客戶承認書
SPECIFICATION FOR APPROVAL

CUSTOMER: _____

DESCRIPTION: DC FAN

CUSTOMER P/N: _____ REV: _____

DELTA MODEL: AFB0524HHB7GY REV: 00

SAMPLE ISSUE DATE: 08/20/2018

QUANTITY: _____

PLEASE SIGN BACK ONE COPY OF THIS SPECIFICATION AFTER COMPLETION OF APPROVAL

APPROVED BY: _____

DATE: _____

DELTA ELECTRONICS COMPONENTS (WUJIANG) LTD.
FAN/MOTOR PLANT
No.1688 Jiangxing East Road,WuJiang Economy Development Zone
Wujiang City JiangSu Province, P.R.C.

TEL:86-512-63406008
FAX:86-512-63015608

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WuJiang Economy Development Zone
Wujiang City Jiang Su Province,P.R.C.

TEL : 86-512-63406008
FAX : 86-512-63015608

STATEMENT OF DEVIATION

****

[V] NONE

[ ] DESCRIPTION :

No.1688 Jiangxing East Road
WuJiang Economy Development Zone
Wujiang City Jiang Su Province,P.R.C.
TEL : 86-512-63406008
FAX : 86-512-63015608

SPECIFICATION FOR APPROVAL

****

Customer:

Description:	DC FAN		
Customer P/N:		REV:	
Delta Model NO.:	AFB0524HHB7GY	Delta Safety Model NO:	AFB0524HHB
Sample Rev:	00	Issue NO:	
Sample Issue Date:	08-20-2018	Quantity:	

1. SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS AXIAL FLOW FAN. THE FAN MOTOR IS WITH TWO PHASES AND FOUR POLES.

2. CHARACTERS:

ITEM	DESCRIPTION
RATED VOLTAGE	24 VDC
OPERATION VOLTAGE	14.0 - 27.6 VDC
INPUT CURRENT	0.08 (MAX. 0.12) A SAFETY CURRENT ON LABEL : 0.12A
INPUT POWER	1.92 (MAX. 2.88) W
SPEED	6400 ± 10%
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	0.460 (MIN. 0.410) M^3/MIN. 16.24 (MIN. 14.48) CFM
MAX.AIR PRESSURE (AT ZERO AIRFLOW)	8.00 (MIN. 6.44) mmH_2O 0.315 (MIN. 0.253) $inchH_2O$
ACOUSTICAL NOISE (AVG.)	36.0 (MAX. 39.0) dB-A
INSULATION TYPE	UL: CLASS A

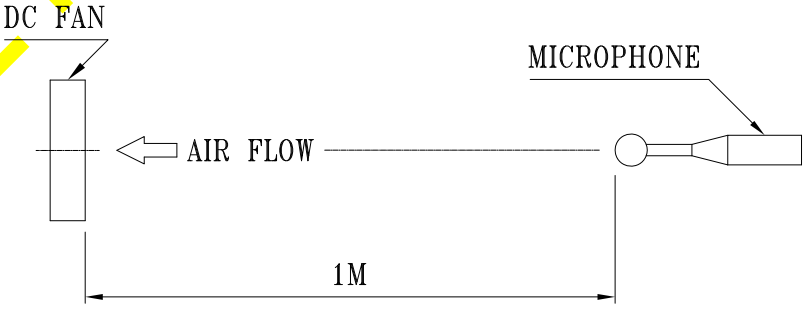
(continued)

PART NO:

DELTA MODEL: AFB0524HHB7GY

INSULATION STRENGTH	10 MEG OHM MIN. AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)
DIELECTRIC STRENGTH	5 mA MAX. AT 500 VAC 60 Hz ONE MINUTE, (BETWEEN FRAME AND (+) TERMINAL)
EXTERNAL COVER	OPEN TYPE
LIFE EXPECTANCE (AT LABEL VOLTAGE)	70,000 HOURS CONTINUOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH.
ROTATION	CLOCKWISE VIEW FROM NAME PLATE SIDE
OVER CURRENT SHUT DOWN	THE CURRENT WILL SHUT DOWN WHEN LOCKING ROTOR
LEAD WIRE	UL 1007 -F- AWG #24 BLACK WIRE NEGATIVE(-) RED WIRE POSITIVE(+)

