For better use of our Catalog

⟨For specifications⟩

Specifications in this product catalog are subject to change without prior notice. Detailed specifications are omitted for some of the products due to limited space.
Please inquire and ask for individual specification sheets when ordering.

⟨Information⟩

- Please note that the following models with The products indicated by ➔ mark will be manufactured upon receipt of your order.
- ➔ mark models
- POLYGON LASER SCANNERS

Those without ➔ mark are standard stock items unless otherwise specified.
Our product catalog consists of two volumes.
This catalog, the second volume, carries product information on sensors and motors. Please see the first volume for other products such as switches, trimmers, attenuators, circuit protector and so on.

Note prior to placing order

The product is not designed for use in equipment or devices that could have an impact on life or body, or those that could damage property (These include, but are not limited to, medical equipment, disaster prevention equipment, security equipment, combustion control equipment, infrastructure control equipment, vehicle equipment, transportation equipment, on-board equipment, aviation equipment, space equipment, and nuclearrelated equipment).
If you want to use this product for any of the above-mentioned equipment or devices, be sure to contact our point of contact beforehand. The details of warranty shall be as per the descriptions in this document and we shall not be liable for any damage on you resulting from the use of any equipment or device (including control systems) which is not in accordance with this document (hereinafter referred to as "use in violation").
In the case where you resell our products, we shall not be liable for any damage on a third party resulting from use in violation by the third party, and even if we make payment to the third party in connection with such use in violation regardless of the name by which such payment may be called, we may demand the whole amount thereof from you.

〈Warranty Period〉

The warranty period is one year from the date of delivery. The warranty is only applicable to the product itself, not applic a ble to con sumable products such as batteries and etc.

〈Warranty Coverage〉

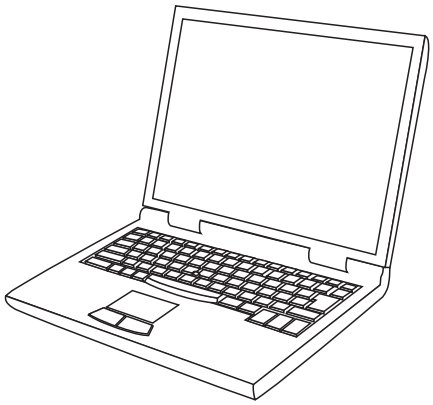
If any malfunctions should occur due to our fault, NIDEC COMPONENTS warrants any part of our product within one year from the date of delivery by repair or replacement at free of charge. However, warranty is not applicable if the causes of defect should result from the following con ditions:

- Failure or damages caused by inappropriate use, inappropriate conditions, and inappropriate handling.
- Failure or dam ages caused by inappropriate modifications, adjustment, or repair.
- Failure or damage caused by technically and Scientifically unpredictable factors.
- Failure or damage caused by natural disaster, fire or unavoid able factors.

APPLICATIONS
BRUSHLESS DC FANS

〈OA equipment〉

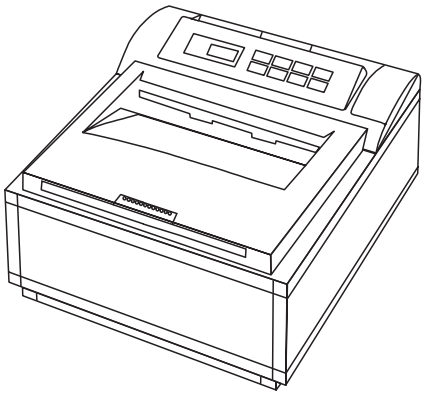
● Notebook type personal computer



● FAX

〈Computer peripherals〉

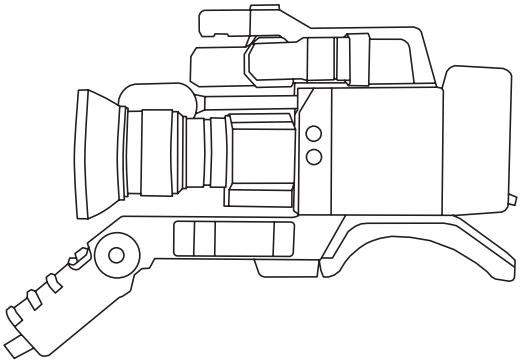
● Laser beam printer



● CD-R/RW drive or DVD-RAM drive

〈Broadcast equipment〉

● Professional use video cameras



COMMON SPECIFICATIONS
BRUSHLESS DC FANS

● Electrical specifications

(1) Operating voltage range: Rated voltage ±15 % (10 %)
(2) Insulation class: JIS C 4004 type E (120°C)
(3) Dielectric strength: Maximum 1 mA of leakage under 600 V AC for 1 s between frame and lead wire.
(4) Insulation resistance: Minimum 10 MΩ at DC500 V between frame and lead wire.

● Performance test method

(1) Airflow: Based on Double-chamber method of AMCA 210
(2) Noise: Measured at 10 cm from air inlet suspending fan at axis horizontal position in the air without any obstacles. Take the average for 10 seconds and convert into 1 m distance value.

● Main material of components

Component	Part number	Materials
Frame and impeller	F17FA F251R F310R F412R F410T F614T	ABS/PBT alloy
Printed circuit board		Epoxy resin or Paper-based phenolic resin
Lead wire		Heat resisting PVC

※ Please inquire regarding the standards acquisition as fan motor.

HANDLING NOTES
BRUSHLESS DC FANS

- When mounting Brushless DC fans, tighten the screw at torque levels less than those shown below for the breakage and transformation prevention.

  F16EA: 80 mN·m maximum
  F17FA: 80 mN·m maximum
  F17HA: 80 mN·m maximum
  F251R: 400 mN·m maximum
  F310R: 400 mN·m maximum
  F412R, F410T: 588.4 mN·m maximum
  F614T: 784.6 mN·m maximum

- Do not attempt to modify or disassemble the Brushless DC fans.
- Do not hold or carry Brushless DC fans by the lead wires.
- Please avoid mechanical shock because of precision bearings structure.