

**3 PHASE ASYNCHRON MOTOR TEST REPORT ACCORDING TO  
IEC 60034-2-1****ELECTRIC  
MOTOR PLANT**

## NAMEPLATE VALUES

|               |           |              |       |                       |       |
|---------------|-----------|--------------|-------|-----------------------|-------|
| Motor Type    | Q2E200L2C | Voltage      | 380V  | Nominal limit for IE2 | 92,5% |
| Serial Number | 851753001 | Current      | 66,8A | Duty Type             | S1    |
| Power         | 37 kW     | RPM          | 2955  | Insulation Class      | F     |
| Frequency     | 50Hz      | Power Factor | 0,91  | IC                    | 41    |

## NOLOAD TEST

| U(V) | U <sup>2</sup> | Im(A) | Pin(W) | Pcu(W) | Pfe+Pstv | P fe(W) | P stv(W) | R()   |
|------|----------------|-------|--------|--------|----------|---------|----------|-------|
| 81   | 6604           | 8,15  | 621    | 15,0   | 606,0    | 26,0    | 580,0    | 0,225 |
| 120  | 14505          | 6,86  | 659    | 10,6   | 648,4    | 68,4    | 580,0    | 0,225 |
| 161  | 25781          | 7,15  | 717    | 11,5   | 705,5    | 125,5   | 580,0    | 0,225 |
| 200  | 40006          | 8,03  | 778    | 14,5   | 763,5    | 183,5   | 580,0    | 0,225 |
| 240  | 57755          | 9,35  | 861    | 19,7   | 841,3    | 261,3   | 580,0    | 0,225 |
| 304  | 92642          | 12,02 | 992    | 32,5   | 959,5    | 379,5   | 580,0    | 0,225 |
| 380  | 144407         | 16,76 | 1198   | 63,2   | 1134,8   | 554,8   | 580,0    | 0,225 |
| 401  | 160995         | 18,58 | 1369   | 77,7   | 1291,3   | 711,3   | 580,0    | 0,225 |
| 436  | 189894         | 23,46 | 1448   | 123,8  | 1324,2   | 744,2   | 580,0    | 0,225 |
| 500  | 249840         | 40,51 | 1985   | 369,2  | 1615,8   | 1035,8  | 580,0    | 0,225 |

## PERFORMANCE

Amb.Temp 20 °C

 $\Delta t$  : 71 K

|                   |                 |       |       |       |       |       |        |
|-------------------|-----------------|-------|-------|-------|-------|-------|--------|
| Voltage           | U(V)            | 382   | 382   | 381   | 381   | 386   | 379    |
| Phase current     | Im(A)           | 27,85 | 40,36 | 54,87 | 70,34 | 86,15 | 104,69 |
| Input Power       | Pin(W)          | 11059 | 20741 | 30538 | 40637 | 50665 | 61155  |
| Resistance        | R()             | 0,225 | 0,225 | 0,225 | 0,225 | 0,225 | 0,225  |
| Copper Losses     | Pcu(W)          | 174   | 367   | 677   | 1113  | 1670  | 2466   |
| Iron Losses       | Pfe(W)          | 711   | 711   | 711   | 711   | 711   | 711    |
|                   | Pcu+Pfe(W)      | 886   | 1078  | 1389  | 1825  | 2381  | 3177   |
|                   | Pin-Pcu-Pfe(W)  | 10174 | 19663 | 29149 | 38813 | 48284 | 57978  |
| slip              | s(%)            | 0,56  | 0,89  | 1,26  | 1,59  | 2,03  | 2,36   |
| Rotor Losses      | Pr(W)           | 57    | 176   | 367   | 618   | 978   | 1367   |
| Friction Losses   | Pstv(W)         | 580   | 580   | 580   | 580   | 580   | 580    |
| Stray load losses | PLL(W)          | 11,7  | 46,6  | 104,9 | 162,1 | 291,3 | 419,5  |
|                   | Pr+Pstv+PLL (W) | 649   | 803   | 1052  | 1360  | 1849  | 2367   |
| Output Power      | Pout (W)        | 9525  | 18860 | 28097 | 37453 | 46435 | 55612  |
| Apparent Power    | S(VA)           | 18427 | 26704 | 36209 | 46418 | 57597 | 68723  |
| Power Factor      | COSphi          | 0,600 | 0,777 | 0,843 | 0,875 | 0,880 | 0,890  |
| Efficiency        | Eta(%)          | 86,1  | 90,9  | 92,0  | 92,2  | 91,7  | 90,9   |
| Torque            | M(Nm)           | 29,9  | 59,9  | 89,8  | 119,7 | 149,7 | 179,6  |
| Speed             | n(U/min)        | 2983  | 2973  | 2962  | 2952  | 2939  | 2929   |
|                   | Pmech(W)        | 9340  | 18649 | 27854 | 37003 | 46073 | 55088  |

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