



Modular Contactors

128



Auxiliary Contact Block  
Accessories

129  
129



Day-Night Reloading Contactors

130



Switching Of Lamps

130



Technical Data

132



Dimensions

134

# Modular Contactors

| Rated Current | Heating Power AC1 at |         | Type | coil voltage                 | Pack pcs. | Weight kg/pc. | Wiring Diagram |
|---------------|----------------------|---------|------|------------------------------|-----------|---------------|----------------|
|               | 1-phase              | 3-phase |      |                              |           |               |                |
| 400V          | 230V                 | 400V    |      | 24V 50/60Hz                  |           |               |                |
| A             | kW                   | kW      |      | 220-240V 50Hz, 230-264V 60Hz |           |               |                |
|               |                      |         |      | 24V 50/60Hz, 24V DC          |           |               |                |
|               |                      |         |      | 220-240V 50/60Hz, 220V DC    |           |               |                |

24  
230  
24VM  
230VM  
↓

## One-pole 1 module (17,5mm)



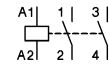
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 20 | 4,6 | - | R20-10 24  | 12 | 0,12 |
| 20 | 4,6 | - | R20-10 230 | 12 | 0,12 |



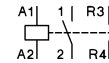
## Two-pole 1 module (17,5mm)



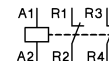
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 20 | 4,6 | - | R20-20 24  | 12 | 0,12 |
| 20 | 4,6 | - | R20-20 230 | 12 | 0,12 |



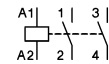
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 20 | 4,6 | - | R20-11 24  | 12 | 0,12 |
| 20 | 4,6 | - | R20-11 230 | 12 | 0,12 |



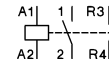
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 20 | 4,6 | - | R20-02 24  | 12 | 0,12 |
| 20 | 4,6 | - | R20-02 230 | 12 | 0,12 |



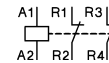
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 25 | 5,5 | - | R25-20 24  | 12 | 0,14 |
| 25 | 5,5 | - | R25-20 230 | 12 | 0,14 |



|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 25 | 5,5 | - | R25-11 24  | 12 | 0,14 |
| 25 | 5,5 | - | R25-11 230 | 12 | 0,14 |



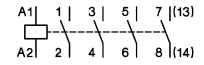
|    |     |   |            |    |      |
|----|-----|---|------------|----|------|
| 25 | 5,5 | - | R25-02 24  | 12 | 0,14 |
| 25 | 5,5 | - | R25-02 230 | 12 | 0,14 |



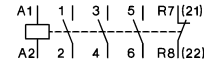
## Four-pole 2 modules (35mm) <sup>1</sup>



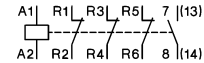
|    |     |    |            |   |      |
|----|-----|----|------------|---|------|
| 25 | 5,7 | 17 | R25-40 24  | 6 | 0,21 |
| 25 | 5,7 | 17 | R25-40 230 | 6 | 0,21 |



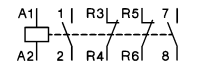
|    |     |    |            |   |      |
|----|-----|----|------------|---|------|
| 25 | 5,7 | 17 | R25-31 24  | 6 | 0,21 |
| 25 | 5,7 | 17 | R25-31 230 | 6 | 0,21 |



|    |     |    |            |   |      |
|----|-----|----|------------|---|------|
| 25 | 5,7 | 17 | R25-13 24  | 6 | 0,21 |
| 25 | 5,7 | 17 | R25-13 230 | 6 | 0,21 |



|    |     |   |            |   |      |
|----|-----|---|------------|---|------|
| 25 | 5,7 | - | R25-22 24  | 6 | 0,21 |
| 25 | 5,7 | - | R25-22 230 | 6 | 0,21 |



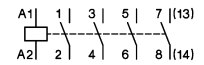
|    |     |    |            |   |      |
|----|-----|----|------------|---|------|
| 25 | 5,7 | 17 | R25-04 24  | 6 | 0,21 |
| 25 | 5,7 | 17 | R25-04 230 | 6 | 0,21 |



