

■ Datasheet: Motor Protection Switches Series BE5



■ SCHRACK-INFO

- Motor protection switch 3-pole from 0.16A up to 32A
- Class 10
- Optional auxiliary contact blocks available

■ Technical datas

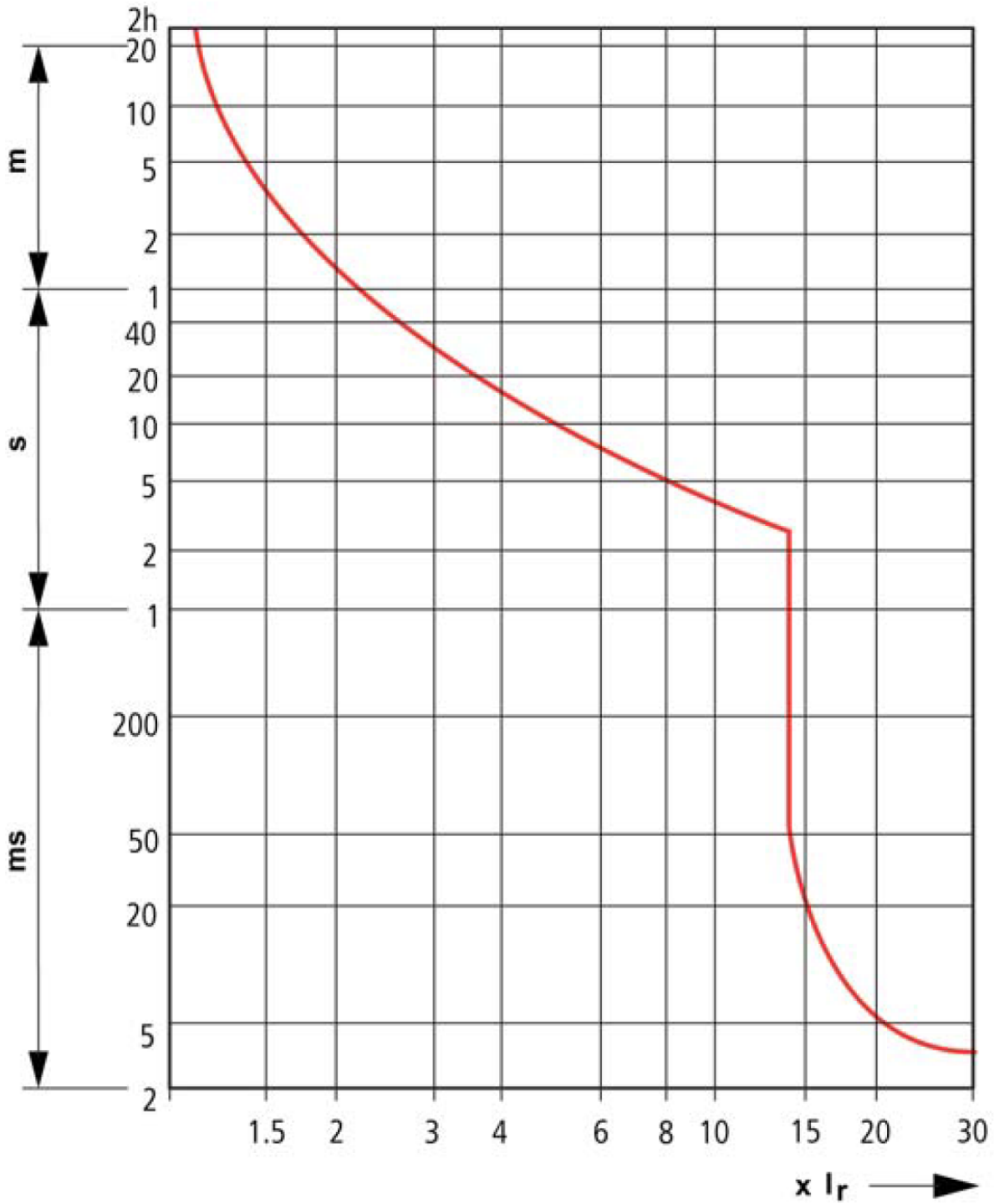
| | | |
|---|--------------------------|---|
| Standards | | EN 60647, IEC 60947 |
| Rated current I_n | | 0,1 - 25A |
| Rated uninterrupted current = rated operational current $I_u = I_n$ | | 25A or current setting of the overcurrent release |
| Rated operational voltage U_n | | 690VAC |
| Rated frequency | | 40 – 60Hz |
| Tripping | Overload | adjustable 0,6 - 1 x I_n |
| | Short circuit | set permanently on 14 x I_n |
| Phase failure protection | | Yes |
| Tripping capacity | 0,1 - 10A | 0,1 - 10A: inherently stable (100kA) |
| | 10 - 16A | 50kA |
| | 16 - 25A | 16kA |
| Direction of electric current | | any |
| Rated impulse withstand voltage U_{imp} | | 6000VAC |
| Overvoltage category | | III |
| Current heat loss (3 pole at operating temperature) | | 6W |
| Lifespan | mechanical | 10.000 operations |
| | electrical (AC-3At 400V) | 10.000 operations |
| Maximum operating frequency | | 40 operations per hour |
| Short-circuit rating | AC-3 (up to 690V) | 25A |
| | DC-5 (up to 250V) | 25A (3 contacts in series) |

