

# INTELLIGENCE

# **BLOWER MOTORS**

We understand time to market is extremely important, but not at the cost of poor quality!

While some competitors rush to market by replicating O.E. blower motors with inherent flaws, Four Seasons® takes the steps to develop a **solution!** We invest the time for engineering, testing, validation and quality control processes. Our designs not only provide the correct fit and form, but in many cases, they are an overall improvement to the O.E. unit.

### **FOUR SEASONS® FACT SHEET**

### P/N 75850

Infiniti (12-05) Applications Nissan (12-03) Applications

Four Seasons® redesigned motor resolves several issues associated with this O.E. unit for these applications. Issues include insufficient cooling, exposed circuit boards and loosely attached electronics that can fail from common vehicle vibration. Our design features airtight sealed electronics with stall and surge protection, EMI suppression and an integrated cooling tube for extended motor life.



### **FOUR SEASONS® MOTOR Brushless Replacement Design**



Integrated Cooling Tube for Improved Motor Life





Hermetically sealed electronics for complete protection

### COMPETITOR "T" **Brushless Replacement Design**



- Vent in One End of Motor Only
- No vent tube to create a pressure differential and drive cooling air through the motor.



- Leak path from heat sink directly above PCB
- · Electronic loosely attached (vibration concern)



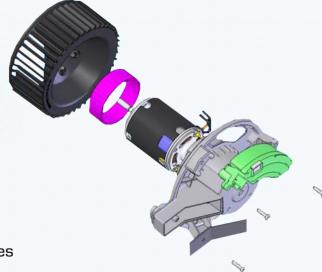
· No sealing /protection of heat sink & electronics -A single drop of moisture or corrosion will damage the electronics and potentially cause a thermal event.



Exposed traces on PCB

### **WE DO WHAT OTHERS MAY NOT**

- Integrated Cooling for Motor and PWM
- Four Seasons® Designed Blower Wheels
- PWM is Self Contained and Fully Programmable to Accept Various Input Signals
  - Hermetically Sealed Electronics
  - Stall Protection Incorporated
  - Reverse, Over and Under Voltage Protection
  - EMI Suppression
  - Current Limited Protection
  - Thermally Protected Electronics
- Long Life Brushes in the Motor
- Proven and Tested Motor Design
- -104°F to 176°F Ambient Operating Temperatures



## INTELLIGENT CONSOLIDATION

When engineering our own unique improvements, we have found ways to develop motors that not only cover one application, but cover multiple! Our consolidation efforts allow for increased shelf space, reduced inventory and cost savings over the competition.

# While we build one motor, our competition builds as many as 7!

4S Part Number	Competitor "T"	Competitor "V"
35002	3	1
35202	7	2
75805	6	4
75880	3	2
35352	4	3

### 75830

One motor replaces 6 different O.E. motors that are used on 18 different vehicles!

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LEXUS ES350 (13-07)
LEXUS GS300 (06-05)
LEXUS GS350 (11-07)
LEXUS GS430 (07-06)
LEXUS GS450H (11-07)
LEXUS GS460 (11-08)
LEXUS GX460 (13-10)
LEXUS IS F (11-08)
LEXUS IS250 (12-06)

LEXUS IS350 (12-06)
LEXUS RX350 (12-10)
LEXUS RX450H (12-10)
TOYOTA 4RUNNER (12-10)
TOYOTA AVALON (13-05)
TOYOTA CAMRY (13-07)
TOYOTA HIGHLANDER (13-08)
TOYOTA TUNDRA (13-07)
TOYOTA VENZA (13-09)



LEXUS ES300 (96-92)
MAZDA 626 (02-98)
TOYOTA AVALON (04-95)
TOYOTA CAMRY (01-92)
TOYOTA CELICA (99-94)
TOYOTA SEQUOIA (07-01)
TOYOTA SIENNA (03-98)
TOYOTA SULARA (04-99)
TOYOTA SULARA (98-93)
TOYOTA TUNDRA (06-04)



75805
HYUNDAI ACCENT (11-03)
HYUNDAI AZERA (10-06)
HYUNDAI ENTOURAGE (09-07)
HYUNDAI SONATA (10-06)
HYUNDAI TUCSON (09-06)
KIA OPTIMA (10-08)
KIA SEDONA (12-06)