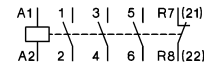
## Four-pole 2 modules(35mm), AC/DC-operated <sup>1)</sup>



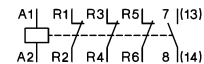
|    |     |    |              |   |      |
|----|-----|----|--------------|---|------|
| 25 | 5,7 | 17 | R25-40 24VM  | 6 | 0,22 |
| 25 | 5,7 | 17 | R25-40 230VM | 6 | 0,22 |



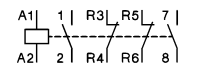
|    |     |    |              |   |      |
|----|-----|----|--------------|---|------|
| 25 | 5,7 | 17 | R25-31 24VM  | 6 | 0,22 |
| 25 | 5,7 | 17 | R25-31 230VM | 6 | 0,22 |



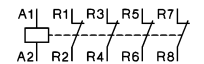
|    |     |    |              |   |      |
|----|-----|----|--------------|---|------|
| 25 | 5,7 | 17 | R25-13 24VM  | 6 | 0,22 |
| 25 | 5,7 | 17 | R25-13 230VM | 6 | 0,22 |



|    |     |   |              |   |      |
|----|-----|---|--------------|---|------|
| 25 | 5,7 | - | R25-22 24VM  | 6 | 0,22 |
| 25 | 5,7 | - | R25-22 230VM | 6 | 0,22 |



|    |     |    |              |   |      |
|----|-----|----|--------------|---|------|
| 25 | 5,7 | 17 | R25-04 24VM  | 6 | 0,22 |
| 25 | 5,7 | 17 | R25-04 230VM | 6 | 0,22 |



1) Sealable with Sealing Cover P721, available aux. contact block RH11(see page 129)  
2) Sealable with Sealing Cover P721, available aux. contact block RH11-1(see page 129)

# Modular Contactors

| Rated Current | Heating Power AC1 at | Type      | coil voltage                 | Pack pcs. | Weight kg/pc. | Wiring Diagram |
|---------------|----------------------|-----------|------------------------------|-----------|---------------|----------------|
| AC1           | 1-phase 3-phase      | 24<br>230 | 24V 50/60Hz                  |           |               |                |
| 400V          | 230V 400V            | ↓         | 220-240V 50Hz, 230-264V 60Hz |           |               |                |
| A             | kW kW                |           |                              |           |               |                |



## Two-pole 2 modules (35mm)

|    |      |   |            |   |      |  |
|----|------|---|------------|---|------|--|
| 40 | 9    | - | R40-20 24  | 6 | 0,23 |  |
| 40 | 9    | - | R40-20 230 | 6 | 0,23 |  |
| 63 | 14,3 | - | R63-20 24  | 6 | 0,23 |  |
| 63 | 14,3 | - | R63-20 230 | 6 | 0,23 |  |

## Four-pole 3 modules (52,5mm) <sup>1)</sup>



|    |   |      |            |   |      |  |
|----|---|------|------------|---|------|--|
| 40 | 9 | 27,5 | R40-40 24  | 4 | 0,35 |  |
| 40 | 9 | 27,5 | R40-40 230 | 4 | 0,35 |  |
| 40 | 9 | 27,5 | R40-31 24  | 4 | 0,35 |  |
| 40 | 9 | 27,5 | R40-31 230 | 4 | 0,35 |  |
| 40 | 9 | -    | R40-22 24  | 4 | 0,35 |  |
| 40 | 9 | -    | R40-22 230 | 4 | 0,35 |  |
| 40 | 9 | 27,5 | R40-04 24  | 4 | 0,35 |  |
| 40 | 9 | 27,5 | R40-04 230 | 4 | 0,35 |  |



|    |      |    |            |   |      |  |
|----|------|----|------------|---|------|--|
| 63 | 14,3 | 43 | R63-40 24  | 4 | 0,36 |  |
| 63 | 14,3 | 43 | R63-40 230 | 4 | 0,36 |  |
| 63 | 14,3 | 43 | R63-31 24  | 4 | 0,36 |  |
| 63 | 14,3 | 43 | R63-31 230 | 4 | 0,36 |  |
| 63 | 14,3 | -  | R63-22 24  | 4 | 0,36 |  |
| 63 | 14,3 | -  | R63-22 230 | 4 | 0,36 |  |
| 63 | 14,3 | 43 | R63-04 24  | 4 | 0,36 |  |
| 63 | 14,3 | 43 | R63-04 230 | 4 | 0,36 |  |

