



感應電動機試驗記錄表

(Test Report of Induction Motor)



客戶 (Customer): IEC

試驗日期 (Date): 2022/9/23

| 型式 Type | 輸出 Output (kW) | 極數 Poles (P) | 相數 Phase | 框號 Frame No. | 額定 Rating | 頻率 Frequency (Hz) | 電壓 Voltage (V) | 電流 Current (A) | 轉速 Speed (rpm) | 額定效率 - 效率等級 | |
|--------------|-------------------|-----------------|-------------|-----------------|--------------|----------------------|-------------------|-------------------|-------------------|----------------|---------|
| | | | | | | | | | | Rated Eff. (%) | IE Code |
| ANUP-112M1-2 | 3.73 | 2 | 3 | 112M | S1 | 60 | △-200 | 13.36 | 3500 | 89.5 | IE4 |
| | | | | | | 60 | △-220 | 12.40 | 3520 | 89.5 | IE4 |
| | | | | | | 60 | △-230 | 12.10 | 3525 | 89.5 | IE4 |
| | | | | | | 60 | △-240 | 11.90 | 3530 | 89.5 | IE4 |

| 絕緣等級 Ins. Class | 保護方式 Protection | 冷卻方式 Cooling | 軸承 Bearings | 標準 Standard | 試驗方法 Test Method |
|-----------------|-----------------|--------------|-----------------|---------------------|--------------------|
| 155(F) | IP-55 | TEFC / IC411 | 6306zz / 6306zz | IEC 60034-30-1:2014 | IEC 60034-2-1:2014 |

特性試驗 Characteristics Test **IE4 -** 公稱效率 Nom. Eff.: **89.5 %** 最低效率 Min. Eff.: **87.9 %**

| 頻率 Frequency (Hz) | 無負載試驗 No-Load Test | | | 堵轉試驗 Locked-Rotor Test | | | | | | 繞組電阻 Resistance at 25°C (Ω) | 電容端壓 Capacitor Terminal Voltage (V) | |
|----------------------|-----------------------|-------------------|-------------------------|--------------------------|-------------------|-------------------------|--------------------------|-------------------|-------------------------|--------------------------------|--|--|
| | 電壓 Voltage (V) | 電流 Current (A) | 輸入功率 Input Power (W) | 額定頻率 Rated Frequency(Hz) | | | 1/2 頻率 1/2 Frequency(Hz) | | | | | |
| | | | | 電壓 Voltage (V) | 電流 Current (A) | 輸入功率 Input Power (W) | 電壓 Voltage (V) | 電流 Current (A) | 輸入功率 Input Power (W) | | | |
| 60 | 200 | 4.33 | 133.9 | | | | | | | | 0.6409 | |
| 60 | 220 | 4.93 | 165.2 | | | | | | | | 0.6409 | |
| 60 | 230 | 5.27 | 172.7 | | | | | | | | 0.6409 | |
| 60 | 240 | 5.66 | 186.7 | | | | | | | | 0.6409 | |

