



S15-071

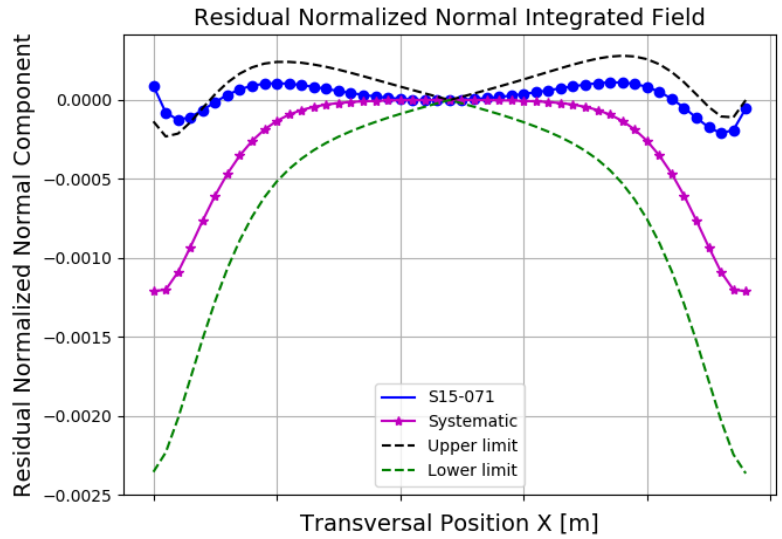
## STORAGE RING MAGNET REPORT

### Results

|   |                     |
|---|---------------------|
| Date                                    | 09/08/2018          |
| Hour                                    | 16:05:44            |
| Temperature [°C]                        | 23.411              |
| Number of Measurements                  | 9                   |
| Main Coil Current [A]                   | (167.797 ± 0.002)   |
| Trim Coil Current [A]                   | (0 ± 0)             |
| CH Coil Current [A]                     | (0 ± 0)             |
| CV Coil Current [A]                     | (0 ± 0)             |
| QS Coil Current [A]                     | (0 ± 0)             |
| Integrated Gradient [T/m]               | (-359.247 ± 0.002)  |
| Magnet Center Offset X [μm] - (< ±40.0) | (24.68 ± 0.02)      |
| Magnet Center Offset Y [μm] - (< ±40.0) | (28.11 ± 0.04)      |
| Roll [mrad] - (< ±0.3)                  | (1.22 ± 0.02) x E-1 |

### Electric Parameters

|                           |        |
|---------------------------|--------|
| Inductance [mH]           | 3.157  |
| Voltage [V]               | 6.0106 |
| Resistance [mΩ]           | 35.82  |
| Main Coil Number of Turns | 11.25  |



| n | Normalized Normal Multipoles<br>x=12.0 mm<br>[T.m <sup>(2-n)</sup> ] | Normalized Skew Multipoles<br>x=12.0 mm<br>[T.m <sup>(2-n)</sup> ] |
|---|--|--|
|---|--|--|

|                |                        |                        |
|----------------|------------------------|------------------------|
| 1 (dipole)     | (-3.56 ± 0.04) x E-4   | (9 ± 6) x E-6          |
| 2 (quadrupole) | (-4.113 ± 0.004) x E-3 | (-4.685 ± 0.007) x E-3 |
| 3 (sextupole)  | (1.000000 ± 0.000008)  | (3.66 ± 0.06) x E-4    |
| 4              | (3.7 ± 0.4) x E-5      | (2.9 ± 0.5) x E-5      |
| 5              | (4.80 ± 0.05) x E-4    | (9.2 ± 0.6) x E-5      |
| 6              | (-1.07 ± 0.03) x E-4   | (-3.0 ± 0.6) x E-5     |
| 7              | (1.75 ± 0.04) x E-4    | (-5.7 ± 0.9) x E-5     |
| 8              | (2.3 ± 0.5) x E-5      | (2.6 ± 0.6) x E-5      |
| 9              | (-1.944 ± 0.006) x E-3 | (4.4 ± 0.5) x E-5      |
| 10             | (3 ± 6) x E-6          | (-8.8 ± 71.9) x E-7    |
| 11             | (-3 ± 6) x E-6         | (-5 ± 7) x E-6         |
| 12             | (2 ± 7) x E-6          | (-2 ± 8) x E-6         |
| 13             | (-1.9 ± 0.6) x E-5     | (1.6 ± 0.5) x E-5      |
| 14             | (-3.0 ± 0.5) x E-5     | (-4.5 ± 0.5) x E-5     |
| 15             | (1.329 ± 0.007) x E-3  | (-4 ± 9) x E-6         |

