

Monoblock Single-Pole SPD

LY1-25-XXX/1(S)

Class I • Class II • Type 1 • Type 2

Location of Use: Main Distribution Boards
 Network Systems: TN-S, TN-C, TT
 Mode of Protection: L-PE / N-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA}$ (10/350 μs)
 $I_n = 25 \text{ kA}$ (8/20 μs)
 IEC/EN Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV
 Housing: Monoblock Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012



Technical Data

LY1-25-XXX/1(S)

| | | 150 | 275 | 320 | 385 | 440 |
|---|-------------|--------|--------|---------------|--------|--------|
| IEC Electrical | | | | | | |
| Nominal AC Voltage (50/60Hz) | U_n / U_h | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | | | 25 kA | | |
| Maximum Discharge Current (8/20 μs) | I_{max} | | | 100 kA | | |
| Impulse Discharge Current (10/350 μs) | I_{imp} | | | 25 kA | | |
| Specific Energy | W/R | | | 156 kJ / | | |
| Charge | Q | | | 12.5 As | | |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1800 V | 2000 V |
| Response Time | t_A | | | < 25 ns | | |
| Back-Up Fuse (max) | | | | 315 A gL / gG | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | | | 50 kA | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 230V | 440V | 440V | 440V | 765 V |
| Number of Ports | | | | 1 | | |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%..95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 26.5 lbf-in [3.0 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A @C: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

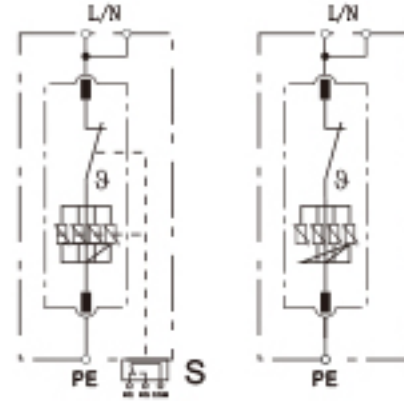
Order Information

| Order Code | 150 | 275 | 320 | 385 | 440 |
|-------------------------------------|---------|---------|---------|---------|---------|
| LY1-25-XXX/1 | 2515011 | 2527511 | 2532011 | 2538511 | 2544011 |
| LY1-25-XXX/1S(with remote contacts) | 2515012 | 2527512 | 2532012 | 2538512 | 2544012 |

Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

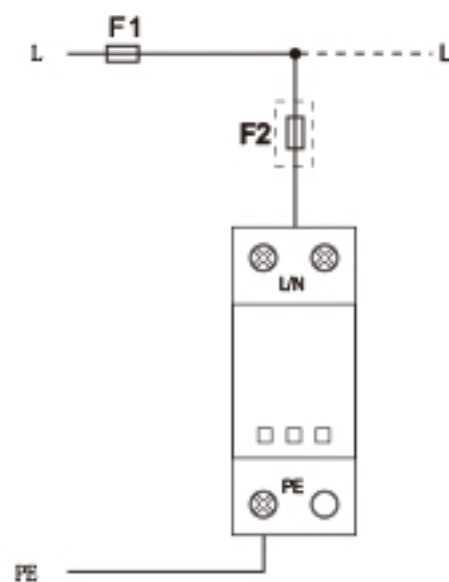


Dimensions & Packaging

| LY1-25-XXX/1(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 × 230 × 320 mm] | | | | |
| Minimum Order Quantity | 42 Units | | | | |

Connection Diagram

TN-S, TN-C, TT (Single-phase, 1+0)



Monoblock Multi-Pole SPD

LY1-25-XXX/2(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE / L'-PE, N-PE / N'-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA (10/350 } \mu\text{s)}$
 $I_n = 25 \text{ kA (8/20 } \mu\text{s)}$
 IEC/EN Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV
 Housing: Monoblock Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

LY1-25-XXX/2(S)

150 275 320 385 440

IEC Electrical

| | | | | | | |
|---|-------------|--------|--------|---------------|--------|--------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | | | 25 kA | | |
| Maximum Discharge Current (8/20 μs) | I_{max} | | | 100 kA | | |
| Impulse Discharge Current (10/350 μs) | I_{imp} | | | 25 kA | | |
| Total Discharge Current (10/350 μs) | I_{total} | | | 50 kA | | |
| Specific Energy | W/R | | | 156 kJ / | | |
| Charge | Q | | | 12.5 As | | |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1800 V | 2000 V |
| Response Time | t_A | | | < 25 ns | | |
| Back-Up Fuse (max) | | | | 315 A gL / gG | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | | | 50 kA | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 230 V | 440 V | 440 V | 440 V | 765 V |
| Number of Ports | | | | 1 | | |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 26.5 lbf-in [3.0 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

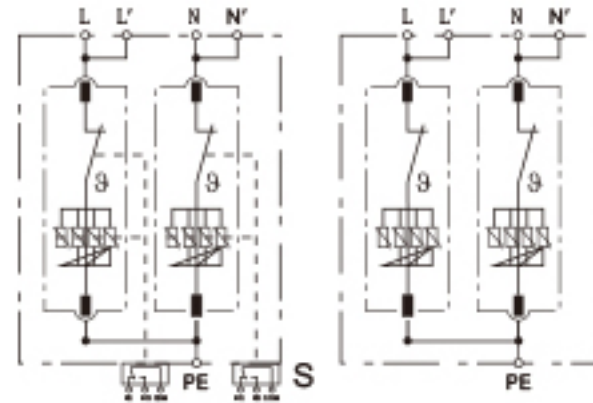
Order Information

| Order Code | 150 | 275 | 320 | 385 | 440 |
|-------------------------------------|---------|---------|---------|---------|---------|
| LY1-25-XXX/2 | 2515021 | 2527521 | 2532021 | 2538521 | 2544021 |
| LY1-25-XXX/2S(with remote contacts) | 2515022 | 2527522 | 2532022 | 2538522 | 2544022 |

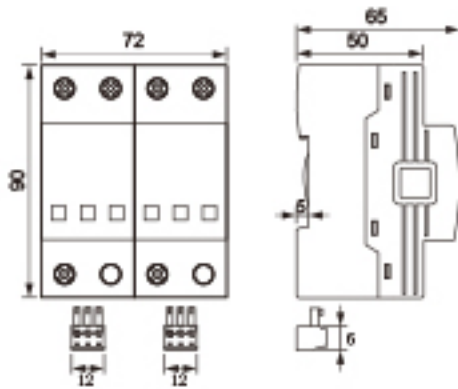
Internal Configuration

Legend

- L/L' Line
- N/N' Neutral
- PE Protective Earth
- S Signalling Contacts Optional



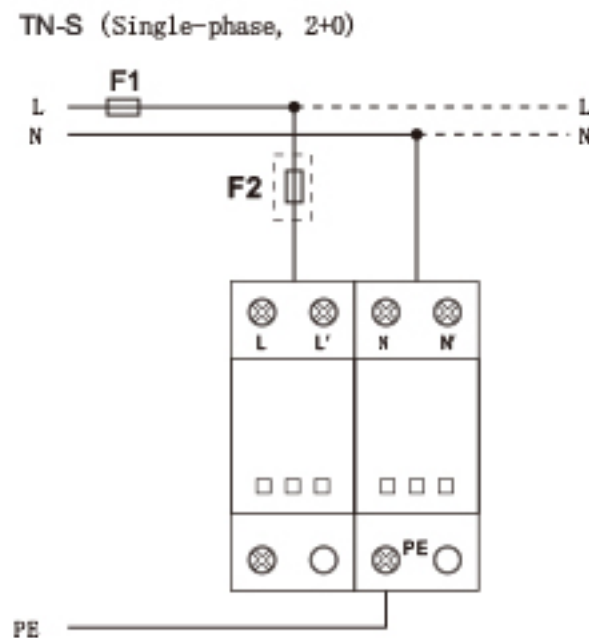
Dimensions & Packaging



Dimensions & Packaging

| Dimensions & Packaging | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| LY1-25-XXX/2(S) | | | | | |
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 x 230 x 320 mm] | | | | |
| Minimum Order Quantity | 24 Units | | | | |

Connection Diagram



Monoblock Multi-Pole SPD

LY1-25-XXX/3(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TN-C
 Mode of Protection: L-PE / L'-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA (10/350 } \mu\text{s)}$
 $I_n = 25 \text{ kA (8/20 } \mu\text{s)}$
 IEC/EN Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV
 Housing: Monoblock Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

LY1-25-XXX/3(S)

150 275 320 385 440

IEC Electrical

| | | | | | | |
|---|-------------|--------|--------|---------------|--------|--------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | | | 25 kA | | |
| Maximum Discharge Current (8/20 μs) | I_{max} | | | 100 kA | | |
| Impulse Discharge Current (10/350 μs) | I_{imp} | | | 25 kA | | |
| Total Discharge Current (10/350 μs) | I_{total} | | | 75 kA | | |
| Specific Energy | W/R | | | 156 kJ / | | |
| Charge | Q | | | 12.5 As | | |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1800 V | 2000 V |
| Response Time | t_A | | | < 25 ns | | |
| Back-Up Fuse (max) | | | | 315 A gL / gG | | |
| Short-Circuit Current Rating (AC) | I_{sCCR} | | | 50 kA | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 230 V | 440 V | 440 V | 440 V | 765 V |
| Number of Ports | | | | 1 | | |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_o | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 26.5 lbf·in [3.0 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

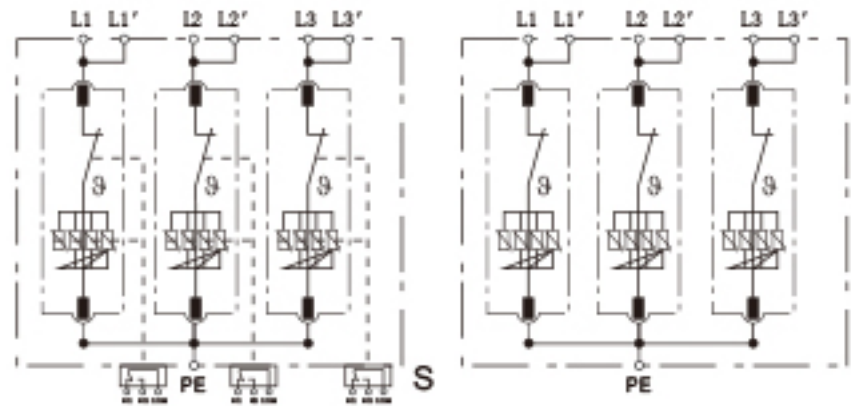
Order Information

| Order Code | 150 | 275 | 320 | 385 | 440 |
|-------------------------------------|---------|---------|---------|---------|---------|
| LY1-25-XXX/3 | 2515031 | 2527531 | 2532031 | 2538531 | 2544031 |
| LY1-25-XXX/3S(with remote contacts) | 2515032 | 2527532 | 2532032 | 2538532 | 2544032 |

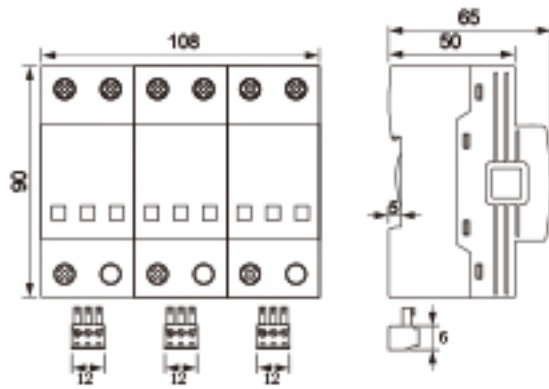
Internal Configuration

Legend

- L / L' Line
- N / N' Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

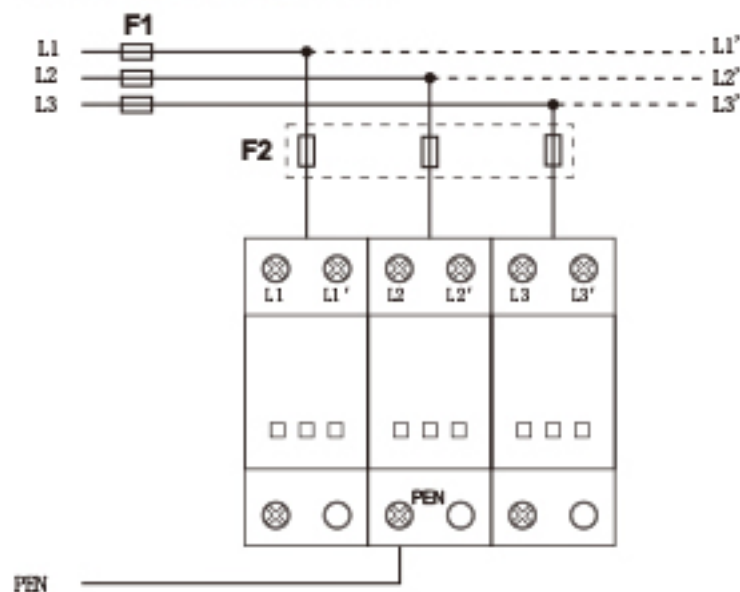


Dimensions & Packaging

| LY1-25-XXX/3(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 x 230 x 320 mm] | | | | |
| Minimum Order Quantity | 12 Units | | | | |

Connection Diagram

TN-C (Three-phase, 3+0)



Monoblock Multi-Pole SPD

LY1-25-XXX/4(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE / L²-PE, NPE / N²-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA} (10/350 \mu\text{s})$
 $I_n = 25 \text{ kA} (8/20 \mu\text{s})$
 IEC/EN Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV
 Housing: Monoblock Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

LY1-25-XXX/4(S)

| | | 150 | 275 | 320 | 385 | 440 |
|---|-------------|--------|--------|-------------------|--------|--------|
| IEC Electrical | | | | | | |
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | | | 25 kA | | |
| Maximum Discharge Current (8/20 μs) | I_{max} | | | 100 kA | | |
| Impulse Discharge Current (10/350 μs) | I_{imp} | | | 25 kA | | |
| Total Discharge Current (10/350 μs) | I_{total} | | | 100 kA | | |
| Specific Energy | W/R | | | 156 kJ / Ω | | |
| Charge | Q | | | 12.5 As | | |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1800 V | 2000 V |
| Response Time | t_A | | | < 25 ns | | |
| Back-Up Fuse (max) | | | | 315 A gL / gG | | |
| Short-Circuit Current Rating (AC) | I_{scCR} | | | 50 kA | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_{Tmin} | 230 V | 440 V | 440 V | 440 V | 765 V |
| Number of Ports | | | | 1 | | |

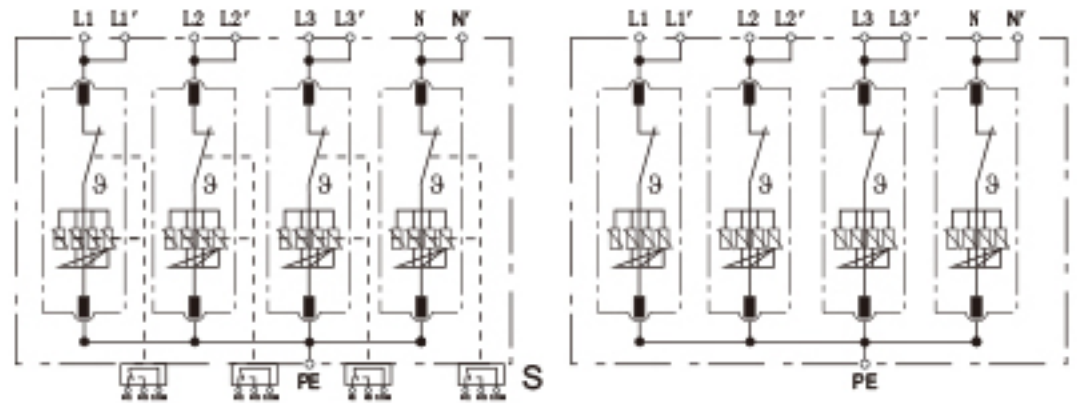
| Mechanical & Environmental | | | | | | |
|---------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 26.5 lbf·in [3.0 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

| Order Information | | | | | | |
|-------------------------------------|--|---------|---------|---------|---------|---------|
| Order Code | | 150 | 275 | 320 | 385 | 440 |
| LY1-25-XXX/4 | | 2515041 | 2527541 | 2532041 | 2538541 | 2544041 |
| LY1-25-XXX/4S(with remote contacts) | | 2515042 | 2527542 | 2532042 | 2538542 | 2544042 |

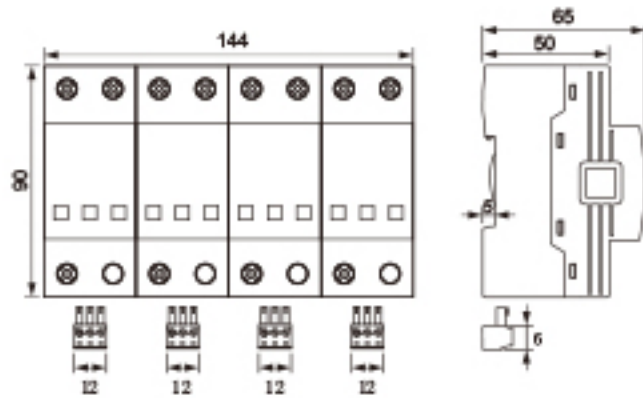
Internal Configuration

Legend

- L / L' Line
- N / N' Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

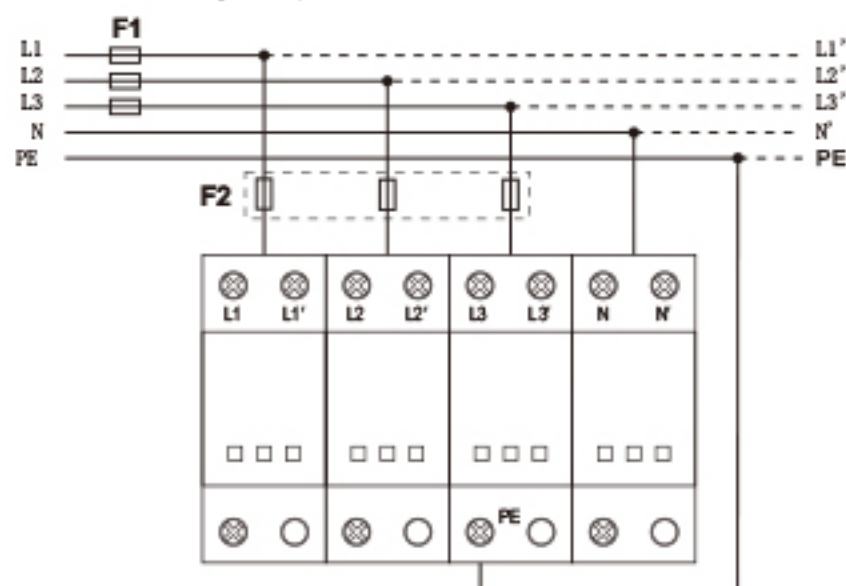


Dimensions & Packaging

| LY1-25-XXX/4(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 x 230 x 320 mm] | | | | |
| Minimum Order Quantity | 12 Units | | | | |

