

FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 690 V a.c. (WITH SCREW CONNECTIONS)



Fuse-links for semiconductor protection P5.. are intended for protection of semiconductors and devices especially sensitive to short-circuits.

- Extremely low values of I^2t and cut-off currents.
- Small dimensions and low power losses.
- Possibility of use in fuse holders SP40... page H31.
- The fuse-links do not contain harmful substances according to the RoHS Regulation (cadmium, lead and other).
- Utilization category gR for protection of semiconductor devices against overload and short-circuit.
- Utilization category aR for protection of semiconductor devices only against short circuit.
- Connection cross-section according to IEC, IEC 60269-4 (current density $1 \div 1.6 \text{ A/mm}^2$ min. 500 mm from each side of the fuse-link).

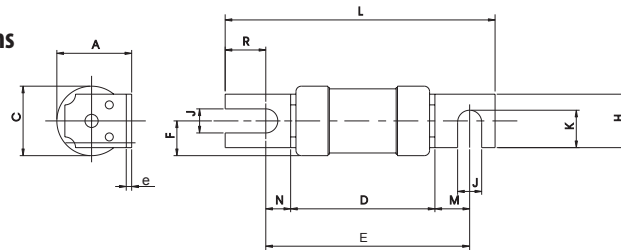
Fuse-links for semiconductor protection

| | I_n [A] | Type | Product code | Power losses [W] | Temperature rise [K] | I^2t total [A ² s] | Weight [kg] | Package [pcs] |
|--------|-----------|----------------|--------------|------------------|----------------------|---------------------------------|-------------|---------------|
| P50K06 | 6 | P50K06 6A gR | 06592 | 3.0 | 23 | 12 | 0.060 | 3 |
| | 10 | P50K06 10A gR | 06593 | 4.6 | 33 | 17 | 0.060 | 3 |
| | 16 | P50K06 16A gR | 06594 | 5.2 | 36 | 52 | 0.060 | 3 |
| | 20 | P50K06 20A gR | 06595 | 6.8 | 45 | 90 | 0.060 | 3 |
| | 25 | P50K06 25A gR | 06596 | 8.7 | 47 | 200 | 0.060 | 3 |
| | 32 | P50K06 32A gR | 06597 | 9.8 | 52 | 400 | 0.060 | 3 |
| | 40 | P50K06 40A gR | 06598 | 11.0 | 56 | 600 | 0.060 | 3 |
| P51K06 | 50 | P50K06 50A gR | 06599 | 13.8 | 62 | 1 250 | 0.060 | 3 |
| | 6 | P51K06 6A gR | 06600 | 3.0 | 23 | 12 | 0.060 | 3 |
| | 10 | P51K06 10A gR | 06601 | 4.6 | 33 | 17 | 0.060 | 3 |
| | 16 | P51K06 16A gR | 06602 | 5.2 | 36 | 52 | 0.060 | 3 |
| | 20 | P51K06 20A gR | 06603 | 6.8 | 45 | 90 | 0.060 | 3 |
| | 25 | P51K06 25A gR | 06604 | 8.7 | 47 | 200 | 0.060 | 3 |
| | 32 | P51K06 32A gR | 06605 | 9.8 | 52 | 400 | 0.060 | 3 |
| P50N06 | 40 | P51K06 40A gR | 06606 | 11.0 | 56 | 600 | 0.060 | 3 |
| | 50 | P51K06 50A gR | 06607 | 13.8 | 62 | 1 250 | 0.060 | 3 |
| | 25 | P50N06 25A gR | 06608 | 9.5 | 43 | 120 | 0.130 | 3 |
| | 32 | P50N06 32A gR | 06609 | 12.3 | 58 | 220 | 0.130 | 3 |
| | 40 | P50N06 40A gR | 06610 | 14.8 | 68 | 400 | 0.130 | 3 |
| | 50 | P50N06 50A gR | 06611 | 17.5 | 71 | 980 | 0.130 | 3 |
| | 63 | P50N06 63A gR | 06612 | 18.8 | 75 | 2 050 | 0.130 | 3 |
| P50N06 | 80 | P50N06 80A aR | 06613 | 22.5 | 68 | 3 500 | 0.130 | 3 |
| | 100 | P50N06 100A aR | 06614 | 31.5 | 87 | 5 400 | 0.130 | 3 |
| | 125 | P50N06 125A aR | 06615 | 39.0 | 92 | 11 800 | 0.130 | 3 |

Parameters

| Type | | P50K06 | P51K06 | P50N06 |
|-------------------------------|-------|--|--------|--------|
| Rated voltage | U_n | 690 V a.c., 440 V d.c. (240 V d.c. for P50N06 125A aR) | | |
| Rated breaking capacity (rms) | I_b | 690 V a.c. | | 120 kA |
| | | 440 V d.c. | | 50 kA |
| Rated frequency | f_n | 50 Hz | | |
| Connection spacing | | 75 mm | 80 mm | 80 mm |
| Standards | | IEC 60269-1, -2, -4; EN 60269-1, -4 EN 60269 | | |
| Approval marks | | | | |