NOTES:
1. ALL READINGS ARE MEASURED AFTER STABLY WARMING UP THROUGH 10 MINUTES.
2. STANDARD AIR PROPERTY IS AIR AT (Td) 25°C TEMPERATURE, (RH) 65% RELATIVE HUMIDITY, AND (Pb) 760 mmHg BAROMETRIC PRESSURE.
3. THE VALUES WRITTEN IN PARENS , ( ), ARE LIMITED SPEC.
4. ACOUSTICAL NOISE MEASURING CONDITION:



NOISE IS MEASURED AT RATED VOLTAGE IN FREE AIR IN ANECHOIC CHAMBER WITH B & K SOUND LEVEL METER WITH MICROPHONE AT A DISTANCE OF ONE METER FROM THE FAN INTAKE.

A00

PART NO:

DELTA MODEL: AFB0524HHB7GY

3. MECHANICAL:

3-1. DIMENSIONS	SEE DIMENSIONS DRAWING
3-2. FRAME	PLASTIC UL: 94V-0
3-3. IMPELLER	PLASTIC UL: 94V-0
3-4. BEARING SYSTEM	TWO BALL BEARINGS
3-5. WEIGHT	32 GRAMS

4. ENVIRONMENTAL:

4-1. OPERATING TEMPERATURE	-10 TO +70 DEGREE C
4-2. STORAGE TEMPERATURE	-40 TO +75 DEGREE C
4-3. OPERATING HUMIDITY	5 TO 90 % RH
4-4. STORAGE HUMIDITY	5 TO 95 % RH

5. PROTECTION:

5-1. LOCKED ROTOR PROTECTION

IMPEDANCE OF MOTOR WINDING PROTECTS MOTOR FROM FIRE IN 96 HOURS OF LOCKED ROTOR CONDITION AT THE RATED VOLTAGE.

5-2. POLARITY PROTECTION

BE CAPABLE OF WITHSTANDING IF REVERSE CONNECTION FOR POSITIVE AND NEGATIVE LEADS.

6. RE OZONE DEPLETING SUBSTANCES:

6-1. NO CONTAINING PBBs, PBBOs, CFCs, PBBEs, PBDPEs AND HCFCs.

