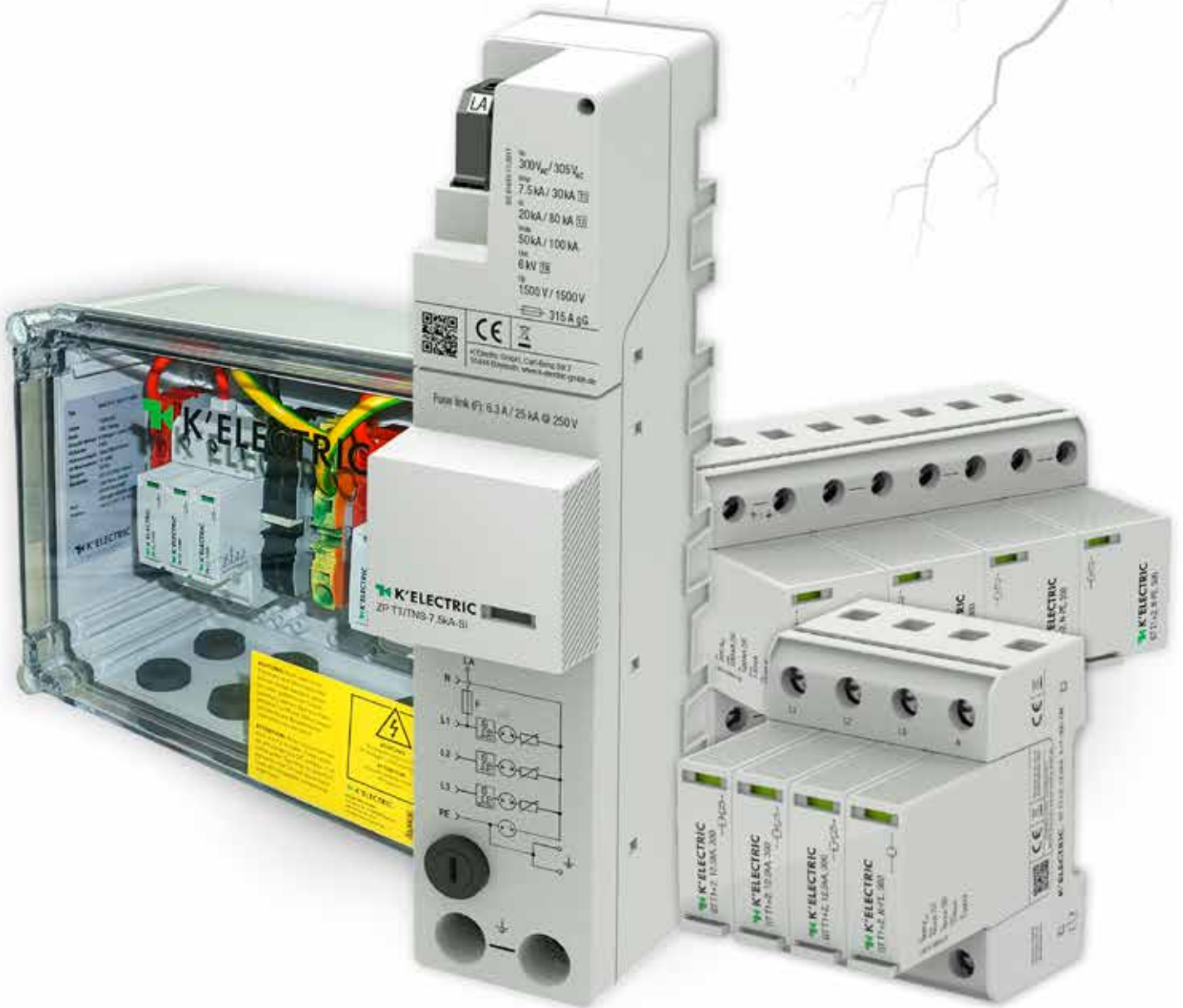


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K'ELECTRIC



**LIGHTNING AND
SURGE PROTECTION**

Lightning protection for residential and functional buildings

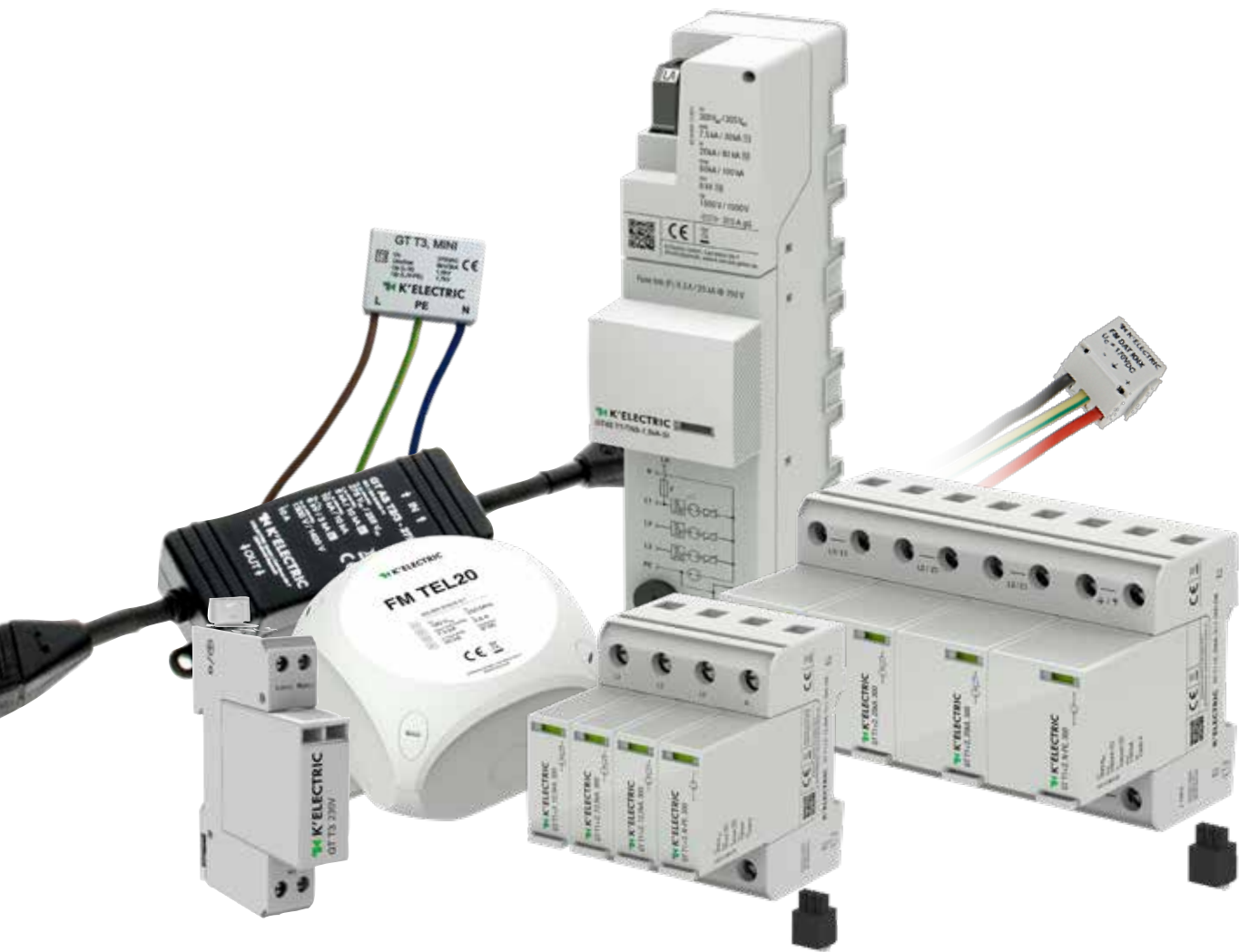


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Photovoltaik

OUR PRODUCTS



| | |
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| GT40 Multipole, compact lightning current combination arresters for the 40mm system / meter cabinet | 10 |
|---|----|

| | |
|---|----|
| GT T1+2 Multipole, pluggable AC lightning current combination arresters | 12 |
|---|----|

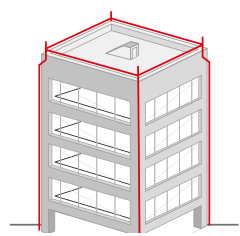



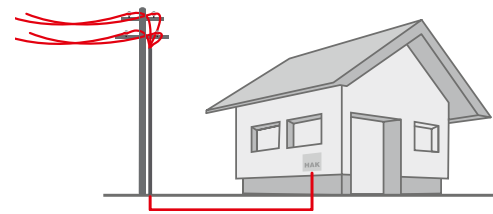



| | |
|---|----|
| GT T2 Multipole, pluggable AC surge arresters | 14 |
|---|----|

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| PV Multipole, pluggable arresters for photovoltaic applications | 16 |
|---|----|

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| GAK Generator terminal boxes | 18 |
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| FM Combination arresters for data/telecommunications systems | 20 |
|--|----|

| | |
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| Technical data | 22 |
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| APPLICATION | INSTALLATION OF THE MAIN DISTRIBUTION | | INSTALLATION OF THE SUB-DISTRIBUTION | | |
|--|--|---|---|--|--|
| | Mains-side connection (NAR) | or Connection on the system side (ARR) | at distance to main distribution > 10m | | |
