

Type MS325

5



MS325-1.0

Manual motor protectors — Type MS325

| Thermal setting range (Amps) | Single-phase horsepower ratings ① | | 3-phase horsepower ratings | | | Catalog number | List price |
|---------------------------------|-----------------------------------|------|----------------------------|------|------|---|---------------|
| | 120V | 240V | 240V | 480V | 600V | | |
| 0.10 – 0.16 | — | — | — | — | — | MS325-0.16 MS325-0.25 MS325-0.40 MS325-0.63 | \$ 144 |
| 0.16 – 0.25 | — | — | — | — | — | | |
| 0.25 – 0.40 | — | — | — | — | — | | |
| 0.40 – 0.63 | — | — | — | — | — | | |
| 0.63 – 1.0 | — | — | — | 1/2 | 1/2 | MS325-1.0 MS325-1.6 MS325-2.5 MS325-4.0 MS325-6.3 | 165 |
| 1.0 – 1.6 | — | 1/10 | — | 3/4 | 3/4 | | |
| 1.6 – 2.5 | — | 1/6 | 1/2 | 1 | 1.5 | | |
| 2.5 – 4.0 | 1/8 | 1/3 | 1 | 2 | 3 | | |
| 4.0 – 6.3 | 1/4 | 1/2 | 1.5 | 3 | 5 | | |
| 6.3 – 9.0 | 1/3 | 1 | 2.5 | 5 | 7.5 | MS325-9.0 MS325-12.5 MS325-16 | 192 |
| 9.0 – 12.5 | 1/2 | 2 | 3 | 7.5 | 10 | | |
| 12.5 – 16 | 1 | 2.5 | 5 | 10 | 10 | | |
| 16 – 20 | 1.5 | 3 | 5 | 10 | 15 | MS325-20 | 211.50 |
| 20 – 25 | 2 | 3 | 7.5 | 15 | 20 | MS325-25 | 223.50 |

MS325 UL File #E137861
Accessories UL File #E90353

① Single phase motor ratings are based upon wiring all three poles in series.

