



CUSTOMER :

TDK'S ITEM NAME :  
Ultrasonic Humidifier Units

TDK-EPC CORPORATION  
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CUSTOMER'S PART No. :

TDK'S PART :  
NB-80E-01-H

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# ULTRASONIC HUMIDIFIER UNITS SPECIFICATION

PREPARED BY	CHECKED BY	APPROVED BY	TDK'S Dwg No.	REV	PAGE
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1. Scope

This document is applicable to the specifications of the Ultrasonic humidifier units delivered to \_\_\_\_\_

2. Product name

The product name described in this document is NB-80E-01-H.

3. Table of Contents

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Revision history


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#### 4. Electrical Characteristics

Table-2

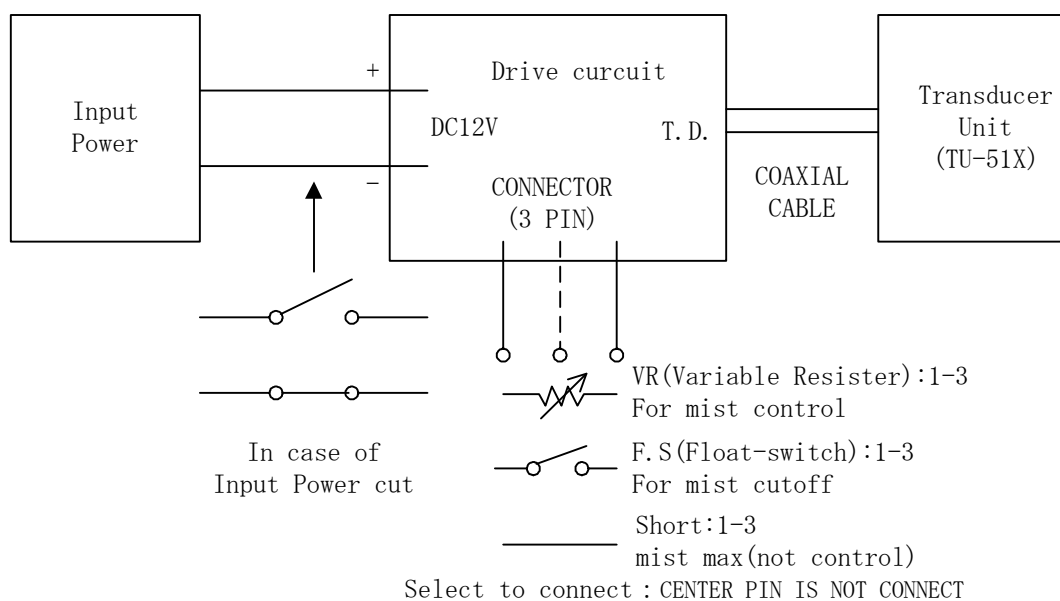
Item	Rating	Measuring conditions
4.1 Input voltage	DC 12V	
4.2 Power consumption	MAX 1.1A	DC 12V
4.3 Mist output	150 +100 mL/h -50	Water temperature: $26\pm 1^{\circ}\text{C}$ Room temperature: $21\pm 3^{\circ}\text{C}$ Water level: 35mm (Above surface of transducer) Measuring duration: 3 minutes (After 2 minutes warming up with 115% rating input. Mist output is converted from the weight decrease of water for 3 minutes.)  Measuring equipment: Based upon the TDK standard measuring method.
4.4 Life of transducer	5,000 h	Life means to keep such condition as the unit emits mist output more than 70% of initial one, provided the surface of transducer should be cleaned.
4.5 Ultrasonic frequency	2.35~2.60 MHz	Oscillating frequency of transducer at input voltage 12 VDC.
4.6 Input voltage Characteristics	Mist output is more than 57% of rated value when input voltage is 90% of rated one.	