| Lightning protection class I and II buildings  | TYP 1+2  | TT/TNS GT T1+2, 25kA, 3+1-300-FM 500200 GT T1+2, 25kA, 3+1-275-FM, 4TE 500213 | TNS GT T2, 4+0-300 500300 GT T2, 4+0-300-FM 500301 | | |
| | | TNC GT T1+2, 25kA, 3+0-300-FM 500201 GT T1+2, 25kA, 3+0-275-FM, 3TE 500214 | | TT/TNS GT T2, 3+1-300 500302 GT T2, 3+1-300-FM 500303 GT T2, 3+1-300-FM-SI 500320 | |
| Lightning protection class III and IV buildings  | | TYP 1+2  | | TT/TNS GT40 TT/TNS-12,5kA-B 500103 GT40 TT/TNS-12,5kA-S 500101 GT40 TT/TNS-12,5kA-SI 500110 | TNS GT T1+2, 12,5kA, 4+0-300-FM 500231 GT T1+2, 12,5kA, 4+0-300-FM-L 500250 |
| | | | | TNC GT40 TNC-12,5kA-S 500107 | |
| | | | TNC GT T1+2, 12,5kA, 3+0-300-FM 500232 GT T1+2, 12,5kA, 3+0-300-FM-L 500252 | TNC GT T2, 3+0-300-FM 500305 | |
| | | | | | |
| Buildings with overhead line feeds  | TYP 1+2  | TT/TNS GT40 TT/TNS-7,5kA-B 500102 GT40 TT/TNS-7,5kA-S 500100 GT40 TT/TNS-7,5kA-SI 500109 | TNS GT T2, 4+0-300 500300 GT T2, 4+0-300-FM 500301 | | |
| | | TNC GT40 TNC-7,5kA-SI 500111 | | TT/TNS GT T1+2, 12,5kA, 3+1-300-FM 500230 GT T1+2, 12,5kA, 3+1-300-FM-L 500251 | |
| | | | | TNC GT T1+2, 12,5kA, 3+0-300-FM 500232 GT T1+2, 12,5kA, 3+0-300-FM-L 500252 | TT/TNS GT T2, 3+1-300 500302 GT T2, 3+1-300-FM 500303 GT T2, 3+1-300-FM-SI 500320 |
| | | | | TNC GT T2, 3+0-300-FM 500305 | TNC GT T2, 3+0-300-FM 500305 |
| Buildings without external lightning protection  | TYP 1+2  | TNC GT40 TNC-7,5kA-SI 500111 | TNS GT T2, 4+0-300 500300 GT T2, 4+0-300-FM 500301 | | |
| | | | | TT/TNS GT T2, 3+1-300 500302 GT T2, 3+1-300-FM 500303 GT T2, 3+1-300-FM-SI 500320 | |
| | | | | TNC GT T2, 3+0-300-FM 500305 | TNC GT T2, 3+0-300-FM 500305 |
| | | | | | |






