**BS EN 1935:2002 CLASSIFICATION**

The European Standard for single-axis hinges used on doors and windows. Testing and evaluation of the product results in an 8 digit code:

e.g. H3N1102/13 = Classification 4-7-6-1-1-3-0-13

**DIGIT 1 - CATEGORY OF USE (Grades 1-4)**

Grade 1: Light Duty  
Grade 2: Medium Duty  
Grade 3: Heavy Duty  
Grade 4: Severe Duty

**DIGIT 2 - DURABILITY (Grades 3, 4 + 7)**

Grade 3: 10,000 Test cycles for light duty hinges on windows only.  
Grade 4: 25,000 Test cycles for light duty hinges on windows and doors.  
Grade 7: 200,000 Test cycles for medium, heavy and severe duty hinges on doors only.

**DIGIT 3 - TEST DOOR MASS (Grades 0-7)**

Grade 0: 10KG Test Door Mass  
Grade 1: 20KG Test Door Mass  
Grade 2: 40KG Test Door Mass  
Grade 3: 60KG Test Door Mass  
Grade 4: 80KG Test Door Mass  
Grade 5: 100KG Test Door Mass  
Grade 6: 120KG Test Door Mass  
Grade 7: 160KG Test Door Mass

**DIGIT 4 - SUITABILITY FOR USE ON FIRE/SMOKE DOORS (Grades 0-1)**

Grade 0: Not suitable for use on smoke/fire door assemblies.  
Grade 1: Suitable for use on smoke/fire door assemblies. Subject to satisfactory assessment under BS EN 1634.

**DIGIT 5 - SAFETY (Grade 1)**

Grade 1: Single-axis hinges are required to satisfy the essential requirement of safety in use.

**DIGIT 6 - CORROSION RESISTANCE (Grades 0-4)**

Grade 0: No defined corrosion resistance  
Grade 1: Mild resistance  
Grade 2: Moderate resistance  
Grade 3: High resistance  
Grade 4: Very high resistance

**DIGIT 7 - SECURITY (Grades 0-1)**

Grade 0: No security  
Grade 1: Suitable for application requiring a degree of security.

**DIGIT 8 - HINGE GRADE (Grades 1-14)**

<table>
<thead>
<tr>
<th>Hinge Grade</th>
<th>Usage</th>
<th>Test Cycles</th>
<th>Door Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1:</td>
<td>Window</td>
<td>10,000</td>
<td>10KG</td>
</tr>
<tr>
<td>Grade 2:</td>
<td>Window</td>
<td>10,000</td>
<td>20KG</td>
</tr>
<tr>
<td>Grade 3:</td>
<td>Window/Door</td>
<td>25,000</td>
<td>20KG</td>
</tr>
<tr>
<td>Grade 4:</td>
<td>Door</td>
<td>200,000</td>
<td>20KG</td>
</tr>
<tr>
<td>Grade 5:</td>
<td>Window</td>
<td>10,000</td>
<td>40KG</td>
</tr>
<tr>
<td>Grade 6:</td>
<td>Window/Door</td>
<td>25,000</td>
<td>40KG</td>
</tr>
<tr>
<td>Grade 7:</td>
<td>Door</td>
<td>200,000</td>
<td>40KG</td>
</tr>
<tr>
<td>Grade 8:</td>
<td>Window</td>
<td>10,000</td>
<td>60KG</td>
</tr>
<tr>
<td>Grade 9:</td>
<td>Window/Door</td>
<td>25,000</td>
<td>60KG</td>
</tr>
<tr>
<td>Grade 10:</td>
<td>Door</td>
<td>200,000</td>
<td>60KG</td>
</tr>
<tr>
<td>Grade 11:</td>
<td>Door</td>
<td>200,000</td>
<td>80KG</td>
</tr>
<tr>
<td>Grade 12:</td>
<td>Door</td>
<td>200,000</td>
<td>100KG</td>
</tr>
<tr>
<td>Grade 13:</td>
<td>Door</td>
<td>200,000</td>
<td>120KG</td>
</tr>
<tr>
<td>Grade 14:</td>
<td>Door</td>
<td>200,000</td>
<td>160KG</td>
</tr>
</tbody>
</table>

For full details of test criteria please visit www.carlislebrass.com
Certified to British Standard KM 82991
Suitable for 30 + 60 Minute Fire Doors

Certifire Approved CF339
Guaranteed for 25 years

BS EN 1935
CE Approved CE1121

Supplied in Pairs Complete with Fixing Screws
Maintenance Free

Available Finishes:
- BZP
- EB
- PC
- SZP

H3N1102/13
100x88x3mm Triple Knuckle Hinge (Square)
Grade 13

H3N1102/13/R
100x88x3mm Triple Knuckle Hinge (Radius)
Grade 13

H3N1105/11/R/LEF
98x82x3mm Lift Off (Journal Support) Hinge (Radius)
Also available in right hand H3N1105/R/RIG
Grade 11

H3N1107/13/R/LEF
110x88x3mm Lift Off (Journal Support) Hinge (Radius)
Also available in right hand H3N1107/13/R/RIG
Grade 13

For full product data sheets please visit www.carlislebrass.com