

# CERTIFICATE

## FOR EUROPEAN PRODUCT SAFETY

Reference No. SE-S-2001060

### Optocouplers

**Type designation:**

EL817, EL816, EL819, EL829, EL826, EL827, EL717, 4N25, 4N26, 4N27, 4N28, 4N35, 4N36, 4N37, 4N38, MCT2, MCT2E, MCT210, CNY17-1, CNY17-2, CNY17-3, CNY17-4, MOC8111, MOC8112, MOC8113, H11A1, H11A2, H11A3, H11A4, H11A5, TIL111, TIL117, CNX35U, ELS3120, ELS3140, ELS3150, ELS3180, ELS3184, EL806A, EL810A, EL820A, EL825A, EL835A, EL840A, EL860A, EL406A, EL410A, EL420A, EL425A, EL435A, EL440A, EL460A, EL606A, EL610A, EL620A, EL625A, EL635A, EL640A, EL660A, ELT301X, ELT302X, ELT305X, ELT303X, ELT304X, ELT306X, ELT308X, ELT307X, ELW137, ELW139, ELW2601, ELW2611, ELW136, ELW135, ELW4502, ELW4503, ELW138, ELW260L, ELW250L, ELW4504, ELW2200, ELW2201, ELW2202, ELW2219, ELW2211, ELW2212, EL3120, EL3140, EL3150, EL3180, EL3184, ELW3120, ELW3140, ELW3150, ELW3180, ELW3184, ELD3H5, ELD3H6, ELD3H7, ELD3H4, ELQ3H4, ELQ3H5, ELQ3H7, ELM314, ELM452, ELM453, ELM600, ELM601, ELM611, ELM452L, ELM453L, ELM600L, ELM601L, ELM611L, ELM454, ELM80L, ELM81L, ELD851, ELD852, 4N29, 4N30, 4N31, 4N32, 4N33, H11B1, H11B2, H11B3, H11B255, TIL113, MOC119, MOC8020, MOC8021, MOC8030, MOC8050, MOC8080, EL301X, EL302X, EL305X, EL307X, EL303X, EL304X, EL306X, EL308X, EL3161, EL3162, EL3163, H11L1, H11L2 EL2200, EL2212, EL2231, EL2201, EL2202, EL2219, EL2211, EL2232, ELS500, ELS501, ELS511, ELS050L, ELS051L, ELS052L, ELS600, ELS601, ELS611, ELS060L, ELS061L, ELS062L, ELR3602, ELR3603, ELR2602, ELR2603, ELR1602, ELR1603, ELR3502, ELR3503, ELR2502, ELR2503, ELR1502, ELR1503, ELR0223, ELR1223, ELR2223, ELR3223, EL847, EL844, EL845, EL2801, EL354, EL355, EL356, EL357, EL359, EL121, EL124, EL2701, EL2705, EL357N, EL356N, EL121N, EL124N, EL2701N, EL354N, EL2705N, EL3H7, EL281, EL3H4, EL280, EL3H71, ELM301X, ELM302X, ELM305X, ELM307X, ELM303X, ELM304X, ELM306X, ELM308X, EL815, EL814, EL824, EL825 EL617, CNY75G, CQY80.G, K233.G, TCDT110.G, TCDT111.G, TCDT112.G, HS817.G, TCET110.G, TCET111.G, TCET120.G, EL205, EL206, EL207, EL208, EL211, EL212, EL213, EL215, EL216, EL217, ELD207, ELD208, ELD213, ELD217, ELD205, ELD206, ELD211, 6N135, 6N136, 6N137, 6N138, 6N139, EL2502, EL250L, EL2503, EL4502, EL4503, EL2530, EL253L, EL2531, EL4534, EL2730, EL2731, EL2601, EL260L, EL2611, EL261A, EL261N, EL2630, EL263L, EL263A, EL263N, EL2631, EL4661, EL4504, EL0500, EL0501, EL0452, EL0453, EL0454, EL0600, EL0601, EL0611, EL0700, EL050L, EL060L, EL0701, EL061A, EL061N, EL0551, EL0530, EL0531, EL0533, EL063X, EL0661, EL0730, EL0731, EL053L, EL101X, EL357L, EL355L, EL354L, EL111X, EL161X, EL151X, EL101L EL451, EL452, EL3H7L, EL351, EL352, EL3571N, EL357NL, ELM460A, ELM840A, ELM860A H11L3, H11D1, H11D2, H11D3, H11D4, H11G1, H11G2, EL371,