-B = basic -L = leakage current -S = with voltage tap -FM = with remote signalling contact -SI = with fused voltage tap

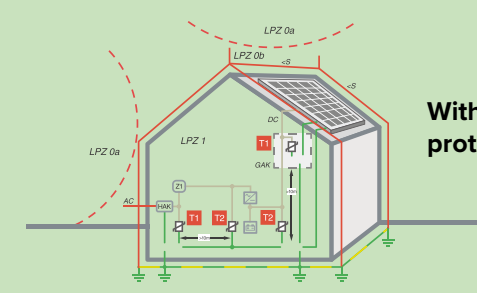
Selection guide for suitable lightning and surge protection in residential and functional buildings

BUILDING WITH PHOTOVOLTAICS

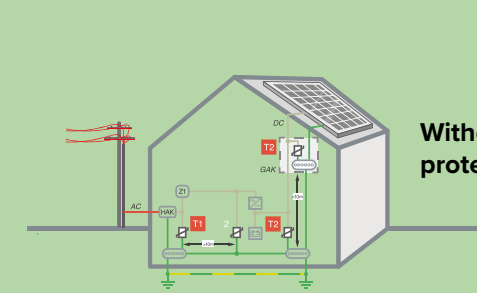
ADDITIONAL BUILDING SURGE PROTECTION

| APPLICATION | AC-SIDE BEFORE THE INVERTER | DC-SIDE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------|--|----------------------|--------|----------------------|--------|-----------------------|--------|-----|--|-------------------|--------|---|----------------|--|----------------|--------|-------------------|--------|----------------|--|----------------|--------|-------------------|--------|----------------|--|---------------------|--------|---------------------|--------|------------------|--------|
| <p>Buildings with external lightning protection</p>  | <p>TYP 1+2</p> <table border="1"> <thead> <tr> <th colspan="2">TT/TNS</th> </tr> </thead> <tbody> <tr> <td>GT40 TT/TNS-12,5kA-B</td> <td>500103</td> </tr> <tr> <td>GT40 TT/TNS-12,5kA-S</td> <td>500101</td> </tr> <tr> <td>GT40 TT/TNS-12,5kA-SI</td> <td>500110</td> </tr> <tr> <th colspan="2">TNC</th> </tr> <tr> <td>GT40 TNC-12,5kA-S</td> <td>500107</td> </tr> </tbody> </table> | TT/TNS | | GT40 TT/TNS-12,5kA-B | 500103 | GT40 TT/TNS-12,5kA-S | 500101 | GT40 TT/TNS-12,5kA-SI | 500110 | TNC | | GT40 TNC-12,5kA-S | 500107 | <table border="1"> <thead> <tr> <th colspan="2">Typ 1+2, 1100V</th> </tr> </thead> <tbody> <tr> <td>PV T1+2, 1100V</td> <td>500401</td> </tr> <tr> <td>PV T1+2, 1100V-FM</td> <td>500400</td> </tr> <tr> <th colspan="2">Typ 1+2, 1500V</th> </tr> <tr> <td>PV T1+2, 1500V</td> <td>500403</td> </tr> <tr> <td>PV T1+2, 1500V-FM</td> <td>500402</td> </tr> </tbody> </table> <p>TYP 1+2</p>  <table border="1"> <thead> <tr> <th colspan="2">Typ 1+2, 1100V</th> </tr> </thead> <tbody> <tr> <td>GAK 1x1/T1+T2 1100V</td> <td>165621</td> </tr> <tr> <td>GAK 2x2/T1+T2 1100V</td> <td>165620</td> </tr> </tbody> </table> | Typ 1+2, 1100V | | PV T1+2, 1100V | 500401 | PV T1+2, 1100V-FM | 500400 | Typ 1+2, 1500V | | PV T1+2, 1500V | 500403 | PV T1+2, 1500V-FM | 500402 | Typ 1+2, 1100V | | GAK 1x1/T1+T2 1100V | 165621 | GAK 2x2/T1+T2 1100V | 165620 | | |
| TT/TNS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-12,5kA-B | 500103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-12,5kA-S | 500101 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-12,5kA-SI | 500110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TNC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TNC-12,5kA-S | 500107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 1+2, 1100V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T1+2, 1100V | 500401 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T1+2, 1100V-FM | 500400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 1+2, 1500V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T1+2, 1500V | 500403 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T1+2, 1500V-FM | 500402 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 1+2, 1100V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAK 1x1/T1+T2 1100V | 165621 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAK 2x2/T1+T2 1100V | 165620 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Buildings without external lightning protection</p>  | <p>TYP 2</p> <table border="1"> <thead> <tr> <th colspan="2">TT/TNS</th> </tr> </thead> <tbody> <tr> <td>GT40 TT/TNS-7,5kA-B</td> <td>500102</td> </tr> <tr> <td>GT40 TT/TNS-7,5kA-S</td> <td>500100</td> </tr> <tr> <td>GT40 TT/TNS-7,5kA-SI</td> <td>500109</td> </tr> <tr> <th colspan="2">TNC</th> </tr> <tr> <td>GT40 TNC-7,5kA-SI</td> <td>500111</td> </tr> </tbody> </table> | TT/TNS | | GT40 TT/TNS-7,5kA-B | 500102 | GT40 TT/TNS-7,5kA-S | 500100 | GT40 TT/TNS-7,5kA-SI | 500109 | TNC | | GT40 TNC-7,5kA-SI | 500111 | <table border="1"> <thead> <tr> <th colspan="2">Typ 2, 1100V</th> </tr> </thead> <tbody> <tr> <td>PV T2, 1100V</td> <td>500420</td> </tr> <tr> <td>PV T2, 1100V-FM</td> <td>500421</td> </tr> <tr> <th colspan="2">Typ 2, 1500V</th> </tr> <tr> <td>PV T2, 1500V</td> <td>500422</td> </tr> <tr> <td>PV T2, 1500V-FM</td> <td>500423</td> </tr> </tbody> </table> <p>TYP 2</p>  <table border="1"> <thead> <tr> <th colspan="2">Typ 2, 1100V</th> </tr> </thead> <tbody> <tr> <td>GAK 1x2/T2 1100V</td> <td>165639</td> </tr> <tr> <td>GAK 2x2/T2 1100V</td> <td>165640</td> </tr> <tr> <td>GAK 3x2/T2 1100V</td> <td>165641</td> </tr> </tbody> </table> | Typ 2, 1100V | | PV T2, 1100V | 500420 | PV T2, 1100V-FM | 500421 | Typ 2, 1500V | | PV T2, 1500V | 500422 | PV T2, 1500V-FM | 500423 | Typ 2, 1100V | | GAK 1x2/T2 1100V | 165639 | GAK 2x2/T2 1100V | 165640 | GAK 3x2/T2 1100V | 165641 |
| TT/TNS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-7,5kA-B | 500102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-7,5kA-S | 500100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TT/TNS-7,5kA-SI | 500109 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TNC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GT40 TNC-7,5kA-SI | 500111 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 2, 1100V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T2, 1100V | 500420 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T2, 1100V-FM | 500421 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 2, 1500V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T2, 1500V | 500422 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV T2, 1500V-FM | 500423 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typ 2, 1100V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAK 1x2/T2 1100V | 165639 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAK 2x2/T2 1100V | 165640 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAK 3x2/T2 1100V | 165641 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| APPLICATION | PRODUCTS FOR AN OVERALL PROTECTION CONCEPT | PROTECTION CONCEPT FOR BUILDINGS WITH PV SYSTEMS | | | | | | |
|-------------------|--|--|--------|----------------------------------|--------|---------------|--------|---|
| Telephone systems |  <table border="1"> <tr> <td>FM TEL20</td> <td>500501</td> </tr> </table> | FM TEL20 | 500501 | ADSL, ADSL2, ADSL2+, VDSL, VDSL2 | | | | |
| FM TEL20 | 500501 | | | | | | | |
| Data interfaces |  <table border="1"> <tr> <td>FM Dat Net Cat6</td> <td>500502</td> </tr> </table> | FM Dat Net Cat6 | 500502 | Power Over Ethernet Cat 6 (POE) | | | | |
| FM Dat Net Cat6 | 500502 | | | | | | | |
| Bussystem |  <table border="1"> <tr> <td>FM Dat KNX</td> <td>500504</td> </tr> </table> | FM Dat KNX | 500504 | KNX / EIB-Bus | | | | |
| FM Dat KNX | 500504 | | | | | | | |
| sun protection |  <table border="1"> <tr> <td>GT-AS-T2/3-275</td> <td>500505</td> </tr> </table> | GT-AS-T2/3-275 | 500505 | Kirschmann STAK3/STAS3 | | | | |
| GT-AS-T2/3-275 | 500505 | | | | | | | |
| fine protection |  <table border="1"> <tr> <td>GT3 mini</td> <td>500503</td> </tr> <tr> <td>GT T3, 230V FM</td> <td>500509</td> </tr> <tr> <td>GT T3, 24V FM</td> <td>500510</td> </tr> </table> | GT3 mini | 500503 | GT T3, 230V FM | 500509 | GT T3, 24V FM | 500510 | Typ 3 / 230V Typ 3 / 230V mit Fernmeldekontakt Typ 3 / 24V mit Fernmeldekontakt |
| GT3 mini | 500503 | | | | | | | |
| GT T3, 230V FM | 500509 | | | | | | | |
| GT T3, 24V FM | 500510 | | | | | | | |



With external Lightning protection system



Without external Lightning protection system

signal protection

-B = basic -L = leakage current -S = with voltage tap -FM = with remote signalling contact -SI = with fused voltage tap

1



GT40

GT40 TT/TNS-7,5-SI

Multipole, compact lightning current combination arresters for the 40mm busbar system | type 1 + 2