Connection Diagram

TN-S (Three-phase, 4+0)



Monoblock Multi-Pole SPD LY1-25-XXX/1(S)+1

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TT, TN-S
 Mode of Protection: L-N / L²-N, N-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA} / 50 \text{ kA} (10/350 \mu\text{s})$
 $I_n = 25 \text{ kA} / 50 \text{ kA} (8/20 \mu\text{s})$
 IEC/EN Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV and GDT
 Housing: Monoblock Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

LY1-25-XXX/1(S)+1

150 275 320 385

IEC Electrical

| | | | | | |
|---|------------------------------|-----------------|---------------------|-----------------|-----------------|
| Nominal AC Voltage (50/60Hz) | | 120 V | 230 V | 230 V | 230 V |
| Maximum Continuous Operating Voltage | (L - N) U_c | 150 V | 275 V | 320 V | 385 V |
| | (N - PE) U_c | 255 V | 255 V | 255 V | 255 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | | 25 kA / 50 kA | | |
| Maximum Discharge Current (8/20 μs) | (L - N) / (N - PE) I_{max} | | 100 kA | | |
| Impulse Discharge Current (10/350 μs) | (L - N) / (N - PE) I_{imp} | | 25 kA / 50 kA | | |
| Total Discharge Current (10/350 μs) | I_{total} | | 50 kA | | |
| Specific Energy | (L - N) / (N - PE) W/R | | 156 kJ / / 625 kJ / | | |
| Charge | (L - N) / (N - PE) Q | | 12.5 As / 25 As | | |
| Voltage Protection Level | (L - N) / (N - PE) U_p | 1000 V / 1500 V | 1500 V / 1500 V | 1600 V / 1500 V | 1800 V / 1500 V |
| Follow Current Interrupt Rating | (N-PE) I_s | | 100 A I_{RMS} | | |
| Response Time | (L - N) / (N - PE) t_A | | < 25 ns / < 100 ns | | |
| Back-Up Fuse (max) | | | 315 A gL / gG | | |
| Short-Circuit Current Rating (AC) | (L - N) I_{sOCR} | | 50 kA | | |
| TOV Withstand 5s | (L - N) U_T | 180 V | 335 V | 335 V | 335 V |
| TOV 120min | (L - N) U_T | 230 V | 440 V | 440 V | 440 V |
| TOV Withstand 200ms | (N - PE) U_T | | 1200 V | | |
| Number of Ports | | | 1 | | |

Mechanical & Environmental

| | | | | | |
|------------------------------------|-----------|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | M_{max} | 26.5 lbf·in [3.0 Nm] | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | IP 20 (built-in) | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | Yes | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | Optional | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | |

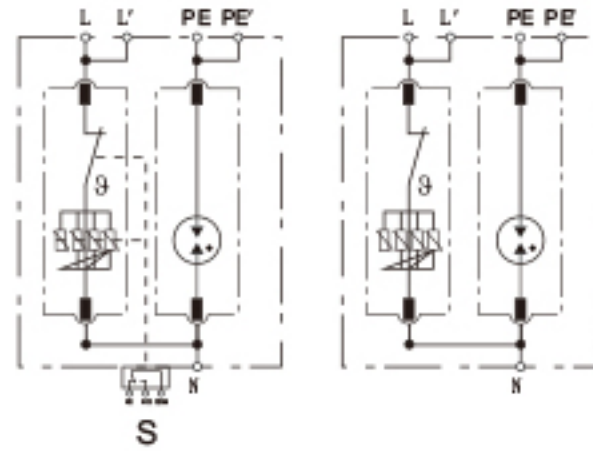
Order Information

| Order Code | 150 | 275 | 320 | 385 |
|---------------------------------------|---------|---------|---------|---------|
| LY1-25-XXX/1+1 | 2515013 | 2527513 | 2532013 | 2538513 |
| LY1-25-XXX/1S+1(with remote contacts) | 2515014 | 2527514 | 2532014 | 2538514 |

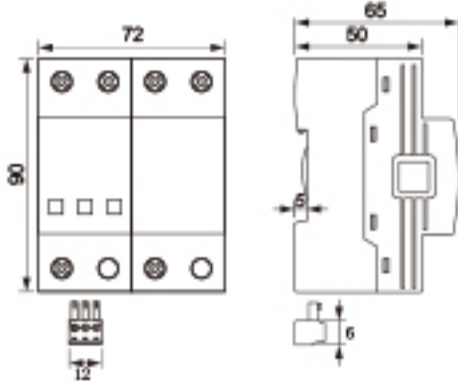
Internal Configuration

Legend

- L / L' Line
- N Neutral
- PE / PE' Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

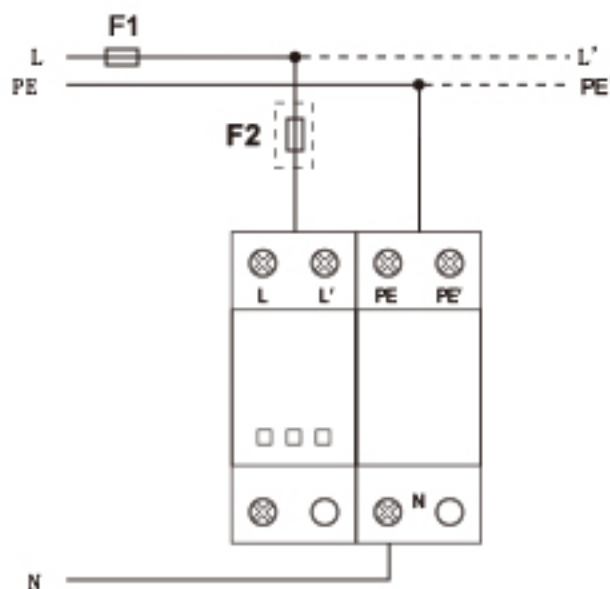


Dimensions & Packaging

| LY1-25-XXX/1(S)+1 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 × 230 × 320 mm] | | | | |
| Minimum Order Quantity | 24 Units | | | | |

Connection Diagram

TN-S,TT (Single-phase, 1+1)



Monoblock Multi-Pole SPD

LY1-25-XXX/3(S)+1

Class I • Class II • Type 1 • Type 2

Location of Use: Main Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: L-N / L²-N, N-PE

Surge Ratings: $I_{imp} = 25 \text{ kA} / 100 \text{ kA} (10/350 \mu\text{s})$
 $I_n = 25 \text{ kA} / 100 \text{ kA} (8/20 \mu\text{s})$

IEC/EN Category: Class I+II / Type 1+2

Protective Elements: High Energy MOV and GDT

Housing: Monoblock Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012



Technical Data

LY1-25-XXX/3(S)+1

150 275 320 385

IEC Electrical

| | | | | | | |
|---|------------------------------|--|-----------------------|-----------------|-----------------|-----------------|
| Nominal AC Voltage (50/60Hz) | | | 120 V | 230 V | 230 V | 230 V |
| Maximum Continuous Operating Voltage | (L - N) U_c | | 150 V | 275 V | 320 V | 385 V |
| | (N - PE) U_c | | 255 V | 255 V | 255 V | 255 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | | 25 kA / 100 kA | | | |
| Maximum Discharge Current (8/20 μs) | (L - N) / (N - PE) I_{max} | | 100 kA | | | |
| Impulse Discharge Current (10/350 μs) | (L - N) / (N - PE) I_{imp} | | 25 kA / 100 kA | | | |
| Total Discharge Current (10/350 μs) | | | I_{total} 100 kA | | | |
| Specific Energy | (L - N) / (N - PE) W/R | | 156 kJ / / 2.5 M kJ / | | | |
| Charge | (L - N) / (N - PE) Q | | 12.5 As / 50 As | | | |
| Voltage Protection Level | (L - N) / (N - PE) U_p | | 1000 V / 1500 V | 1500 V / 1500 V | 1600 V / 1500 V | 1800 V / 1500 V |
| Follow Current Interrupt Rating | (N-PE) I_g | | 100 A _{RMS} | | | |
| Response Time | (L - N) / (N - PE) t_A | | < 25 ns / < 100 ns | | | |
| Back-Up Fuse (max) | | | 315 A gL / gG | | | |
| Short-Circuit Current Rating (AC) | (L - N) I_{SCCR} | | 50 kA | | | |
| TOV Withstand 5s | (L - N) U_T | | 180 V | 335 V | 335 V | 335 V |
| TOV 120min | (L - N) U_T | | 230 V | 440 V | 440 V | 440 V |
| TOV Withstand 200ms | (N - PE) U_T | | 1200 V | | | |
| Number of Ports | | | 1 | | | |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | RH | | 5%...95% | | | |
| Atmospheric pressure and altitude | | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | M_{max} | | 26.5 lbf-in [3.0 Nm] | | | |
| Conductor Cross Section (max) | | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | |
| Mounting | | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | | IP 20 (built-in) | | | |
| Housing Material | | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | | Yes | | | |
| Operating State / Fault Indication | | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | | Optional | | | |
| RC Switching Capacity | | | AC: 250V / 0.5 A DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | |
| RC Conductor Cross Section (max) | | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | |

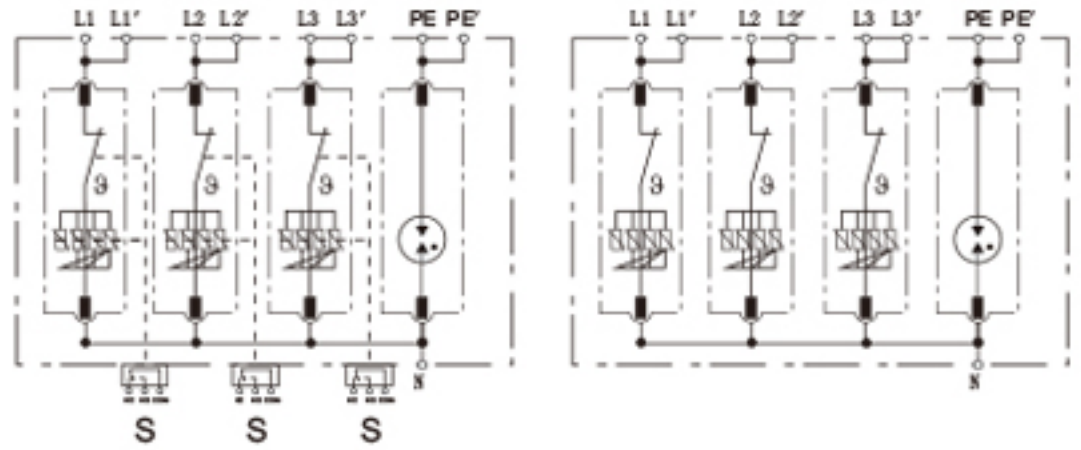
Order Information

| Order Code | 150 | 275 | 320 | 385 |
|--|---------|---------|---------|---------|
| LY1-25-XXX/3+1 | 2515033 | 2527533 | 2532033 | 2538533 |
| LY1-25-XXX/3S+1 (with remote contacts) | 2515034 | 2527534 | 2532034 | 2538534 |

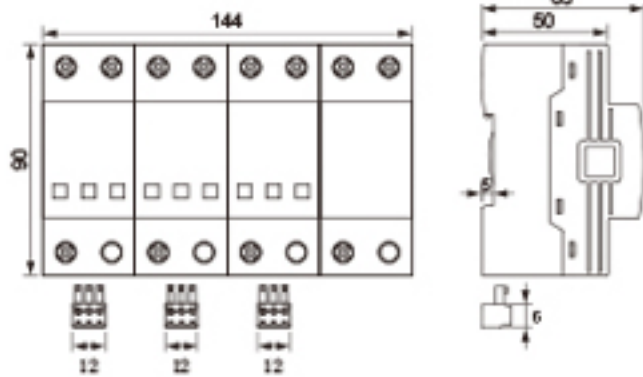
Internal Configuration

Legend

- L / L' Line
- N Neutral
- PE / PE' Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

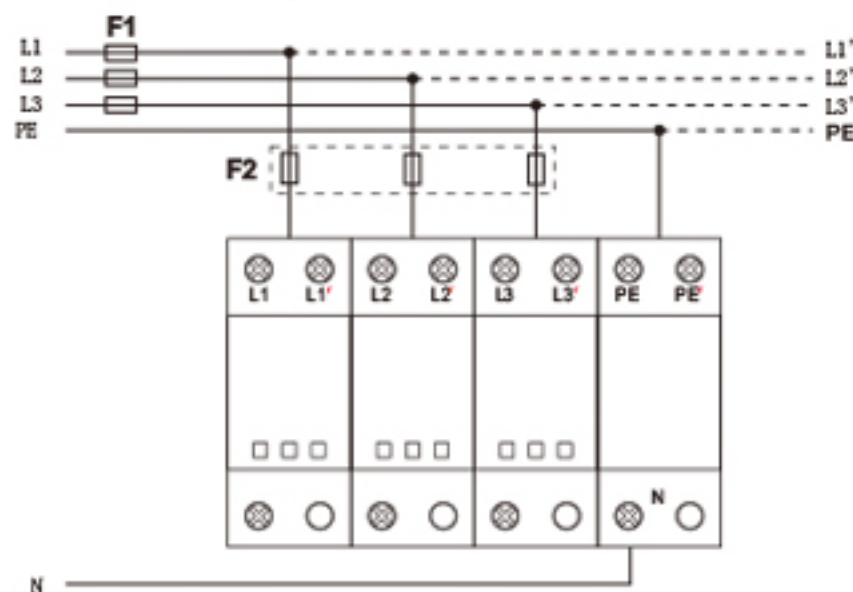


Dimensions & Packaging

| LY1-25-XXX/3(S)+1 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [260 × 230 × 320 mm] | | | | |
| Minimum Order Quantity | 12 Units | | | | |

Connection Diagram

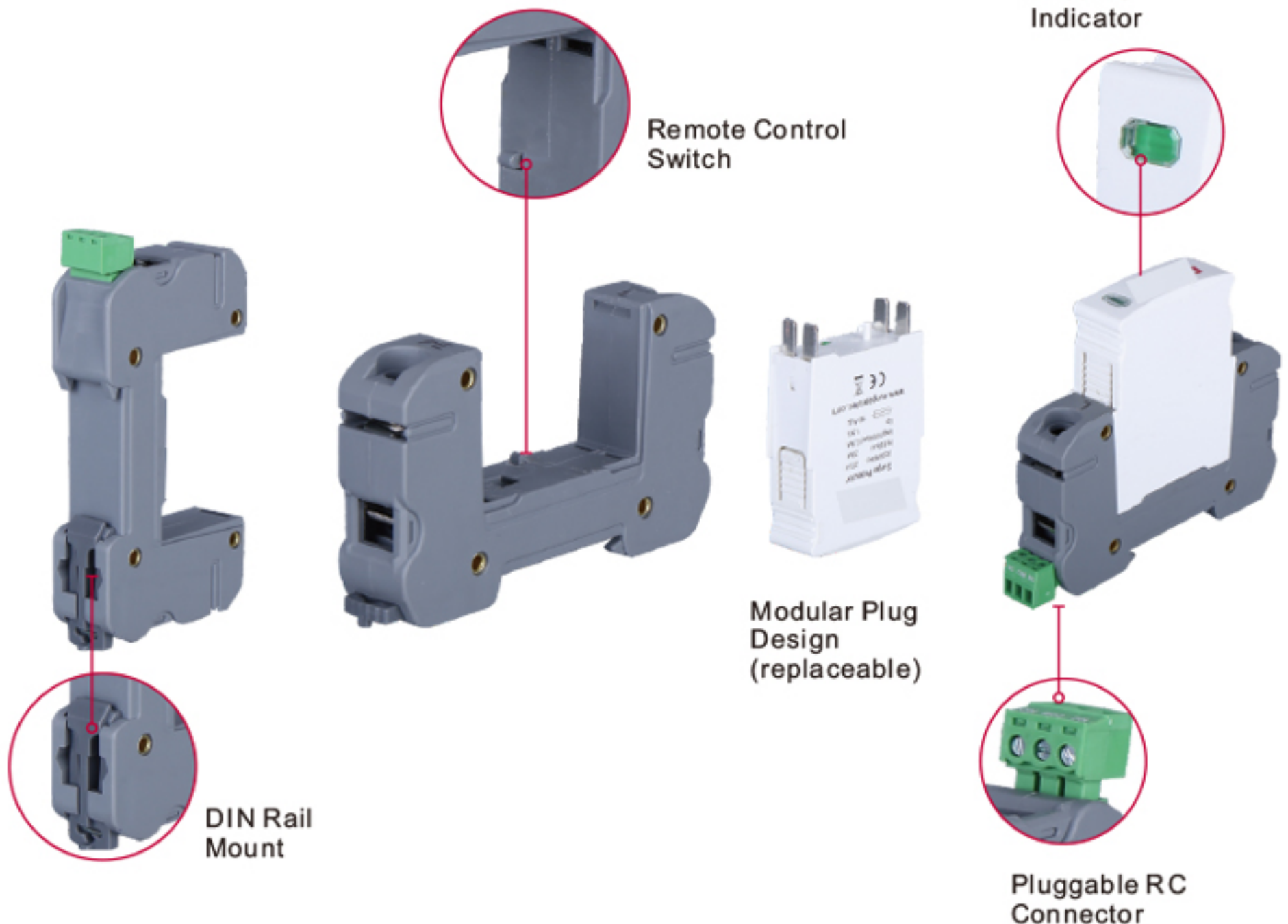
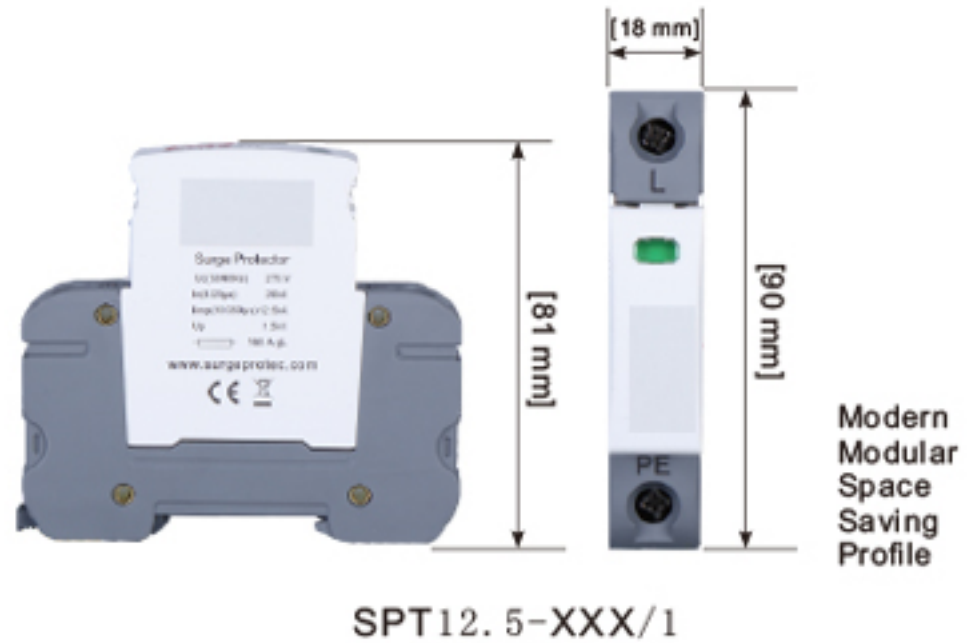
TN-S, TT (Three-phase, 3+1)