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5. Conditions for application

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Item	Condition
5.1 Ambient temperature	0~45°C
5.2 Ambient humidity	85% maximum (without dewing)
5.3 Kind of water	Drinking water
5.4 Water temperature range	0~50°C
5.5 Water level	35 mm (Above the center of transducer)
5.6 Proper external variable resistor	10KΩ 1/4W (Between the CN3 ①and③) see Fig1
5.7 Preservation Temperature	-40~80°C

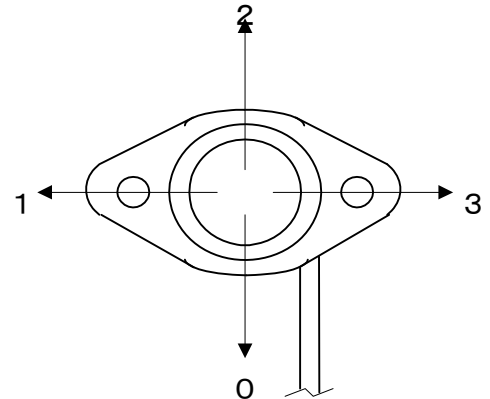
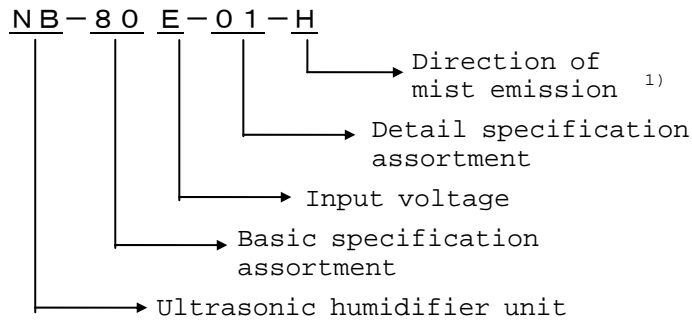


6. Use of product

This product is used for the indoor humidifier using drinking water. The specifications used for other purpose than the above are subject to the consultation with TDK.

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7. Product code designation



<sup>1)</sup> Arrow shows the direction of mist emission. ("H" : HORIZONTAL)

8. Packaging and Indications

The packaging should be done not to get moisture and not to get damage.  
 The following items are indicated on packaging.

1. Product code
2. Manufacturing Lot No.
3. Manufacturer

9. Test conditions

The test shall be conducted under the temperature:  $21 \pm 3^\circ\text{C}$ , humidity:  $50 \pm 20\%$   
 Unless otherwise instructed by TDK.

10. Remarks

10.1

Flux on the PC board of a unit is not washed.

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11. Terms and conditions for use

- (1) The Units are used to atomize water and liquids similar to water. When such liquids under pH5 acid or over pH8 alkaline are atomized, the vibrator element may deteriorate or become permanently damaged. TDK will not be responsible for such deterioration or damages. Accordingly, the Units should not be used with liquids having an acidity of less than pH5 or an alkalinity of greater than PH8.
- (2) When there is no water or other liquid in contact with the Units even a short time, the vibrator elements should never be put into operation. If the vibrator elements are used in this manner, they could become permanently damaged. TDK will not be responsible for such damage.
- (3) If the Units capacity for atomization is lowered due to substances contained in water or other liquid such as Ca, Na, Mg or Si adhering to the surface of vibrator element and causing permanent damage, TDK will not be deemed responsible and/or liable.
- (4) If the equipment containing the Units is not used for a long period of time, the water or other liquid should be removed and the part for vibrator element should be cleaned. If proper operating instructions and care are not followed, TDK will not be responsible and/or liable.
- (5) In no event shall TDK be liable for any transmission of bacteria or particles harmful to the human body, or for any containing of substances preventing atomization in the water or liquids to be atomized. TDK is not responsible or liable for the build up of bacteria or the lack of a clean water system.
- (6) In no event shall TDK be liable for deterioration of the vibrator element through use of any drive circuit other than that provided or approved by TDK.