- ✓ only 47mm wide
- ✓ status indicator green / not green
- ✓ installation in the pre-meter area



for TT-/TNS-Systems | 7,5kA

| Item | Art. no. |
|--|-------------|
| GT40 TT/TNS-7,5kA-B | 500102 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 7.5kA (10/350µs) per pole, protection level less than 1.5kV | |
| Item | Artikel-Nr. |
| GT40 TT/TNS-7,5kA-S | 500100 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 7.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with voltage tap (L1) for the voltage supply of the APZ panel | |
| Item | Artikel-Nr. |
| GT40 TT/TNS-7,5kA-SI | 500109 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 7.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with fused voltage tap (6.3A) | |

scan for data sheet



for TT-/TNS-Systems | 12,5kA

| Item | Artikel-Nr. |
|---|-------------|
| GT40 TT/TNS-12,5kA-B | 500103 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole, protection level less than 1.5kV | |
| Item | Artikel-Nr. |
| GT40 TT/TNS-12,5kA-S | 500101 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with voltage tap (L1) for the voltage supply of the APZ panel | |
| Item | Artikel-Nr. |
| GT40 TT/TNS-12,5kA-SI | 500110 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with fused voltage tap (6.3A) | |



for TNC-Systems | 7,5kA und 12,5kA

| Item | Artikel-Nr. |
|---|-------------|
| GT40 TNC-7,5kA-SI | 500111 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 7.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with fused voltage tap (6.3A) | |
| Item | Artikel-Nr. |
| GT40 TNC-12,5kA-S | 500107 |
| <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole, protection level less than 1.5kV ✓ with voltage tap (L1) for the voltage supply of the APZ panel | |

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equipment

| Item | Artikel-Nr. |
|---|-------------|
| Cable set for the GT40 arrester | 500120 |
| <ul style="list-style-type: none"> ✓ 2 x connection cable ✓ 2 x BLF 5.08-plug ✓ 1 x Conductor connection terminal (for the N rail) | |



GT T1+2

GT T1+2, 25kA, 3+1-300-FM

Multipole, pluggable AC lightning current combination arrestors

Type 1 + 2



for the TT-/TNS-System | Blitzschutzklasse I und II | 25kA

| Item | Art. no. |
|--|--|
| GT T1+2, 25kA, 3+1-300-FM | 500200 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 25kA (10/350µs) per pole, protection level < 1.5kV ✓ highest continuous voltage 300V |

scan for data sheet



| Item | Art. no. |
|--|---|
| GT T1+2, 25kA, 3+1-275-FM, 4TE | 500213 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ only 4 TE wide ✓ with remote signaling contact ✓ for 230V/400V nominal voltage | <ul style="list-style-type: none"> ✓ Lightning impulse current 25kA (10/350µs) per pole, protection level < 1.5kV ✓ defect display on the plug-in module |



for the TNC-System | Blitzschutzklasse I und II | 25kA

| Item | Art. no. |
|--|--|
| GT T1+2, 25kA, 3+0-300-FM | 500201 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 25kA (10/350µs) per pole, protection level < 1.5kV ✓ highest continuous voltage 300V |



| Item | Art. no. |
|--|---|
| GT T1+2, 25kA, 3+0-275-FM, 3TE | 500214 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ only 3 TE wide ✓ with remote signaling contact ✓ modules pluggable | <ul style="list-style-type: none"> ✓ for 230V/400V nominal voltage ✓ Lightning impulse current 25kA (10/350µs) per pole, protection level less than 1.5kV ✓ Defect display on the plug-in module |



for the TNS-System | Blitzschutzklasse III und IV | 12,5kA

| Item | Art. no. |
|--|---|
| GT T1+2, 12,5kA, 4+0-300-FM | 500231 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole ✓ highest continuous voltage 300V |

scan for data sheet



for the TT-/TNS-System | Blitzschutzklasse III und IV | 12,5kA

| Item | Art. no. |
|--|---|
| GT T1+2, 12,5kA, 3+1-300-FM | 500230 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole ✓ highest continuous voltage 300V |



for the TNC-System | Blitzschutzklasse III und IV | 12,5kA

| Item | Art. no. |
|--|---|
| GT T1+2, 12,5kA, 3+0-300-FM | 500232 |
| <ul style="list-style-type: none"> ✓ Leakage-free (pre-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole ✓ highest continuous voltage 300V |



| Item | Art. no. |
|--|---|
| GT T1+2, 12,5kA, 3+0-300-FM-L | 500252 |
| <ul style="list-style-type: none"> ✓ Leakage current (post-metering area) ✓ Status indicator green/not green ✓ with remote signalling contact | <ul style="list-style-type: none"> ✓ Lightning impulse current 12.5kA (10/350µs) per pole ✓ highest continuous voltage 300V |





GT T2

GT T2, 4+0-300

Multipole, pluggable AC surge arresters Type 2



for the TNS-System

| Item | Art. no. |
|--|----------|
| GT T2, 4+0-300 | 500300 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green | |

scan for data sheet



| Artikel | Art. no. |
|--|----------|
| GT T2, 4+0-300-FM | 500301 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green ✓ with remote signalling contact | |



for the TT-/TNS-System

| Item | Art. no. |
|--|----------|
| GT T2, 3+1-300 | 500302 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green | |



| Item | Art. no. |
|--|----------|
| GT T2, 3+1-300-FM | 500303 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green ✓ with remote signalling contact | |



With integrated back-up fuse!

| Item | Art. no. |
|--|----------|
| GT T2, 3+1-300-FM-SI | 50 0320 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green ✓ with remote signalling contact ✓ with integrated fuse | |



for the TNC-System

| Item | Art. no. |
|--|----------|
| GT T2, 3+0-300-FM | 500305 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green ✓ with remote signalling contact | |

