

**SINGLE-CAPPED FLUORESCENT LAMP
PROVISIONAL DATA SHEET**

Square-shaped

ILCOS: FSS-55-E-GRY10q3

| Nominal wattage | Circuit | Cathode | Cap |
|-----------------|----------------|-----------|---------|
| 55W | HF Starterless | Preheated | GRY10q3 |

| Dimensions (mm) | | | | | | | |
|-----------------|------|------|------|------|------|------|------|
| A. | B | C | D | E | F | G | |
| Max. | Max. | Max. | Max. | Max. | Max. | Min. | Max. |
| 205 | 207 | 33 | 24 | 41 | 49 | 74 | 77 |

Cap: see sheet 7004-xx of IEC 60061-1

| Starting characteristics | | | |
|--------------------------|-----------------------|-----------------------|---------------|
| Frequency | Ballast rated voltage | Test voltage (r.m.s.) | Starting time |
| Hz | V | V | s |
| 50 | - | - | - |
| 60 | - | - | - |

| Electrical characteristics | | | | | | |
|----------------------------|---------------|------------------------------------|---------|---------|--------------------|-----------------------|
| Frequency | Rated wattage | Voltage (r.m.s.) at lamp terminals | | | Rated lamp current | Rated preheat current |
| | | V | | | | |
| Hz | W | Rated | Minimum | Maximum | A | A |
| 50 | - | - | - | - | - | - |
| 60 | - | - | - | - | - | - |

Test position: horizontal

| Cathode characteristics | | | |
|-------------------------|----------------------------|---------|---------|
| Test current | Resistance of each cathode | | |
| | Ω | | |
| A | Rated | Minimum | Maximum |
| 0,450 | 7,5 | 5,6 | 9,3 |

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| Reference ballast characteristics | | | | | |
|-----------------------------------|-----------------|---------------|---------------------|-----------------------|--------------|
| Frequency | Nominal wattage | Rated voltage | Calibration current | Voltage/current ratio | Power factor |
| Hz | W | V | A | Ω | |
| 50 | - | - | - | - | - |
| 60 | - | - | - | - | - |

| Information for ballast design | | | | | |
|---|---|---------------|----|----|----|
| Frequency | | | Hz | 50 | 60 |
| Preheat cathode current | A | Min. | | - | - |
| | | Max. | | - | - |
| Open circuit voltage across starter | V | Min. (r.m.s.) | | - | - |
| Open circuit voltage across lamp | V | Max. (r.m.s.) | | - | - |
| Substitution resistor for both cathodes in series | | Ω | | - | - |
| Voltage across starter with lamp operating | V | Max. (r.m.s.) | | - | - |
| Lamp operating current | A | Max. | | - | - |

| Information for starter design | | | |
|--------------------------------|-----------------------|---------------|---------|
| Pulse voltage | Non-reclosure voltage | RIS capacitor | |
| V | | V | nF |
| Minimum | | Minimum | Maximum |
| - | - | - | - |

| Information for luminaire design | |
|---|----|
| Maximum lamp outline: see sheet 60901-IEC-B110, with dimension H: | mm |

* Under consideration

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DATA SHEET

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ILCOS: FSS-55-E-GRY10q3

| Information for high frequency ballast design | | | |
|---|----------------------|--------------------|-------------------|
| Typical lamp characteristics | | | |
| Frequency kHz | Lamp wattage W | Lamp voltage V | Lamp current A |
| ≥ 20 | 54 | 77 | 0,700 |
| Normal operation | | | |
| Lamp operating current I_D | A | Min. | 0,500 |
| | | Max. | 0,770 |
| Current in any lead to cathodes | A | Max. | 0,770 |
| Dimming operation | | | |
| Lamp operating current I_D | A | Min. | 0,070 |
| | | Max. | 0,560 |
| Minimum sum of squares lead currents : $I_{LH}^2 + I_{LL}^2 = X - Y I_D$ | A ² | X | A ² |
| Target sum of squares lead currents : $I_{LH}^2 + I_{LL}^2 = X - 0,3 Y I_D$ | | Y | A |
| Substitution resistor for each cathode | | Ω | * |
| Lamp substitution resistor | | Ω | * |
| Starting requirements with cathode preheating, for starting times 0,4 s < t_s < 3,0 s | | | |
| Minimum cathode preheat energy : $E_{min} = Q_{min} + P_{min} t_s$ | | Q_{min} (J) | 1,6 |
| | | P_{min} (W) | 1,1 |
| Voltage across each cathode for $E(t) < E_{min}$ | V | Max.(r.m.s.) | 11 |
| Substitution resistor for each cathode, for testing minimum cathode preheat requirements | | Ω | 5 |
| Maximum cathode preheat energy : $E_{max} = Q_{max} + P_{max} t_s$ | | Q_{max} (J) | 3,2 |
| | | P_{max} (W) | 2,2 |
| Substitution resistor for each cathode, for testing maximum cathode preheat requirements | | Ω | 7 |
| Open circuit voltage across lamp (without starting aid) | Non-ignition voltage | $t \leq t_s$ | Max.(r.m.s.) |
| | | $t > t_s$ (+10 °C) | Min.(r.m.s.) |
| | Ignition voltage | $t > t_s$ (-15 °C) | Min.(r.m.s.) |
| Voltage to starting aid | V | $t \leq t_s$ | Max.(peak) |
| | | $t > t_s$ | Min.(peak) |
| Substitution resistor range for each cathode, for testing open circuit voltage requirements | | Ω | 5 ... 15 |

* Under consideration