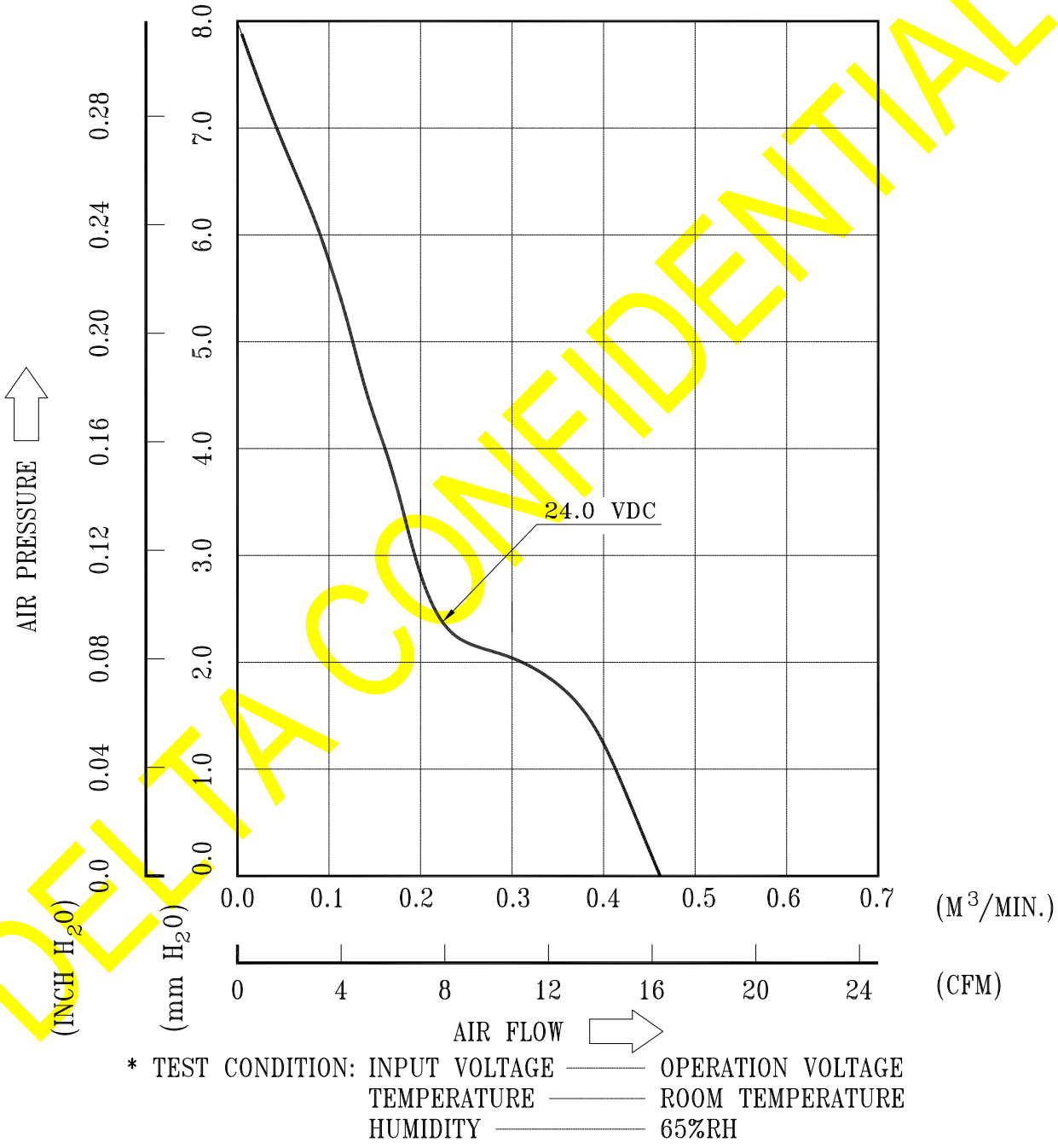
7. PRODUCTION LOCATION

7-1. PRODUCTS WILL BE PRODUCED IN CHINA OR THAILAND .

PART NO:

