PROPOSED SPECIFICATIONS FO

CUSTOMER

PART NAME

MODEL

勝特力電材超市-龍山店 886-3-5773766 EF. NO. 13-0944 勝特力電材超市-光復店 886-3-5729570 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳)

86-755-83298787 http://www.100y.com.tw

Co..Ltd

DC FAN MOTOR

06015KA-12M-AL-01

DATE 2013/10/17

COVER Page 4 **SPECIFICATIONS** Pages 0 ATTACHED SHEET Pages 5 **TOTAL** Pages

SIGNATURE

This product does not use any of the six (6) restricted substances (except RoHS exemptions) which are specified in directive 2002/95/EC of the European Parliament

and of the council on RoHS regulations.

PLEASE RETURN 1 COPY OF THIS PROPOSED DRAWING WITH YOUR SIGNATURE.

■■■ For your use in safety ■■■■■

Carefully read the precautions before use and use the motor properly and safely. In "For your use in safety", the rank of safety precautions are being divided into "warning" and "cautions". warning: Due to mishandling, a dangerous condition might occur and there is a possibility of death or serious injury.

Precautions: Due to mishandling, a dangerous condition might occur and ther is possibility of medium human disorder or material disorder. There might be cases where there are heavy damages.

/I Warning

- Do not use in an explosive atmosphere, flammable atmosphere and locations where water falls onto. It might cause a fire, injury or electric shock.
- Installation, wiring connection, inspection,etc. Should be done by a person with professional knowledge. You might get an electric shock or be injured.
- Do not move, wire or inspect the motor when applying current. You might get an electric shock or be injured. After turning switch off, kindly proceed your operations ensuring safety.
- Do not pull out or push in the lead wire when applying current. You might get an electric shock. And do not touch the connection terminals, etc. when applying current. You will get an electric shock.

/ | Precautions

- Whenever the motor is used in any equipment that holds large social and public effects,
- kindly consider the measures for equipment protection at equipment side once the motor stops rotation.
- ◆ As you may get injured, do not put your fingers into the motor while rotation.
- Static electricity causes motor and equipment failures.
- Take appropriate measures against static electricity during installation of motor.
- Do not hold the lead wire part. Might cause the motor to drop off.
- For your use, strictly follow rated operating voltage additionally frequency, in particular, AC motors as well as environment in use, such as temperature, humidity range.

APD. BY CHC. BY DET. BY Minebea Co..Ltd. T.Fujimaki Howa

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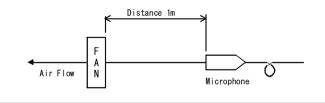
| 項目 (Items) | | 諸元 (Description) | | | | | |
|------------------------------|---------------|----------------------------------|--|--|--|--|--|
| | | | | | | | |
| モーターの種類 (Motor Type) | | DCブラシレスモーター (DC Brushless Motor) | | | | | |
| 定格 (Rating) | | | | | | | |
| 定格時間 (Duty) | | 連続(Continuous) | | | | | |
| 定格電圧 (Rating Voltage) [V] | | 12 | | | | | |
| 使用電圧範囲(Operating Volta | ge) [V] | 6.0~13.8 | | | | | |
| 起動電圧 (Starting Volgate) [| V] | 6. 0 | | | | | |
| 定格回転速度 ☆3☆4 | 標準値 (Average) | 4100 | | | | | |
| (Speed) [min ⁻¹] | 最小値 (Minimum) | 3900 | | | | | |
| 最大風量 ☆1☆4 | 標準値 (Average) | 0. 45 | | | | | |
| (Max Air Flow) [m³/min] | 最小値 (Minimum) | 0. 43 | | | | | |
| 最大静圧 ☆2☆4 | 標準値 (Average) | 39. 7 | | | | | |
| (Max Static Pressure) [Pa] | 最小値 (Minimum) | 35. 8 | | | | | |
| 定格電流 ☆3☆4 | 標準値 (Average) | 0. 13 | | | | | |
| (Current) [A] | 最大値 (Maximum) | 0. 17 | | | | | |
| 定格入力 ☆3☆4 | 標準値 (Average) | 1. 56 | | | | | |
| (Input Power) [W] | 最大値(Maximum) | 2. 04 | | | | | |
| 騒音 (Acoustical Noise) [dB] | ☆ 3 | 31.0 | | | | | |
| | | | | | | | |

