

# HEAT RESIST FAN MOTOR TECH INFO

Coreless Motor Co.,Ltd



Coreless Motor Co.,Ltd : [www.cls-motor.com](http://www.cls-motor.com)  
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\* 写真はイメージです。



## HEAT RESIST FAN MOTOR



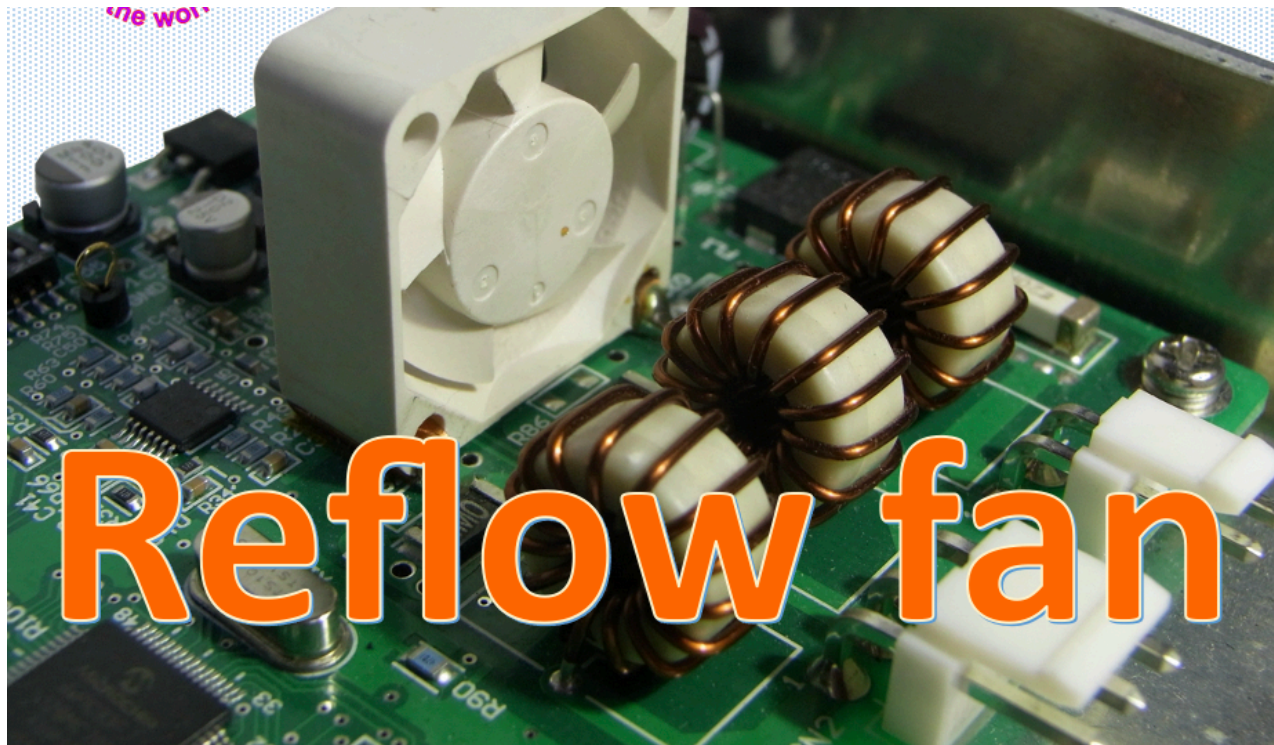
Heat-resistant fan motors are motors used in particularly bad temperature environments.

For example, it is a fan motor that can withstand adverse temperature conditions such as in the engine of a car, in a high temperature tank, in a reflow furnace or in an incinerator.

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# Reflow fan

APPLICABLE TO REFLOW



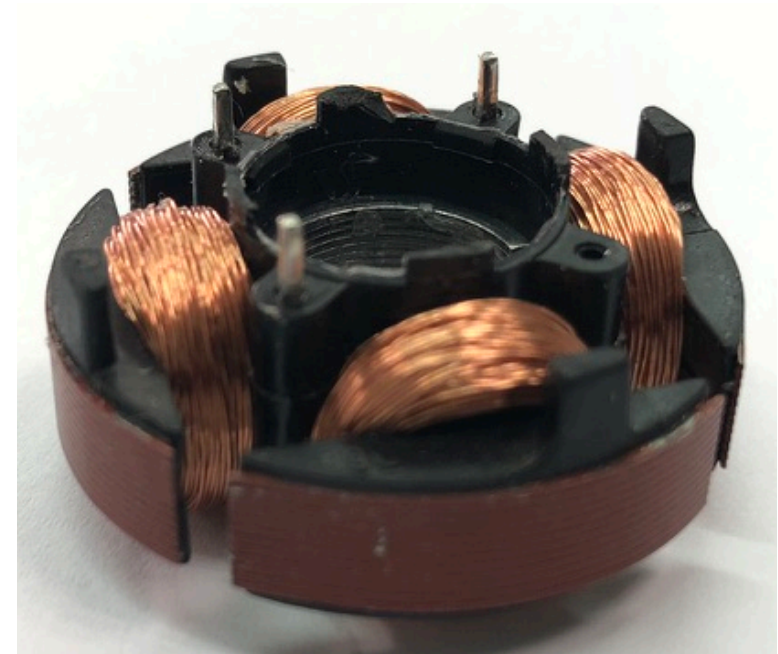
Our heat resistant fan motor is compatible with reflow. Conventionally, the fan motor was attached and the connector wiring was done after the board reflow, but it is fully automated by reflow. Wages and human error (connector wiring error) are greatly reduced.