## Auxiliary Contact Block 1/2 module (8,8mm) for contactor R25 (4p.), R40, R63 (max. 1pc.)



| Rated current                       | Type   | Pack pcs. | Weight kg/pc. | Wiring Diagram |
|-------------------------------------|--------|-----------|---------------|----------------|
| AC15 AC15 AC1                       |        |           |               |                |
| 230V 400V 690V                      |        |           |               |                |
| A A A for contactor                 |        |           |               |                |
| 3 2 10 R25 <sup>2)</sup> , R40, R63 | RH11   | 3         | 0,026         |                |
| 3 2 10 R25-..VM                     | RH11-1 | 3         | 0,026         |                |

## Accessories



| Type  | Pack pcs. | Weight kg/pc. |
|---|-----------|---------------|
| RC-unit 2x for R20.. to R63.. for 12V to 250V AC 220nF / 100 Ohm not for R25-..VM | RC-R 230  | 2 0,05        |



|   |      |          |
|---|------|----------|
| Spacing piece 1/2 module (8,8mm) for R20.. to R63.. for ambient temperature >40°C | P730 | 10 0,012 |
|---|------|----------|



|                                  |      |          |
|----------------------------------|------|----------|
| Sealing cover for R25.. (4p.)    | P721 | 10 0,002 |
| Sealing cover for R40-.., R63-.. | P690 | 10 0,003 |

1) Sealable with Sealing Cover P690, available aux. contact block RH11  
2) AC-operated R25-..., 4-pole

## Day-Night Reloading Contactors

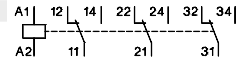
Type      Pack    Weight  
                 pcs.    kg/pc.    Wiring Diagram

**Compact Module, for separate tariff counters** 2 modules (35mm)



**3-pole 400V 25A**      **R25-TN 230**      1      0,22

2 Switch positions:  
**Day** (Reloading, contact 11-14 ... closed, remains in position Night, until the next occurs)  
**Night** (Basis operation) contact 11-12 ... closed



**Contactor Module, for double tariff counters** 1 module (17,5mm)



**2-pole 400V 25A**      **R25-TN20 230**      1      0,13

4 Switch position:  
**Day** (Reloading, contact 1-2 ... closed, remains in position Night, until the next occurs)  
**Night** (automatic operation, contact 1-2 ... only at night closed)  
**On** (Permanently On)  
**Off** (permanently Off)