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for 1-phase System

| Item | Art. no. |
|--|----------|
| GT T2, 1+1-300-FM | 500310 |
| <ul style="list-style-type: none"> ✓ Status indicator green/not green ✓ with remote signalling contact | |



4

PV



PV T1+2, 1100V-FM

Multipole, pluggable arresters for photovoltaic applications

Type 1 + 2 | type 2



Lightning current combination arrestors type 1+2, 1100V, DC

| Item | Art. no. |
|--|---------------|
| PV T1+2, 1100V | 500401 |
| <ul style="list-style-type: none"> ✓ 1100V, 3+0 ✓ Status indicator green/not green | |

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| Item | Art. no. |
|--|---------------|
| PV T1+2, 1100V-FM | 500400 |
| <ul style="list-style-type: none"> ✓ 1100V, 3+0 ✓ with remote signalling contact ✓ Status indicator green/not green | |



Lightning current combination arrestors type 1+2, 1500V, DC

| Item | Art. no. |
|--|---------------|
| PV T1+2, 1500V | 500403 |
| <ul style="list-style-type: none"> ✓ 1500V, 3+0 ✓ Status indicator green/not green | |



| Item | Art. no. |
|--|---------------|
| PV T1+2, 1500V-FM | 500402 |
| <ul style="list-style-type: none"> ✓ 1500V, 3+0 ✓ with remote signalling contact ✓ Status indicator green/not green | |



Surge arresters type 2, 1100V, DC

| Item | Art. no. |
|--|---------------|
| PV T2, 1100V | 500420 |
| <ul style="list-style-type: none"> ✓ 1100V, 3+0 ✓ Status indicator green/not green | |

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| Item | Art. no. |
|--|---------------|
| PV T2, 1100V-FM | 500421 |
| <ul style="list-style-type: none"> ✓ 1100V, 3+0 ✓ with remote signalling contact ✓ Status indicator green/not green | |



Surge arresters type 2, 1500V, DC

| Item | Art. no. |
|--|---------------|
| PV T2, 1500V | 500422 |
| <ul style="list-style-type: none"> ✓ 1500V, 3+0 ✓ Status indicator green/not green | |



| Item | Art. no. |
|--|---------------|
| PV T2, 1500V-FM | 500423 |
| <ul style="list-style-type: none"> ✓ 1500V, 3+0 ✓ with remote signalling contact ✓ Status indicator green/not green | |





GAK 2x2/T2 1100V

Generator junction boxes

with transparent cover and pre-mounted cable glands

- ✓ Plug-in terminal (+) and (-): 10 mm²
- ✓ Plug-in terminal PE: 16 mm²
- ✓ Pressure compensation element
- ✓ 1x cable bushing M20 for earthing connection
- ✓ UV-resistant screw connection



Lightning current combi conductors type 1+2, 1100V

Arresters: 1x T1+T2 1100V DC
MPP tracker: 1
Strings per MPP: 2

Case: 200x200x132 IP65
Features: 4x 2-fold cable bushing 2x 6mm²

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| Item | Art. no. |
|---------------------|----------|
| GAK 1x2/T1+T2 1100V | 165621 |



Arresters: 2x T1+T2 1100V DC
MPP tracker: 2
Strings per MPP: 2

Case: 300x200x132 IP65
Features: 8x 2-fold cable bushing 2x6mm²

| Item | Art. no. |
|---------------------|----------|
| GAK 2x2/T1+T2 1100V | 165620 |



Surge arresters type 2, 1100V

Arresters: 1x T2 1100V DC
MPP tracker: 1
Strings per MPP: 2

Case: 200x200x132 IP65
Features: 4x 2-fold cable bushing 2x6mm²

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| Item | Art. no. |
|------------------|----------|
| GAK 1x2/T2 1100V | 165639 |



Arresters: 2x T2 1100V DC
MPP tracker: 2
Strings per MPP: 2

Case: 300x200x132 IP65
Features: 8x 2-fold cable bushing 2x6mm²

| Item | Art. no. |
|------------------|----------|
| GAK 2x2/T2 1100V | 165640 |



Arresters: 3x T2 1100V DC
MPP tracker: 3
Strings per MPP: 2

Case: 400x300x132 IP65
Features: 12x 2-fold cable bushing 2x6mm²

| Item | Art. no. |
|------------------|----------|
| GAK 3x2/T2 1100V | 165641 |





FM TEL20

Combination arresters for data/telecomm. systems

telecommunications | telephone | network



| Item | Art. no. |
|----------|----------|
| FM TEL20 | 500501 |

Combination arrester for telecommunication systems.

- ✓ D1 / C1 / C2 / C3
- ✓ 7,5 kA lightning current discharge capacity
- ✓ Push-in connections
- ✓ Dimensions: 92 x 92 x 62 mm

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| Item | Art. no. |
|-----------------|----------|
| FM Dat Net Cat6 | 500502 |

Combination arrester for Ethernet for the protection of data networks and network devices such as hubs, switches, servers.