| | | | |
|--|----------------------|--------------|------|
| Rated making capacity | cos $\varphi = 0,45$ | 230 - 690VAC | 110A |
| Rated breaking capacity | cos $\varphi = 0,45$ | 230VAC | 90A |
| | cos $\varphi = 0,45$ | 400VAC | 90A |
| | cos $\varphi = 0,45$ | 500VAC | 64A |
| | cos $\varphi = 0,45$ | 690VAC | 54A |
| | | | |
| Rated operational current enclosed, not enclosed I_e | AC-1-application | 230VAC | 16A |
| | | 400VAC | 16A |
| | | 440VAC | 16A |
| | | 500VAC | 16A |
| | | 690VAC | 16A |
| | AC-3-application | 230VAC | 8,7A |
| | | 400VAC | 8,8A |
| | | 440VAC | 7,7A |
| | | 500VAC | 6,4A |
| | | 690VAC | 4,8A |
| | AC-4-application | 230VAC | 6,6A |
| | | 400VAC | 6,6A |
| | | 440VAC | 6A |
| | | 500VAC | 5A |
| | | 690VAC | 3,4A |

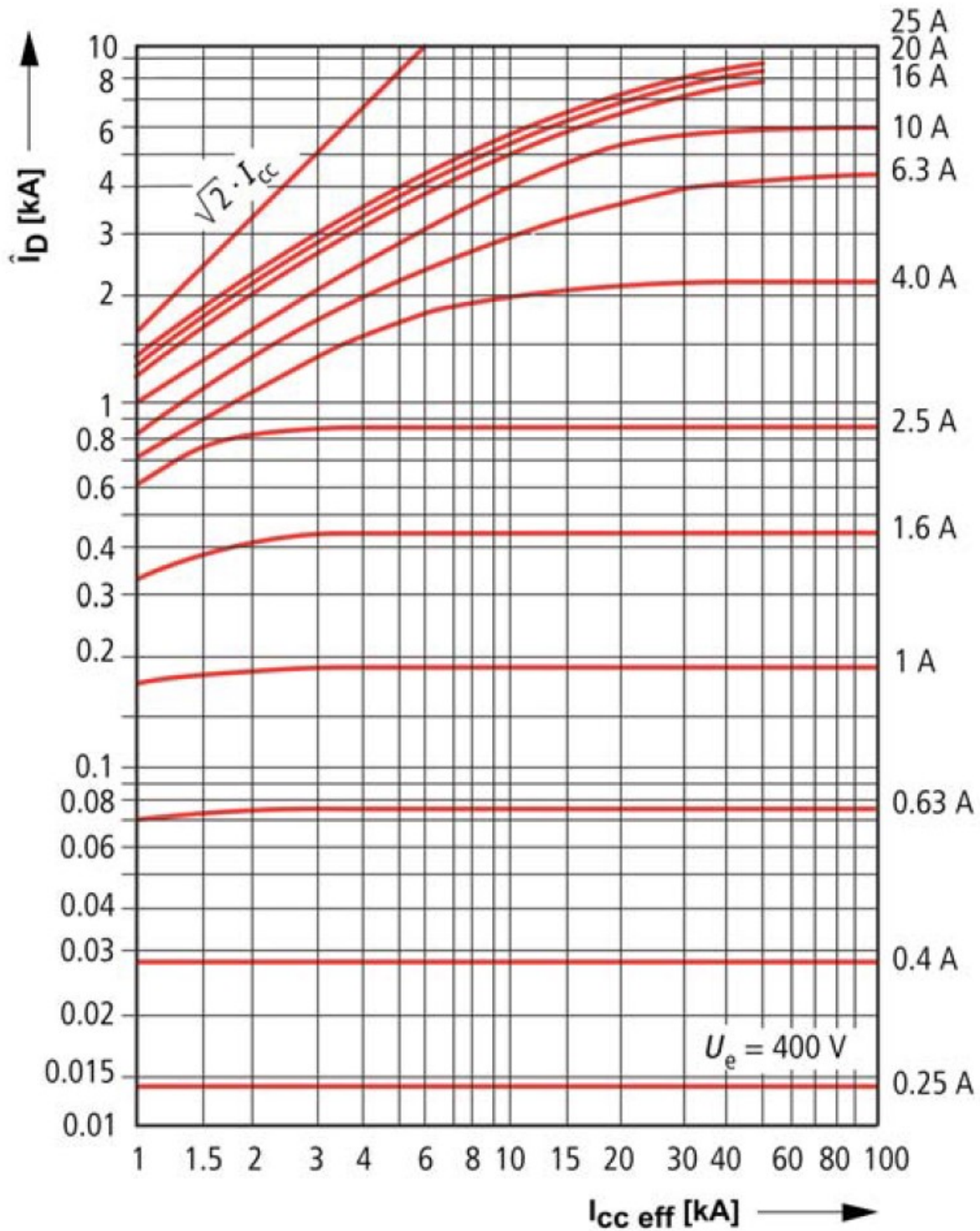
| | | |
|--|-----------------|--|
| Degree of protection | Device | Device IP20 |
| | Terminations | Terminations IPO0 |
| Protection against direct contact | | Finger and back-of-hand proof |
| Mechanical shock resistance half-sinusoidal shock 10ms to IEC 60068-2-27 | | 25g |
| Altitude | | max. 2000m |
| Climatic proofing | | Damp heat, constant, to IEC 60068-2-78 |
| | | Damp heat, cyclic, to IEC 60068-2-30 |
| Pollution degree | | 3 |
| Ambient temperature | | Stock -25°C up to 80°C |
| | | Not enclosed -25°C up to 55°C |
| | | Enclosed -25°C up to 40°C |
| Terminals | Screw-terminals | Single wire 1 x 1 - 6mm ² / 2 x 1 - 2,5mm ² Flexible with ferrule 1 x 1 - 4mm ² / 2 x 1 - 2,5mm ² |
| Torque | | Mains 1,7Nm |