**Switch Module** 1 module (17,5mm)



**2-pole 400V 25A**      **RH25-20**      1      0,13



## Modular Contactors

### Switching of lamps

| Lamp Type  | Power<br>W | Current<br>A | Capacitors<br>µF | Max. lamps per pole at 230V 50Hz and max. 60°C |         |         |         |
|--|------------|--------------|------------------|--|---------|---------|---------|
|  |            |              |                  | R20..  | R25..   | R40..   | R63..   |
| <b>Incandescent lamps</b>  | 60         | 0,27         | -                | 22   | 50      | 92      | 129     |
|  | 100        | 0,45         | -                | 13   | 30      | 55      | 77      |
|  | 200        | 0,91         | -                | 10   | 15      | 27      | 38      |
|  | 300        | 1,36         | -                | 4  | 10      | 19      | 26      |
|  | 500        | 2,27         | -                | 3  | 6       | 11      | 16      |
|  | 1000       | 4,5          | -                | 1  | 3       | 6       | 8       |
| <b>Fluorescent lamps</b><br>uncompensated or<br>serial compensated | 11         | 0,16         | 1,3              | 60   | 75      | 210     | 310     |
|  | 18         | 0,37         | 2,7              | 25   | 30      | 90      | 140     |
|  | 24         | 0,35         | 2,5              | 25   | 30      | 90      | 140     |
|  | 36         | 0,43         | 3,4              | 20   | 25      | 70      | 140     |
|  | 58         | 0,67         | 5,3              | 14   | 17      | 45      | 70      |
|  | 65         | 0,67         | 5,3              | 13   | 16      | 40      | 65      |
| <b>Fluorescent lamps</b><br>dual-connection                        | 11         | 0,07         | -                | 2 x 100  | 2 x 110 | 2 x 220 | 2 x 250 |
|  | 18         | 0,11         | -                | 2 x 50   | 2 x 55  | 2 x 130 | 2 x 200 |
|  | 24         | 0,14         | -                | 2 x 40   | 2 x 44  | 2 x 110 | 2 x 160 |
|  | 36         | 0,22         | -                | 2 x 30   | 2 x 33  | 2 x 70  | 2 x 100 |
|  | 58         | 0,35         | -                | 2 x 20   | 2 x 22  | 2 x 45  | 2 x 70  |
|  | 65         | 0,35         | -                | 2 x 15   | 2 x 16  | 2 x 40  | 2 x 60  |
| <b>Fluorescent lamps</b><br>parallel compensated                   | 11         | 0,09         | 2,0              | 30   | 43      | 67      | 107     |
|  | 18         | 0,13         | 2                | 20   | 32      | 50      | 80      |
|  | 24         | 0,16         | 3                | 15   | 32      | 50      | 80      |
|  | 36         | 0,27         | 4                | 10   | 32      | 50      | 80      |
|  | 58         | 0,45         | 7                | 6  | 18      | 36      | 46      |
|  | 65         | 0,5          | 7                | 5  | 18      | 36      | 46      |
| 85   | 0,6        | 8            | 4                | 16   | 33      | 44      |         |