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- ① Insulation film of magnet wire
- ② Operating ambient temperature of drive IC
- ③ Allowable temperature of magnet



Common fan motor iron core

## WHAT LIMITS THE ALLOWABLE TEMPERATURE?



# CORELESS FAN HAS LOW HEAT GENERATION

- Since there is no iron core, heat does not stay in the iron core
- No heat generation due to eddy current loss in the iron core.
- Has a lot of space and good heat dissipation.



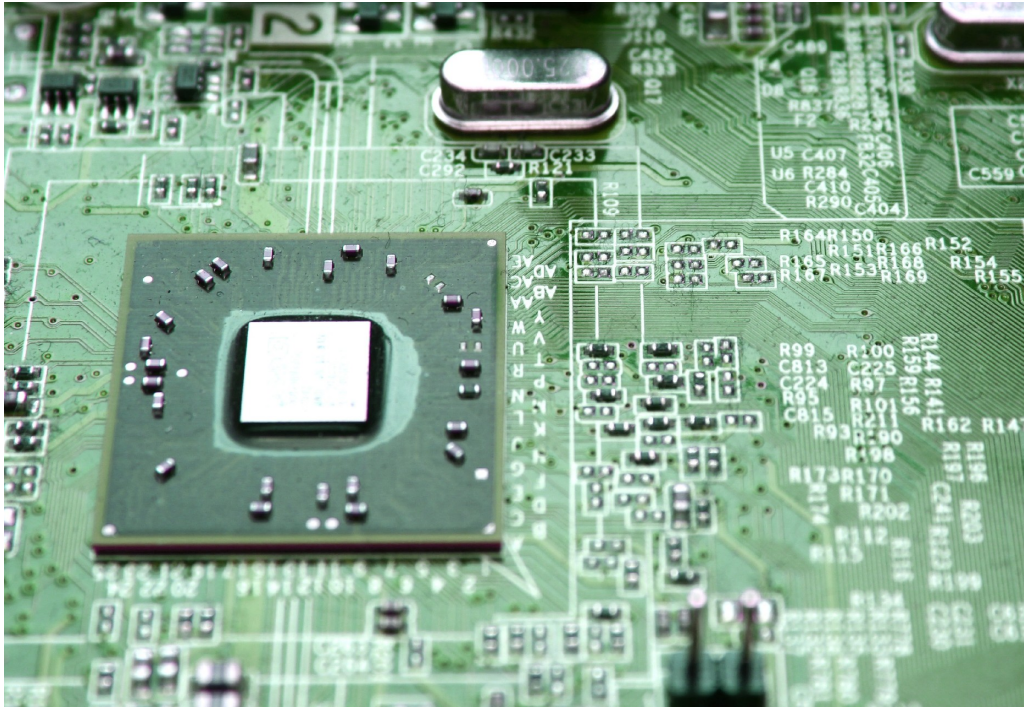
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# HEAT RESIST FAN DEVELOPMENT

- ✓ Joint development of heat-resistant IC with manufacturers
- ✓ Use of heat-resistant magnet wire
- ✓ Development of oil that is hard to volatilize





# JOINT DEVELOPMENT OF HEAT RESISTANT IC WITH MANUFACTURERS

Jointly developed a fan motor drive IC with a semiconductor design maker. Succeeded in developing a fan motor drive IC that can be used without problems even at high temperatures.

\* Details cannot be disclosed due to NDA.

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# USE OF HEAT-RESISTANT MAGNET WIRE

The insulation film of the magnet wire will melt at high temperatures, causing a defect.

Our company's heat-resistant coreless motor uses special magnet wire made of heat-resistant material. This prevents the coil insulation film from melting even at high temperatures.

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# DEVELOPMENT OF OIL THAT IS HARD TO VOLATILIZE

Our heat-resistant fan motor uses an oil circulating sleeve bearing. Oil is required to rotate the circulating bearing (sleeve metal bearing) smoothly without noise.

We have adopted our own oil circulating sleeve bearing system, but if the oil is volatilized at high temperature, there is nothing we can do about it.

Co-developed an oil that does not easily evaporate even at high temperatures with an oil supplier. We have completed an oil circulating sleeve bearing that rotates smoothly even at high temperatures.



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# THANK YOU FOR YOUR ATTENTION

\* Please contact us directly for  
more detail information



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