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## APPENDIX:

Reference No. SE-S-2001060

EL725, 4N50, 4N51, 4N52, 4N53, 4N54, 4N55, 4N56, 4N57, 4N58, 4N59, EL852, EL851, H11G3, CNX36U, CNX38U, CNX39U, SL5500, SL5501, SL5504, SL5511, MOC8100, MOC8101, MOC8102, MOC8103, MOC8104, MOC8105, MOC8106, MOC8107, MOC8108, EL9001, CNY17F-1, CNY17F-2, CNY17F-3, CNY17F-4, H11AA1, H11AA2, H11AA3, H11AA4, HS817, K817P, TCET110, TCET111, TCET120, VO610A, VO615A, CNY17G, CNY75, CQY80, K233, TCDT110, TCDT111, TCDT112, EL2501, EL2561, EL8171, CNY171-1, CNY171-2, CNY171-3, CNY171-4, CNY17F1-1, CNY17F1-2, CNY17F1-3, CNY17F1-4, EL610, EL817L, EL080L, EL081L, EL083L, EL086L, ELS270, ELS271, ELS272, EL2514, EL0200, EL0201, EL0202, EL0210, EL0211, EL0212, ELL300, ELM440A, ELM640A, ELM660A, EL3H4U, EL101XH, EL101U, EL354NU, EL357NU, ELR0323, ELR1323, ELR2323, ELR3323, ELR0313, ELR1313, ELR2313, ELR3313, ELR0213, ELR1213, ELR2213, ELR3213, EL357NH, EL3H7H, EL3H7U, EL817H, ELM60U, ELM61U, ELS60U, ELS61U, ELS62U, ELM406A

**Certificate holder:**

Everlight Electronics Co. Ltd.  
No.6-8 Zhonghua Rd. Shulin Dist.  
23860 New Taipei City Taiwan

**The product complies with the standard(s):**

EN 60065:2014+A11  
IEC 60065:2014,  
EN 60335-1:2012+A11,  
IEC 60335-1:2010+A1,  
EN 60950-1:2006 and A11+A1+A12+A2  
IEC 60950-1:2005+A1+A2  
EN 61347-1:2015  
IEC 61347-1:2015  
EN 62368-1:2014+A11  
IEC 62368-1:2014,

**Date of expiry:**

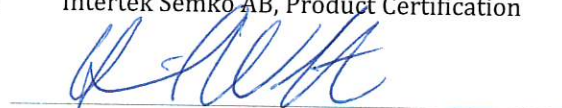
20 February, 2025

**Additional information in Appendix**

**Certification Body:** Intertek Semko AB, Product Certification

**Place:** Kista - Stockholm

**Signed:**



**Date:** 20 February, 2020

Henrik Wikström

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## APPENDIX:

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### Technical Data:

Ratings 250Vrms

#### Type

EL817./EL816./EL819./EL829./EL826./EL827./  
EL717./4N25./4N26./4N27./4N28./4N35./4N36./4N37./4N38./MCT2./MCT2E./  
MCT210./CNY17-1./CNY17-2./CNY17-3./CNY17-4./MOC8111./MOC8112./  
MOC8113./H11A1./H11A2./H11A3./H11A4./H11A5./TIL111./TIL117./CNX35U.

#### Principal characteristics:

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. Tested for 5000m.

#### Type

ELS3120. / ELS3140. / ELS3150. / ELS3180. / ELS3184

#### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110 °C

#### Type

EL806A./ EL810A./ EL820A./ EL825A./ EL835A./ EL840A./ EL860A./  
EL406A./ EL410A./ EL420A./ EL425A./ EL435A./ EL440A./ EL460A./  
EL606A./ EL610A./ EL620A./ EL625A./ EL635A./ EL640A./ EL660A.



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### Principal characteristics

Solid State Relay. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 125°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

### Type

ELT301X./ ELT302X./ ELT305X./ ELT303X./ ELT304X./ ELT306X./  
ELT308X./ ELT307X.

### Principal characteristics

Triac Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "X" in type denotes X = Part no. (0,1,2,3,4). The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

### Type

ELW137./ ELW139./ ELW2601./ ELW2611./ ELW136./ ELW135./ ELW4502./  
ELW4503./ ELW138./ ELW260L./ ELW250L./ ELW4504./ ELW2200./  
ELW2201./ ELW2202./ ELW2219./ ELW2211./ ELW2212.