New Modular Single Pole & Multi-pole Surge Protective Devices

New Housing Design Features

- Contemporary design
- Low residual protection level
- Lifetime indicators
- Redesigned thermal disconnection
- Patented protection technologies
- No external back-up fuse required up to 315 A
- Vibration and shock withstand capability
- Space-saving design
- Easy replacement
- Patented module locking mechanism
- Meets IEC/EN and UL 1449 4th Edition



Type 1/Type 2 SPD



LY1-12.5-XXX/1(S)



LY1-12.5-XXX/2(S)



LY1-12.5-XXX/3(S)



LY1-12.5-XXX/4(S)



LY1-12.5-XXX/1(S)+1



LY1-12.5-XXX/3(S)+1



LY1-12.5-PVXXX-(S)

Type 2 SPD



LY1-C40-XXX/1(S)



LY1-C40-XXX/2(S)



LY1-C40-XXX/3(S)



LY1-C40-XXX/4(S)



LY1-C40-XXX/1(S)+1



LY1-C40-XXX/3(S)+1



LY-PVXXX-(S)

Pluggable Single-Pole SPD

LY1-12.5-XXX/1(S)

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TN-S, TN-C, TT (only L-N)

Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N

Surge Ratings: I_{imp} = up to 12.5 kA (10/350 μ s)
 I_n = up to 20 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/1(S)

75 150 275 320 385 440

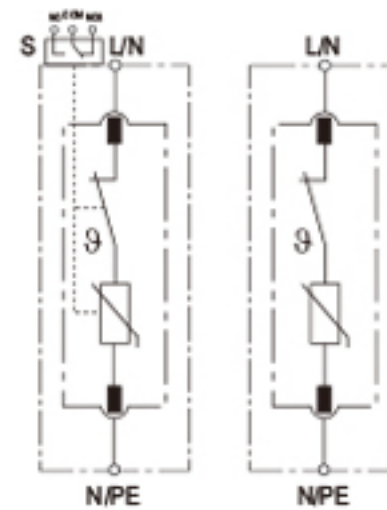
| IEC Electrical | | | | | | | |
|--|------------|--|----------------|----------------|----------------|-----------------|----------------|
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 60V | 120V | 230V | 230V | 230V | 400V |
| Maximum Continuous Operating Voltage (AC) | U_c | 75V | 150V | 275V | 320V | 385V | 440V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 10kA | 10kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 50kA | 50kA | 50kA | 50kA | 50kA | 50kA |
| Impulse Discharge Current (10/350 μ s) | I_{imp} | 12.5kA | 12.5kA | 12.5kA | 12.5kA | 10kA | 10kA |
| Specific Energy | W/R | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 25 kJ/ Ω | 25kJ/ Ω |
| Charge | Q | 6.25 As | 6.25As | 6.25As | 6.25As | 5As | 5As |
| Voltage Protection Level | U_p | 700V | 1000V | 1500V | 1600V | 1800V | 2000 V |
| Response Time | t_A | <25 ns | | | | | |
| Back-Up Fuse (max) | | 315 A / 250 A gG | | | | | |
| Short-Circuit Current Rating (AC) | I_{scCR} | 25 kA / 50 kA | | | | | |
| TOV Withstand 5s | U_T | 114V | 180 | 335V | 335V | 335V | 580V |
| TOV 120min | U_T | 180V | 230V | 440V | 440V | 440V | 765V |
| | Mode | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | | |
| UL Electrical | | | | | | | |
| Maximum Continuous Operating Voltage (AC) | MCOV | 75V | 150V | 275V | 320V | 385V | 440V |
| Voltage Protection Rating | VPR | 330V | 600V | 900V | 1200V | 1350V | 1500V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 20kA | 20kA |
| Short-Circuit Current Rating (AC) | SCCR | 100kA | 200kA | 150kA | 150kA | 150kA | 200kA |
| Mechanical & Environmental | | | | | | | |
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf·in [4.5 Nm] | | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | | |
| Thermal Protection | | Yes | | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | | |
| Remote Contacts (RC) | | Optional | | | | | |
| RC Switching Capacity | | AC: 250V / 0.5A; DC: 250V / 0.1A; 125V / 0.2A; 75V / 0.5A | | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | | |

| Order Information | | | | | | |
|---------------------------------------|---------|---------|---------|---------|---------|---------|
| Order Code | 75 | 150 | 275 | 320 | 385 | 440 |
| LY1-12.5-XXX/1 | 1207511 | 1215011 | 1227511 | 1232011 | 1238511 | 1244011 |
| LY1-12.5-XXX/1S(with remote contacts) | 1207512 | 1215012 | 1227512 | 1232012 | 1238512 | 1244012 |
| LY1-12.5-XXX/0(spare modules) | 1207501 | 1215001 | 1227501 | 1232001 | 1238501 | 1244001 |

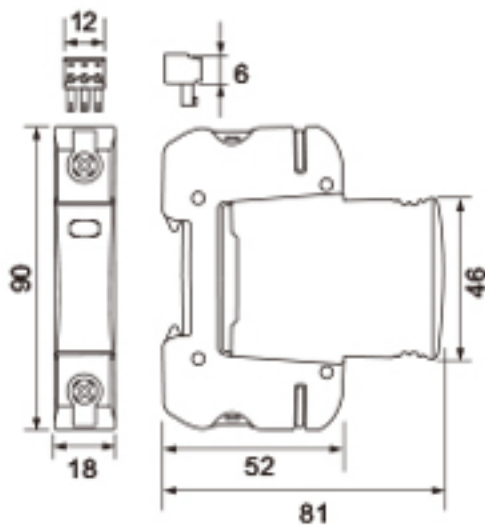
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

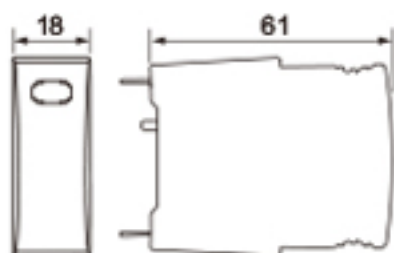


| Dimensions & Packaging | | | | | | |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| LY1-12.5-XXX/1(S) | 75 | 150 | 275 | 320 | 385 | 440 |
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 64 Units | | | | | |

SPT12.5-XXX/0

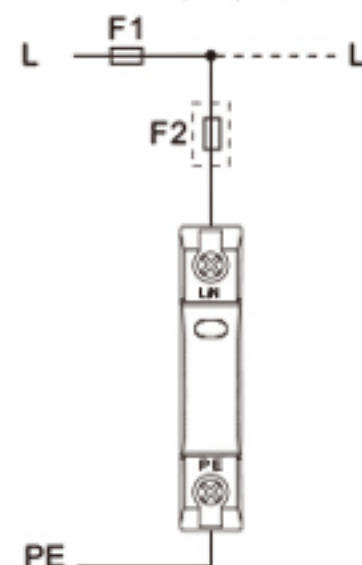


Connection Diagram



| Dimensions & Packaging | | | | | | |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| LY1-12.5-XXX/0 | 75 | 150 | 275 | 320 | 385 | 440 |
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 64 Units | | | | | |

TN-S, TN-C, TT (Single-phase, 1+0)



Pluggable Multi-Pole SPD

LY1-12.5-XXX/2(S)

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TN-S

Mode of Protection: L-PE, N-PE

Surge Ratings: I_{imp} = up to 12.5 kA (10/350 μ s)
 I_n = up to 20 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/2(S)

| | | 75 | 150 | 275 | 320 | 385 | 440 |
|--|------------|--|----------------|----------------|----------------|-----------------|----------------|
| IEC Electrical | | | | | | | |
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 60V | 120V | 230V | 230V | 230V | 400V |
| Maximum Continuous Operating Voltage (AC) | U_c | 75V | 150V | 275V | 320V | 385V | 440V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 10kA | 10kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 50kA | 50kA | 50kA | 50kA | 50kA | 50kA |
| Impulse Discharge Current (10/350 μ s) | I_{imp} | 12.5kA | 12.5kA | 12.5kA | 12.5kA | 10kA | 10kA |
| Specific Energy | W/R | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 25 kJ/ Ω | 25kJ/ Ω |
| Charge | Q | 6.25 As | 6.25As | 6.25As | 6.25As | 5As | 5As |
| Voltage Protection Level | U_p | 700V | 1000V | 1500V | 1600V | 1800V | 2000 V |
| Response Time | t_A | <25 ns | | | | | |
| Back-Up Fuse (max) | | 315 A / 250 A gG | | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | | |
| TOV Withstand 5s | U_T | 114V | 180V | 335V | 335V | 335V | 580V |
| TOV 120min | U_T | 114V | 230V | 440V | 440V | 440V | 765V |
| | Mode | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | | |
| UL Electrical | | | | | | | |
| Maximum Continuous Operating Voltage (AC) | MCOV | 75V | 150V | 275V | 320V | 385V | 440V |
| Voltage Protection Rating | VPR | 330V | 600V | 900V | 1200V | 1350V | 1500V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 20kA | 20kA |
| Short-Circuit Current Rating (AC) | SCCR | 100kA | 200kA | 150kA | 150kA | 150kA | 200kA |
| Mechanical & Environmental | | | | | | | |
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | | |
| Terminal Screw Torque | M max | 39.9 lbf·in [4.5 Nm] | | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | | |
| Thermal Protection | | Yes | | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | | |
| Remote Contacts (RC) | | Optional | | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | | |

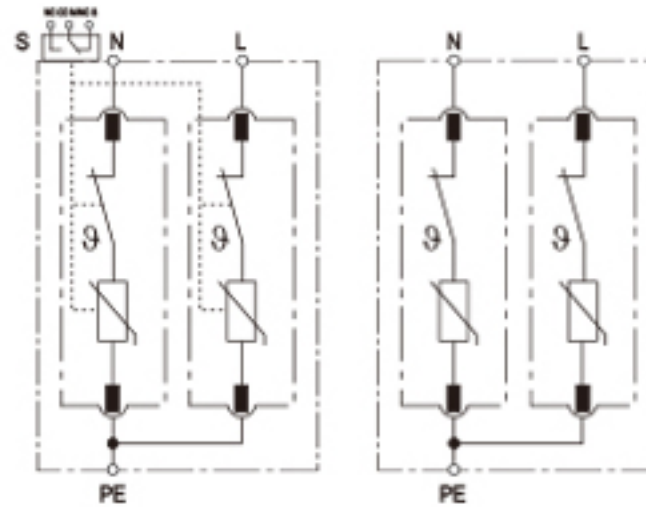
Order Information

| Order Code | 75 | 150 | 275 | 320 | 385 | 440 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|
| LY1-12.5-XXX/2 | 1207521 | 1215021 | 1227521 | 1232021 | 1238521 | 1244021 |
| LY1-12.5-XXX/2S(with remote contacts) | 1207522 | 1215022 | 1227522 | 1232022 | 1238522 | 1244022 |
| LY1-12.5-XXX/0(spare modules) | 1207501 | 1215001 | 1227501 | 1232001 | 1238501 | 1244001 |

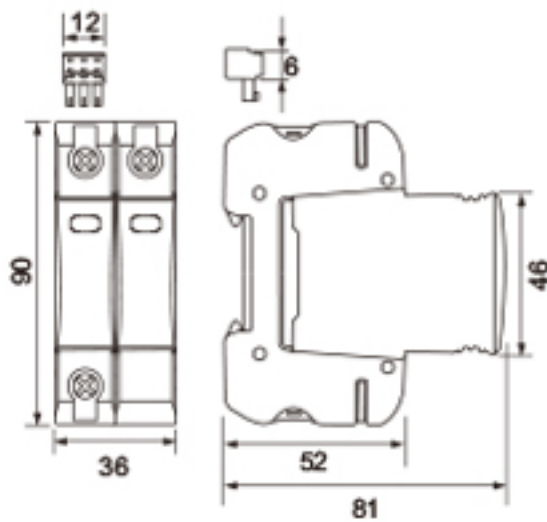
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



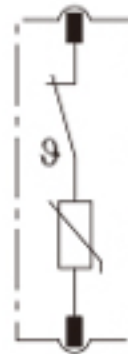
Dimensions & Packaging



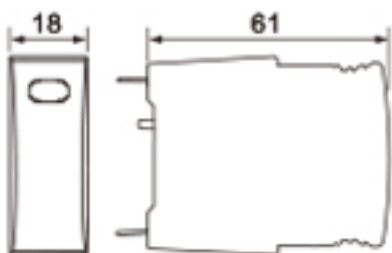
Dimensions & Packaging

| LY1-12.5-XXX/2(S) | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 32 Units | | | | | |

SPT12.5-XXX/0



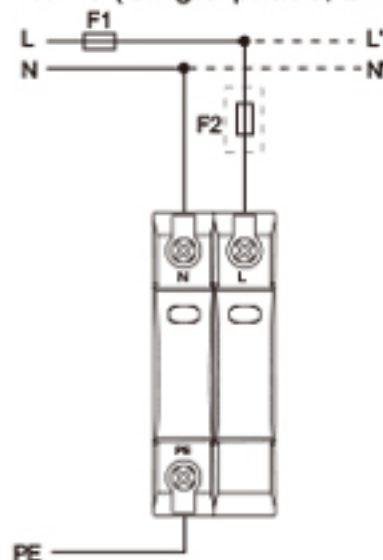
Dimensions & Packaging



Dimensions & Packaging

| LY1-12.5-XXX/0 | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 64 Units | | | | | |

TN-S (Single-phase, 2+0)



Pluggable Multi-Pole SPD

LY1-12.5-XXX/3(S)

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TN-C

Mode of Protection: L-PEN

Surge Ratings: I_{imp} = up to 12.5 kA (10/350 μ s)
 I_n = up to 20 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/3(S)

150

275

320

385

440

| IEC Electrical | | 150 | 275 | 320 | 385 | 440 |
|--|------------|----------------|----------------|----------------|-----------------|----------------|
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 120V | 230V | 230V | 230V | 400V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150V | 275V | 320V | 385V | 440V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 10kA | 10kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 50kA | 50kA | 50kA | 50kA | 50kA |
| Impulse Discharge Current (10/350 μ s) | I_{imp} | 12.5kA | 12.5kA | 12.5kA | 10kA | 10kA |
| Specific Energy | W/R | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 25 kJ/ Ω | 25kJ/ Ω |
| Charge | Q | 6.25As | 6.25As | 6.25As | 5As | 5As |
| Voltage Protection Level | U_p | 1000V | 1500V | 1600V | 1800V | 2000 V |
| Response Time | t_a | <25 ns | | | | |
| Back-Up Fuse (max) | | 315A / 250A gG | | | | |
| Short-Circuit Current Rating (AC) | I_{scCR} | 25 kA / 50 kA | | | | |
| TOV Withstand 5s | U_T | 180V | 335V | 335V | 335V | 580V |
| TOV 120min | U_T | 230V | 440V | 440V | 440V | 765V |
| | Mode | Safe Fail | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | |

UL Electrical

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| Maximum Continuous Operating Voltage (AC) | MCOV | 150V | 275V | 320V | 385V | 440V |
| Voltage Protection Rating | VPR | 600V | 900V | 1200V | 1350V | 1500V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 20kA |
| Short-Circuit Current Rating (AC) | SCCR | 200kA | 150kA | 150kA | 150kA | 200kA |

Mechanical & Environmental

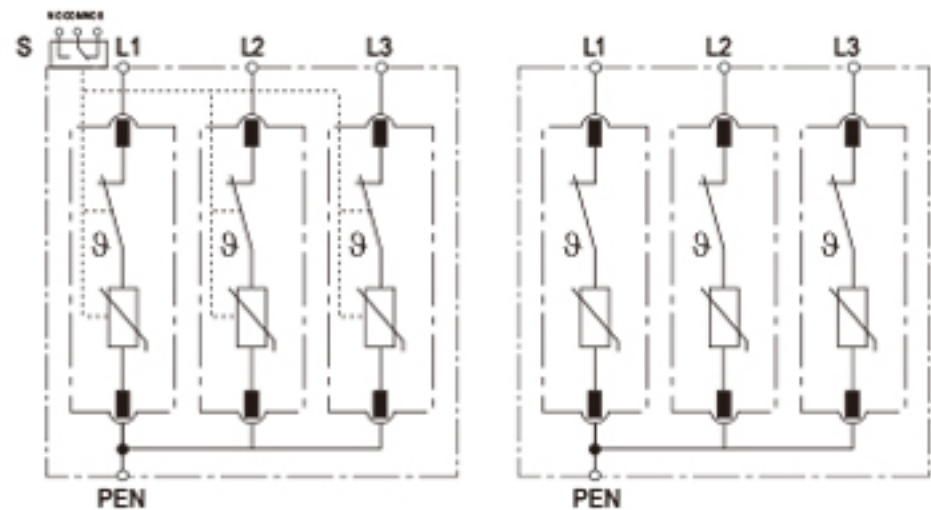
| | | | | | | |
|------------------------------------|-------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M max | 39.9 lbf·in [4.5 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

| Order Information | | | | | |
|---------------------------------------|---------|---------|---------|---------|---------|
| Order Code | 150 | 275 | 320 | 385 | 440 |
| LY1-12.5-XXX/3 | 1215031 | 1227531 | 1232031 | 1238531 | 1244031 |
| LY1-12.5-XXX/3S(with remote contacts) | 1215032 | 1227532 | 1232032 | 1238532 | 1244032 |
| LY1-12.5-XXX/0(spare modules) | 1215001 | 1227501 | 1232001 | 1238501 | 1244001 |