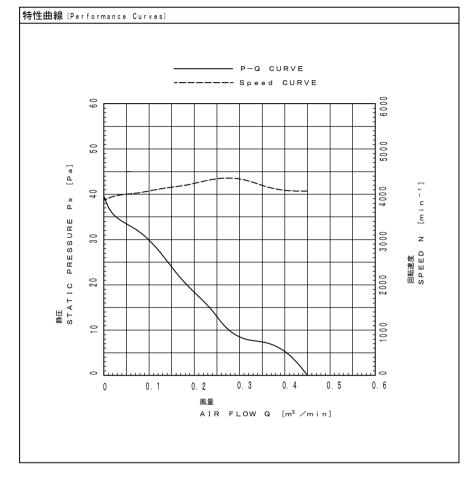
- * 測定条件 (Measuring Conditions)
 - 1. 無響音室内で、かつ障害物のない大気中において測定する。 (室温25℃) (Measurement with in anechoic test chamber under free air condition.) (at 25℃)
 - 2. 測定機は、モーターの吸込側より1mの距離に位置する。 (Microphone is placed at a distance of 1m on the axis of air intake side.)
 - 3. 暗騒音は16dB以下のこと。

(Chamber back ground noise max 16dB.)

4. 騒音は標準回転速度時。

(Acoustical noise at average speed.)





- * NOTE
 - ☆1 静圧"0"の時 (At 0 static pressure)
 - ☆2 風量"0"の時 (At 0 air flow)
 - ☆3 フリーエアー時 (At free air)
 - ☆4 室温25℃において定格電圧印加時 (At rating voltage, at 25℃)

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| | | | | | APPROVED | CHECKED | DRAWN | 般 |
| | | | | | | | | 公差 |
| 符号 MARK | 日 付 DATE | 変更事由 REASON ECN I | NO. 担当 ENGINEER | 承認 APPROVED | TKTN | KWI | FJMK | TOL |

| • | 4 | 単位 | MIT | 材質 MATERIAL | 作成日 DATE 2013 / 09 | / 27 |
|---|----------------|----------------|------|--|-------------------------|----------|
| | (() |))[| | | 品名 DESCRIPTION | |
| | 4 | Pre s | CALE | 表面粗サ SURF. ROUGH. | AUTO RESTART TYP | E |
| | | | | | DC BRUSHLESS | S FAN |
| | | 寸法L | 公差 | ************************************** | n == | |
| N | 般 | L ≦4 | ±0.1 | 熱処理 HEAT TREAT | 品番 PART NO. (MODEL NO.) | 葉番 SHEET |
| | | 4 < L ≦ 16 | ±0.2 | | 06015KA-12M-AL-01 | 1/ |
| | 公差 | 16 < L ≦63 | ±0.3 | | 00013KA-12M-AL-01 | / 4 |
| Κ | | 63 < L ≦250 | ±0.5 | 表面处理 FINISH | 図番 DRAWING NO. | 改訂 REV. |
| | TOL | 250 < L ≦ 1000 | ±0.8 | | 06015KA-12M-AL-01 | _ ^ |
| | | 角度DEG | ±0.5 | | 00015KA-12M-AL-01 | Α |