DELTA MODEL: AFB0524HHB7GY

8. P & Q CURVE:



* TEST CONDITION: INPUT VOLTAGE ——— OPERATION VOLTAGE
TEMPERATURE ——— ROOM TEMPERATURE
HUMIDITY ——— 65%RH

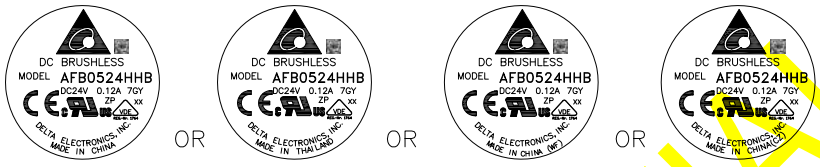
A00

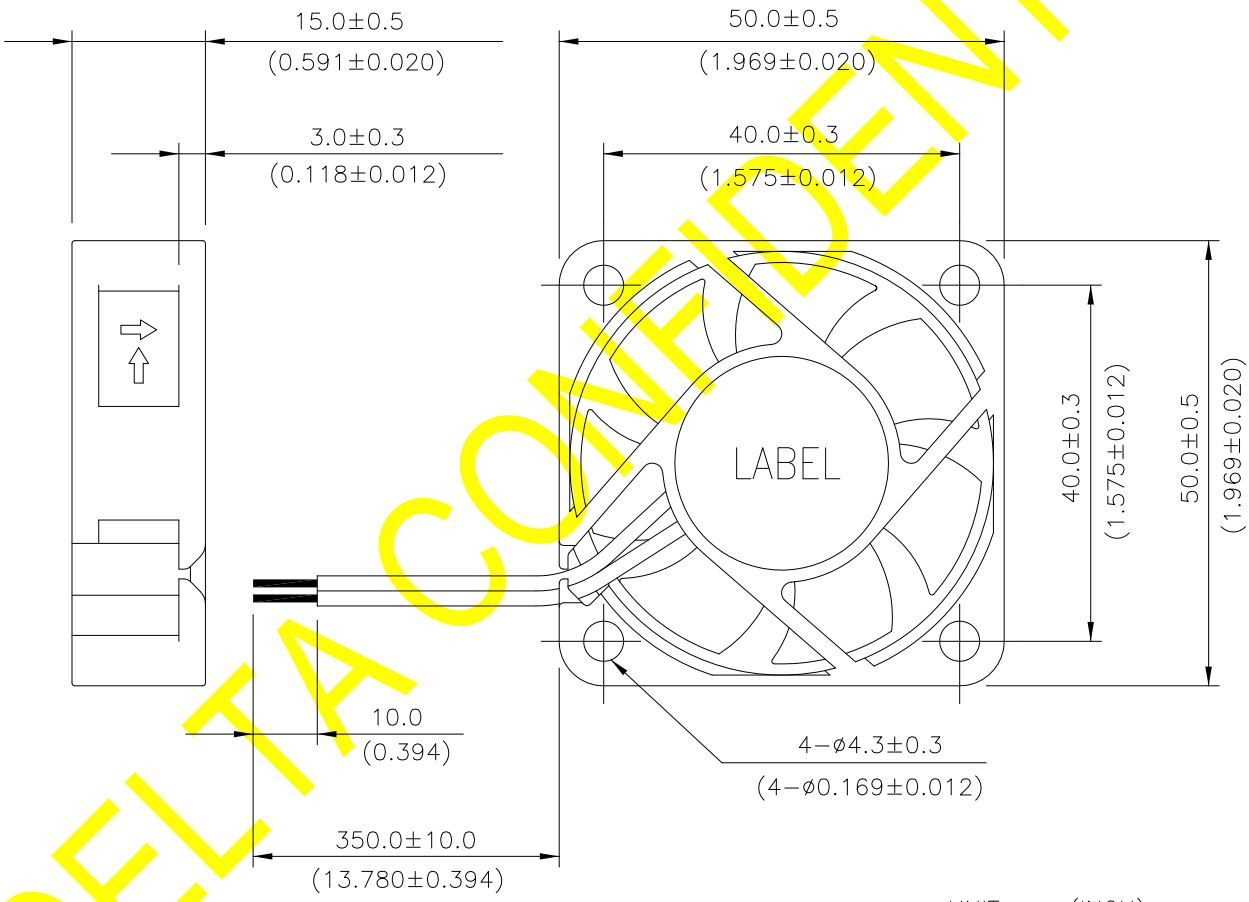
PART NO:

DELTA MODEL: AFB0524HHB7GY

9. DIMENSION DRAWING:

LABEL:





UNIT: mm(INCH)

NOTES:

1. LEAD WIRE UL1007 AWG#24
   RED WIRE----(+)
   BLACK WIRE----(-)
2. THIS PRODUCT IS RoHS COMPLIANT

Application Notice

1. Delta will not guarantee the performance of the products if the application condition falls outside the parameters set forth in the specification.
2. A written request should be submitted to Delta prior to approval if deviation from this specification is required.
3. Please exercise caution when handling fans. Damage may be caused when pressure is applied to the impeller, if the fans are handled by the lead wires, or if the fan was hard-dropped to the production floor.
4. Except as pertains to some special designs, there is no guarantee that the products will be free from any such safety problems or failures as caused by the introduction of powder, droplets of water or encroachment of insect into the hub.
5. The above-mentioned conditions are representative of some unique examples and viewed as the first point of reference prior to all other information.
6. It is very important to establish the correct polarity before connecting the fan to the power source. Positive (+) and Negative (-). Damage may be caused to the fans if connection is with reverse polarity, if there is no foolproof method to protect against such error specifically mentioned in this spec.
7. Delta fans without special protection are not suitable where any corrosive fluids are introduced to their environment.
8. Please ensure all fans are stored according to the storage temperature limits specified. Do not store fans in a high humidity environment. We highly recommend performance testing is conducted before shipping, if the fans have been stored over 6 months.
9. Not all fans are provided with the Lock Rotor Protection feature. If you impair the rotation of the impeller for the fans that do not have this function, the performance of those fans will lead to failure.
10. Please be cautious when mounting the fan. Incorrect mounting of fans may cause excess resonance, vibration and subsequent noise.
11. It is important to consider safety when testing the fans. A suitable fan guard should be fitted to the fan to guard against any potential for personal injury.
12. Except where specifically stated, all tests are carried out at room (ambient) temperature and relative humidity conditions of 25°C, 65% RH. The test value is only for fan performance itself.
13. Be certain to connect an " 4.7μF or greater" capacitor to the fan externally when the application calls for using multiple fans in parallel, to avoid any unstable power.

CERTIFICATE OF COMPLIANCE

Certificate Number	20151020-E132003
Report Reference	E132003-19971216
Issue Date	2015-OCTOBER-20

Issued to: DELTA ELECTRONICS INC
252 SHANG YING RD
KUEI SHAN
TAOYUAN HSIEN
333 TAIWAN

This is to certify that representative samples of COMPONENT - FANS, ELECTRIC
See addendum page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: Electric Fans, UL 507
Fans and Ventilators, CSA C22.2 No. 113

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	20151020-E132003
Report Reference	E132003-19971216
Issue Date	2015-OCTOBER-20

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Model Nos.

AFB0305LLA, AFB0305LA, AFB0305MA, AFB0305HA, AFB0405LA, AFB0405MA, AFB0405HA, AFB0405HHD, AFB0505LA, AFB0505MA, AFB0505HA, AFB02505LA, AFB02505MA, AFB02505HA, AFB02505HHA, AFB0705L, AFB0705M, AFB0705H, AFB0405LD, AFB0405MD, AFB0405HD, AFB0605LLD, AFB0605LB, AFB0605MB, AFB0605HB, AFB0605HHB, AFB0605LA, AFB0605MA, AFB0605HA, AFB0505LB, AFB0505MB, AFB03505LA, AFB03505MA, AFB03505HA, AFB0505HB, AFB0512LB, AFB0512MB, AFB0512HB, AFB0512HHB, AFB0412LA, AFB0412MA, AFB0412HA, AFB0412HHA, AFB0512LA, AFB0512MA, AFB0512HA, AFB0712LA, AFB0712MA, AFB0712HA, AFB0712HHA, AFB0712VHA, AFB0812LL, AFB0812L, AFB0812M, AFB0812H, AFB0812HH, AFB0812VH, AFB0812SH, AFB0812LLB, AFB0812LB, AFB0812MB, AFB0812HB, AFB0812HHB, AFB0812VHB, AFB0812SHB, AFC0812D, AFC0812DD(Y), AFB0912L, AFB0912M, AFB0912H, AFB0912HH, AFB0912VH, AFC0912D, AFB0612LA, AFB0612MA, AFB0612HA, AFB02512LA, AFB02512VHB-5B05(Y), AFB02512MA(Y), AFB02512HA(Y), AFB02512HHA(Y), AFB0312LA(Y), AFB0312MA(Y), AFB0312HA(Y), AFB03512LA(Y), AFB03512MA(Y), AFB03512HA(Y), AFB0612LB, AFB0612MB, AFB0612HB, AFB0612HHB, AFB0612LLD, AFB02512MA-A(Y), AFB02512HA-A(Y), AFB02512HHA-A(Y), AFB0312LA-A(Y), AFB0312MA-A(Y), AFB0312HA-A(Y), AFB0612LD, AFB0612MD, AFB0612HD, AFB0612HHD, AFB0612VHD, AFB0612VHB, WFB1212VHE, WFB1212ME, AFB0412LD, AFB0412MD, AFB0412HD, AFB0412HHD, AFB0312LLA, AFB0524LB, AFB0524MB, AFB0524HB, AFB0524HHB, AFB0824LL, AFB0824L, AFB0824M, AFB0824H, AFB0824HH, AFB0824VH, AFB0824SH, AFB0824LLB, AFB0824LB, AFB0824MB, AFB0824HB, AFB0824HHB, AFB0824VHB, AFB0824SHB, AFB0924L, AFB0924M, AFB0924H, AFB0924HH, AFB0924VH, AFB0624LB, AFB0624MB, AFB0624HB, AFB0624HHB, AFB0624LLD, AFB0624LD, AFB0624MD, AFB0624HD, AFB0624HHD, AFB0624VHD, AFB0624VHB, WFB1224VHE, WFB1248HHE, WFB1248VHE, AFB0424LD, AFB0424MD, AFB0424HD, AFB0424HHD, AFB0748L, AFB0748M, AFB0748H, AFB0748HH, AFB0848L, AFB0848M, AFB0848H, AFB0848HH, AFB0948L, AFB0948M, AFB0948H, AFB0948HH, AFB0648L, AFB0648M, AFB0648H, AFB0648HH, AFB0648VH, AFB0648SH, AFB0648EH, AFB04512LB(Y), AFB04512MB(Y), AFB04512HB(Y), AFB0512LB-A(Y), AFB0512MB-A(Y), AFB0512HB-A(Y), GFB1412EHT(Y), GFC1412DT(Y), AFB0748SH-SP(Y), BFB1712EHT(Y), AFB03512LA-A(Y),AFB03512MA-A(Y),AFB03512HA-A(Y)