Trade mark (if different from page 1)

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 11.85mm, minimum internal creepage distance is measured to 7.72mm and minimum distance through insulation is measured to 0.9mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.



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### Type

EL3120./ EL3140./ EL3150./ EL3180./ EL3184.

### Principal characteristics

IGBT Gate Drive Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

### Type

ELW3120./ ELW3140./ ELW3150./ ELW3180./ ELW3184.

### Principal characteristics

IGBT Gate Drive Optocoupler. Minimum external creepage distance is measured to 11.85mm, minimum internal creepage distance is measured to 7.72mm and minimum distance through insulation is measured to 0.9mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

### Type

ELD3H5./ ELD3H6./ ELD3H7./ ELD3H4./ ELQ3H4./ ELQ3H5./ ELQ3H7./ ELM314.

### Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.



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### Type

ELM452./ ELM453./ ELM600./ ELM601./ ELM611./ ELM452L./ ELM453L./  
ELM600L./ ELM601L./ ELM611L./ELM454./ELM80L./ ELM81L.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

### Type

ELD851./ELD852./4N29./4N30./4N31./4N32./4N33./H11B1./H11B2./H11B3./  
H11B255./TIL113./MOC119./MOC8020./MOC8021./MOC8030./MOC8050./  
MOC8080./EL301X./EL302X./EL305X./EL307X./EL303X./EL304X./EL306X./  
EL308X./EL3161./EL3162./EL3163./H11L1./H11L2.

### Principal characteristics

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 5.5mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

### Type

EL2200./EL2212./EL2231./EL2201./EL2202./EL2219./EL2211./ EL2232.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.



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### Type

ELS500./ELS501./ELS511./ELS050L./ELS051L./ELS052L./ELS600./ELS601./  
ELS611./ELS060L./ELS061L./ELS062L.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100 °C.

### Type

ELR3602./ELR3603./ELR2602./ELR2603./ELR1602./ELR1603./ELR3502./  
ELR3503./ELR2502./ELR2503./ELR1502./ELR1503./ELR0223./ELR1223./  
ELR2223./ELR3223.

### Principal characteristics

Power Triac Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C

### Type

EL847./EL844./EL845.

### Principal characteristics

Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. The symbol "." in type designation may be A to Z, numbers or blank, denote different pin shape. Maximum operating temperature: 110°C



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### Type

EL2801./EL354./EL355./EL356./EL357./EL359./EL121./EL124./EL2701./  
EL2705./EL357N./EL356N./EL121N./EL124N./EL2701N./EL354N./EL2705N./  
EL3H7./EL281./EL3H4./EL280./EL3H71./ELM301X./ELM302X./ELM305X./  
ELM307X./ELM303X./ELM304X./ELM306X./ELM308X.

### Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

### Type

EL815./ EL814./EL824./ EL825.

### Principal characteristics

Minimum external creepage distance is measured to 7.9mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110 °C

### Type

EL617./CNY75G./CQY80.G/K233.G/TCDT110.G/TCDT111.G/TCDT112.G/  
HS817.G/TCET110.G/TCET111.G/ TCET120.G

### Principal characteristics

Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C



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### Type

EL205./EL206./EL207./EL208./EL211./EL212./EL213./EL215./EL216./EL217./  
ELD207./ELD208./ELD213./ELD217./ELD205./ELD206./ELD211.

### Principal characteristics

Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C

### Type

6N135./6N136./6N137./6N138./6N139./EL2502./EL250L./EL2503./EL4502./  
EL4503./EL2530./EL253L./EL2531./EL4534./EL2730./EL2731./EL2601./  
EL260L./EL2611./EL261A./EL261N./EL2630./EL263L./EL263A./EL263N./  
EL2631./EL4661./EL4504.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 5.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C

### Type

EL0500./EL0501./EL0452./EL0453./EL0454./EL0600./EL0601./EL0611./  
EL0700./EL050L./EL060L./EL0701./EL061A./EL061N./EL0551./EL0530./  
EL0531./EL0533./EL063X./EL0661./EL0730./EL0731./EL053L.

### Principal characteristics

High Speed Optocoupler . Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).



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### Type

EL101X./ EL357L./ EL355L./ EL354L./ EL111X./ EL161X./ EL151X./EL101L.

### Principal characteristics

Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9). Tested for 5000m

### Type

EL451./EL452./EL3H7L./ EL351./ EL352./ EL3571N./ EL357NL.

### Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

### Type

ELM460A./ELM840A./ELM860A.

### Principal characteristics

Solid State Relay. Minimum external creepage distance is measured to 5.7mm, minimum internal creepage distance is measured to 4.31mm and minimum distance through insulation is measured to 0.3mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125 °C.



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Reference No. SE-S-2001060

### Type

H11L3./H11D1./H11D2./H11D3./H11D4./H11G1./H11G2./EL371./  
EL725./4N50./4N51./4N52./4N53./4N54./4N55./4N56./4N57./4N58./4N59./  
EL852./EL851./H11G3.

Principal characteristics Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 5.5mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4)

### Type

CNX36U./CNX38U./CNX39U./SL5500./SL5501./SL5504./SL5511./  
MOC8100./MOC8101./MOC8102./MOC8103./MOC8104./MOC8105./  
MOC8106./MOC8107./MOC8108./EL9001./CNY17F-1./CNY17F-2./  
CNY17F-3./CNY17F-4./H11AA1./H11AA2./H11AA3./H11AA4./HS817./  
K817P./TCET110.

### Principal characteristics

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. Tested for 5000m.



## APPENDIX:

Reference No. SE-S-2001060

### Type

TCET111./TCET120./VO610A./VO615A./CNY17G./CNY75./CQY80./K233./  
TCDT110./TCDT111./TCDT112./EL2501./EL2561./EL8171./CNY171-1./  
CNY171-2./CNY171-3./CNY171-4./CNY17F1-1./CNY17F1-2./CNY17F1-3./  
CNY17F1-4./EL610./EL817L.

### Principal characteristics

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. Tested for 5000m.

### Type

EL080L./EL081L./EL083L./ EL086L.

Principal characteristics High Speed Optocoupler . Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).

Type ELS270. / ELS271. / ELS272.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100 °C.



## APPENDIX:

Reference No. SE-S-2001060

Type  
EL2514.

### Principal characteristics

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110°C. Tested for 5000m.

Type  
EL0200. / EL0201. / EL0202. / EL0210. / EL0211. / EL0212.

### Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).

Product Optocoupler

Type  
ELL300.

### Principal characteristics

Linear Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 0.90mm and minimum distance through insulation is measured to 0.90mm. Tested for basic/supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 110 °C.



## APPENDIX:

Reference No. SE-S-2001060

Type

ELM440A./ELM640A./ELM660A.

### Principal characteristics

Solid State Relay. Minimum external creepage distance is measured to 5.7mm, minimum internal creepage distance is measured to 4.31mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125 °C.

Type

EL3H4U

### Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C

Type

EL101XH.

### Principal characteristics

Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9).



## APPENDIX:

Reference No. SE-S-2001060

Type  
EL101U

### Principal characteristics

Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9).

Type  
EL354NU / EL357NU

### Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C

Type  
ELR0323. / ELR1323. / ELR2323. / ELR3323. / ELR0313. / ELR1313. /  
ELR2313. / ELR3313. / ELR0213. / ELR1213. / ELR2213. / ELR3213

### Principal characteristics

Power Triac Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 85 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 85°C



## APPENDIX:

Reference No. SE-S-2001060

Type

EL357NH./EL3H7H./EL3H7U.

Principal characteristics

Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C

Type

EL817H.

Principal characteristics

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125°C

Type

ELM60U. / ELM61U.

Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.



## APPENDIX:

Reference No. SE-S-2001060

Type

ELS60U. / ELS61U. / ELS62U.

Principal characteristics

High Speed Optocoupler. Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 100 °C.

Type

ELM406A

Principal characteristics

Solid State Relay. Minimum external creepage distance is measured to 5.7mm, minimum internal creepage distance is measured to 4.31mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape. Maximum operating temperature: 125 °C.

**Manufacturing Sites:**

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Wujiang Economy Development Zone  
Jiangsu China

Everlight Electronics Co., Ltd. Tongluo Plant  
No. 26, Chung Hsin Rd., Chung Hsin Industrial Park,  
Miaoli County 36647  
Taiwan

This certificate is based on a certificate with ref. No. P15219385/A7 dated 11-02-2020, issued by Nemko AS according to the Nordic Certification Service Agreement.



**APPENDIX:**

Reference No. SE-S-2001060

**Certification Body:** Intertek Semko AB, Product Certification

**Place:** Kista - Stockholm

**Signed:**



**Date:** 20 February, 2020

Henrik Wikström