Dimensions

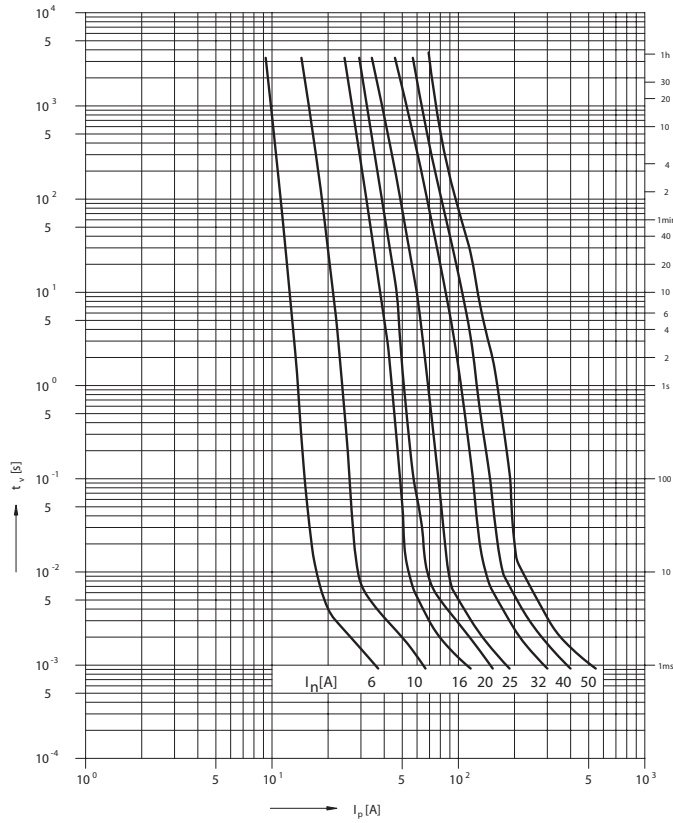


| Type | A | D | E | F | H | J | K | L | M | N | R | e | ØC |
|--------|------|------|------|----|------|-----|------|-----|------|-----|------|-----|----|
| | [mm] | | | | | | | | | | | | |
| P50K06 | 19 | 52.5 | 71.5 | 9 | 12 | 6 | 9 | 88 | 12 | 7 | 14 | 1.4 | 18 |
| P51K06 | 19 | 52.5 | 75.7 | 9 | 16.5 | 8.5 | 12.5 | 103 | 13.6 | 9.6 | 19.7 | 1.4 | 18 |
| P50N06 | 29 | 53.5 | 75.8 | 13 | 19 | 9 | 14 | 103 | 13 | 9.3 | 19.7 | 2 | 26 |

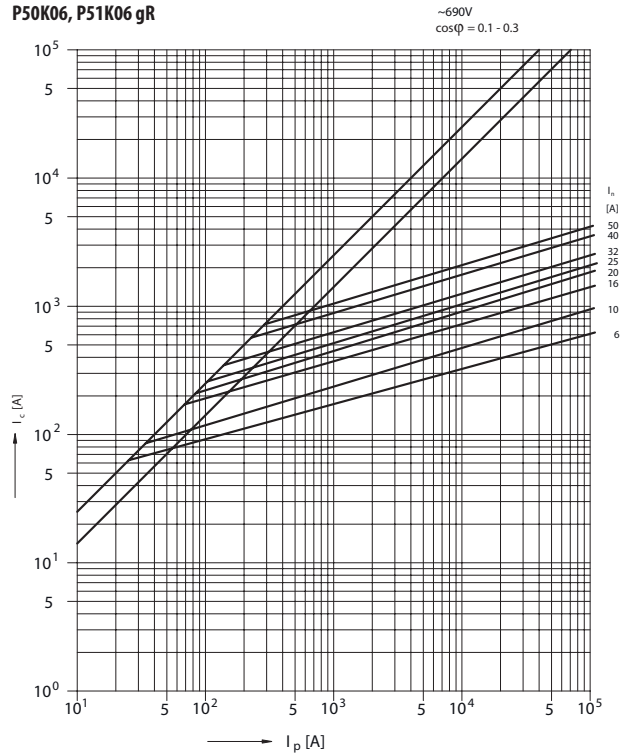
FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 690 V a.c. (WITH SCREW CONNECTIONS)