Type MS325 UL 508E

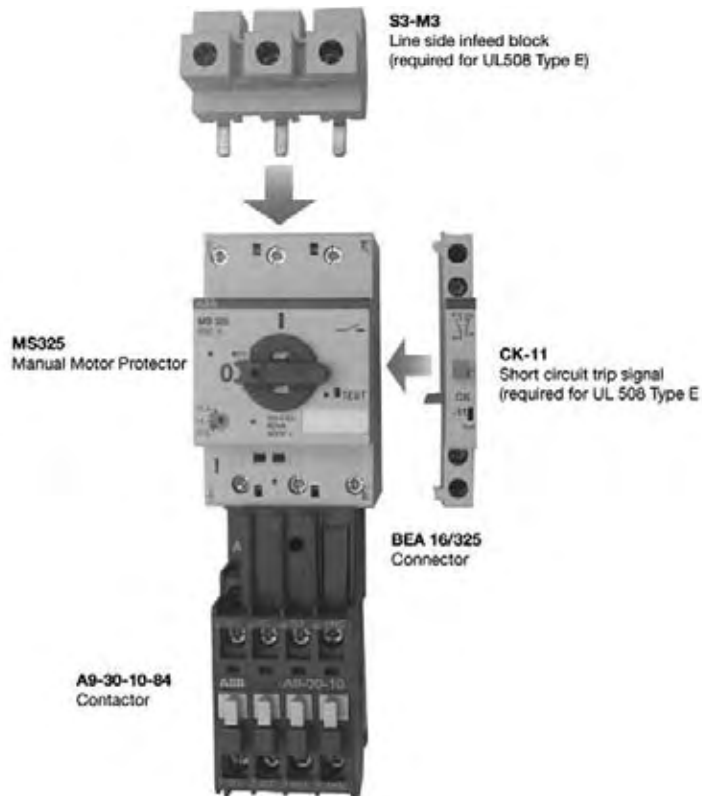


MS325-1.0

Manual motor protectors — Type MS325

| Thermal setting range (Amps) | Single-phase horsepower ratings ① | | 3-phase horsepower ratings | | | Catalog number ② | List price |
|------------------------------|-----------------------------------|------|----------------------------|------|------|--|---------------|
| | 120V | 240V | 240V | 480V | 600V | | |
| 0.10 – 0.16 | — | — | — | — | — | MS325-0.16E MS325-0.25E MS325-0.40E MS325-0.63E | \$ 223 |
| 0.16 – 0.25 | — | — | — | — | — | | |
| 0.25 – 0.40 | — | — | — | — | — | | |
| 0.40 – 0.63 | — | — | — | — | — | | |
| 0.63 – 1.0 | — | — | — | 1/2 | 1/2 | MS325-1.0E MS325-1.6E MS325-2.5E MS325-4.0E MS325-6.3E | 244 |
| 1.0 – 1.6 | — | 1/10 | — | 3/4 | 3/4 | | |
| 1.6 – 2.5 | — | 1/6 | 1/2 | 1 | 1.5 | | |
| 2.5 – 4.0 | 1/8 | 1/3 | 1 | 2 | 3 | | |
| 4.0 – 6.3 | 1/4 | 1/2 | 1.5 | 3 | 5 | | |
| 6.3 – 9.0 | 1/3 | 1 | 2.5 | 5 | 7.5 | MS325-9.0E MS325-12.5E MS325-16E | 271 |
| 9.0 – 12.5 | 1/2 | 2 | 3 | 7.5 | 10 | | |
| 12.5 – 16 | 1 | 2.5 | 5 | 10 | 10 | | |
| 16 – 20 | 1.5 | 3 | 5 | 10 | 15 | MS325-20E | 290 |
| 20 – 25 | 2 | 3 | 7.5 | 15 | 20 | | |
| | | | | | | MS325-25E | 302 |

MS325 UL File #E137861
Accessories UL File #E90353
Class 10 overload
Short circuit rating of 18kA



① Single phase motor ratings are based upon wiring all three poles in series.
② Part includes MMP, barrier and trip signal.

Type MS325 Accessories

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MS325-HK11



MS325-HKF11



MS325-UA24



MS325-AS



MS325-SA1



MS325-SA3

Auxiliary contact blocks for Type MS325 (side mount)

| Item description | Catalog number | List price |
|-----------------------------|--|--------------|
| 1 NO & 1 NC 2 NO 2 NC | MS325-HK11 MS325-HK20 MS325-HK02 | \$ 33 |

Auxiliary contact blocks for Type MS325 (front mount)

| Item description | Catalog number | List price |
|---------------------|----------------------------|--------------|
| 1 NO & 1 NC 2 NO | MS325-HKF11 MS325-HKF20 | \$ 33 |

Bell alarm contact blocks for Type MS325

| Item description | Catalog number | List price |
|------------------|--------------------------|--------------|
| 1 NO 1 NC | MS325-SK10 MS325-SK01 | \$ 33 |

Shunt trips for Type MS325

| Item description | Catalog number | List price |
|---|---------------------------|-----------------|
| 110 – 240 VAC/VDC, 60 Hz 24 – 60 VAC/DC, 60 Hz | MS325-ST110 MS325-ST24 | \$ 82.50 |

Undervoltage trip for Type MS325

| Item description | Catalog number | List price |
|---|---|-----------------|
| 24V 48V 60V 110V 230V 400V 415V 480V | MS325-UA24 MS325-UA48 MS325-UA60 MS325-UA110 MS325-UA230 MS325-UA400 MS325-UA415 MS325-UA480 | \$ 82.50 |

Remote control unit

| Item description | Catalog number | List price |
|--|--|---------------|
| Electrically operated remote control unit for MS325. For use up to MS325-16 and below. Not for use with MS325-20 & MS325-25. Provided with 1 NO & 1 NC auxiliary contacts and 1NO trip signal contacts | 24V AC/DC 48V AC/DC 60V AC/DC 110V AC/DC 230V AC/DC RC325-24V RC325-48V RC325-60V RC325-110V RC325-230V | \$ 165 |

NOTE: May not be used with HFK, SK, ST or UV accessories

Supporting terminal for Type MS325

| Item description | Catalog number | List price |
|-------------------------|----------------|--------------|
| for UA or as N/LS clamp | MS325-AS | \$ 15 |

Padlocking devices for Type MS325

| Item description | Catalog number | List price |
|---|----------------|-----------------|
| Adapter for padlock type SA1 | MS325-SA1 | \$ 15.00 |
| Complete padlock kit (includes adaptor, padlock & 3 keys) | MS325-SA3 | 37.50 |