- ✓ D1 / C2 / C1 / C3
- ✓ 1 kA Lightning current discharge capacity
- ✓ RJ45 connection
- ✓ 250 MHz
- ✓ Top-hat rail mounting



| Item | Art. no. |
|----------|----------|
| GT3 mini | 500503 |

Device protection type 3 (fine protection), for installation in switch and junction boxes

- ✓ acoustic signalling
- ✓ Max. continuous voltage 275 V AC
- ✓ U_{oc} 6kV / I_{cw} 3 kA (8/20 μ s)



| Item | Artikel-Nr. |
|------------|-------------|
| FM Dat KNX | 500504 |

- ✓ D1 / C1 / C2 / C3
- ✓ Discharge capacity: In 5kA, I_{max}: 10kA, I_{imp} 1kA
- ✓ 24V AC
- ✓ Serien-Bemessungsstrom 7A

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| Item | Art. no. |
|----------------|----------|
| GT-AS-T2/3-275 | 500505 |

- ✓ Typ 2+3
- ✓ compact design
- ✓ IP 54 protect
- ✓ Easy connection with Hirschmann plugs in the event of a fault Ldown opened, stopping the blind from moving down
- ✓ acoustic signaling in the case of an error



| Item | Art. no. |
|----------------|----------|
| GT T3, 230V FM | 500509 |

- ✓ highest continuous voltage U_c 230V
- ✓ Typ 3 / 2-pin
- ✓ IP 20 protect
- ✓ for use in TN-S networks



| Item | Art. no. |
|---------------|----------|
| GT T3, 24V FM | 500510 |

- ✓ max. back-up fuse 32A gG
- ✓ highest continuous voltage U_c 24 / 34V
- ✓ Typ 3 / 2-pin
- ✓ for use in TN-S networks





| | Item | Page | U_c | I_{imp} (10/350 μ s) | I_{max} (8/20 μ s) | I_n (8/20 μ s) | | |
|------------|----------------|-----------------|--------------------|--------------------------------------|--------------------------|----------------------|-------------------------------------|------|
| GT40 | GT40 | 10 | 300V | Bis 12,5kA | 50kA | 20kA | | |
| | GT T1+2 | TYP 1+2 | GT T1+2, 25kA | 12 | 300V | 25kA | 65kA | 25kA |
| | | | GT T1+2, 12,5kA | 12 | 300V | 12,5kA | 65kA | 20kA |
| | | | GT T1+2, 12,5kA, L | 12 | 300V | 12,5kA | 50kA | 20kA |
| GT T2 | TYP 2 | GT T2 | 14 | 300V | – | 50kA | 20kA | |
| PV | TYP 1+2 | PV T1+2, 1100V | 16 | Bis 1500V | 6,25kA | 40kA | 20kA | |
| | | PV T2, 1100V | 16 | Bis 1500V | – | 40kA | 20kA | |
| GAK | TYP 1+2 | GAK T1+T2 1100V | 18 | Bis 1500V | 6,25kA | 40kA | 20kA | |
| | | GAK T2 1100V | 18 | Bis 1500V | – | 40kA | 20kA | |
| FM | D1, C2, C1, C3 | FM TEL20 | 20 | 180V DC 127V AC | 7,5kA | – | 20kA | |
| | | FM Dat Net Cat6 | 20 | 50V DC Line-Line 72V DC Pair-Pair | 1kA | – | 150A Line-Line 10kA Lines-Ground | |
| | | FM Dat KNX | 20 | 170V | 1kA | 10kA | 5kA | |
| FEINSCHUTZ | TYP 3 | GT3 mini | 20 | 275V | – | – | 3kA | |
| | | GT T3 230V FM | 20 | 230V | – | 10kA | 5kA | |
| | | GT T3 24V FM | 20 | 24/34V | – | 2kA | 1,2kA | |
| | | GT-AS-T2/3-275 | 20 | 230V | 15kA | 10kA | 10kA | |

