



S-FR-560-E2-CB

EC FAN

Data Sheet

EC MOTOR DATA SHEET

1. Introduction

This is the data sheet for the product with the impeller.

This data sheet is a data value tested by the official testing and certification authority.

2. Technical Data

- ▶ Model : S-FR-560-E2-CB
- ▶ Type of Protection : IP54
- ▶ Input Voltage : 380V – 400VAC (3PHASE)
- ▶ Input Frequency : 50/60hz
- ▶ Switching Frequency : 0 ~ 10kHz
- ▶ Speed : Rated 300~1500RPM
- ▶ Input Power : MAX 3.0KW
- ▶ Operating Temperature : -40°C ~ +60°C
- ▶ Operating Humidity : +60°C , 85% R.H.,

3. Control

- ▶ Wi-fi 802.11 b/g/n
- ▶ Bluetooth Ver4.2
- ▶ Modbus RTU (RS-485)
- ▶ IoT Control

4. Data Accuracy

Platform display values and Real Measurement values

* Updated December 2024 output data accuracy, within 10% error range. *

Part	Wireless Control Platform (PC and Mobile app)	Real Measure Value	Tolerance Range
Output	1 486W	2 003W	25.8%
Speed	2 550min-1	2 571 min-1	0.8%
Current	4.717A	5.040A	6.4%

5. Fault Diagnostics

- ▶ Over Temperature (100°C)
- ▶ Gate kill (Over Current)
- ▶ Phase Loss
- ▶ Flux out of control

