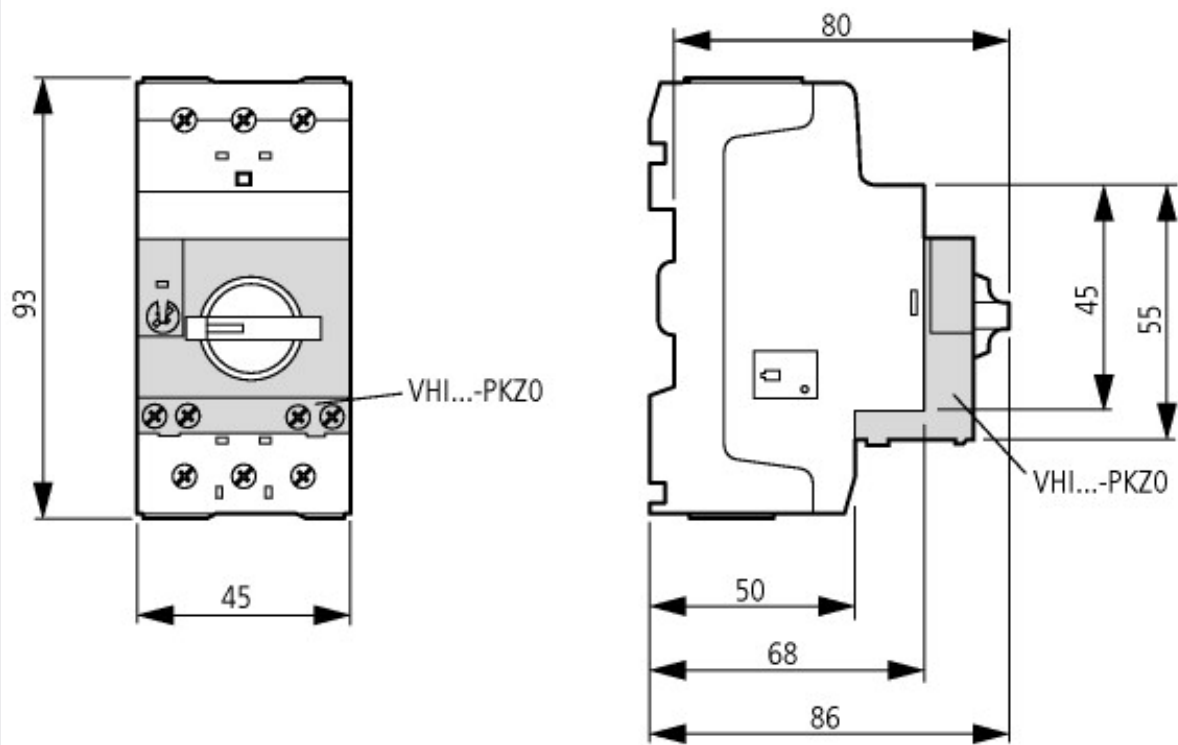
Dimensions



Motor-protective circuit-breaker with standard auxiliary contact  
PKZM0-...(+NHI-E-...-PKZ0)  
PKZM0-...-T(+NHI-E-...-PKZ0)  
PKM0-...(+NHI-E-...-PKZ0)



Motor-protective circuit-breakers with lockable rotary handles  
PKZM0-...+AK-PKZ0



Motor-protective circuit-breakers with early-make auxiliary contacts  
PKZM0-...+VHI-...-PKZ0