| Distribution grids | Application | Performance features | Protection* | Conformity |
|------------------------------------|--|--|-------------|---|
| TNS, TT, TNC | • Before the consumption meter • First level of protection • 40mm busbar systems | • LEAKAGE FREE • hybrid topology • TOV strength • Shock and vibration resistant • Suitable for 5mm and 10mm busbarst | 315A gG | IEC 61643-11: 2011 EN 61643-11: 2012+A11:2018 |
| TNS, TT, TNC | • Before the consumption meter • First level of protection | • LEAKAGE FREE • hybrid topology • TOV strength • Schock- u. vibrationsresistent • Easy replacement during maintenance/repair • No additional backup fuse required for protection up to 315A gG | 315A gG | IEC 61643-11: 2011 EN 61643-11: 2012+A11:2018 UL 1449 4th Edition |
| TNS, TT, TNC | • Before the consumption meter • First level of protection | • LEAKAGE FREE • hybrid topology • TOV strength • Shock and vibration resistant • Easy replacement during maintenance/repair • No additional backup fuse required for protection up to 315A gG | 315A gG | IEC 61643-11: 2011 EN 61643-11: 2012+A11:2018 UL 1449 4th Edition |
| TNS, TT, TNC | • After the consumption meter • First level of protection | • LEAKAGE CURRENT • MOV-topology • No additional back-up fuse required Protection up to 315A gG Easy replacement during maintenance/repair • Shock and vibration resistant | 315 gG | IEC 61643-11: 2011 EN 61643-11: 2012+A11:2018 |
| TNS, TT, TNC | • second level of protection | • MOV topology • No additional backup fuse required for protection up to 315A gG • Easy replacement during maintenance/repair • Shock and vibration resistant | 315 gG | IEC 61643-11: 2011 EN 61643-11: 2012+A11:2018 UL 1449 4th Edition |
| PV / DC-Seite | • DC photovoltaic applications • First and second protection level | • Short circuit resistanc I_{scpv} of 11kA and 30kA • SCCR 100kA and 50 kA according to UL • Easy replacement during maintenance/repair • Shock and vibration resistant | – | EN 50539 11: 2013 +A1: 2014 UL 1449 4th Edition |
| PV / DC-Seite | • DC photovoltaic applications • second protection level | • Short circuit resistanc I_{scpv} of 11kA • SCCR 50kA and 65kA according to UL • Easy replacement during maintenance/repair • Shock and vibration resistant | – | EN 50539 11: 2013 +A1: 2014 UL 1449 4th Edition |
| PV / DC-Seite | • DC photovoltaic applications • First and second protection level | • Short circuit resistance I_{scpv} of 11kA and 30kA • SCCR 100kA and 50 kA according to UL • Easy replacement during maintenance/repair • Shock and vibration resistant | – | EN 50539 11: 2013 +A1: 2014 UL 1449 4th Edition |
| PV / DC-Seite | • DC photovoltaic applications • second protection level | • Short circuit resistance I_{scpv} of 11kA • SCCR 50kA and 65kA according to UL • Easy replacement during maintenance/repair • Shock and vibration resistant | – | EN 50539 11: 2013 +A1: 2014 UL 1449 4th Edition |
| ADSL, ADSL2, ADSL2+ VDSL, VDSL2 | telephone network | • Approved for D1 / C1 / C2 / C3 applications • Up to 250MHz data rate • Protection class IP66 - surface mounting housing | – | IEC 61643-21 EN 61643-21 |
| Cat6 | ethernet network | • Approved for D1 / C1 / C2 / C3 applications • Up to 250MHz data rate • Metal housing for the best shielding effects • DIN rail mounting | – | IEC 61643-21 EN 61643-21 UL 497B 4th Edition |
| Bus-System | EIB/KNX Bus | • Approved for D1 / C1 / C2 / C3 applications • Discharge capacity: I_n 5kA, / I_{max} 10kA, / I_{limp} 1kA • Voltage 24V AC / series rated current: 7A | – | IEC/EN 61643-21 |
| TNS | Cable ducts and connections | • Acoustic signalling • maximum continuous voltage 275 V AC • U_c 6kV • I_w 3kA (8/20 μ s) | – | IEC 61643-11: 2011, EN 61643-11: 2012 |
| TNS | sub-distribution | • max. back-up fuse 63A gG • highest continuous voltage U_c 320V • telecommunications contact | 63A gG | IEC 61643-11: 2011 EN 61643-11: 2012 |
| TNS | sub-distribution | • max. back-up fuse 32A gG • highest continuous voltage U_c 24/34V | 32A gG | IEC 61643-11: 2011, EN 61643-11:2012+A11:2018 |
| TNS, TT | Motorized blinds | • Type 2+3 • compact design & acoustic signalling • IP 54 protection • Hirschmann connector | – | IEC 61643-11:2011 EN 61643-11:2012+A11:2018 |

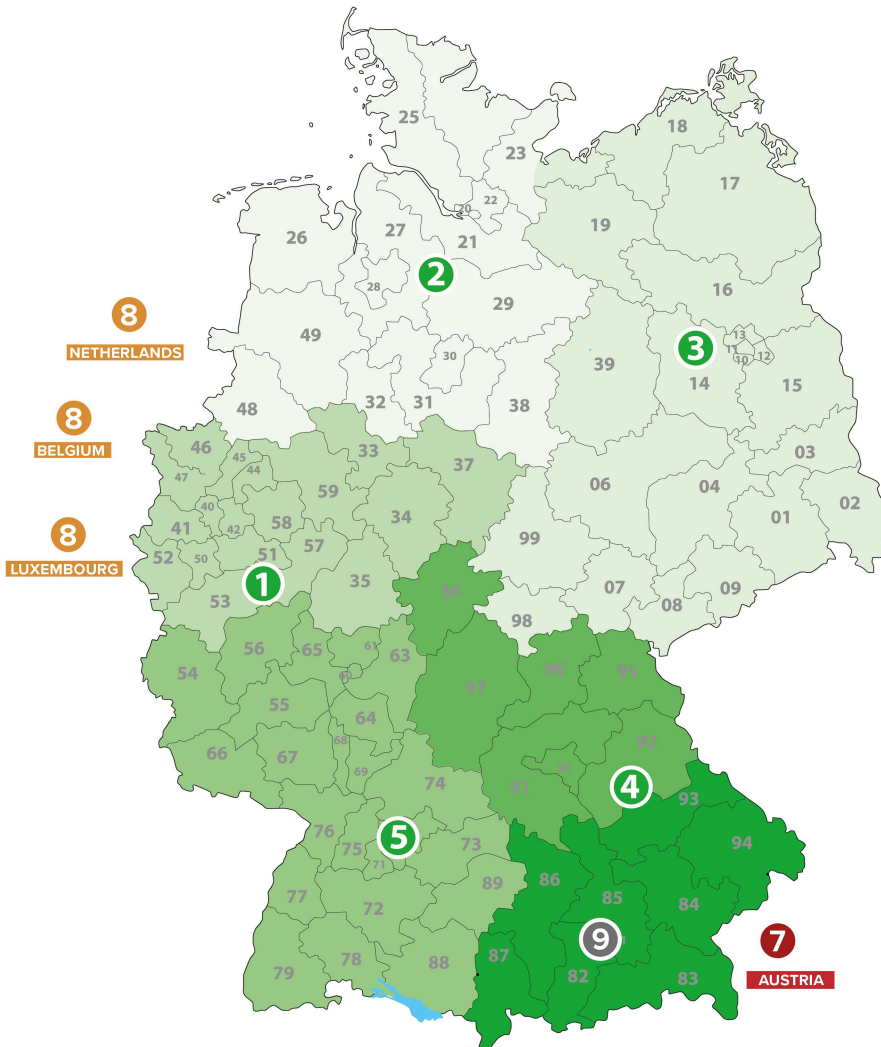
* No additional back-up fuse required for fuse protection up to ...



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