6. Applications

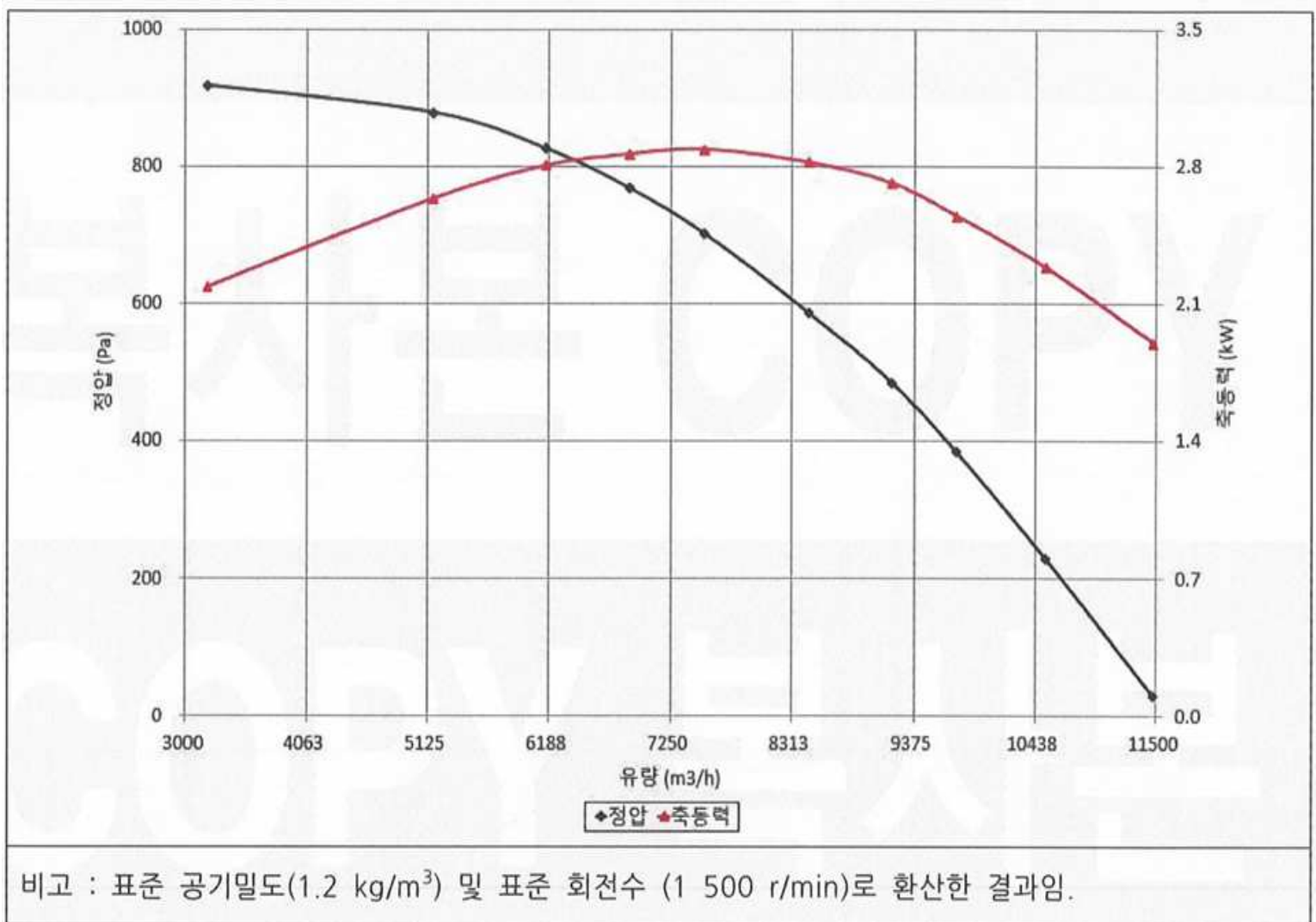
- ▶ Fans

- ▶ Pumps
- ▶ Compressors
- ▶ Blowers
- ▶ Unit Handling
- ▶ HVAC systems
- ▶ Variable speed applications
- ▶ General purpose applications

7. Control Method

- ▶ Bluetooth Control
- ▶ IoT Control
- ▶ ModbusRTU (RS-485)
- ▶ VSP (0-10V)

8. Fan Performance Curve



9. Test Standard

▶ KS B 6311 : 2022

1-1. 시험 결과 : 표준 공기밀도 및 표준 회전수 환산 결과

시험 항목	단위	측정점									
		1	2	3	4	5	6	7	8	9	10
정압	Pa	29	230	384	485	587	703	768	826	879	918
전압	Pa	285	445	569	648	725	812	860	899	930	938
유량	m³/h	11 478	10 527	9 745	9 179	8 457	7 540	6 888	6 158	5 180	3 187
축동력	kW	1.9	2.3	2.5	2.7	2.8	2.9	2.9	2.8	2.6	2.2
정압 효율	%	4.8	29.4	40.8	45.5	48.8	50.8	51.2	50.3	47.8	37.1
전압 효율	%	47.8	56.9	60.3	60.7	60.3	58.8	57.3	54.7	50.6	37.9

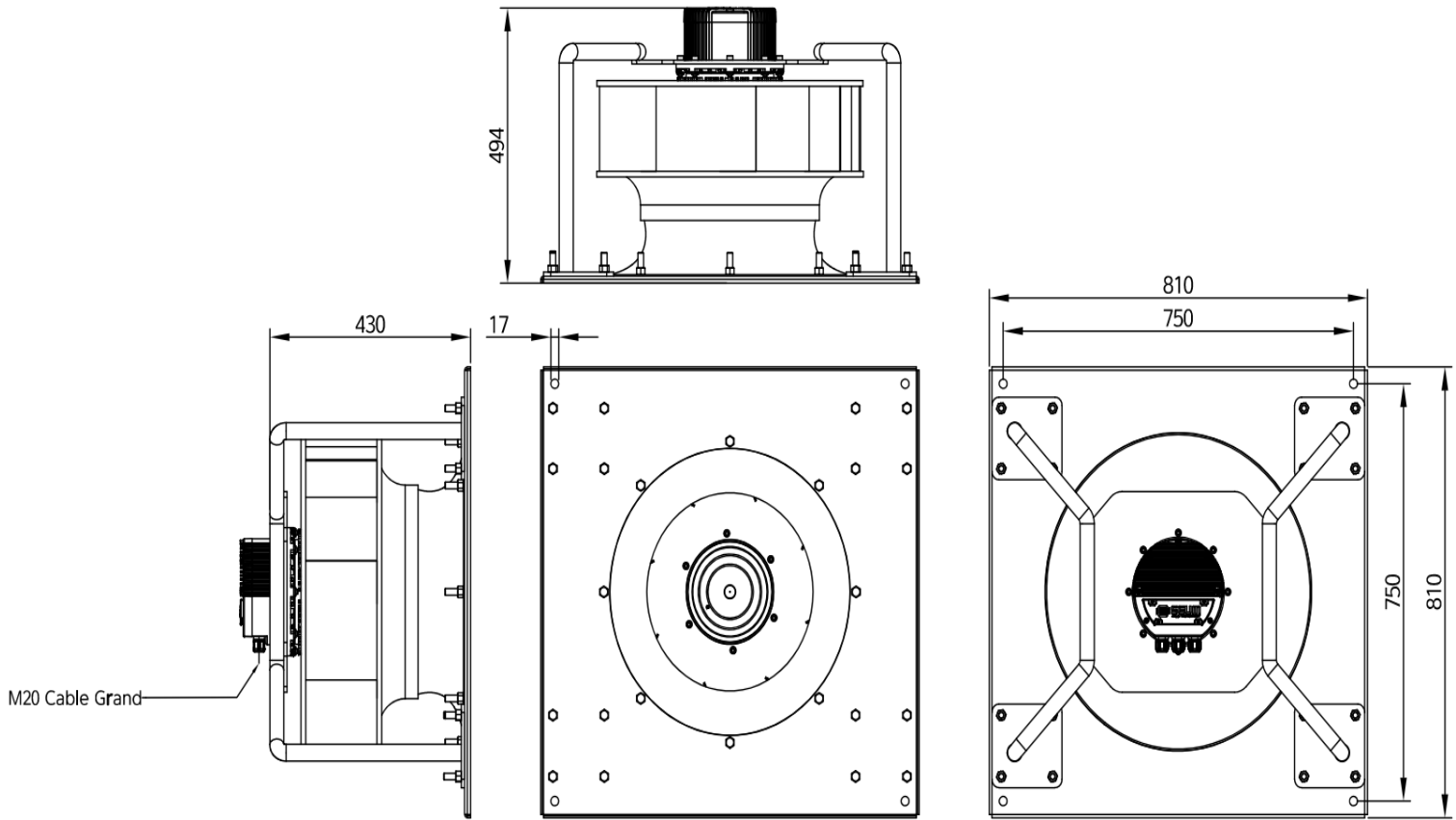
비고 : 1) 표준 공기밀도(1.2 kg/m³) 및 표준 회전수 (1 500 r/min)로 환산한 결과임.
2) 축동력 산출방식 : 입력전력 X 전동기 부하 효율 100 %