項目 (Items) 諸元 (Description) 規格 (Standard) 絶縁抵抗 DC 500V メガーにて10MΩ以上 (Insulation Resistance) (min $10M\Omega$ by DC 500V Megger) フレームとリード線間 (Between Frame and (+) Terminal) 絶縁耐圧 AC 700V 1s ☆5 (Dielectric Withstand Voltage) フレームとリード線間 (Between Frame and (+) Terminal) 期待できる寿命(故障率10%) 25℃にて70.000時間 (Life Expectation (L10 Life)) (70.000h at 25°C) 寿命とは、定格電圧印加時の電流値及び回転速度の どちらかが、以下の様になった状態とする。 電流値 : 初期値 +15%以上 回転速度: 初期値 -15%以下 (The motor life is decided as follows Current: more than +15% of initial value Speed: less than -15% of initial value) 許容環境温度範囲 -10°C ~ +60°C (Operating) (Allowable Ambient Temperature) -40°C~+60°C (Storage) ☆6 実用上さしつかえない状態で結露無きこと。 (No dew formation at operating and storage condition) 質量 (Mass) 45 g 保護方式 (Protection) 自動復帰方法 (Auto Restart) 逆接続防止(Polarity Protection)☆7 耐振動 (JIS C 60068-2-6 に準拠) 全振幅 (Peak-to-Peak value of a vibration) : 1.5mm (Vibration Test) 周波数 (Frequency): 10~55Hz X. Y. Z 3方向各1時間 (1h in 3 Directions, "X, Y, Z" Each) 耐衝撃 (JIS C 60068-2-27 に準拠) 加速度 (Acceleration of Gravity): 1000m/s² (Shock Test) 作用時間 (Time): 6ms X, Y, Z 3方向各1回 (1 time in 3 Directions, "X, Y, Z" Each) 絶縁階級 (Insulation Class) F種 (UI : Class A) 回転方向 (Rotation) 銘板側から見て時計方向 (CW Viewed From Name Plate Side) 風吹き出し方向 (Air Flow Direction) 銘板側 (Air Out Over the Struts) cULus File No. F89936

* NOTE

- ☆5 AC 500V、1分を保証 (Guarantee AC 500V 1min)
- ☆6 但し100時間保存の24時間常温放置にて実用上問題無きこと。
 (To be free of defects on practical use after 100 hours of stored at -40°C~+60°C and 24 hours to ambient hymidity)
- ☆7 使用電圧範囲内において(+)線および、(-)線を逆接続されても異常なきこと。 (Motor withstands reverse connection for positive and negative leads.)

*特記事項(Additional Notice)

- (1) 本仕様書に記載されていない項目で特に決める必要のある項目は事前に御連絡ください。
 Any modification to these specifications requested by customer shall be negotiated between the manufacturer and the customer.
- (2) 当仕様書満足範囲において性能向上の為、部品等一部変更する場合が有ります。
 The manufacturer reserves the right to change design, parts or manufacturing processes in order to improve the performance of the fan motor.
- (3) 保管はできるだけ6ヶ月以内とし、高温多湿の場所は避けてください。 Storage area should not be in high temperature, high humidity environment, and storage term shall be within 6 months as much as possible.
- (4) 定格電圧において72時間拘束されても焼損しません。 In case of locked rotor condition, the current shutdown feature of the fan motor protects the motor for 72 hours at the rated voltage.
- (5) 納入品単体の故障により誘発される損害はご容赦いただきます。We shall be free from compensation for any damage induced due to failure of fan motor.
- (6) 本製品は、極めて高度の信頼性を要する用途(医療装置等、多大な人的・物的損害を及ぼす恐れのある用途)に対応する仕様にはなっておりません。そのような場合には、予め弊社営業窓口までご相談下さい。
 All these products do not have specifications that can handle applications that require extremely high levels of reliability, such as medical equipment or other applications whose failure can be reasonably expected to result in serious physical and/or material damage.

 Consult with your NMB/Minebea representative nearest you before using any NMB/Minebea products described or contained herein in such applications.