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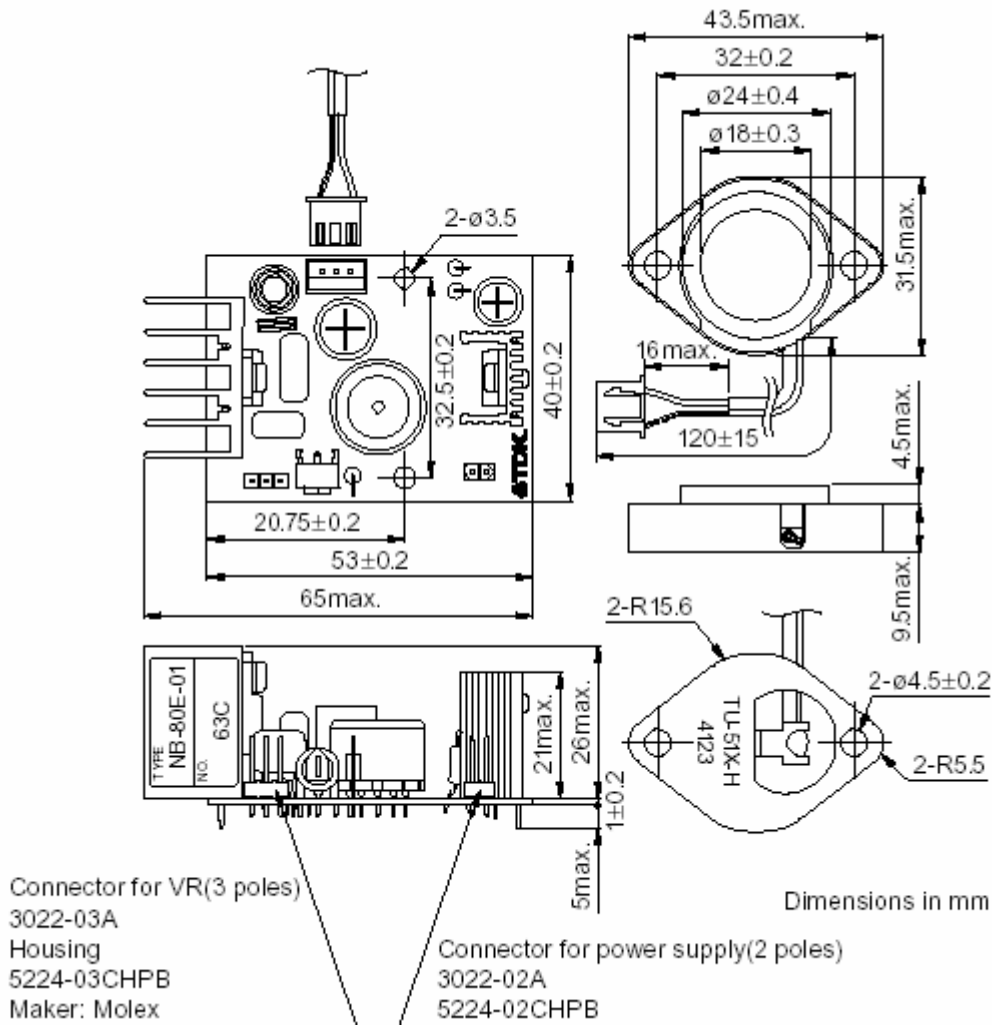
(7) In no event shall TDK be liable for the deterioration of quality of the Units resulting from the operation or storage in any environment other than that recommended by TDK or from the application in combination other than those TDK has recommended as suitable for efficient atomization

(8) TDK warrants the Units against faulty workmanship or the use of defective materials and the Units will conform to mutually agreed upon written specifications and drawings for a period of one (1) year from the date of shipment.

If TDK breaches its warranties contained in this paragraph, TDK's sole and exclusive liability shall be at TDK's option to repair, replace or credit the buyer's account for the Units which are returned by your company during the applicable warranty period, provided that (i) TDK is promptly notified in writing upon discovery by the buyer that such Units failed to conform to this paragraph with a detailed explanation of any alleged deficiencies and (ii) TDK's examination of such returned Units shall disclose that such alleged deficiencies actually exist and were not caused by accident, misuse, neglect, alteration, improper installation, unauthorized repair or improper testing.

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12. Configurations and Dimensions



Dimensions in mm

Unless otherwise specified, tolerance is  $\pm 1.0$ mm

Fig1

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