| Article | max. rated operational power AC-3 | | | | | Continuous rated current I_n | Setting range | |
|----------|-----------------------------------|----------------------------|----------------|----------------|----------------------|-----------------------------------|----------------------------|---------------------------------|
| | 220V, 230V, 240V P [kW] | 380V, 400V, 415V P [kW] | 440V P [kW] | 500V P [kW] | 660V, 690V P [kW] | | Overload tripping I_r | Short circuit tripping I_m |
| | | | | | | | | |
| BE500160 | - | - | - | - | 0.06 | 0.16 | 0.1 - 0.16 | 2.2 |
| BE500250 | - | 0.06 | 0.06 | 0.06 | 0.12 | 0.25 | 0.16 - 0.25 | 3.5 |
| BE500400 | 0.06 | 0.09 | 0.12 | 0.12 | 0.18 | 0.4 | 0.25 - 0.4 | 5.6 |
| BE500630 | 0.09 | 0.12 | 0.18 | 0.25 | 0.25 | 0.63 | 0.4 - 0.63 | 8.8 |
| BE501000 | 0.12 | 0.25 | 0.25 | 0.37 | 0.55 | 1 | 0.63 - 1 | 14 |
| BE501600 | 0.25 | 0.55 | 0.55 | 0.75 | 1.1 | 1.6 | 1 - 1.6 | 22 |
| BE502500 | 0.37 | 0.75 | 1.1 | 1.1 | 1.5 | 2.5 | 1.6 - 2.5 | 35 |
| BE504000 | 0.75 | 1.5 | 1.5 | 1.5 | 3 | 4 | 2.5 - 4 | 56 |
| BE506300 | 1.1 | 2.2 | 3 | 3 | 4 | 6.3 | 4 - 6.3 | 88 |
| BE510000 | 2.2 | 4 | 4 | 4 | 7.5 | 10 | 6.3 - 10 | 140 |
| BE516000 | 4 | 7.5 | 9 | 9 | 12.5 | 16 | 10 - 16 | 224 |
| BE520000 | 5.5 | 9 | 11 | 12.5 | 15 | 20 | 16 - 20 | 280 |
| BE525000 | 5.5 | 12.5 | 12.5 | 15 | 22 | 25 | 20 - 25 | 350 |