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| + | | 単位 U | NIT | 材質 MATERIAL | 作成日 DATE 2013 / 09 | / 27 |
|---------------|---|------|--------|-------------------|-------------------------|----------|
| ((|) [| | | | 品名 DESCRIPTION | |
| 4 | , | R度 S | CALE | 表面粗サ SURF. ROUGH. | AUTO RESTART TYP | E |
| | | | \sim | | DC BRUSHLESS | SFAN |
| | 寸法L | | 公差 | | 5 5 5 1 1 1 5 1 5 1 | |
| - | L ≦ 4 | | ±0.1 | 熱処理 HEAT TREAT | 品番 PART NO. (MODEL NO.) | 葉番 SHEET |
| 般公差 | 4 < L ≦ | 16 | ±0.2 | | 06015KA-12M-AL-01 | 2 / |
| 差 | 16 < L ≦ | 63 | ±0.3 | | 00013KA-12W-AL-01 | / 4 |
| | 63 < L ≦2 | 250 | ±0.5 | 表面处理 FINISH | 図番 DRAWING NO. | 改訂 REV. |
| TOL | 250 < L ≦ | 1000 | ±0.8 | | 06015KA-12M-AL-01 | |
| | 角度DE | G | ±0.5 | | 00013KA-12W-AL-01 | Α |



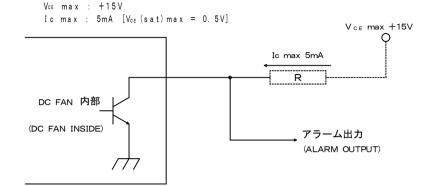


図 1. アラーム信号回路 (ALARM SIGNAL CIRCUIT)

誤接続防止: 信号出力線を誤接続しますと、FAN MOTOR内部駆動用 I C内

のトランジスターを破壊することが有りますので、十分注意し

てください。

又、コネクター等を使用される場合は、3極のコネクターの場合、| + | | | | | | | | | | | | | となる様、設計時ご配慮くだ

さい。

WARNING: Improper connection of the sensor lead may cause damage to

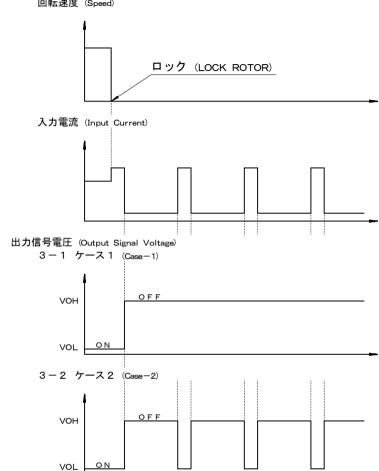
the motor driver IC. It is suggested that if a three-Poles connector is used the sensor lead always be placed in the center position.

Please see below.



万一、誤接続により不都合が発生した場合、当社では責任を負い兼ねます。 誤接続には十分ご注意下さい。

We shall be free from compensation, if it occurs trouble due to insertion of opposite direction.





| | | | | | Minebea Co., Ltd. ミネベア株式会社 | | € | 単位 ∪ 尺度 Si | NIT mm CALE | 材質 MATERIAL 表面相址 SURF. ROUGH. | 作成日 DATE 2013 / 09 品名 DESCRIPTION AUTO RESTART TYP DC BRUSHLES: | E | |
|------|------|----------------|----------|----------|-------------------------------|---------|-------|---------------|---------------------------|-------------------------------|--|-------------------------|----------|
| | | | | | APPROVED | CHECKED | DRAWN | an | L≦4 | ±0.1 | 熱処理 HEAT TREAT | 品番 PART NO. (MODEL NO.) | 葉番 SHEET |
| | | | | | | | | 公差 | 4 < L ≦ 16 16 < L ≦ 63 | ±0.2 | | 06015KA-12M-AL-01 | 3/4 |
| 符号 | 日付 | 変更事由 | 担当 | 承認 | TKTN | KWI | FJMK | | 63 < L ≦250 | ±0.5 | 表面处理 FINISH | 図番 DRAWING NO. | 改訂 REV. |
| MARK | DATE | REASON ECN NO. | ENGINEER | APPROVED | | | | TOL | 250 < L ≦ 1000 角度DEG | ±0.8 | | 06015KA-12M-AL-01 | Α |