Characteristics

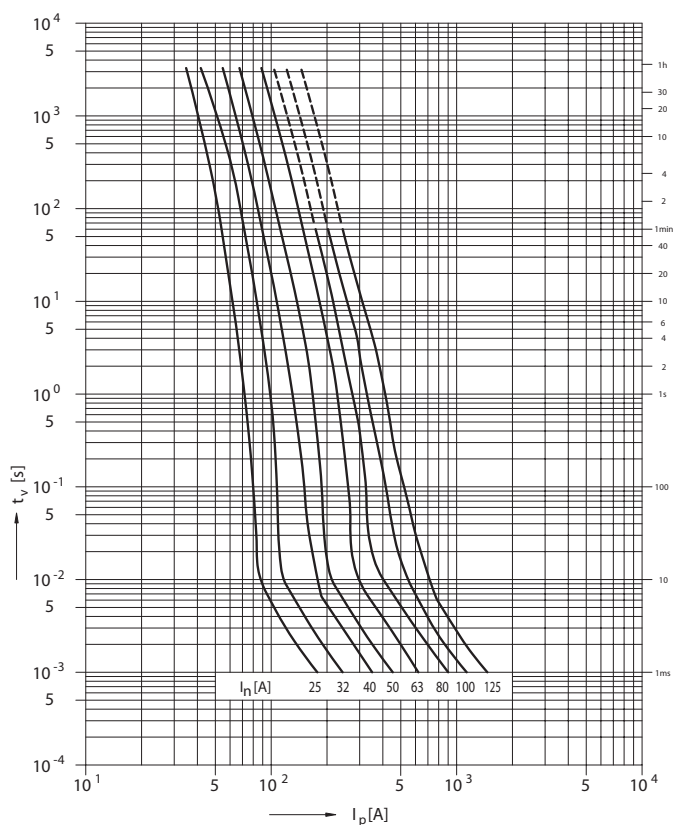
Prearcing time/current characteristic
P50K06, P51K06 gR



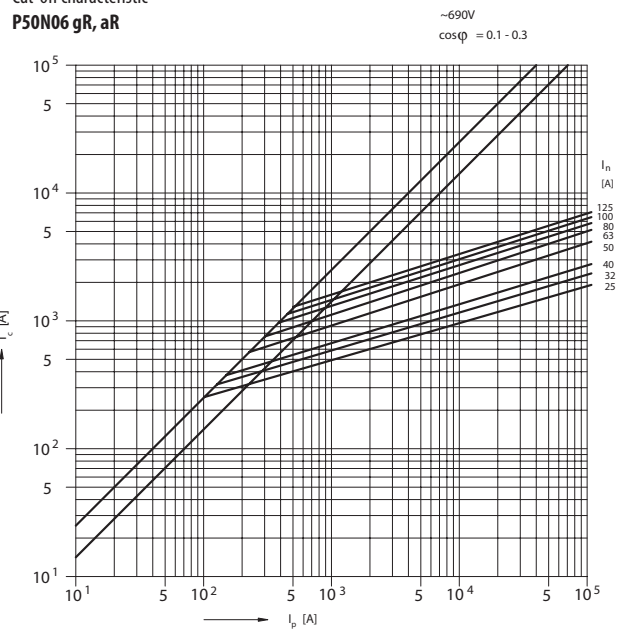
Cut-off characteristic
P50K06, P51K06 gR



Prearcing time/current characteristic
P50N06 gR, aR



Cut-off characteristic
P50N06 gR, aR



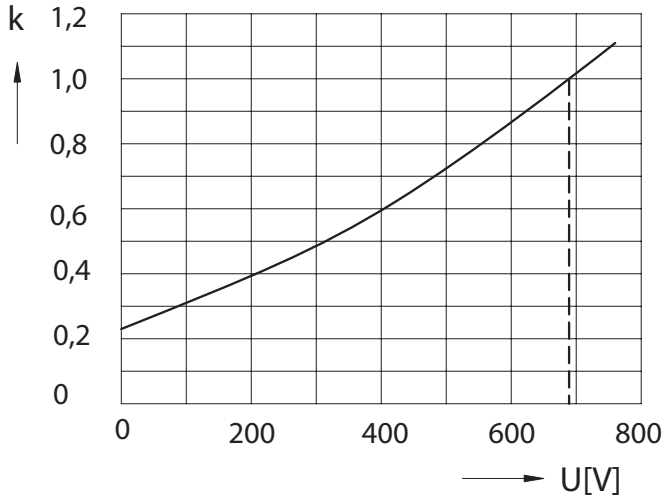
FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 690 V a.c. (WITH SCREW CONNECTIONS)

Characteristics

Correction factor „k“ of I²t dependence on operating voltage

$$(I^2t_{total})_{f(U)} = k \times I^2t_{total}$$

P50K06, P51K06, P50N06



Overvoltage dependence on operating voltage

P50K06, P51K06, P50N06