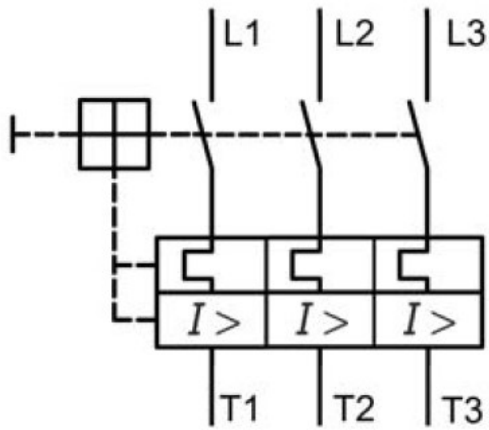
■ Tripping Characteristic Curve



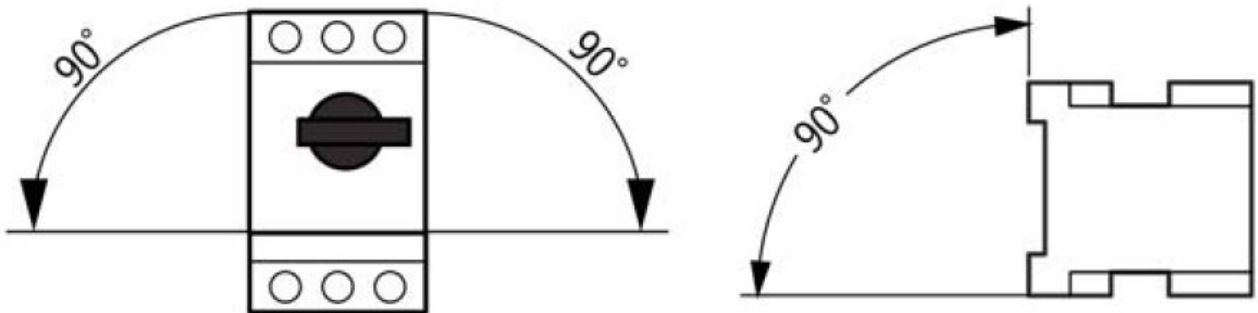
Let-through Energy Diagram



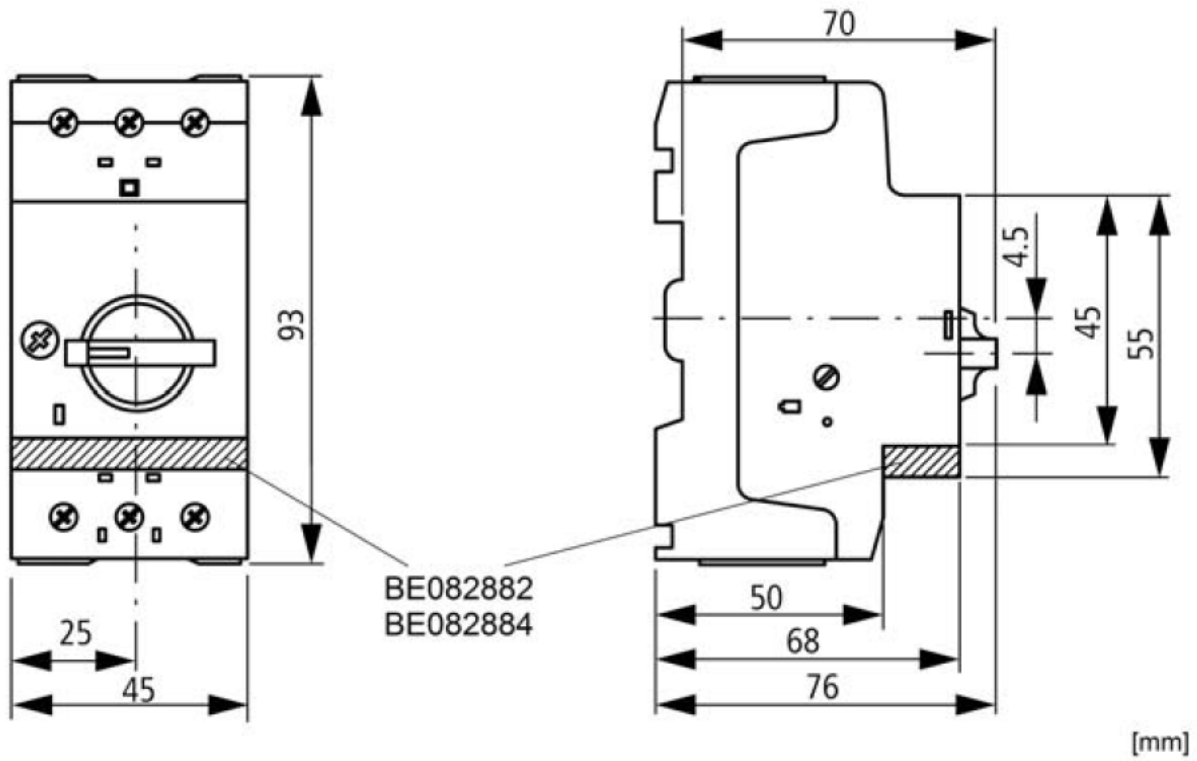
■ Wiring diagram



■ Mounting position



Dimensions



Articles

| DESCRIPTION | ORDER NO. |
|---|-----------|
| Motor protection switches series BE5 | |
| 0.16 - 0.25A | BE500250 |
| 0.25 - 0.40A | BE500400 |
| 0.40 - 0.63A | BE500630 |
| 0.63 - 1.00A | BE501000 |
| 1.00 - 1.60A | BE501600 |
| 1.60 - 2.50A | BE502500 |
| 2.5A-4.0A | BE504000 |
| 4.0-6.3A | BE506300 |
| 6.3-10A | BE510000 |
| 10-16A | BE516000 |
| 16-20A | BE520000 |
| 20-25A | BE525000 |
| 25-32A | BE532000 |
| Auxiliary contacts | |
| Auxiliary contact front, 1NO+1NC | BE082882 |
| Auxiliary contact front, 1NO | BE082884 |