# Modular Contactors

## Switching of lamps

| Lamp Type   | Power<br>W   | Current<br>A | Capacitors<br>µF | Max. lamps per pole at 230V 50Hz and max. 60°C |       |       |       |     |
|---|--|--------------|------------------|--|-------|-------|-------|-----|
|   |  |              |                  | R20..  | R25.. | R40.. | R63.. |     |
| <b>Fluorescent lamps</b><br>with electronic fluorescent<br>lamp ballast   | 18   | 0,09         | -                | 40   | 40    | 100   | 150   |     |
|   | 36   | 0,16         | -                | 20   | 20    | 52    | 75    |     |
|   | 58   | 0,25         | -                | 15   | 15    | 30    | 55    |     |
|   | 80   | 0,4          | -                | 7  | 10    | 20    | 30    |     |
|   | 2 x 18   | 0,17         | -                | 20   | 20    | 50    | 60    |     |
|   | 2 x 28   | 0,25         | -                | 15   | 15    | 37    | 45    |     |
|   | 2 x 36   | 0,32         | -                | 10   | 10    | 25    | 30    |     |
|   | 2 x 58   | 0,49         | -                | 7  | 7     | 15    | 20    |     |
|   | 2 x 80   | 0,7          | -                | 4  | 4     | 8     | 10    |     |
|   | <b>Transformers<br/>for metal halid<br/>low voltage lamps</b>                          | 20           | 0,09             | -  | 40    | 52    | 110   | 174 |
| 50  |  | 0,22         | -                | 20   | 24    | 50    | 80    |     |
| 75  |  | 0,33         | -                | 13   | 16    | 35    | 54    |     |
| 100   |  | 0,43         | -                | 10   | 12    | 27    | 43    |     |
| 150   |  | 0,65         | -                | 7  | 9     | 19    | 29    |     |
| 200   |  | 0,87         | -                | 5  | 5     | 14    | 23    |     |
| 300   |  | 1,30         | -                | 3  | 4     | 9     | 14    |     |
| <b>Mercury-vapour lamps</b><br>(high-pressure lamps),<br>uncompensated<br>e. g. HQL, HPL  | 50   | 0,61         | -                | 16   | 21    | 38    | 55    |     |
|   | 80   | 0,8          | -                | 12   | 16    | 29    | 40    |     |
|   | 125  | 1,15         | -                | 8  | 11    | 20    | 28    |     |
|   | 250  | 2,15         | -                | 4  | 6     | 11    | 15    |     |
|   | 400  | 3,25         | -                | 3  | 4     | 7     | 10    |     |
|   | 700  | 5,4          | -                | 1  | 2     | 4     | 6     |     |
|   | 1000   | 7,5          | -                | 1  | 1     | 3     | 4     |     |
|   | <b>Mercury-vapour lamps</b><br>(high-pressure lamps),<br>compensated<br>e. g. HQL, HPL | 50           | 0,28             | 7  | 7     | 18    | 36    | 50  |
| 80  |  | 0,41         | 8                | 5  | 16    | 31    | 44    |     |
| 125   |  | 0,65         | 10               | 3  | 13    | 25    | 35    |     |
| 250   |  | 1,22         | 18               | 2  | 7     | 14    | 19    |     |
| 400   |  | 1,95         | 25               | 1  | 5     | 10    | 14    |     |
| 700   |  | 3,45         | 45               | 1  | 3     | 6     | 8     |     |
| 1000  |  | 4,8          | 60               | -  | 2     | 4     | 6     |     |
| <b>Metal halide lamps</b><br>uncompensated<br>e. g. HQI, HPI, CDM   |  | 35           | 0,53             | -  | 22    | 24    | 57    | 65  |
|   | 70   | 1            | -                | 12   | 14    | 30    | 35    |     |
|   | 150  | 1,8          | -                | 6  | 8     | 17    | 18    |     |
|   | 250  | 3            | -                | 4  | 5     | 10    | 12    |     |
|   | 400  | 3,5          | -                | 3  | 4     | 8     | 10    |     |
|   | 1000   | 9,5          | -                | 1  | 1     | 3     | 4     |     |
|   | 2000   | 16,5         | -                | -  | -     | 2     | 2     |     |
|   | 400V per pole  | 2000         | 10,5             | -  | -     | 2     | 2     |     |
|   | 3500   | 18           | -                | -  | -     | 1     | 1     |     |
|   | <b>Metal halide lamps</b><br>compensated<br>e. g. HQI, HPI, CDM                        | 35           | 0,25             | 6  | 8     | 21    | 42    | 58  |
|   |  | 70           | 0,45             | 12   | 4     | 11    | 21    | 29  |
|   |  | 150          | 0,75             | 20   | 2     | 7     | 13    | 18  |
|   |  | 250          | 1,5              | 33   | 1     | 4     | 9     | 11  |
| 400   |  | 2,1          | 35               | 1  | 4     | 9     | 10    |     |
| 1000  |  | 5,8          | 95               | -  | 1     | 3     | 4     |     |
| 2000  |  | 11,5         | 148              | -  | -     | 2     | 2     |     |
| 400V per pole   |  | 2000         | 6,6              | 58   | -     | -     | 3     | 4   |
| 3500  | 11,6   | 100          | -                | -  | 2     | 3     |       |     |
| <b>Metal halide lamps</b><br>with electronic fluorescent<br>lamp ballast (e. g.: PCI)<br>50-125 x I <sub>n</sub> lamp for 0,6ms | 20   | 0,1          | integrated       | 9  | 9     | 18    | 20    |     |
|   | 28   | 0,15         | integrated       | -  | -     | -     | 18    |     |
|   | 35   | 0,2          | integrated       | 6  | 6     | 11    | 13    |     |
|   | 70   | 0,36         | integrated       | 5  | 5     | 10    | 12    |     |
|   | 150  | 0,7          | integrated       | 4  | 4     | 8     | 10    |     |
| <b>Sodium-vapour lamps</b><br>(low pressure lamps),<br>uncompensated  | 35   | 1,5          | -                | 7  | 9     | 22    | 30    |     |
|   | 55   | 1,5          | -                | 7  | 9     | 22    | 30    |     |
|   | 90   | 2,4          | -                | 4  | 6     | 13    | 19    |     |
|   | 135  | 3,3          | -                | 3  | 4     | 10    | 14    |     |
|   | 150  | 3,3          | -                | 3  | 4     | 10    | 14    |     |
|   | 180  | 3,3          | -                | 3  | 4     | 10    | 14    |     |
|   | 200  | 3,3          | -                | 3  | 4     | 10    | 14    |     |

