| **Equivalence Class Design** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Valid EC** |  |  |  |  | | **Invalid EC** | |  |  |
| **EC ID** | **Condition** | | | |  | **EC ID** | **Condition** | | |
| EC01 | 1000  ≤ num\_impeller ≤ 5000 | | | |  | EC04 | num\_impeller < 1000  or  num\_impeller > 5000 | | |
| EC02 | 300 ≤ num\_motor ≤ 800 | | | |  | EC05 | num\_motor < 300    or  num\_motor > 800 | | |
| EC03 | 500 ≤ num\_cover ≤ 3000 | | | |  | EC06 | num\_cover < 500  or   num\_cover > 3000 | | |
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| **Test Case Design and Test Results** | | | | | | | | | | | | | |
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| **Project Name:** | Income | | | | | | | **Project ID:** | | EC01 | | | |
| **Test Strategy:** | Strong Robust Equivalence Class Testing | | | | | | | **Designer:** | | นายธงชัย สีสาร 663380595-6 | | | |
| **Test Environment:** | | **Eclipse IDE for Java** | | | | | | | | | | | |
|  |  | | | |  |  |  |  | |  |  | | |
| **Test Case ID** | **Input** | | | **Expected Result** | | | | | **Actual Result** | | | **Status (Pass/Fail/No run)** |
| Impeller | motor | cover |
| ECT01 | 1000 | 300 | 500 | 16000 | | | | | 29000 | | | Fail |
| ECT02 | 5000 | 800 | 3000 | 164000 | | | | | 134000 | | | Fail |
| ECT03 | 3000 | 500 | 2000 | 91000 | | | | | 85000 | | | Fail |
| ECT04 | 1001 | 300 | 500 | 16010 | | | | | 29010 | | | Fail |
| ECT05 | 4999 | 300 | 500 | 49990 | | | | | 68990 | | | Fail |
| ECT06 | 1000 | 301 | 500 | 16030 | | | | | 29030 | | | Fail |
| ECT07 | 1000 | 799 | 500 | 24770 | | | | | 43970 | | | Fail |
| **Test Case ID** | **Input** | | | **Expected Result** | | | | | **Actual Result** | | | **Status (Pass/Fail/No run)** |
| Impeller | motor | cover |
| ECT08 | 1000 | 300 | 501 | 16020 | | | | | 29020 | | | Fail |
| ECT09 | 1000 | 300 | 2999 | 78980 | | | | | 78980 | | | Pass |
| ECT10 | 5000 | 300 | 500 | 66500 | | | | | 69000 | | | Fail |
| ECT11 | 1000 | 800 | 500 | 33000 | | | | | 44000 | | | Fail |
| ECT12 | 1000 | 300 | 3000 | 61000 | | | | | 79000 | | | Fail |
| ECT13 | 999 | 300 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT14 | 5001 | 300 | 500 | INVALID | | | | | 69010 | | | Fail |
| ECT15 | 0 | 300 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT16 | -1 | 300 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT17 | 1000 | 299 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT18 | 1000 | 801 | 500 | INVALID | | | | | 44030 | | | Fail |
| ECT19 | 1000 | 0 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT20 | 1000 | -1 | 500 | INVALID | | | | | INVALID | | | Pass |
| ECT21 | 1000 | 300 | 499 | INVALID | | | | | INVALID | | | Pass |
| ECT22 | 1000 | 300 | 3001 | INVALID | | | | | 79020 | | | Fail |

| **Test Case ID** | **Input** | | | **Expected Result** | **Actual Result** | **Status (Pass/Fail/No run)** |
| --- | --- | --- | --- | --- | --- | --- |
| Impeller | motor | cover |
| ECT23 | 1000 | 300 | 0 | INVALID | INVALID | Pass |
| ECT24 | 1000 | 300 | -1 | INVALID | INVALID | Pass |
| ECT25 | 999 | 299 | 499 | INVALID | INVALID | Pass |
| ECT26 | 5001 | 801 | 3001 | INVALID | 134060 | Fail |
| ECT27 | 0 | 0 | 0 | INVALID | INVALID | Pass |

| **Scenario ID** | **Scenario Name** | **Test Case#** | **Pass** | **Fail** | **No run** | **Block** | **Remark** | **Defect ID** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EC-Lab5-01 | Income | 27 | 12 | 15 |  |  |  |  |
| **รวม** | | 27 |  |  |  |  |  |  |