Note: above (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank. For Models AFB0812SH(Y), the (Y) excluded -9N07 and –SM26

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Appendix No. 111
to Marks Licence No. 001764
file ref. 11641-2611-0001/31E1A

Constructional data for electric motor-operated appliances / electric heating appliances / electric motor operated tools

Applicant: *Montec-Elcon GmbH & Co. KG*, Am Alten Galgen 10, 56410 Montabaur, Germany

1.1 Manufacturer: Delta Electronics Inc.
9th Floor Asia Enterprise Center, 144 Min Chuan E. Road
Taipei, Taiwan R.O.C.
1.2 Place of manufacture: - AF - Dong Guan Shi, Guangdong, China

1.3 Product category: Einbaulüfter

1.4 Type: AFB0524LB/MB/HB/HHB

2.1 Nominal Voltage: 24 VDC
2.2 Nominal input: max. 80mA 90mA 110mA 120mA
2.3 Protection against electric shock: Class III (extra-low voltage) - Schutzkleinspannung
2.4 Degree of protection: abgedeckte Ausführung
2.5 Supply connection: Litzenanschluß
2.5.1 Kind of connection:
2.6 Materials: 2.6.1 Enclosure: Polybutylene Terephthalate UL 94 V-0
2.6.2 Water container:
2.7 Refrigerating equipment: permissible operating overpressure, pressure side _____bar
2.8 Type of refrigerant:
2.9 File reference - compressor:
2.10 Quantity of coolant: kg

3.1 Further technical information (short-time, intermittent duty, operating time, nominal contents, operating overpressure):

4 Data about the motor

4.1 Manufacturer:
4.2 Number of revolutions:
4.3 Type reference:
4.4 Kind of motor:
4.5 Nominal voltage:

4.6 Winding:	Resistance Ω	Wire thickness	Number of turns:	Insulation class (insul. mat.)
1	s. beiliegende Datenblätter			E
2				
3				

4.7 Information on ambient temperatures (if higher than 25°C): -10°C / +70°C
4.8 Temperature class:

5. Components installed in the appliance (switch, temperature regulator, heater, cables, capacitor, sockets etc.)

siehe beigefügte Liste

Offenbach, 5.5.99

VDE Testing and Certification Institute
Department TM F131

i. A.

Place: Montabaur Date: 06.04.1999

Montec-Elcon GmbH & Co KG
Postfach 13 49
D-56403 Montabaur

Montec-Elcon GmbH & Co. KG