1-2. 시험 결과 : 시험 조건

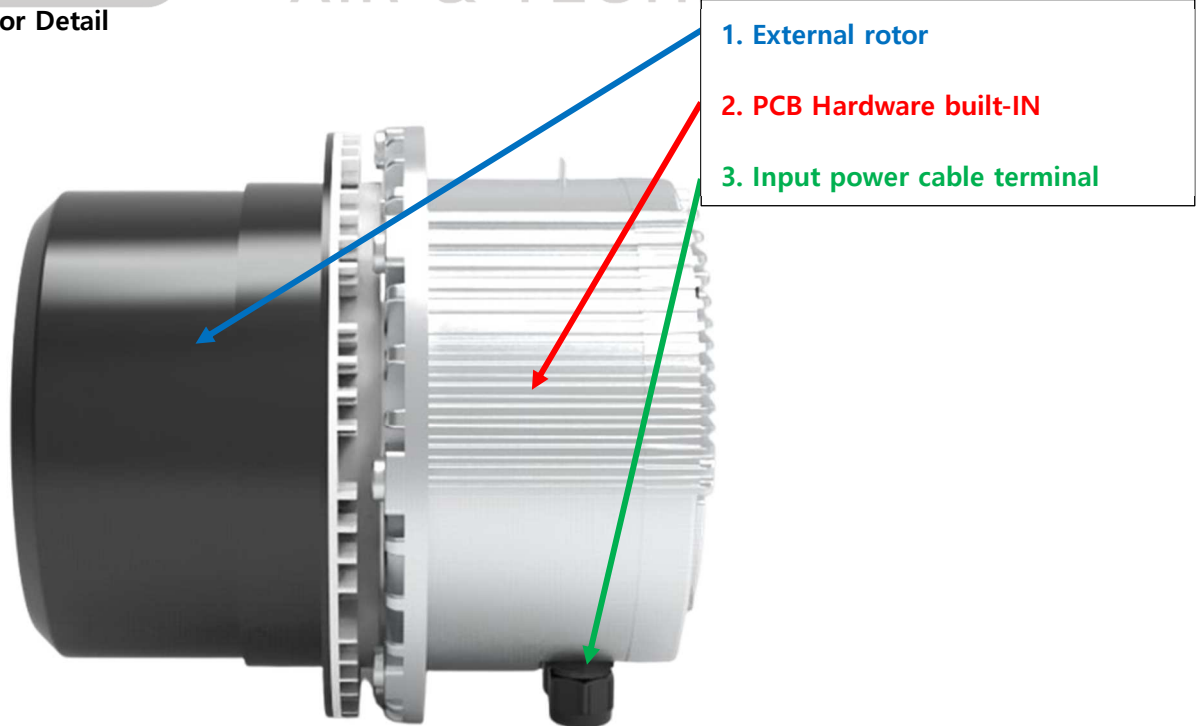
시험 항목	단위	측정점									
		1	2	3	4	5	6	7	8	9	10
밀도	kg/m³	1.20	1.20	1.19	1.19	1.19	1.19	1.18	1.18	1.18	1.18
회전수	r/min	1 513	1 513	1 517	1 516	1 518	1 520	1 521	1 520	1 520	1 522
정압	Pa	29	233	391	491	595	713	780	837	888	991
전압	Pa	291	452	579	656	735	824	872	910	941	950
유량	m³/h	11 577	10 618	9 856	9 277	8 559	7 640	6 855	6 240	5 249	3 234
축동력	kW	2.0	2.3	2.6	2.8	2.9	3.0	2.9	2.9	2.7	2.2