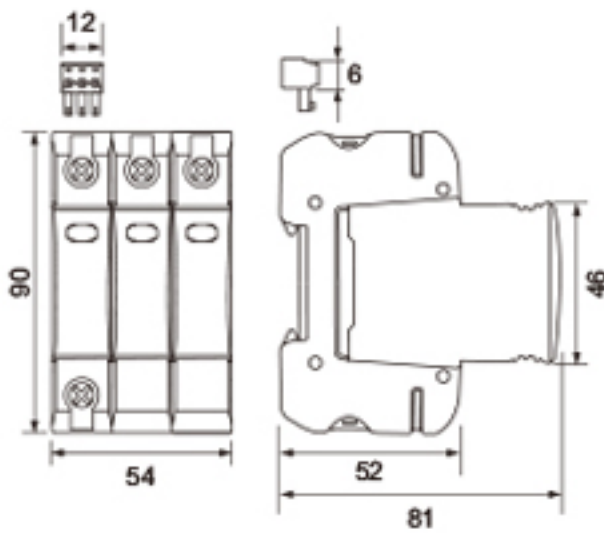
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging



Dimensions & Packaging

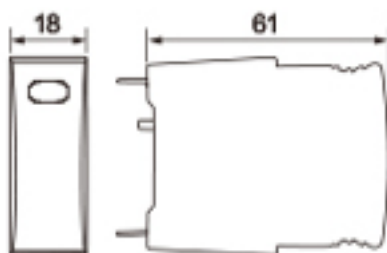
| LY1-12.5-XXX/3(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 16 Units | | | | |

Plug Internal Configuration

SPT12.5-XXX/0



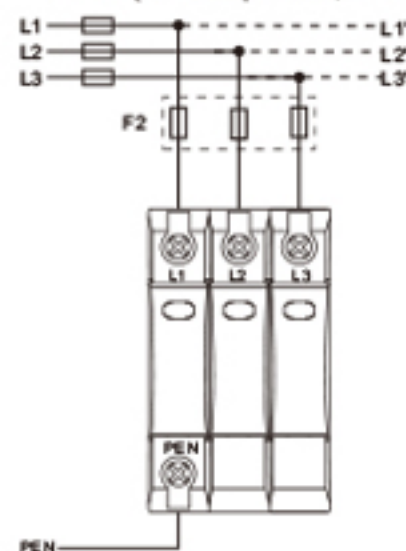
Dimensions & Packaging



Dimensions & Packaging

| LY1-12.5-XXX/0 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 64 Units | | | | |

TN-C (Three-phase, 3+0)



Pluggable Multi-Pole SPD

LY1-12.5-XXX/4(S)

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TN-S

Mode of Protection: L-PE, N-PE

Surge Ratings: I_{imp} = up to 12.5 kA (10/350 μ s)
 I_n = up to 20 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/4(S)

150

275

320

385

440

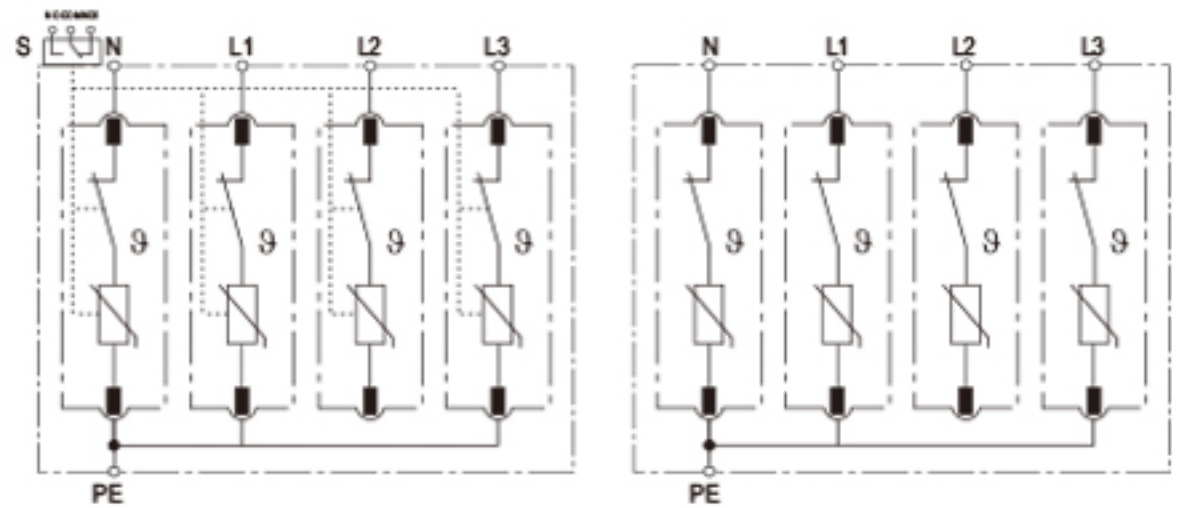
| IEC Electrical | | | 150 | 275 | 320 | 385 | 440 |
|--|------------|--|--|----------------|----------------|-----------------|----------------|
| Nominal AC Voltage (50/60Hz) | U_o/U_n | | 120V | 230V | 230V | 230V | 400V |
| Maximum Continuous Operating Voltage (AC) | U_c | | 150V | 275V | 320V | 385V | 440V |
| Nominal Discharge Current (8/20 μ s) | I_n | | 20kA | 20kA | 20kA | 10kA | 10kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | | 50kA | 50kA | 50kA | 50kA | 50kA |
| Impulse Discharge Current (10/350 μ s) | I_{imp} | | 12.5kA | 12.5kA | 12.5kA | 10kA | 10kA |
| Specific Energy | W/R | | 39kJ/ Ω | 39kJ/ Ω | 39kJ/ Ω | 25 kJ/ Ω | 25kJ/ Ω |
| Charge | Q | | 6.25As | 6.25As | 6.25As | 5As | 5As |
| Voltage Protection Level | U_p | | 1000V | 1500V | 1600V | 1800V | 2000 V |
| Response Time | t_A | | <25 ns | | | | |
| Back-Up Fuse (max) | | | 315 A / 250 A gG | | | | |
| Short-Circuit Current Rating (AC) | I_{scCR} | | 25 kA / 50 kA | | | | |
| TOV Withstand 5s | U_T | | 180V | 335V | 335V | 335V | 580V |
| TOV 120min | U_T | | 230V | 440V | 440V | 440V | 765V |
| | Mode | | Safe Fail | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | | 1 | | | | |
| UL Electrical | | | | | | | |
| Maximum Continuous Operating Voltage (AC) | MCOV | | 150V | 275V | 320V | 385V | 440V |
| Voltage Protection Rating | VPR | | 600V | 900V | 1200V | 1350V | 1500V |
| Nominal Discharge Current (8/20 μ s) | I_n | | 20kA | 20kA | 20kA | 20kA | 20kA |
| Short-Circuit Current Rating (AC) | SCCR | | 200kA | 150kA | 150kA | 150kA | 200kA |
| Mechanical & Environmental | | | | | | | |
| Operating Temperature Range | T_a | | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | | 5%...95% | | | | |
| Atmospheric pressure and altitude | | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | | 39.9 lbf·in [4.5 Nm] | | | | |
| Conductor Cross Section (max) | | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | | |
| | | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | | IP 20 (built-in) | | | | |
| Housing Material | | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | | Yes | | | | |
| Operating State / Fault Indication | | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | | Optional | | | | |
| RC Switching Capacity | | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

| Order Information | | | | | |
|---------------------------------------|---------|---------|---------|---------|---------|
| Order Code | 150 | 275 | 320 | 385 | 440 |
| LY1-12.5-XXX/4 | 1215041 | 1227541 | 1232041 | 1238541 | 1244041 |
| LY1-12.5-XXX/4S(with remote contacts) | 1215042 | 1227542 | 1232042 | 1238542 | 1244042 |
| LY1-12.5-XXX/0(spare modules) | 1215001 | 1227501 | 1232001 | 1238501 | 1244001 |

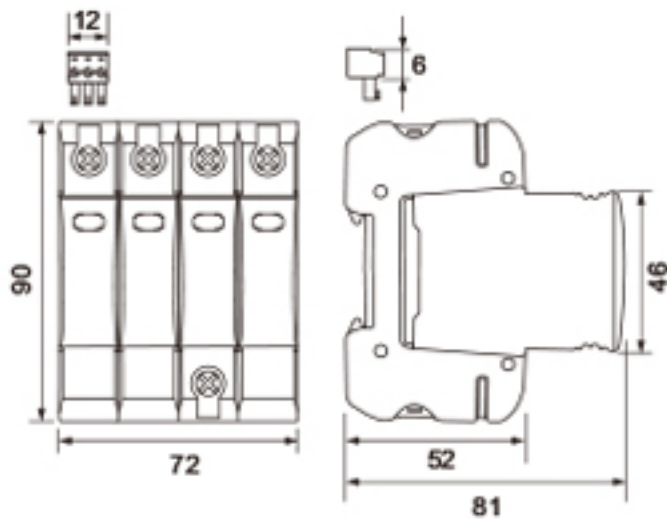
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

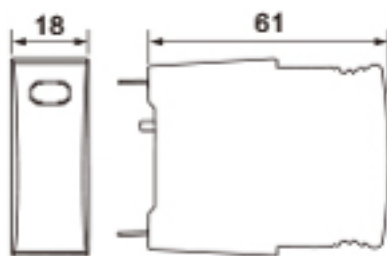


| Dimensions & Packaging | | | | | |
|----------------------------------|----------------------|-----|-----|-----|-----|
| LY1-12.5-XXX/4(S) | 150 | 275 | 320 | 385 | 440 |
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 16 Units | | | | |

SPT12.5-XXX/0



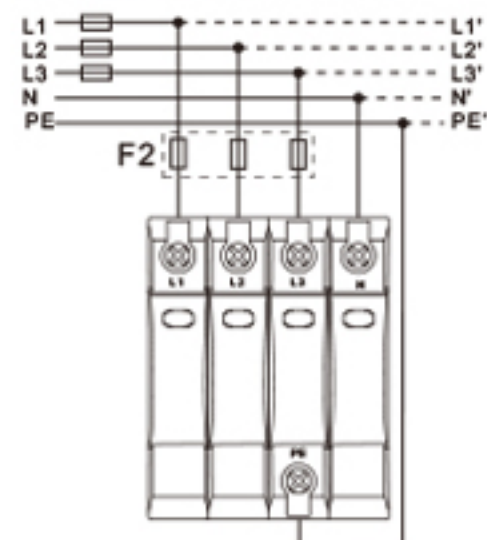
Dimensions & Packaging



| Dimensions & Packaging | | | | | |
|----------------------------------|----------------------|-----|-----|-----|-----|
| LY1-12.5-XXX/0 | 150 | 275 | 320 | 385 | 440 |
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 64 Units | | | | |

Connection Diagram

TN-S (Three-phase, 4+0)



Pluggable Multi-Pole SPD

LY1-12.5-XXX/1(S)+1

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: L-N, N-PE

Surge Ratings: $I_{imp} = 12.5 \text{ kA}$ (10/350 μs)

$I_n = 20 \text{ kA}$ (8/20 μs)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV and GDT

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/1(S)+1

75

150

275

320

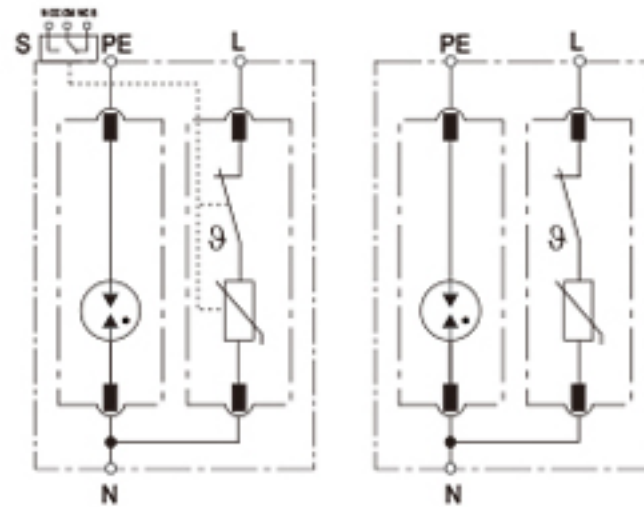
| IEC Electrical | | | | | |
|---|------------------------|--|-------------|-------------|-------------|
| Nominal AC Voltage (50/60Hz) | | 60V | 120V | 230V | 230V |
| Maximum Continuous Operating Voltage | (L-N) U_c | 75V | 150V | 275V | 320V |
| | (N-PE) U_c | 255V | 255V | 255V | 255V |
| Nominal Discharge Current (8/20 μs) | (L-N)/(N-PE) I_n | 20kA/ 25kA | | | |
| Maximum Discharge Current (8/20 μs) | (L-N)/(N-PE) I_{max} | 50kA/50kA | | | |
| Impulse Discharge Current (10/350 μs) | (L-N)/(N-PE) I_{imp} | 12.5 kA/25 kA | | | |
| Specific Energy | (L-N)/(N-PE) W/R | 39kJ/ Ω /156kJ/ Ω | | | |
| Charge | (L-N)/(N-PE) Q | 6.25As/12.5As | | | |
| Voltage Protection Level | (L-N)/(N-PE) U_p | 700V/1500V | 1000V/1500V | 1500V/1500V | 1600V/1500V |
| Follow Current Interrupt Rating | (N-PE) I_f | 100A _{RMS} | | | |
| Response Time | (L-N)/(N-PE) t_A | <25ns/ <100ns | | | |
| Back-Up Fuse (max) | | 315A/250AgG | | | |
| Short-Circuit Current Rating (AC) | (L-N) I_{SCCR} | 25kA/ 50kA | | | |
| TOV Withstand 5s | (L-N) U_T | 114V | 180V | 335V | 335V |
| | (L-N) U_T | 114V | 230V | 440V | 440V |
| TOV 120min | Mode | Withstand | Safe Fail | Safe Fail | Safe Fail |
| | (N-PE) U_T | 1200V | | | |
| Number of Ports | | 1 | | | |
| UL Electrical | | | | | |
| Maximum Continuous Operating Voltage (AC) | (L-N)/(N-PE) MCOV | 75V/255V | 150V/255V | 275V/255V | 320V/255V |
| Voltage Protection Rating | (L-N)/(N-PE) VPR | 330V/1200V | 600V/1200V | 900V/1200V | 1200V/1200V |
| Nominal Discharge Current (8/20 μs) | (L-N)/(-PE) I_n | 20kA/20kA | 20kA/20kA | 20kA/20kA | 20kA/20kA |
| Short-Circuit Current Rating (AC) | (L-N) SCCR | 100kA | 200kA | 150kA | 150kA |
| Mechanical & Environmental | | | | | |
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf·in [4.5 Nm] | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | IP 20 (built-in) | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | Yes | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | Optional | | | |
| RC Switching Capacity | | AC: 250V / 0.5A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5A | | | |
| RC Conductor Cross Section (max) | | 16AWG (Solid) / 1.5 mm ² (Solid) | | | |

| Order Information | | | | |
|---|---------|---------|---------|---------|
| Order Code | 75 | 150 | 275 | 320 |
| LY1-12.5-XXX/1+1 | 1207513 | 1215013 | 1227513 | 1232013 |
| LY1-12.5-XXX/1S+1(with remote contacts) | 1207514 | 1215014 | 1227514 | 1232014 |
| LY1-12.5-XXX/0(spare modules) | 1207501 | 1215001 | 1227501 | 1232001 |
| LY1-12.5-NPE/0(spare modules) | 1225501 | 1225501 | 1225501 | 1225501 |

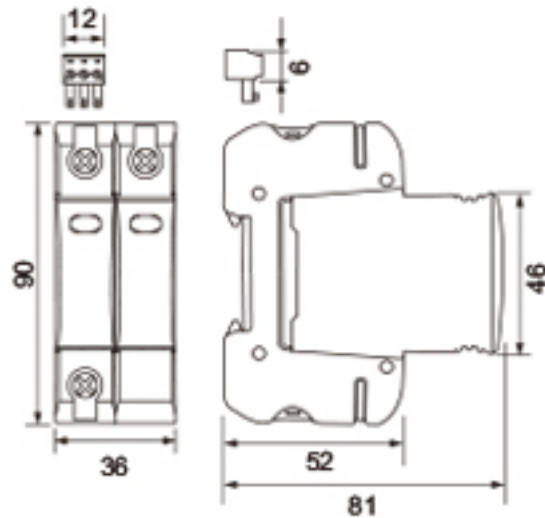
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging



| Dimensions & Packaging | | | | |
|----------------------------------|----------------------|-----|-----|-----|
| LY1-12.5-XXX/1(S)+1 | 75 | 150 | 275 | 320 |
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 32 Units | | | |

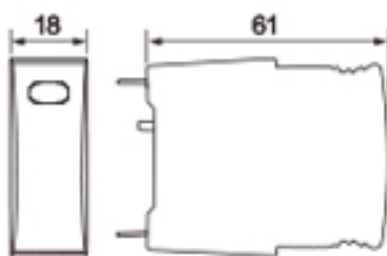
SPT12.5-XXX/0



SPT12.5-NPE/0

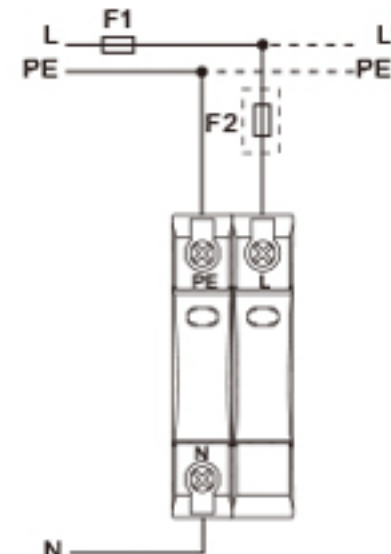


Dimensions & Packaging



| Dimensions & Packaging | | | | |
|----------------------------------|----------------------|-----|-----|-----|
| LY1-12.5-XXX/0 | 75 | 150 | 275 | 320 |
| LY1-12.5-NPE/0 | 25 | | | |
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 64 Units | | | |