Type MS325 Accessories



Switch cubicle mounting kit



MS325-BB1



MS325-SM1



PS3-2-0



PS3-4-0



MS325 coupled to mini-contactor

Molded plastic enclosures for Type MS325

| Item description | Protection level | Catalog number | List price |
|---|------------------|----------------|------------|
| Light gray enclosure with black handle | IP64 | OTPA325B2P1 | \$ 75 |
| Light gray enclosure with red/yellow handle | IP64 | OTPA325A2P1 | 75 |
| Gray enclosure w/clear lid, 4 module | IP55 | 12644 | 84 |
| Gray enclosure w/clear lid, 6 module | IP55 | 12646 | 98 |
| Gray enclosure with black handle | IP65 | IB325-G | 75 |
| Yellow enclosure with red handle | IP65 | IB325-Y | 75 |

NOTE: Use Discount schedule MA for IP64 & IP65 enclosures; use Discount schedule CB8 for IP55 enclosures.

Plastic adaptors for enclosures for Type MS325

| Item description | Catalog number | List price |
|------------------|----------------|------------|
| PG16 TO 1/2 NPT | PG16-1/2 NPT | \$ 10 |

Selector handles for through-the-door operation for Type MS325 ①

| Item description | Catalog number | List price |
|---|----------------|------------|
| Shaft coupler | MSMN | \$ 15 |
| NEMA 1, 3R, 12 black selector handle | OHB2AJ | 30 |
| NEMA 1, 3R, 12 red/yellow selector handle | OHY2AJ | 30 |
| 4.1" length shaft | OXS5X105 | 4 |
| 7.1" length shaft | OXS5X180 | 6 |

NOTE: Use Discount schedule MA for shaft coupler; use Discount schedule H6 for handles and shafts.

Power feed terminal blocks for Type MS325

| Item description | Catalog number | List price |
|---------------------------------|----------------|------------|
| Standard, accepts 4 AWG wire | MS325-SM1 | \$ 24 |
| Low profile, accepts 4 AWG wire | MS325-BB1 | 25.50 |

Busbars for Type MS325 ②

| Item description | Catalog number | List price |
|--|----------------|------------|
| for 2 devices; without auxiliary switch | PS3-2-0 | \$ 24 |
| for 3 devices; without auxiliary switch | PS3-3-0 | 30 |
| for 4 devices; without auxiliary switch | PS3-4-0 | 33 |
| for 5 devices; without auxiliary switch | PS3-5-0 | 39 |
| for 2 devices; with 1 auxiliary switch | PS3-2-1 | 30 |
| for 3 devices; with 1 auxiliary switch | PS3-3-1 | 34.50 |
| for 4 devices; with 1 auxiliary switch | PS3-4-1 | 37.50 |
| for 5 devices; with 1 auxiliary switch | PS3-5-1 | 42 |
| for 2 devices; with 2 auxiliary switches | PS3-2-2 | 30 |
| for 4 devices; with 2 auxiliary switches | PS3-4-2 | 37.50 |

Busbars can be daisy chained to connect additional MS325s.

Close coupling adapters

| Device | Catalog number | List price |
|-------------------------------------|----------------|------------|
| MS325 + B6/B7 contactor | BEA7/325 | \$ 12.00 |
| MS325 + VB6/VB7 reversing contactor | MS325-VB7 | |
| MS325 + A9, A12, A16 contactor | BEA16/325 | 13.50 |
| MS325 + A26 contactor | BEA26/325 | 15.00 |
| AL9 - AL16 | BEA16/325AL | 14.50 |
| AL26 | BEA26/325AL | 16.00 |

UL 508 Type E Accessories – Required

| Device | Catalog number | List price |
|---------------------------|----------------|------------|
| Line side infeed block | S3-M3 | \$ 30 |
| Short circuit trip signal | CK-11 | 49 |

① Must have shaft coupler, handle and shaft for through-the-door operation.

