



Specifications sheet: Collimator

Introduction

The collimator coil is wound from rectangular copper wire resulting in excellent thermal contact such that the coil can easily transport its heat to the water cooled sides. The coil creates a strong on-axis magnetic field parallel to the electron beam propagation axis resulting in transverse beam focusing.

Applications

- Cancelling photogun exit kick
- Creating strong focus

Features

- Excellent heat distribution
- Robust

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| General | |
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| Cooling | : Water cooled on both sides |
| Water Connector | : Legris (6 mm × 1) push in fitting |
| Minimal flow | : ... l/m at = 20°C |
| Mount | : Side mount on cathode flange DrX Photogun |
| Diameter center hole | : 75 mm |
| Focal length | : > ... m for 100 keV electrons |

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| Coil | |
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| Inner radius | : 42.5 mm |
| Outer radius | : 68.5 mm |
| Length | : 60 mm |
| Number of turns | : 351 |
| Wire type | : Rectangular (2.5 × 1.5 mm) |

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| Electric | |
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| Maximum current | : 12 A |
| Voltage | : 8.9 V at rated current |
| Temperature | : T = 51°C at rated current |

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| Magnetic | |
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| On-axis field | : ...mT at rated current |
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| Dimensions | |
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| Size | : 170 × 170 × 84 mm |
| Weight | : Unknown |