비고 : 1) 블루투스 무선통신(App-release.apk)을 이용하여 모터를 구동 및 RPM 조정하여 시험함.

10. Drawing

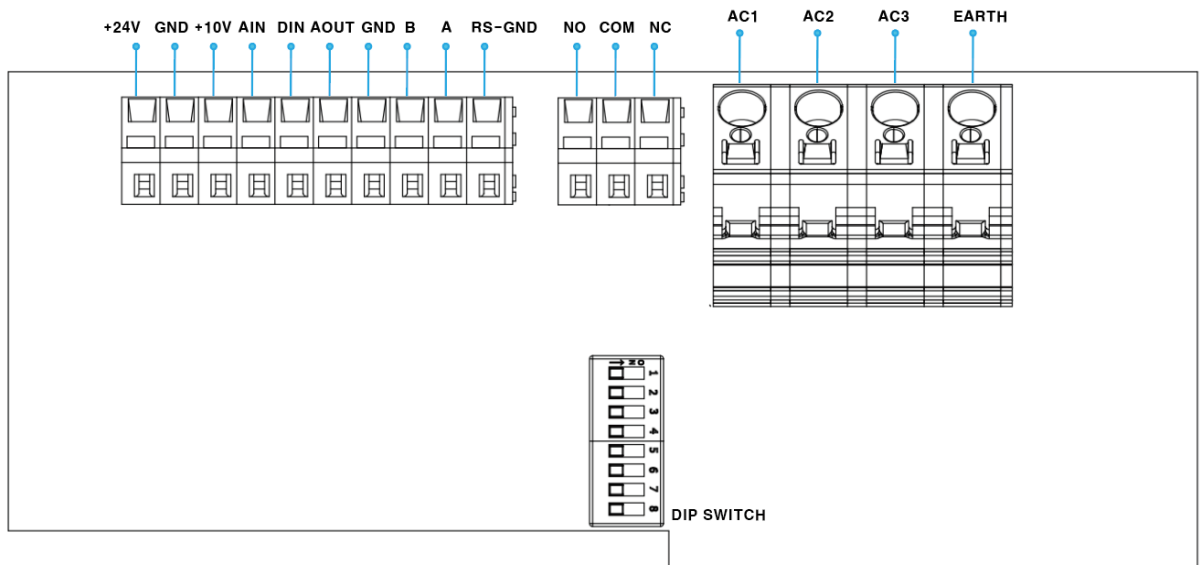


11. Motor Detail



SEUM-EC-SEREIS

12. PCB Connector



1. +24V	DC Voltage Output (500mA)
2. +10V	DC Voltage Output (500mA)
3. A, B, RS-G(Ground)	RS-485 (Modbus RTU)
4. AIN	0-10V Analog Control (10K Potentiometer)
5. DIN	Enable , Disable (VSP control)
6. AOUT	Speed Analog Output (0~100% = 0-10V)
7. DIP Switch	Device ID setting (Max 0~255 Channel)
8. Input Voltage	3Phase 380V 50/60hz
9. Earth	Earth

► (S-FR-560-E2-CB) Data Sheet Ver_1.0 (2024.12.03)

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