② UL file # E167205; CSA file# LR98427M7-11

Technical data

Type MS325

Short circuit ratings

Short circuit ratings – MS325

| Range | Short Circuit rating kA, 600VAC | Maximum Fuse size A |
|-------------|------------------------------------|------------------------|
| 0.1 - 0.16 | 5 | 15 |
| 0.16 - 0.25 | 5 | 15 |
| 0.25 - 0.40 | 5 | 15 |
| 0.40 - 0.63 | 5 | 15 |
| 0.63 - 1.0 | 5 | 15 |
| 1.0 - 1.6 | 5 | 15 |
| 1.6 - 2.5 | 5 | 15 |
| 2.5 - 4.0 | 5 | 15 |
| 4.0 - 6.3 | 5 | 25 |
| 6.3 - 9.0 | 5 | 35 |
| 9.0 - 12.5 | 5 | 50 |
| 12.5 - 16 | 5 | 60 |
| 16 - 20 | 5 | 80 |
| 20 - 25 | 5 | 100 |

Group installation short circuit ratings

| MS325 Current range | 5 kA | | 30 kA | | 50 kA | | 85kA |
|------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | Fuse A | MCCB | Fuse A | MCCB | Fuse A | MCCB | Fuse A |
| 0.1 - 0.16 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 0.25 - 0.40 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 0.40 - 0.63 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 0.63 - 1.0 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 1.0 - 1.6 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 1.6 - 2.5 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 2.5 - 4.0 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 | S7H1200 | 1600 |
| 4.0 - 6.3 | 1600 | S7H1200 | 1600 | S7H1200 | 600 | S7H1200 | — |
| 6.3 - 9.0 | 1600 | S7H1200 | 1600 | S7H1200 | 600 | S7H1200 | — |
| 9.0 - 12.5 | 1600 | S7H1200 | 1600 | S7H1200 | 400 | S4H250 | — |
| 12.5 - 16 | 1600 | S7H1200 | 1600 | S7H1200 | 400 | S4H250 | — |
| 16 - 20 | 1600 | S7H1200 | 1600 | S7H1200 | 400 | S4H250 | — |
| 20 - 25 | 1600 | S7H1200 | 1600 | S7H1200 | 400 | S4H250 | — |

| | | | | | | | |
|-------------|------|---------|------|---------|------|---------|---|
| 0.1 - 0.16 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 0.25 - 0.40 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 0.40 - 0.63 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 0.63 - 1.0 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 1.0 - 1.6 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 1.6 - 2.5 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 2.5 - 4.0 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 4.0 - 6.3 | 1200 | S7H1200 | 1200 | S7H1200 | 1200 | S7H1200 | — |
| 6.3 - 9.0 | 1200 | S7H1200 | 1200 | S7H1200 | 250 | S4H250 | — |
| 9.0 - 12.5 | 1200 | S7H1200 | 1200 | S7H1200 | — | — | — |
| 12.5 - 16 | 1200 | S7H1200 | 1200 | S7H1200 | — | — | — |
| 16 - 20 | 1200 | S7H1200 | 250 | S4H250 | — | — | — |
| 20 - 25 | 1200 | S7H1200 | 250 | S4H250 | — | — | — |

① Fuse: Rated 1600A, Listed Class L. All others, listed RK5. Both time delay fuses.

② Fuse: Rated 1600A, Listed Class L. All others, listed K5. Both time delay fuses.

Technical data

Type MS325

Short circuit protection

Short-circuit protection MS325 — Setting ranges, short-circuit strength and max. back-up fuses