負載試驗 Load Characteristics Test

| 頻率 / 電壓 Freq. / Volt. (Hz / V) | 負載率 Load (%) | 電流 Current (A) | 輸入功率 Input Power (W) | 轉矩 Torque (N-m) | 轉速 Speed (rpm) | 功率因數 Power Factor (%) | 效率 Efficiency (%) | 起動電流 Starting Current(A) | 起動轉矩 Starting Torque(%) | 脫載轉矩 Break-Down Torque(%) | 最大輸出 Maximum Output(%) |
|-----------------------------------|-----------------|-------------------|-------------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------|----------------------------|------------------------------|---------------------------|
| 60 Hz 200 V | 25 | 5.26 | 1084.2 | 2.489 | 3577 | 59.5 | 86.0 | | | | |
| | 50 | 7.37 | 2067.3 | 5.010 | 3555 | 81.0 | 90.2 | | | | |
| | 75 | 10.01 | 3089.0 | 7.565 | 3531 | 89.1 | 90.6 | 起動輸入特性 (kVA/kW)/Code | | | |
| | 100 | 12.98 | 4153.8 | 10.162 | 3505 | 92.4 | 89.8 | | | | |
| | 125 | 16.20 | 5269.5 | 12.805 | 3477 | 93.9 | 88.5 | | | | |
| 60 Hz 220 V | 25 | 5.66 | 1113.1 | 2.487 | 3581 | 51.6 | 83.8 | | | | |
| | 50 | 7.35 | 2087.8 | 4.998 | 3563 | 74.5 | 89.3 | | | | |
| | 75 | 9.57 | 3093.9 | 7.535 | 3545 | 84.8 | 90.4 | 起動輸入特性 (kVA/kW)/Code | | | |
| | 100 | 12.06 | 4132.8 | 10.104 | 3525 | 89.9 | 90.3 | | | | |
| | 125 | 14.84 | 5213.1 | 12.706 | 3504 | 92.2 | 89.4 | | | | |
| 60 Hz 230 V | 25 | 5.87 | 1118.3 | 2.485 | 3583 | 47.8 | 83.4 | | | | |
| | 50 | 7.40 | 2087.5 | 4.993 | 3567 | 70.8 | 89.3 | | | | |
| | 75 | 9.40 | 3083.1 | 7.525 | 3550 | 82.3 | 90.7 | 起動輸入特性 (kVA/kW)/Code | | | |
| | 100 | 11.72 | 4108.4 | 10.081 | 3533 | 88.0 | 90.8 | | | | |
| | 125 | 14.24 | 5165.4 | 12.670 | 3514 | 91.1 | 90.3 | | | | |
| 60 Hz 240 V | 25 | 6.18 | 1131.4 | 2.484 | 3585 | 44.0 | 82.4 | | | | |
| | 50 | 7.51 | 2097.8 | 4.990 | 3569 | 67.2 | 88.9 | | | | |
| | 75 | 9.36 | 3089.0 | 7.514 | 3555 | 79.4 | 90.6 | 起動輸入特性 (kVA/kW)/Code | | | |
| | 100 | 11.50 | 4107.4 | 10.064 | 3539 | 85.9 | 90.8 | | | | |
| | 125 | 13.85 | 5155.0 | 12.641 | 3522 | 89.5 | 90.4 | | | | |
| 150 | 16.37 | 6234.8 | 15.247 | 3504 | 91.6 | 89.7 | | | | | |

溫升試驗 Temperature Rise Test [負載 Load: 100 %] 其他試驗 Others Test 絕緣耐壓試驗 Dielectric Test

| 頻率 Frequency (Hz) | 電阻法 Resistance Method | | 溫度計法 Thermometer Method | | | 噪音試驗 Noise Test (dB/1m)(A) | 振動試驗 Vibration Test (mm/mm) | 絕緣電阻試驗 Insulation Resistance by 500V Megger(MΩ) (MΩ/DC500V) | 絕緣耐壓試驗 High-Potential Test (A.C.60Hz/1min) (V / min) |
|----------------------|--------------------------------|------|----------------------------|----------------|------------------|-------------------------------|--------------------------------|--|---|
| | 繞組溫升 Windings Temp. Rise(K) | | 定子 Core(K) | 外殼 Frame(K) | 軸承 Bearing(K) | | | | |
| | 60 | 38.0 | 28.4 | 22.2 | 29.9 | | | | |
| 60 | 32.9 | 24.8 | 26.1 | 19.4 | | | | | |
| 60 | 31.5 | 23.8 | 18.6 | 24.7 | | | | | |
| 60 | 31.3 | 23.9 | 18.7 | 24.5 | | | | | |

備註 Notes

| 年耗電量 Annual power consumption | 一小時CO2排放量 One-hour CO ₂ emissions | 核准 (Approved by): |
|----------------------------------|---|-------------------|
| 20379 kWh | 1765 g / hr | Jong-yji Luoh |
| 20276 kWh | 1756 g / hr | 試驗 (Tested by): |
| 20156 kWh | 1746 g / hr | |
| 20151 kWh | 1746 g / hr | |