# Modular Contactors

## Switching of lamps

| Lamp Type  | Power<br>W   | Current<br>A | Capacitors<br>μF | Max. lamps per pole at 230V 50Hz and max. 60°C |       |       |       |
|--|--|--------------|------------------|--|-------|-------|-------|
|  |  |              |                  | R20..  | R25.. | R40.. | R63.. |
| Sodium-vapour lamps<br>(low pressure lamps),<br>compensated  | 35   | 0,31         | 20               | 3  | 6     | 15    | 18    |
|  | 55   | 0,42         | 20               | 2  | 6     | 15    | 18    |
|  | 90   | 0,63         | 30               | 1  | 4     | 10    | 12    |
|  | 135  | 0,94         | 45               | 1  | 3     | 7     | 8     |
|  | 150  | 1            | 40               | 1  | 3     | 8     | 9     |
|  | 180  | 1,16         | 40               | 1  | 3     | 8     | 9     |
|  | 200  | 1,32         | 25               | -  | -     | 10    | 12    |
| <b>Sodium-vapour lamps</b><br>(high pressure lamps),<br>uncompensated  | 150  | 1,8          | -                | 5  | 8     | 17    | 22    |
|  | 250  | 3            | -                | 4  | 5     | 10    | 13    |
|  | 330  | 3,7          | -                | 3  | 4     | 8     | 10    |
|  | 400  | 4,7          | -                | 2  | 3     | 6     | 8     |
|  | 1000   | 10,3         | -                | 1  | 1     | 3     | 4     |
| <b>Sodium-vapour lamps</b><br>(high pressure lamps),<br>compensated  | 150  | 0,83         | 20               | 2  | 7     | 20    | 25    |
|  | 250  | 1,5          | 33               | 1  | 4     | 12    | 15    |
|  | 330  | 2            | 40               | 1  | 3     | 10    | 13    |
|  | 400  | 2,4          | 48               | 1  | 2     | 8     | 12    |
|  | 1000   | 6,3          | 106              | -  | 1     | 4     | 6     |
| <b>Sodium-vapour lamps</b><br>(high pressure lamps)<br>with serial electronic<br>(e. g.: PCI)<br>50-125 x I <sub>nlamp</sub> for 0,6ms | 20   | 0,1          | integrated       | 9  | 9     | 18    | 20    |
|  | 35   | 0,2          | integrated       | 6  | 6     | 11    | 13    |
|  | 70   | 0,36         | integrated       | 5  | 5     | 10    | 12    |
|  | 150  | 0,7          | integrated       | 4  | 4     | 8     | 10    |
| <b>LED-Lamps</b><br>consider the inrush current<br>of the lamp ballast and<br>the cosφ of the lamp                                     | max. inrush current of contactor [A]<br>$\frac{\text{inrush current of contactor}}{\text{inrush current of lamp/EVG}} =$ |              |                  | 195  | 233   | 424   | 565   |
|  |  |              |                  | max. lamps per pole at 230V 50Hz and max. 60°C |       |       |       |