TN-S,TT (Single-phase, 1+1)



Connection Diagram

Pluggable Multi-Pole SPD

LY1-12.5-XXX/3(S)+1

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: N-PE, L-N

Surge Ratings: $I_{imp} = 12.5 \text{ kA}$ (10/350 μs)
 $I_n = 20 \text{ kA}$ (8/20 μs)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV and GDT

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition



Technical Data

LY1-12.5-XXX/2(S)+1

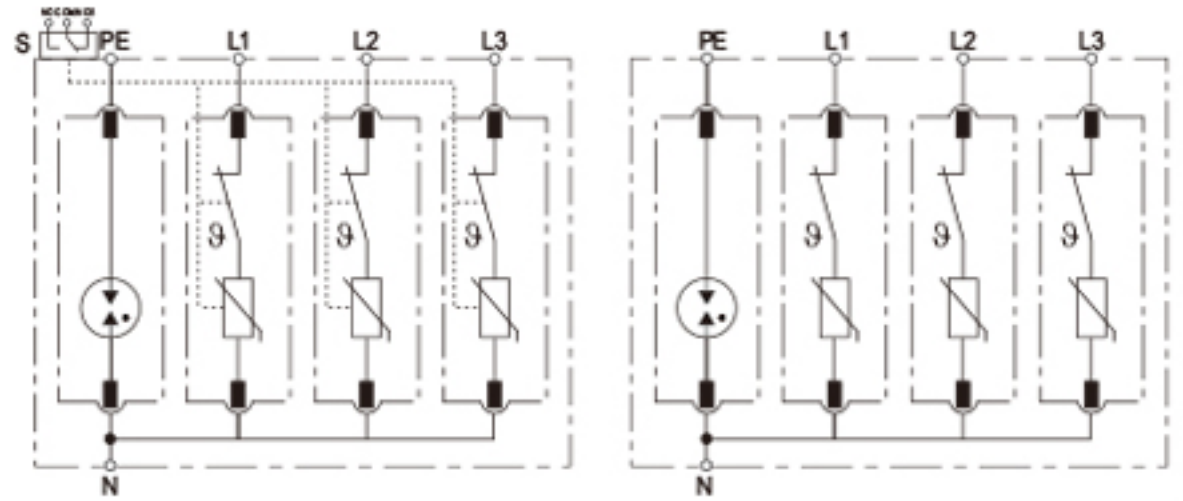
| | | 150 | 275 | 320 |
|---|------------------------|--|---------------------------------|-------------|
| IEC Electrical | | | | |
| Nominal AC Voltage (50/60Hz) | | 120V | 230V | 230V |
| Maximum Continuous Operating Voltage | (L-N) U_c | 150V | 275V | 320V |
| | (N-PE) U_c | 255V | 255V | 255V |
| Nominal Discharge Current (8/20 μs) | (L-N)/(N-PE) I_n | | 20kA/50kA | |
| Maximum Discharge Current (8/20 μs) | (L-N)/(N-PE) I_{max} | | 50kA/100kA | |
| Impulse Discharge Current (10/350 μs) | (L-N)/(N-PE) I_{imp} | | 12.5kA/50kA | |
| Specific Energy | (L-N)/(N-PE) W/R | | 39kJ/ Ω /625kJ/ Ω | |
| Charge | (L-N)/(N-PE) Q | | 6.25As/25As | |
| Voltage Protection Level | (L-N)/(N-PE) U_p | 1000V/1500V | 1500V/1500V | 1600V/1500V |
| Follow Current Interrupt Rating | (N-PE) I_n | | 100A _{RMS} | |
| Response Time | (L-N)/(N-PE) t_A | | < 25 ns / < 100 ns | |
| Back-Up Fuse (max) | | | 315 A / 250 A gG | |
| Short-Circuit Current Rating (AC) | (L-N) I_{SCCR} | | 25 kA / 50 kA | |
| TOV Withstand 5s | (L-N) U_T | 180V | 335V | 335V |
| | (L-N) U_T | 230V | 440V | 440V |
| TOV 120min | (L-N) U_T | | | |
| | Mode | Safe Fail | Safe Fail | Safe Fail |
| TOV Withstand 200s | (N-PE) U_T | | 1200V | |
| Number of Ports | | | 1 | |
| UL Electrical | | | | |
| Maximum Continuous Operating Voltage (AC) | (L-N)/(N-PE) MCOV | 150V/255V | 275V/255V | 320V/255V |
| Voltage Protection Rating | (L-N)/(N-PE) VPR | 600V/1200V | 900V/1200V | 1200V/1200V |
| Nominal Discharge Current (8/20 μs) | (L-N)/(N-PE) I_n | 20kA/20kA | 20kA/20kA | 20kA/20kA |
| Short-Circuit Current Rating (AC) | (L-N) SCCR | 200kA | 150kA | 150kA |
| Mechanical & Environmental | | | | |
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | |
| Permissible Operating Humidity | RH | 5%...95% | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | |
| Terminal Screw Torque | M max | 39.9 lbf·in [4.5 Nm] | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | |
| Degree of Protection | | IP 20 (built-in) | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | |
| Thermal Protection | | Yes | | |
| Operating State / Fault Indication | | Green ok / Red defect | | |
| Remote Contacts (RC) | | Optional | | |
| RC Switching Capacity | | AC: 250V / 0.5A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5A | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | |

| Order Information | | | |
|--|----------|---------|---------|
| Order Code | 150 | 275 | 320 |
| LY1-12.5-XXX/3+1 | 1215033 | 1227533 | 1232033 |
| LY1-12.5-XXX/3S+1 (with remote contacts) | 1215034 | 1227534 | 1232034 |
| LY1-12.5-XXX/0 (spare modules) | 121 5001 | 1227501 | 1232001 |
| LY1-12.5-NPE/0 (spare modules) | 1225502 | 1225502 | 1225502 |

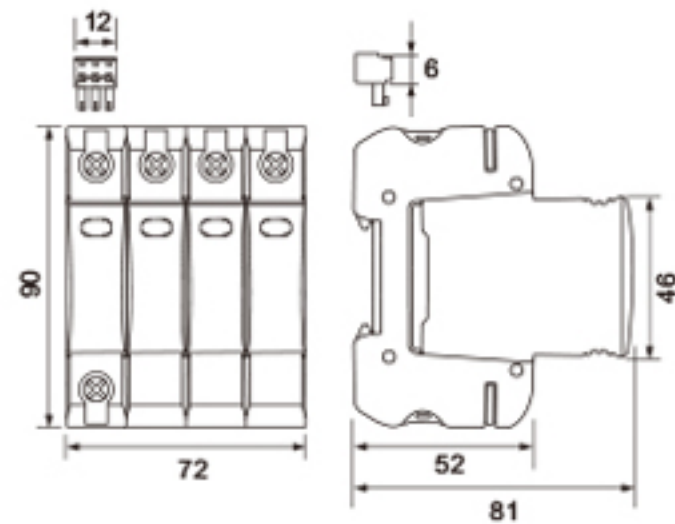
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging



Dimensions & Packaging

| LY1-12.5-XXX/3(S)+1 | 150 | 275 | 320 |
|----------------------------------|----------------------|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | |
| Minimum Order Quantity | 16 Units | | |

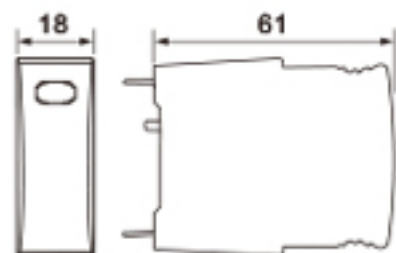
SPT12.5-XXX/0



SPT12.5-NPE/0



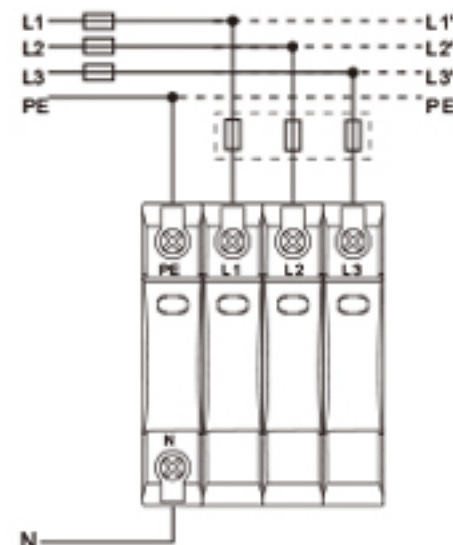
Plug Internal Configuration



Dimensions & Packaging

| LY1-12.5-XXX/0 | 150 | 275 | 320 |
|----------------------------------|----------------------|-----|-----|
| LY1-12.5-NPE/0 | 50 | | |
| Single Unit DIN 43880 Dimension | 1 CTN | | |
| Packaging Dimensions (H x W x L) | [200 x 230 x 330 mm] | | |
| Minimum Order Quantity | 64 Units | | |

Connection Diagram



Pluggable Multi-Pole SPD for Photovoltaic Systems

LY1-12.5-PVXXX-(S)

Class I Class II • Type 1 Type 2 • Type 1CA

Location of Use: String box, Inverter

Mode of Protection: (DC+)- PE, (DC-)- PE, (DC+)- (DC-)

Surge Ratings: I_{total} = up to 12.5 kA (10/350 μ s)

I_{total} = up to 40 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-31:2018

EN 50539-11:2013+A1:2014

UL 1449 4th Edition



Technical Data

LY1-12.5-PVXXX-(S)

600

1000

1200

1500

IEC Electrical

| | | | | | | |
|--|------------------------|-----------|---------|--------|--------|--------|
| Maximum Continuous Operating DC Voltage (DC+) - PE, (DC-) - PE | U_{CPV} | 600 V | 1000 V | 1200 V | 1500 V | |
| | (DC+) - (DC-) | U_{CPV} | 600 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μ s) | I_n | | 20kA | | | |
| Impulse Discharge Current (10/350 μ s) | I_{imp} | | 6.25kA | | | |
| Total Discharge Current (10/350 μ s) | I_{Total} | | 12.5kA | | | |
| Total Discharge Current (8/20 μ s) | I_{Total} | | 40kA | | | |
| Maximum Discharge Current (8/20 μ s) | I_{max} | | 40kA | | | |
| Voltage Protection Level | (DC+) - PE, (DC-) - PE | U_p | 2200 V | 4000 V | 4400 V | 5200 V |
| | (DC+) - (DC-) | U_p | 2200 V | 4000 V | 4400 V | 5200 V |
| Response Time | t_A | | < 25 ns | | | |
| Short-Circuit Current Rating | I_{SCPV} | | 2000A | | | |
| Number of Ports | | | 1 | | | |

UL Electrical

| | | | | | | |
|--|------------------------|----------|--------|--------|--------|--------|
| Maximum Permitted DC Voltage | V_{pVDC} | 600 V | 1000 V | 1200 V | 1500 V | |
| Voltage Protection Rating | (DC+) - PE, (DC-) - PE | V_{PR} | 1600 V | 2500 V | 3000 V | 4000 V |
| | (DC+) - (DC-) | V_{PR} | 1600 V | 2500 V | 3000 V | 4000 V |
| Nominal Discharge Current (8/20 μ s) | I_n | | 20 kA | | | |
| Short-Circuit Current Rating | SCCR | 35 kA | 50 kA | 55 kA | 65 kA | |

Mechanical & Environmental

| | | | | | |
|------------------------------------|-----------|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | 35mm ² (Solid, Stranded) / 25mm ² (Flexible) | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | IP 20 (built-in) | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | Yes | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | Optional | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | |
| RC Conductor Cross Section (max) | | 16 AWG(Solid)/1.5 mm ² (Solid) | | | |

Order Information

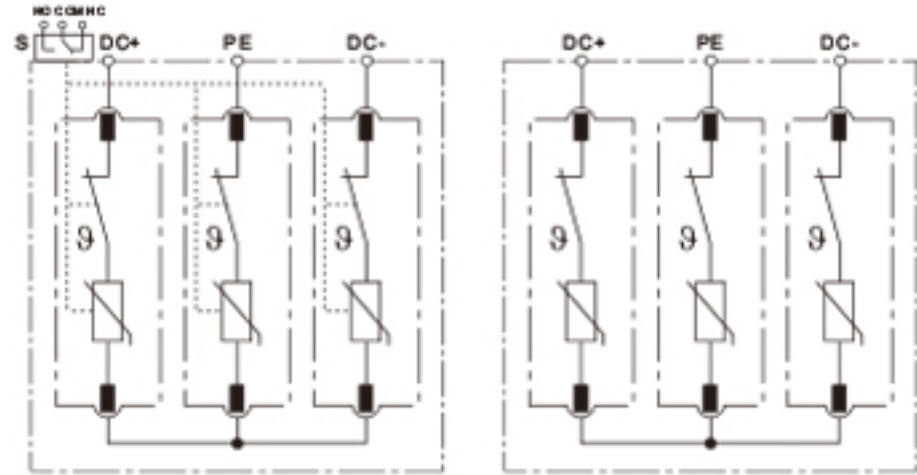
| Order Code | 600 | 1000 | 1200 | 1500 |
|--|---------|---------|---------|---------|
| LY1-12.5- PVXXX | 0760025 | 0710235 | 0712231 | 0715231 |
| LY1-12.5- PVXXX-(S) (with remote contacts) | 0760026 | 0710236 | 0712232 | 0715232 |
| LY1-12.5- PVXXX/0 (spare modules) | 0760002 | 0710202 | 0712202 | 0715202 |

Internal Configuration

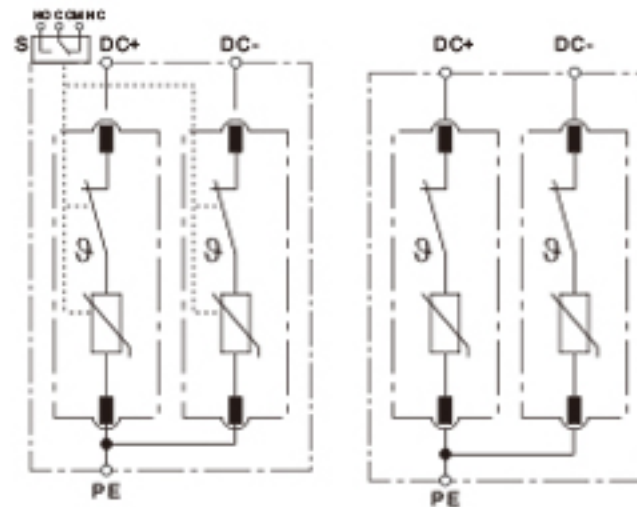
Legend

- PE Protective Earth
- S Signalling Contacts Optional

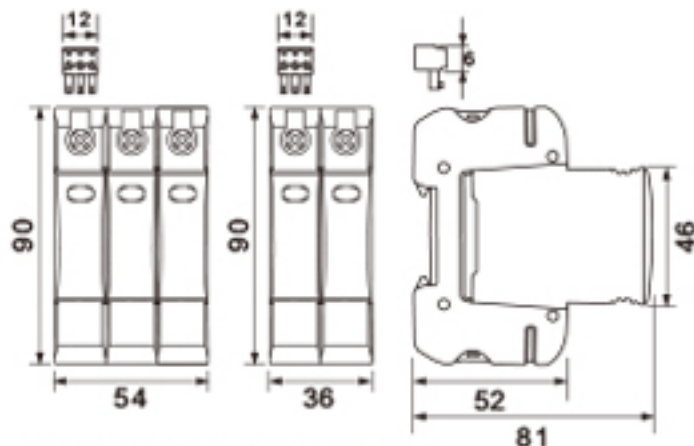
SPT12.5-PV1000-(S), SPT12.5-PV1200-(S), SPT12.5-PV1500-(S)



SPT12.5-PV600-(S)



Dimensions & Packaging

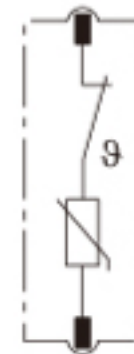


LY1-12.5-PV1500-(S) LY1-12.5-PV600-(S)
 LY1-12.5-PV1200-(S)
 LY1-12.5-PV1000-(S)

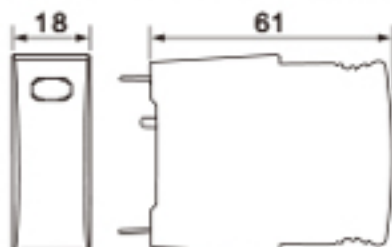
Dimensions & Packaging

| LY1-12.5-PVXXX-(S) | 600 | 1000 | 1200 | 1500 |
|----------------------------------|----------------------|----------|----------|----------|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [220 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 32 Units | 16 Units | 16 Units | 16 Units |

SPT12.5-PVXXX/0



Dimensions & Packaging



Dimensions & Packaging

| LY1-12.5-PVXXX/0 | 600 | 1000 | 1200 | 1500 |
|----------------------------------|----------------------|------|------|------|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [220 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 64 Units | | | |

Pluggable Single-Pole SPD

LY1-C40-XXX/1(S)

Class II • Type 2 • Type 1 CA

Location of Use: Sub-Distribution Boards

Network Systems: TN-S, TN-C, TT (only L-N)

Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N

Surge Ratings: $I_n = 20 \text{ kA}(8/20 \mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1 CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/1(S)

75 150 275 320 385 440

IEC Electrical

| | | | | | | | |
|---|-------------|---------------|-----------|-----------|-----------|-----------|-----------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 60 V | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 75 V | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Maximum Discharge Current (8/20 μs) | I_{max} | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA |
| Voltage Protection Level | U_p | 400 V | 1000 V | 1500 V | 1600 V | 1750 V | 2000 V |
| Response Time | t_A | < 25 ns | | | | | |
| Back-Up Fuse (max) | | 125 A gL / gG | | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | | |
| TOV Withstand 5s | U_T | 90 V | 180 V | 335 V | 335 V | 335 V | 580 V |
| | U_T | 115 V | 230 V | 440 V | 440 V | 440 V | 765 V |
| TOV 120min | mode | Withstand | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | | |

UL Electrical

| | | | | | | | |
|---|-------|--------|--------|--------|--------|--------|--------|
| Maximum Continuous Operating Voltage (AC) | MCOV | 75 V | 150 V | 275 V | 320 V | 385 V | 440 V |
| Voltage Protection Rating | VPR | 330 V | 600 V | 900 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Short-Circuit Current Rating (AC) | SCCR | 100 kA | 200 kA | 150 kA | 150 kA | 150 kA | 200 kA |

Mechanical & Environmental

| | | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | | | |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | | |
| Thermal Protection | | Yes | | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | | |
| Remote Contacts (RC) | | Optional | | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | | |

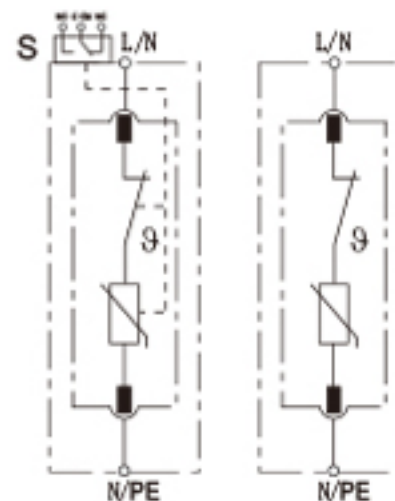
Order Information

| Order Code | 75 | 150 | 275 | 320 | 385 | 440 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|
| LY1-C40-XXX/1 | 4007511 | 4015011 | 4027511 | 4032011 | 4038511 | 4044011 |
| LY1-C40-XXX/1S(with remote contacts) | 4007512 | 4015012 | 4027512 | 4032012 | 4038512 | 4044012 |
| LY1-C40-XXX/0(spare modules) | 4007501 | 4015001 | 4027501 | 4032001 | 4038501 | 4044001 |

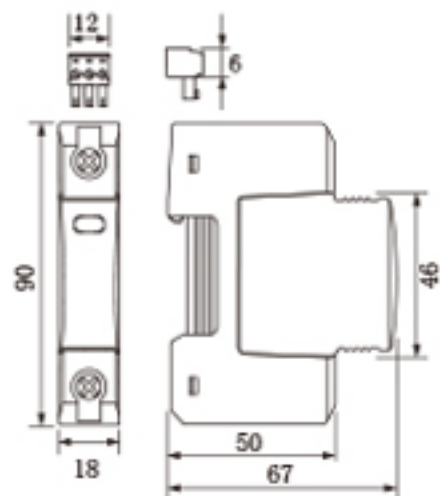
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



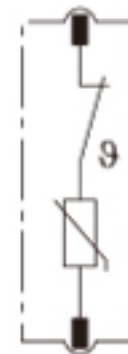
Dimensions & Packaging



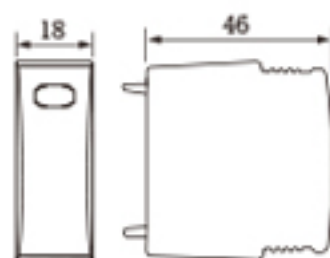
Dimensions & Packaging

| LY1-C40-XXX/1(S) | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 72 Units | | | | | |

LY1-C40-XXX/0



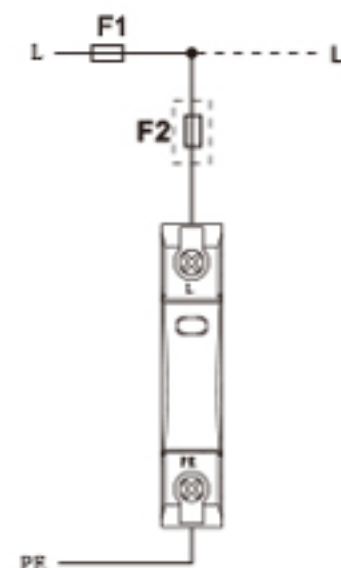
Dimensions & Packaging



Dimensions & Packaging

| LY1-C40-XXX/0 | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | | | |
| Minimum Order Quantity | 96 Units | | | | | |

TN-S, TN-C, TT (Single-phase, 1+0)



Connection Diagram

Pluggable Multi-Pole SPD

LY1-C40-XXX/2(S)

Class II • Type 2 • Type 1CA

Location of Use: Sub-Distribution Boards

Network Systems: TN-S

Mode of Protection: L-PE, N-PE

Surge Ratings: $I_n = 20 \text{ kA} (8/20 \mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/2(S)

75

150

275

320

385

440

IEC Electrical

| | | 75 | 150 | 275 | 320 | 385 | 440 |
|---|-------------|---------------|-----------|-----------|-----------|-----------|-----------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 60 V | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 75 V | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Maximum Discharge Current (8/20 μs) | I_{max} | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA |
| Voltage Protection Level | U_p | 400 V | 1000 V | 1500 V | 1600 V | 1750 V | 2000 V |
| Response Time | t_A | < 25 ns | | | | | |
| Back-Up Fuse (max) | | 125 A gL / gG | | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | | |
| TOV Withstand 5s | U_T | 90 V | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 115 V | 230 V | 440 V | 440 V | 440 V | 765 V |
| | mode | Withstand | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | | |

UL Electrical

| | | | | | | | |
|---|-------|--------|--------|--------|--------|--------|--------|
| Maximum Continuous Operating Voltage (AC) | MCOV | 75 V | 150 V | 275 V | 320 V | 385 V | 440 V |
| Voltage Protection Rating | VPR | 330 V | 600 V | 900 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Short-Circuit Current Rating (AC) | SCCR | 100 kA | 200 kA | 150 kA | 150 kA | 150 kA | 200 kA |

Mechanical & Environmental

| | | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | | |
| Thermal Protection | | Yes | | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | | |
| Remote Contacts (RC) | | Optional | | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | | |

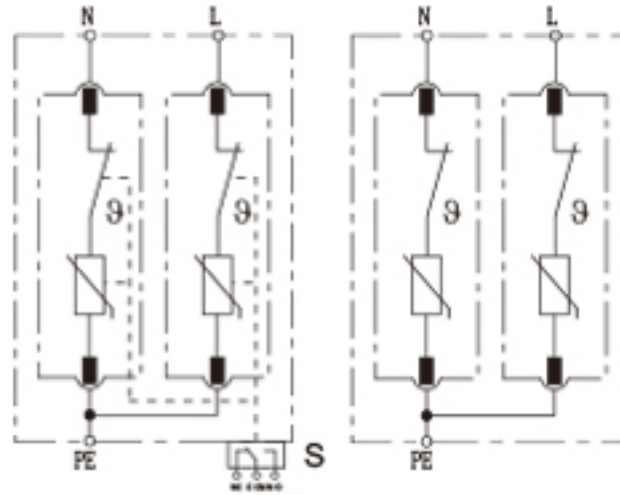
Order Information

| Order Code | 75 | 150 | 275 | 320 | 385 | 440 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|
| LY1-C40-XXX/2 | 4007521 | 4015021 | 4027521 | 4032021 | 4038521 | 4044021 |
| LY1-C40-XXX/2S(with remote contacts) | 4007522 | 4015022 | 4027522 | 4032022 | 4038522 | 4044022 |
| LY1-C40-XXX/0(spare modules) | 4007501 | 4015001 | 4027501 | 4032001 | 4038501 | 4044001 |

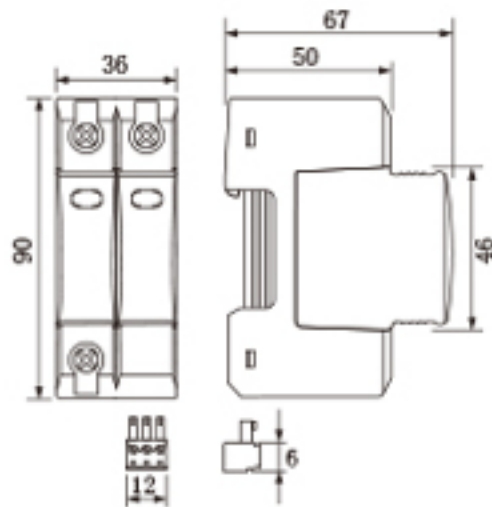
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



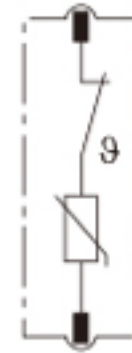
Dimensions & Packaging



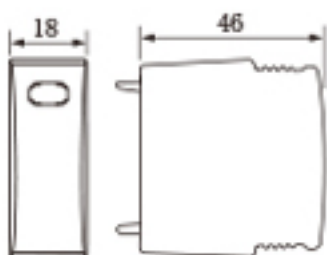
Dimensions & Packaging

| LY1-C40-XXX/2(S) | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [270 × 230 × 330 mm] | | | | | |
| Minimum Order Quantity | 42 Units | | | | | |

LY1-C40-XXX/0



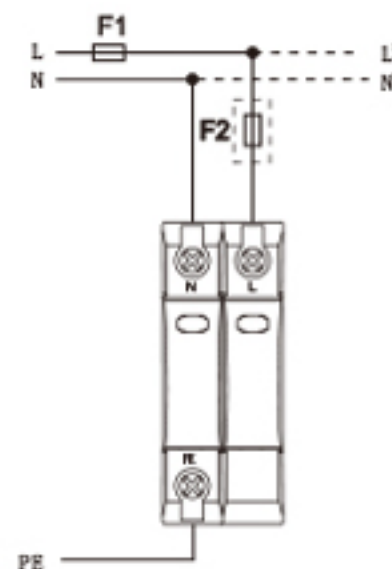
Dimensions & Packaging



Dimensions & Packaging

| LY1-C40-XXX/0 | 75 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | | |
| Packaging Dimensions (H x W x L) | [270 × 230 × 330 mm] | | | | | |
| Minimum Order Quantity | 96 Units | | | | | |

TN-S (Single-phase, 2+0)



Connection Diagram

Pluggable Multi-Pole SPD

LY1-C40-XXX/3(S)

Class II • Type 2 • Type 1CA

Location of Use: Sub-Distribution Boards

Network Systems: TN-C

Mode of Protection: L-PEN

Surge Ratings: $I_n = 20 \text{ kA}(8/20 \mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/3(S)

150

275

320

385

440

IEC Electrical

| | | | | | | |
|---|-------------|---------------|-----------|-----------|-----------|-----------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Maximum Discharge Current (8/20 μs) | I_{max} | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1750 V | 2000 V |
| Response Time | t_A | < 25 ns | | | | |
| Back-Up Fuse (max) | | 125 A gL / gG | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 230 V | 440 V | 440 V | 440 V | 765 V |
| | mode | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail |

Number of Ports

1

UL Electrical

| | | | | | | |
|---|-------|--------|--------|--------|--------|--------|
| Maximum Continuous Operating Voltage (AC) | MCOV | 150 V | 275 V | 320 V | 385 V | 440 V |
| Voltage Protection Rating | VPR | 600 V | 900 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Short-Circuit Current Rating (AC) | SCCR | 200 kA | 150 kA | 150 kA | 150 kA | 200 kA |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

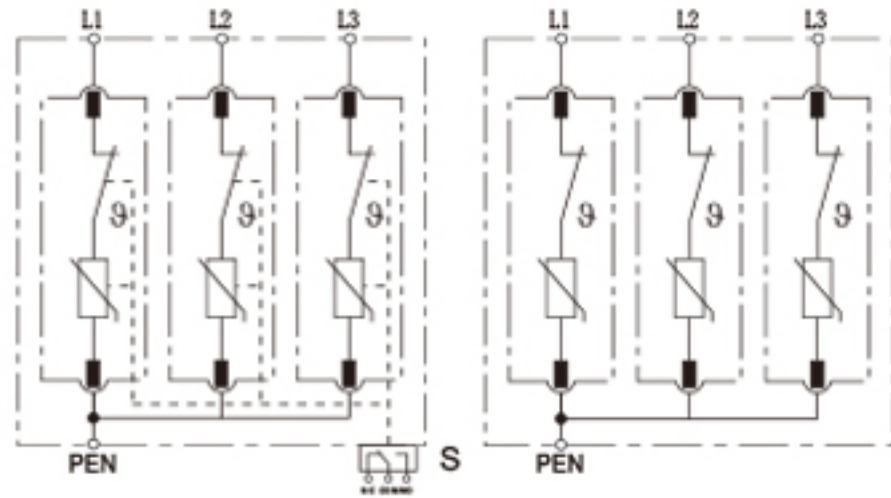
Order Information

| Order Code | 150 | 275 | 320 | 385 | 440 |
|--------------------------------------|---------|---------|---------|---------|---------|
| LY1-C40-XXX/3 | 4015031 | 4027531 | 4032031 | 4038531 | 4044031 |
| LY1-C40-XXX/3S(with remote contacts) | 4015032 | 4027532 | 4032032 | 4038532 | 4044032 |
| LY1-C40-XXX/3(spare modules) | 4015001 | 4027501 | 4032001 | 4038501 | 4044001 |

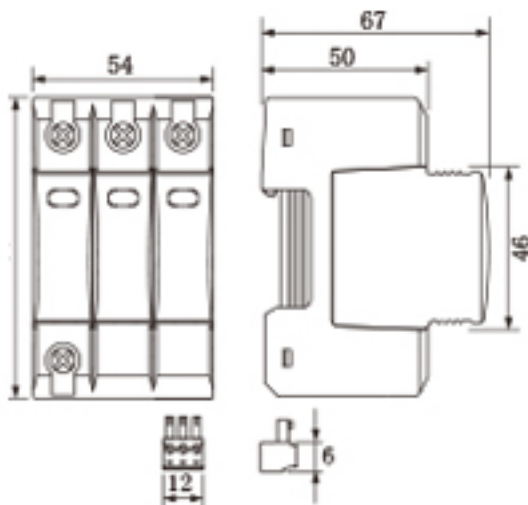
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



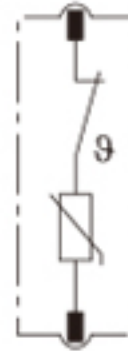
Dimensions & Packaging



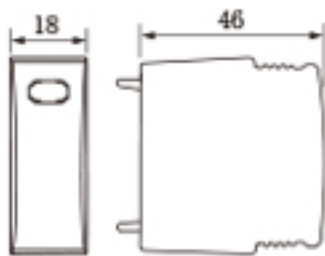
Dimensions & Packaging

| LY1-C40-XXX/3(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [270 × 230 × 330 mm] | | | | |
| Minimum Order Quantity | 30 Units | | | | |

LY1-C40-XXX/0



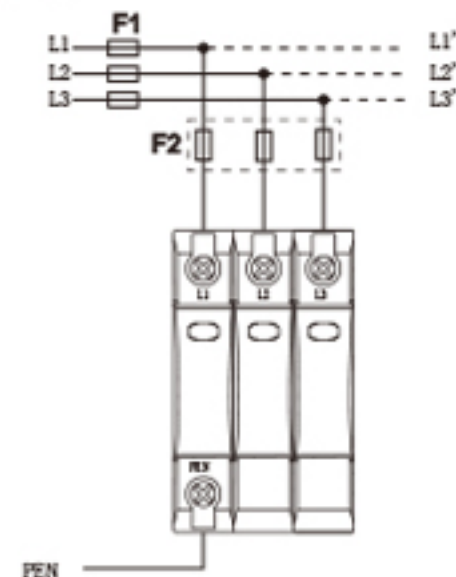
Dimensions & Packaging



Dimensions & Packaging

| LY1-C40-XXX/0 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [270 × 230 × 330 mm] | | | | |
| Minimum Order Quantity | 96 Units | | | | |

TN-C (Three-phase, 3+0)



Connection Diagram

Pluggable Multi-Pole SPD

LY1-C40-XXX/4(S)

Class II • Type 2 • Type 1CA

Location of Use: Sub-Distribution Boards

Network Systems: TN-S

Mode of Protection: L-PE, N-PE

Surge Ratings: $I_n = 20 \text{ kA}(8/20 \mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/4(S)

150

275

320

385

440

IEC Electrical

| | | 150 | 275 | 320 | 385 | 440 |
|---|-------------|---------------|-----------|-----------|-----------|-----------|
| Nominal AC Voltage (50/60Hz) | U_o / U_n | 120 V | 230 V | 230 V | 230 V | 400 V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150 V | 275 V | 320 V | 385 V | 440 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Maximum Discharge Current (8/20 μs) | I_{max} | 40 kA | 40 kA | 40 kA | 40 kA | 40 kA |
| Voltage Protection Level | U_p | 1000 V | 1500 V | 1600 V | 1750 V | 2000 V |
| Response Time | t_A | < 25 ns | | | | |
| Back-Up Fuse (max) | | 125 A gL / gG | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | |
| TOV Withstand 5s | U_T | 180 V | 335 V | 335 V | 335 V | 580 V |
| TOV 120min | U_T | 230 V | 440 V | 440 V | 440 V | 765 V |
| | mode | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | |

UL Electrical

| | | 150 | 275 | 320 | 385 | 440 |
|---|-------|--------|--------|--------|--------|--------|
| Maximum Continuous Operating Voltage (AC) | MCOV | 150 V | 275 V | 320 V | 385 V | 440 V |
| Voltage Protection Rating | VPR | 600 V | 900 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μs) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Short-Circuit Current Rating (AC) | SCCR | 200 kA | 150 kA | 150 kA | 150 kA | 200 kA |

Mechanical & Environmental

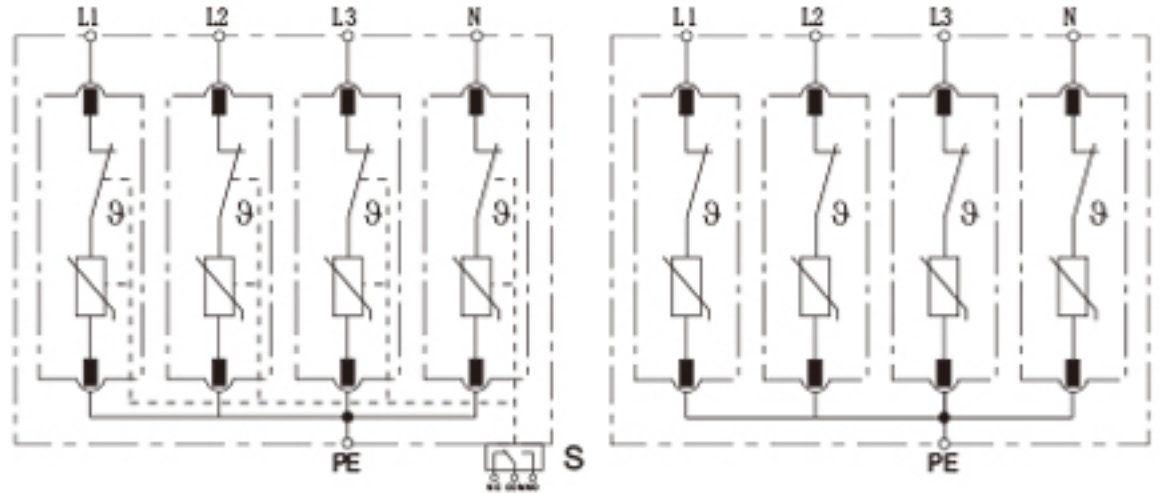
| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | |
| Thermal Protection | | Yes | | | | |
| Operating State / Fault Indication | | Green ok / Red defect | | | | |
| Remote Contacts (RC) | | Optional | | | | |
| RC Switching Capacity | | AC: 250V / 0.5 A; 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | | |
| RC Conductor Cross Section | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | |

Order Information

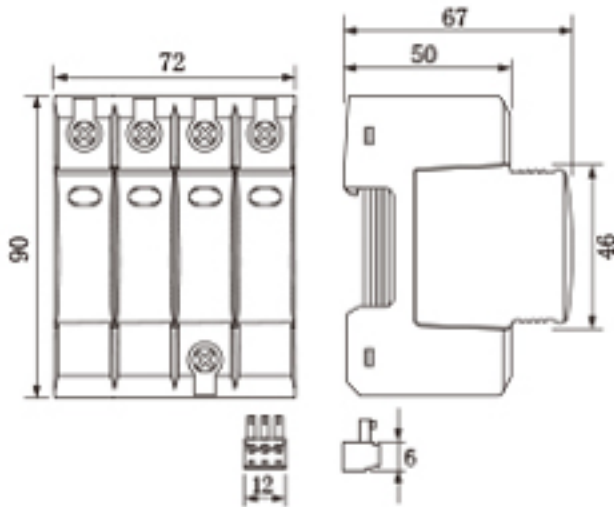
| Order Code | 150 | 275 | 320 | 385 | 440 |
|--------------------------------------|---------|---------|---------|---------|---------|
| LY1-C40-XXX/4 | 4015041 | 4027541 | 4032041 | 4038541 | 4044041 |
| LY1-C40-XXX/4S(with remote contacts) | 4015042 | 4027542 | 4032042 | 4038542 | 4044042 |
| LY1-C40-XXX/4(spare modules) | 4015001 | 4027501 | 4032001 | 4038501 | 4044001 |

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



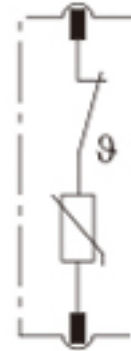
Dimensions & Packaging



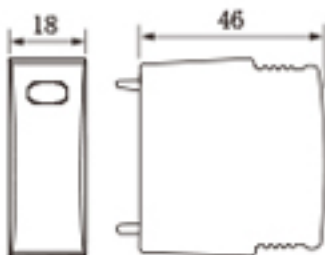
Dimensions & Packaging

| LY1-C40-XXX/4(S) | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 24 Units | | | | |

LY1-C40-XXX/0



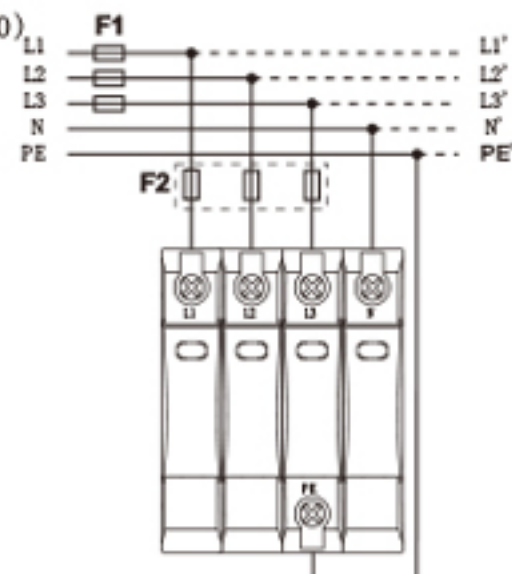
Dimensions & Packaging



Dimensions & Packaging

| LY1-C40-XXX/0 | 150 | 275 | 320 | 385 | 440 |
|----------------------------------|----------------------|-----|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | | |
| Minimum Order Quantity | 96 Units | | | | |

TN-S (Three-phase, 4+0)



Connection Diagram

Pluggable Multi-Pole SPD

LY1-C40-XXX/1(S)+1

Class II • Type 2 • Type 1 CA

Location of Use: Sub-Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: L-N, N-PE

Surge Ratings: $I_n = 20 \text{ kA}(8/20\mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1CA

Protective Elements: High Energy MOV and GDT

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/1(S)+1

75

150

275

320

IEC Electrical

| | | | | | | |
|---|------------------------------|------|----------------|--------------------|-----------------|-----------------|
| Nominal AC Voltage (50/60Hz) | | | 60 V | 120 V | 230 V | 230 V |
| Maximum Continuous Operating Voltage | (L - N) U_c | | 75 V | 150 V | 275 V | 320 V |
| | (N - PE) U_c | | 255 V | 255 V | 255 V | 255 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | | | 20 kA / 20 kA | | |
| Maximum Discharge Current (8/20 μs) | (L - N) / (N - PE) I_{max} | | | 40 kA / 40 kA | | |
| Voltage Protection Level | (L - N) / (N - PE) U_p | | 400 V / 1000 V | 1000 V / 1000 V | 1500 V / 1000 V | 1600 V / 1000 V |
| Follow Current Interrupt Rating | (N-PE) I_g | | | 100 A RMS | | |
| Response Time | (L - N) / (N - PE) t_A | | | < 25 ns / < 100 ns | | |
| Back-Up Fuse (max) | | | | 125 A gL / gG | | |
| Short-Circuit Current Rating (AC) | (L - N) I_{SCCR} | | | 25 kA / 50 kA | | |
| TOV Withstand 5s | (L - N) U_T | | 90 V | 180 V | 335 V | 335 V |
| TOV 120min | (L - N) U_T | | 115 V | 230 V | 440 V | 440 V |
| | | mode | Withstand | Withstand | Safe Fail | Safe Fail |
| TOV Withstand 200ms | (N - PE) U_T | | | 1200 V | | |
| Number of Ports | | | | 1 | | |

UL Electrical

| | | | | | | |
|---|--------------------------|--|----------------|----------------|----------------|-----------------|
| Maximum Continuous Operating Voltage (AC) | (L - N) / (N - PE) MCOV | | 75 V / 255 V | 150 V / 255 V | 275 V / 255 V | 320 V / 255 V |
| Voltage Protection Rating | (L - N) / (N - PE) VPR | | 330 V / 1000 V | 600 V / 1000 V | 900 V / 1000 V | 1000 V / 1000 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | | 20 kA / 20 kA | 20 kA / 20 kA | 20 kA / 20 kA | 20 kA / 20 kA |
| Short-Circuit Current Rating (AC) | (L - N) SCCR | | 100 kA | 200 kA | 150 kA | 150 kA |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|-----------|--|--|--|--|--|
| Operating Temperature Range | T_a | | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | RH | | 5%...95% | | | |
| Atmospheric pressure and altitude | | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | M_{max} | | 39.9 lbf-in [4.5 Nm] | | | |
| Conductor Cross Section (max) | | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | |
| Mounting | | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | | IP 20 (built-in) | | | |
| Housing Material | | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | | Yes | | | |
| Operating State / Fault Indication | | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | | Optional | | | |
| RC Switching Capacity | | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | |
| RC Conductor Cross Section (max) | | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | |

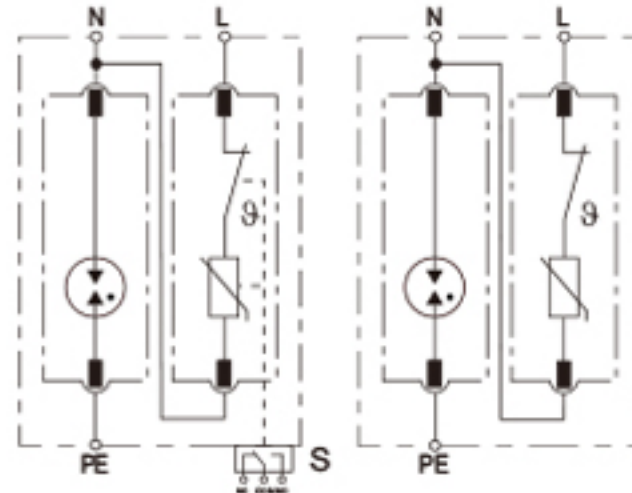
Order Information

| Order Code | 75 | 150 | 275 | 320 |
|---------------------------------------|---------|---------|---------|---------|
| LY1-C40-XXX/1+1 | 4007513 | 4015013 | 4027513 | 4032013 |
| LY1-C40-XXX/1S+(with remote contacts) | 4007514 | 4015014 | 4027514 | 4032014 |
| LY1-C40-XXX/0 (3 spare modules) | 4007501 | 4015001 | 4027501 | 4032001 |
| LY1-C40-NPE/0 (3 spare modules) | 4025501 | 4025501 | 4025501 | 4025501 |

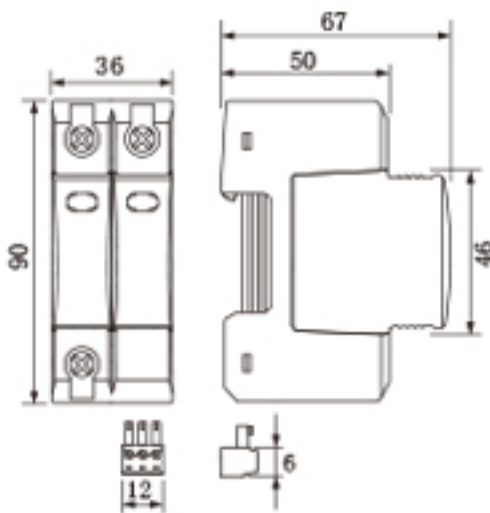
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional

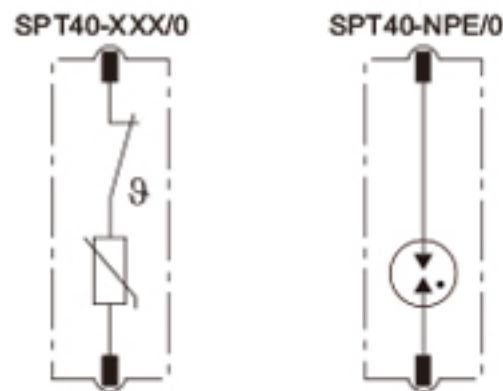


Dimensions & Packaging

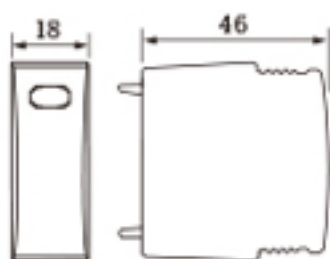


Dimensions & Packaging

| LY1-C40-XXX/1(S)+1 | 75 | 150 | 275 | 320 |
|----------------------------------|----------------------|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 42 Units | | | |



Dimensions & Packaging

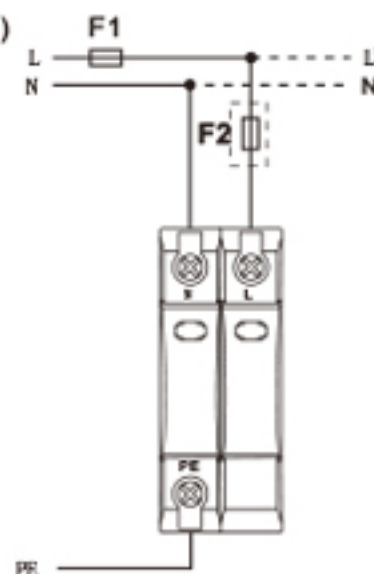


Dimensions & Packaging

| LY1-C40-XXX/0 | 75 | 150 | 275 | 320 |
|----------------------------------|----------------------|-----|-----|-----|
| LY1-C40-NPE/0 | 40 | | | |
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 96 Units | | | |

Connection Diagram

TN-S, TT (Single-phase, 1+1)



Pluggable Multi-Pole SPD

LY1-C40-XXX/3(S)+1

Class II • Type 2 • Type 1CA

Location of Use: Sub-Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: L-N, N-PE

Surge Ratings: $I_n = 20 \text{ kA} (8/20 \mu\text{s})$

IEC/EN/UL Category: Class II / Type 2 / Type 1CA

Protective Elements: High Energy MOV and GDT

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449 4th Edition



Technical Data

LY1-C40-XXX/3(S)+1

150 275 320 385

IEC Electrical

| | | | | | |
|---|------------------------------|-----------------|----------------------|-----------------|-----------------|
| Nominal AC Voltage (50/60Hz) | | 120 V | 230 V | 230 V | 230 V |
| Maximum Continuous Operating Voltage | (L - N) U_c | 150 V | 275 V | 320 V | 385 V |
| | (N - PE) U_c | 255 V | 255 V | 255 V | 255 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | | 20 kA / 20 kA | | |
| Maximum Discharge Current (8/20 μs) | (L - N) / (N - PE) I_{max} | | 40 kA / 40 kA | | |
| Voltage Protection Level | (L - N) / (N - PE) U_p | 1000 V / 1000 V | 1500 V / 1000 V | 1600 V / 1000 V | 1750 V / 1000 V |
| Follow Current Interrupt Rating | (N-PE) I_g | | 100 A _{RMS} | | |
| Response Time | (L - N) / (N - PE) t_A | | < 25 ns / < 100 ns | | |
| Back-Up Fuse (max) | | | 125 A gL / gG | | |
| Short-Circuit Current Rating (AC) | (L - N) I_{SCCR} | | 25 kA / 50 kA | | |
| TOV Withstand 5s | (L - N) U_T | 180 V | 335 V | 335 V | 335 V |
| TOV 120min | (L - N) U_T | 230 V | 440 V | 440 V | 440 V |
| | Mode | Withstand | Safe Fail | Safe Fail | Safe Fail |
| TOV Withstand 200ms | (N - PE) U_T | | 1200 V | | |
| Number of Ports | | | 1 | | |

UL Electrical

| | | | | | |
|---|--------------------------|----------------|----------------|-----------------|-----------------|
| Maximum Continuous Operating Voltage (AC) | (L - N) / (N - PE) MCOV | 150 V / 255 V | 275 V / 255 V | 320 V / 255 V | 320 V / 255 V |
| Voltage Protection Rating | (L - N) / (N - PE) VPR | 600 V / 1000 V | 900 V / 1000 V | 1000 V / 1000 V | 1200 V / 1000 V |
| Nominal Discharge Current (8/20 μs) | (L - N) / (N - PE) I_n | 20 kA / 20 kA | 20 kA / 20 kA | 20 kA / 20 kA | 20 kA / 20 kA |
| Short-Circuit Current Rating (AC) | (L - N) SCCR | 200 kA | 150 kA | 150 kA | 150 kA |

Mechanical & Environmental

| | | |
|------------------------------------|-----------|--|
| Operating Temperature Range | T_b | -40 °F to +158 °F [-40 °C to +70 °C] |
| Permissible Operating Humidity | RH | 5%...95% |
| Atmospheric pressure and altitude | | 80k Pa ... 106k Pa / -500 m ... 2000 m |
| Terminal Screw Torque | M_{max} | 39.9 lbf·in [4.5 Nm] |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) |
| | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) |
| Mounting | | 35 mm DIN Rail, EN 60715 |
| Degree of Protection | | IP 20 (built-in) |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 |
| Thermal Protection | | Yes |
| Operating State / Fault Indication | | Green ok / Red defect |
| Remote Contacts (RC) | | Optional |
| RC Switching Capacity | | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) |

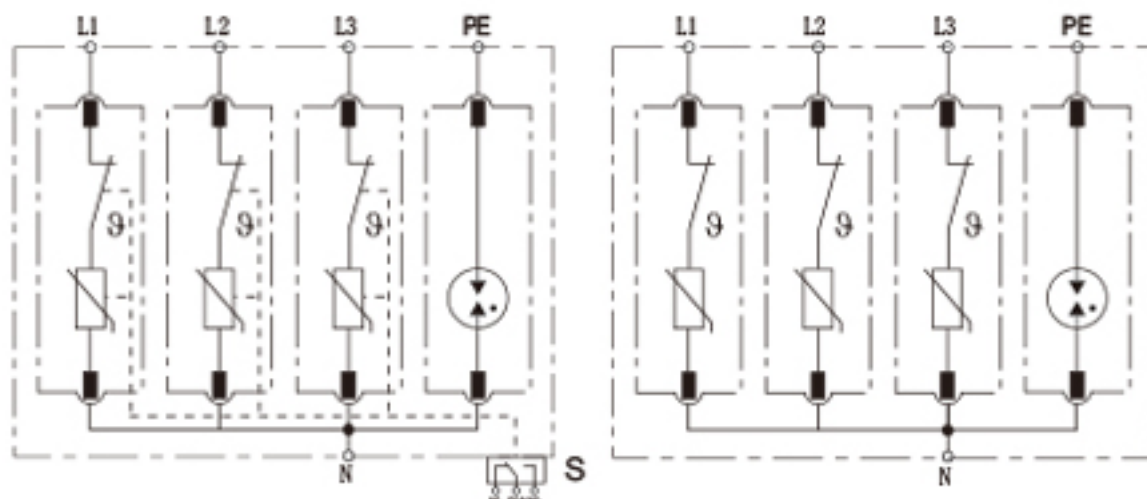
Order Information

| Order Code | 150 | 275 | 320 | 385 |
|---------------------------------------|---------|---------|---------|---------|
| LY1-C40-XXX/3+1 | 4015033 | 4027533 | 4032033 | 4038533 |
| LY1-C40-XXX/3S+(with remote contacts) | 4015034 | 4027534 | 4032034 | 4038534 |
| LY1-C40-XXX(spare modules) | 4015001 | 4027501 | 4032001 | 4038501 |
| LY1-C40-NPE(spare modules) | 4025501 | 4025501 | 4025501 | 4025501 |