| from | to | Maximum rated current of the short-circuit fuses if $I_{cc} > I_{cs}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|----|--|--|--|--|--|--|--|--|--|--|----|----|--|--|--|--|--|--|--|--|--|----|---------|--|--|--|--|--|--|--|--|--|--|----|----|---|--|--|--|--|--|--|--|--|--|----|----|---|--|--|--|--|--|--|--|--|--|----|----|----|--|--|--|--|--|--|--|--|--|----|----|----|--|--|--|--|--|--|--|--|--|----|----|----|--|--|--|--|--|--|--|--|--|----|-----|----|--|--|--|--|--|--|--|--|--|----|-----|----|--|--|--|--|--|--|--|--|--|----|----|-----|--|--|--|--|--|--|--|--|--|----|-----|---|--|--|--|--|--|--|--|--|--|----|-----|----|--|--|--|--|--|--|--|--|--|----|-----|----|--|--|--|--|--|--|--|--|--|----|-----|-----|--|--|--|--|--|--|--|--|--|----|-----|----|--|--|--|--|--|--|--|--|--|----|-----|---|
| | | at 230 V AC | | at 400 V AC | | at 440 V AC | | at 500 V AC | | at 690 V AC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fuse types: Diazed, I.v.h.b.c., utilisation categories: gL, aM (VDE), gL/gG (IEC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Setting ranges | 0.1 ... 0.16 to 1.0 ... 1.6 1.6 ... 2.5 2.5 ... 4.0 4.0 ... 6.3 6.3 ... 9.0 9.0 ... 12.5 12.5 ... 16.0 16.0 ... 20.0 20.0 ... 25.0 | <p style="text-align: center;">Short-circuit proof No back-up fuse required up to $I_{cc} = 100$ kA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>25</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>60</td> <td>35 / 40</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>50</td> <td>7</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td>80</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>70</td> <td>50</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>50</td> <td>80</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>45</td> <td>80</td> <td>27</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>100</td> <td>25</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>60</td> <td>100</td> <td>80</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>75</td> <td>80</td> <td>4.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>60</td> <td>100</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>55</td> <td>100</td> <td>35</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>35</td> <td>100</td> <td>22</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>50</td> <td>125</td> <td>3.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td>125</td> <td>20</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>20</td> <td>125</td> <td>3</td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 | 25 | | | | | | | | | | | 10 | 40 | | | | | | | | | | 60 | 35 / 40 | | | | | | | | | | | 40 | 50 | 7 | | | | | | | | | | 30 | 80 | 5 | | | | | | | | | | 70 | 50 | 40 | | | | | | | | | | 50 | 80 | 40 | | | | | | | | | | 45 | 80 | 27 | | | | | | | | | | 40 | 100 | 25 | | | | | | | | | | 60 | 100 | 80 | | | | | | | | | | 75 | 80 | 4.5 | | | | | | | | | | 60 | 100 | 4 | | | | | | | | | | 55 | 100 | 35 | | | | | | | | | | 35 | 100 | 22 | | | | | | | | | | 50 | 125 | 3.5 | | | | | | | | | | 30 | 125 | 20 | | | | | | | | | | 20 | 125 | 3 |
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| | | | | | | | | | | 40 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | 60 | 35 / 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 40 | 50 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 30 | 80 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | 60 | 100 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | 30 | 125 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 20 | 125 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Short-circuit protection MS325 — Setting ranges, short-circuit strength and max. back-up fuses

| from | to | Maximum rated current of the short-circuit fuses if $I_{cc} > I_{cs}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | at 230 V AC | | at 400 V AC | | at 440 V AC | | at 500 V AC | | at 690 V AC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | I_{cs} kA | gL, aM A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fuse types: Diazed, I.v.h.b.c., utilisation categories: gL, aM (VDE), gL/gG (IEC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Setting ranges | 0.1 ... 0.16 to 1.0 ... 1.6 1.6 ... 2.5 2.5 ... 4.0 4.0 ... 6.3 6.3 ... 9.0 9.0 ... 12.5 12.5 ... 16.0 16.0 ... 20.0 20.0 ... 25.0 | <p style="text-align: center;">Short-circuit proof No back-up fuse required up to $I_{cc} = 50$ kA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>25</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5</td> <td>50</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>60</td> <td>35 / 40</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>50</td> <td>4.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td>80</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>45</td> <td>80</td> <td>35</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>40</td> <td>100</td> <td>22</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>35</td> <td>100</td> <td>20</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td>125</td> <td>3</td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 | 25 | | | | | | | | | | | 10 | 40 | | | | | | | | | | | 7 | 40 | | | | | | | | | | | 5 | 50 | | | | | | | | | | 60 | 35 / 40 | | | | | | | | | | | 40 | 50 | 4.5 | | | | | | | | | | 30 | 80 | 4 | | | | | | | | | | 45 | 80 | 35 | | | | | | | | | | 40 | 100 | 22 | | | | | | | | | | 35 | 100 | 20 | | | | | | | | | | 30 | 125 | 3 |
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| | | | | | | | | | | 5 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | 45 | 80 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 40 | 100 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 35 | 100 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 30 | 125 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

I_{cs} = Rated service short-circuit breaking capacity, I_{cu} = Rated ultimate short-circuit capacity, I_{cc} = Prospective short-circuit current at installation location.
 $I_{cs} = I_{cu}$ in the case of MS 325 and MS 116!