## Data according to IEC60 947-4-1, IEC 60947-5-1, VDE 0660-5-1

| Type   |                     | 2-pole<br>R20            | R25                      | R40                      | R63                      | 4-pole<br>R25            | R40                      | R63                      | RH11                     |
|--|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Main Contacts</b> 5) 6) 7)  |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Rated insulation voltage</b> U <sub>i</sub>                       | V~                  | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> | <b>440</b> <sup>2)</sup> |
| Rated operation voltage U <sub>e</sub>                               | V~                  | 440                      | 440                      | 440                      | 440                      | 440                      | 440                      | 440                      | 440                      |
| <b>Frequency of operations</b> z                                     | AC1, AC3            | 300                      | 300                      | 600                      | 600                      | 300                      | 600                      | 600                      | 600                      |
| <b>Mechanical life</b>   | S x 10 <sup>6</sup> | 1                        | 1                        | 1                        | 1                        | 1                        | 1                        | 1                        | 1                        |
| <b>Utilization category AC1</b>                                      |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| Rated operational current I <sub>e</sub> (=I <sub>th</sub> )<br>open | A                   | 20                       | 25                       | 40                       | 63                       | 25                       | 40                       | 63                       | -                        |
| <b>Contact life</b>  | S x 10 <sup>6</sup> | 0,1                      | 0,1                      | 0,1                      | 0,1                      | 0,1                      | 0,1                      | 0,1                      | -                        |
| <b>Minimum Switch Voltage</b>  | V/mA                | 24/100                   | 24/100                   | 24/100                   | 24/100                   | 24/100                   | 24/100                   | 24/100                   | 17/5                     |
| <b>Short time current</b>  | 10s-current<br>A    | 72                       | 72                       | 216                      | 240                      | 72                       | 216                      | 240                      | -                        |
| <b>Power loss</b> per pole at I <sub>e</sub> /AC1                    | W                   | 3                        | 3                        | 7                        | 2                        | 3                        | 7                        | 0,5                      | -                        |
| <b>Utilization category AC3 / AC7b</b>                               |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Switching of three-phase motors</b>                               |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| Rated operational current I <sub>e</sub>                             | A                   | -                        | -                        | -                        | -                        | 9                        | 27                       | 30                       | -                        |
| Rated operational power<br>of three-phase motors                     |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| 50-60Hz  | 220V kW             | -                        | -                        | -                        | -                        | 2,2                      | 7,5                      | 8                        | -                        |
|  | 230-240V kW         | -                        | -                        | -                        | -                        | 2,5                      | 8                        | 8,5                      | -                        |
|  | 380-415V kW         | -                        | -                        | -                        | -                        | 4                        | 12,5                     | 15                       | -                        |
| 2-pole motors  | 230V kW             | 1,1                      | 1,3                      | 2,6                      | 5                        | -                        | -                        | -                        | -                        |
| <b>Contact life</b>  | S x 10 <sup>6</sup> | 0,15                     | 0,15                     | 0,15                     | 0,15                     | 0,15                     | 0,15                     | 0,15                     | -                        |
| <b>Power consumption of coils</b>                                    |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| AC operated  |                     |                          |                          |                          |                          |                          |                          |                          |                          |
|  | inrush VA           | 7 - 9                    | 7 - 9                    |                          |                          | 20 - 25                  | 33 - 45                  | 33 - 45                  | -                        |
|  | sealed VA           | 2,2 - 4,2                | 2,2 - 4,2                | 5 - 7                    | 5 - 7                    | 4 - 6                    | 6 - 8                    | 6 - 8                    | -                        |
|  | W                   | 0,8 - 1,6                | 0,8 - 1,6                |                          |                          | 1,5 - 2,5                | 2,6                      | 2,6                      | -                        |
| AC and DC-operated   | W                   | -                        | -                        |                          |                          | 3 - 4                    | -                        | -                        | -                        |
| <b>Operation range of coils</b>                                      |                     |                          |                          |                          |                          |                          |                          |                          |                          |
| in multiples of control voltage U <sub>s</sub> (-40° - +40°C)        |                     | 0,85 - 1,1               | 0,85 - 1,1               | 0,85 - 1,1               | 0,85 - 1,1               | 0,85 - 1,1               | 0,85 - 1,1               | 0,85 - 1,1               | -                        |

1) Suitable for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): U<sub>imp</sub> = 8kV.

2) Suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry): U<sub>imp</sub> = 4kV.

3) Maximum cable cross-section with prepared conductor

5) Rated frequency 50/60Hz

6) Max. occ. switching overvoltage < 4kV

7) Duty cycle: 100%