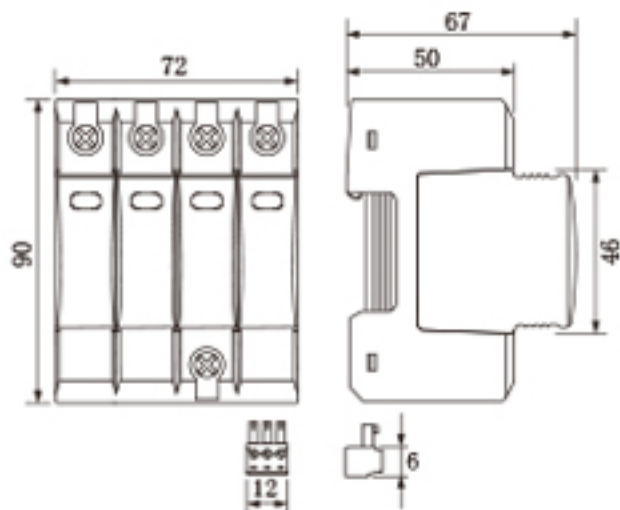
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



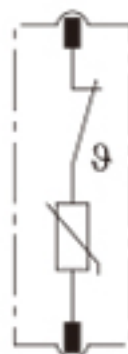
Dimensions & Packaging



Dimensions & Packaging

| LY1-C40-XXX/3(S)+1 | 150 | 275 | 320 | 385 |
|----------------------------------|----------------------|-----|-----|-----|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 24 Units | | | |

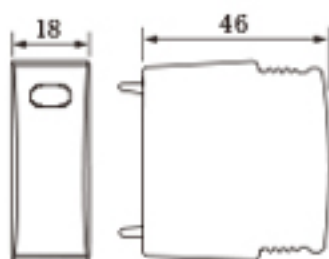
LY1-C40-XXX/0



LY1-C40-NPE/0



Dimensions & Packaging

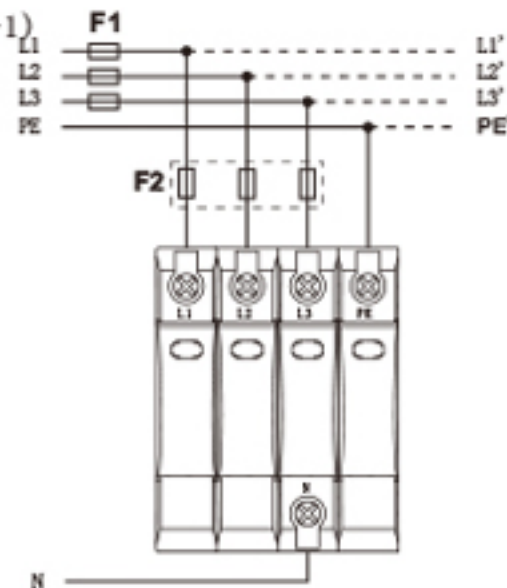


Dimensions & Packaging

| LY1-C40-XXX/0 | 150 | 275 | 320 | 385 |
|----------------------------------|----------------------|-----|-----|-----|
| LY1-C40-NPE/0 | 40 | | | |
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 96 Units | | | |

Connection Diagram

TN-S, TT (Three-phase, 3+1)



Pluggable Multi-Pole SPD for Photovoltaic Systems

LY1-C40-PVXXX-(S)

Class II • Type 2 • Type 1 CA

Location of Use: String box, Inverter

Mode of Protection: (DC+)- PE, (DC-)- PE, (DC+)- (DC-)

Surge Ratings: $I_n = 20\text{kA}$ (8/20 μs)

$I_{\text{total}} = \text{up to } 40\text{kA}$ (8/20 μs)

IEC/EN/UL Category: Class II/Type 2/Type 1 CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-31:2018

EN 50539-11:2013+A1:2014

UL 1449 4th Edition



Technical Data

LY1-C40-PVXXX-(S)

600

1000

1200

1500

IEC Electrical

| | | | | | | |
|---|------------------------|--------------------|--------|---------|--------|--------|
| Maximum Continuous Operating DC Voltage | (DC+) - PE, (DC-) - PE | U_{cpr} | 600 V | 1000 V | 1200 V | 1500 V |
| | (DC+) - (DC-) | U_{cpr} | 600 V | 1000 V | 1200 V | 1500 V |
| Nominal Discharge Current (8/20 μs) | | I_n | | 20 kA | | |
| Total Discharge Current (8/20 μs) | | I_{total} | | 40 kA | | |
| Maximum Discharge Current (8/20 μs) | | I_{max} | | 40 kA | | |
| Voltage Protection Level | (DC+) - PE, (DC-) - PE | U_p | 2200 V | 4000 V | 4400 V | 5200 V |
| | (DC+) - (DC-) | U_p | 2200 V | 4000 V | 4400 V | 5200 V |
| Response Time | | t_A | | < 25 ns | | |
| Short-Circuit Current Rating | | I_{scpr} | | 2000A | | |
| Number of Ports | | | | 1 | | |

UL Electrical

| | | | | | | |
|---|------------------------|------------------|--------|--------|--------|--------|
| Maximum Permitted DC Voltage | | V_{pdc} | 600 V | 1000 V | 1200 V | 1500 V |
| Voltage Protection Rating | (DC+) - PE, (DC-) - PE | VPR | 1600 V | 2500 V | 3000 V | 4000 V |
| | (DC+) - (DC-) | VPR | 1600 V | 2500 V | 3000 V | 4000 V |
| Nominal Discharge Current (8/20 μs) | | I_n | | 20 kA | | |
| Short-Circuit Current Rating | | SCCR | 35 kA | 50 kA | 55 kA | 65 kA |

Mechanical & Environmental

| | | | | | | |
|------------------------------------|--|------------------|--|--|--|--|
| Operating Temperature Range | | T_a | -40 °F to +158 °F [-40 °C to +70 °C] | | | |
| Permissible Operating Humidity | | RH | 5%...95% | | | |
| Atmospheric pressure and altitude | | | 80k Pa ... 106k Pa / -500 m ... 2000 m | | | |
| Terminal Screw Torque | | M_{max} | 39.9 lbf·in [4.5 Nm] | | | |
| Conductor Cross Section (max) | | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) | | | |
| | | | 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | |
| Mounting | | | 35 mm DIN Rail, EN 60715 | | | |
| Degree of Protection | | | IP 20 (built-in) | | | |
| Housing Material | | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | |
| Thermal Protection | | | Yes | | | |
| Operating State / Fault Indication | | | Green ok / Red defect | | | |
| Remote Contacts (RC) | | | Optional | | | |
| RC Switching Capacity | | | AC: 250V / 0.5 A DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A | | | |
| RC Conductor Cross Section (max) | | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | |

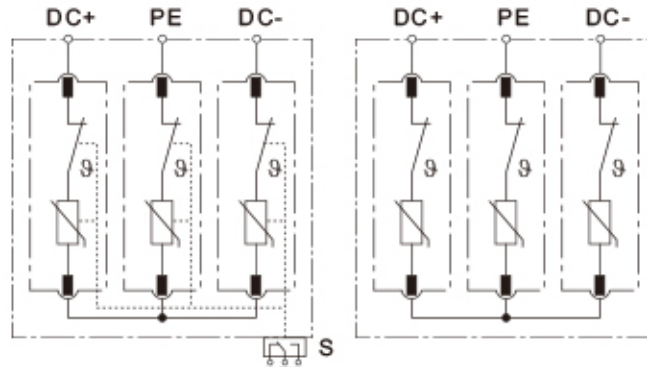
Order Information

| Order Code | 600 | 1000 | 1200 | 1500 |
|---|---------|---------|---------|---------|
| LY1-40-PVXXX | 4060025 | 4010235 | 4012231 | 4015231 |
| LY1-40-PVXXX-(S) (with remote contacts) | 4060026 | 4010236 | 4012232 | 4015232 |
| LY1-40-PVXXX/0 (spare modules) | 4060002 | 4010202 | 4012202 | 4015202 |

Internal Configuration

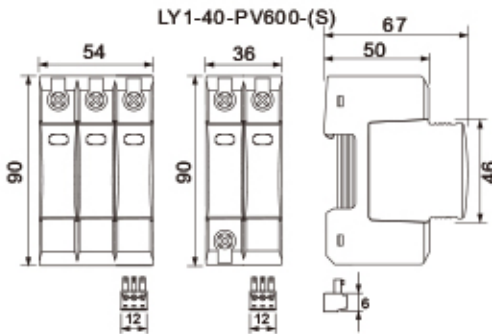
PE Protective Earth
S Signalling Contacts Optional

LY1-40-PV1000-(S), LY1-40-PV1200-(S), LY1-40-PV1500-(S)

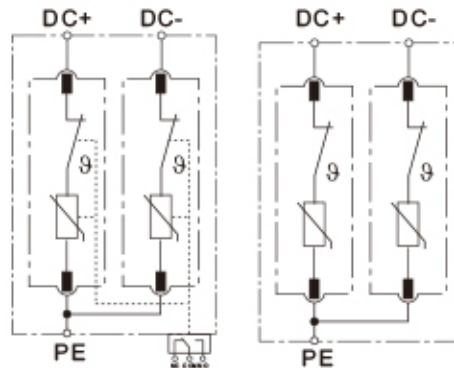


Dimensions & Packaging

LY1-40-PV1500-(S)
LY1-40-PV1200-(S)
LY1-40-PV1000-(S)



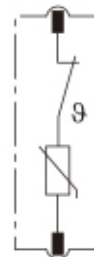
LY1-40-PV600-(S)



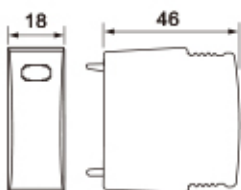
Dimensions & Packaging

| LY1-40-PVXXX-(S) | 600 | 1000 | 1200 | 1500 |
|----------------------------------|----------------------|----------|----------|----------|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 42 Units | 30 Units | 30 Units | 30 Units |

LY1-40-PVXXX/0



Dimensions & Packaging



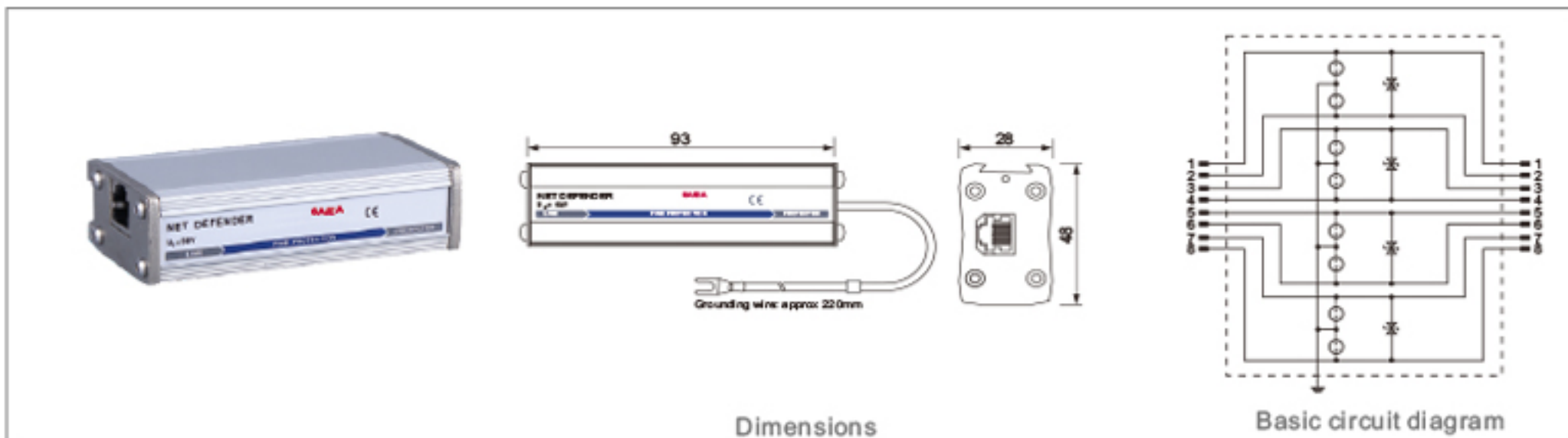
Dimensions & Packaging

| LY1-40-PVXXX/0 | 600 | 1000 | 1200 | 1500 |
|----------------------------------|----------------------|------|------|------|
| Single Unit DIN 43880 Dimension | 1 CTN | | | |
| Packaging Dimensions (H x W x L) | [270 x 230 x 330 mm] | | | |
| Minimum Order Quantity | 96 Units | | | |

SPTs for Telecommunication and Data Networks

The "PoE Surge Protector" permits the use of Power over Ethernet with nominal currents of up to 1 A. It can be snapped directly onto the hat rail and uses it to create the necessary equipotential bonding. Alternatively, terminal protection using a separately connectable

- ! Support for Power over Ethernet + up to 1 A (PoE+ according to IEEE 802.3at)
- ! CAT 6A in the channel according to ANSI/TIA/EIA-568
- ! For installation in conformity with the lightning protection zone concept at the boundaries from 0 -2 and higher



| Type | DT-CAT 6A/EA | |
|--|--------------|------------------------|
| дН according to EN 61643-21 / IEC 61643-21 | | type 2 / class II |
| Max. continuous operating a.c. voltage | U_c | 41 V |
| Max. continuous operating d.c. voltage | U_c | 58 V |
| Max. continuous operating d.c. voltage pair-pair (PoE) | U_c | 57 V |
| Rated current | I_n | 1 A |
| D1 Lightning impulse current (10/350 μ s) per line | I_{imp} | 1 kA |
| C2 Nominal discharge current (8/20 μ s) line-line | I_n | 150 A |
| C2 Nominal discharge current (8/20 μ s) line-PG | I_n | 2.5 kA |
| C2 Total nominal discharge current (8/20 μ s) line-PG | I_n | 10 kA |
| C2 Nominal discharge current (8/20 μ s) pair-pair (PoE) | I_n | 150 A |
| Voltage protection level line-line for I_n C2 | U_p | < 190 V |
| Voltage protection level line-PG for I_n C2 | U_p | < 600 V |
| Voltage protection level pair-pair for I_n C2 (PoE) | U_p | < 600 V |
| Voltage protection level line-line at 1 kV/ μ s C3 | U_p | < 145 V |
| Voltage protection level line-PG at 1 kV/ μ s C3 | U_p | < 500 V |
| Voltage protection level pair-pair at 1 kV/ μ s C3 (PoE) | U_p | < 600 V |
| Insertion loss at 250 MHz | | < 2 dB |
| Capacitance line-line | C | < 165 pF |
| Capacitance line-PG | C | < 255 pF |
| Range of operating temperatures | T_u | -40/+80°C |
| Degree of protection | | IP 20 |
| Connection (input / output) | | RJ45 / RJ45 |
| Pinning | | 1/2, 3/6, 4/5, 7/8 |
| Enclosure material | | Aluminum housing |
| Earthing via | | Connecting line |
| Transmission class according to ISO/IEC 11801 | | Cat. 6 |
| Transmission class according to EN 50173-1 | | Class SPT |
| Transmission class according to ANSI/TIA/EIA-568 | | Cat. 6A in the channel |

Modular SPD for Single Pair

LY-DC Series

D1•C1•C2•C3

IEC/EN Category D1/C1/C2/C3

Mode of Protection Longitudinal, Transverse

Coarse Protection 3 Terminal GDT

Voltages: 5, 12, 15, 24, 30*, 48, 60, 110 V DC

Frequency Range 30 MHz

Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA

Series Load Current: 1 A

Enclosure: DIN 43880 2/3 TE, DIN Rail Mount

Terminals: Stranded to 4 mm²

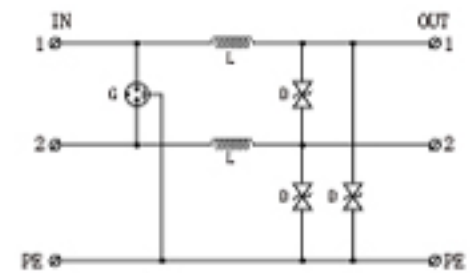
Housing: Modular Design

Compliance: IEC/EN 61643-21

UL 497B 4th Edition



Dimensions



Basic circuit diagram

Technical Data

LY-DC Series

5 12 15 24 30* 48 60 110

Electrical

| Lines Protected | | 1 | | | | | | | |
|---|---------------|--------|---------|---------|---------|---------|---------|---------|-----------|
| Nominal Operating Voltage (DC) | U_n | 5 V | 12 V | 15 V | 24 V | 30 V | 48 V | 60 V | 110 V |
| Maximum Continuous Operating Voltage (DC) | U_c | 6 V | 15 V | 18 V | 28 V | 33 V | 52 V | 64 V | 170 V |
| Rated Load Current at 25°C | I_L | 1 A | | | | | | | |
| C2 Nominal Discharge Current (8/20 μ s) | I_n | 10 kA | | | | | | | |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 20 kA | | | | | | | |
| D1 Impulse Current (10/350 μ s) | I_{imp} | 2.5 kA | | | | | | | |
| Residual Voltage at 5 kA (8/20 μ s) | U_{res} | < 22 V | < 42 V | < 48 V | < 70 V | < 80 V | < 140 V | < 160 V | < 450 V |
| Rated Spark Overvoltage | (Line-Ground) | 7-10 V | 16-21 V | 21-25 V | 31-37 V | 36-44 V | 57-69 V | 68-84 V | 184-264 V |
| | (Line-Line) | 7-10 V | 16-21 V | 21-25 V | 31-37 V | 36-44 V | 57-69 V | 68-84 V | 184-264 V |
| Response Time Overvoltage Protection | t_A | < 1 ns | | | | | | | |
| Thermal Protection | | Yes | | | | | | | |
| Cut-off Frequency | f_G | 30 MHz | | | | | | | |

Mechanical

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| Temperature Range | | -40 °F to +176 °F [-40 °C to +80 °C] | | | | | | | |
| Terminal Cross Section Multi-strand (max.) | | 12 AWG [4 mm ² , 2.5 mm ² Q Version] | | | | | | | |
| Degree of Protection IEC/EN 60529 | | IP 20 (built-in) | | | | | | | |
| Mounting IEC/EN 60715 | | 35 mm DIN Rail | | | | | | | |

Order Information

| Order Code | 5 | 12 | 15 | 24 | 30* | 48 | 60 | 110 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| LY-DC-xxx | 9086.33 | 9086.34 | 9086.35 | 9086.36 | 9082.80 | 9086.37 | 9086.38 | 9086.39 |
| LY-DC-xxxM (module) | 9086.40 | 9086.41 | 9086.42 | 9086.43 | 9082.81 | 9086.44 | 9086.45 | 9086.46 |