1. Altitude

Standard TITAN 547 motors are designed for 3300 feet altitude and 40°C ambient temperature. Atmospheric conditions at higher altitudes inhibit the motor's ability to dissipate heat, resulting in an increased temperature rise and a reduced motor capacity. NEMA®† standards state motor temperature will increase 1% for each 330-foot increment above the standard 3300-foot altitude design point. Ambient temperatures generally drop with an increase in altitude and are normally less than 40°C, even when installed indoors. Motors can be specifically designed for higher altitudes or derated, either due to lower ambient temperatures or by reducing output capacity.

- TITAN 547 motors can be rated for high altitudes of 3301-8000 feet. Contact your Nidec Motor Corporation Technical Representative for frames, performance and pricing.

2. Ambient

Standard TITAN 547 designs described in this catalog are suitable for operation in ambient temperatures ranging from +40°C (104°F) to -25°C (-13°F). When standard designs are consistently exposed to ambient temperatures between -5°C (23°F) and -25°C (-13°F), special lubrication practices may be required.

- TITAN 547 motors can be rated for high and low ambient conditions. Contact your Nidec Motor Corporation Technical Representative for frames, performance and pricing.

3. API®† Monogram Nameplate

As standard, TITAN 547 motors do not bear the API®† Monogram Nameplate. The API®† Monogram Nameplate can be supplied, if there are no deviations to the API 547 Standard. In addition, Nidec Motor Corporation also requires review of customer's load speed torque curve, load inertia (Wk2) and completed data sheets.

- Contact your Nidec Motor Corporation Technical Representative for frames, performance, pricing and lead-time.

4. Assembly Position

- The standard Assembly Position is considered "F1". "F2" Assembly Position is available at no charge when specified at time of Motor order.

5. Bearings

- Sleeve bearings are standard.
- For anti-friction ball bearings, deduct as follows:

Frame:	5000	5800
Adder:	17310	20195

6. Identification Nameplate

- A special identification nameplate can be mounted on motor with limited customer-specified tagging information.

Frame:	5000	5800
Adder:	115	115

7. Rotor, Optional Construction

- Standard rotor construction for 3600 RPM 5000 frame is die-cast aluminum. Standard rotor construction for 5000 frame 1800 RPM & slower and on 5800 frame is fabricated aluminum bar rotor. Optional rotor construction is available as shown below.
- Optional rotor designs will change performance characteristics.
- Fabricated copper bar rotor construction: Centrifugally cast end rings are fully brazed to each rotor bar. Rotor bars are swaged, preventing in-slot movement and tight bar construction. Heavy finger plates tightly hold the rotor core together, controlling internal stress and maintaining dimension stability under all loads.

Frame:	5000	5800
Adder:	19200	22240

8. Shims

- Stainless steel shim pack

Frame:	5000	5800
Adder:	2275	2275

9. Testing

A. Non-Witnessed API 547 Routine Test

Frame:	5000	5800
Adder:	(N/C)	(N/C)

A non-witnessed routine test per API 547 comes standard (no charge) with the following:

- no-load current, power & speed
- locked rotor current
- high-potential test (stator, heaters, RTDs)
- insulation resistance test & polarization index
- stator resistance
- vibration measurement
- bearing insulation test
- bearing temperature rise

B. Witnessed API 547 Routine Test

Frame:	5000	5800
Adder:	18465	20135

A witnessed routine test per API 547 comes with the following:

- no-load current, power & speed
- locked rotor current
- high-potential test (stator, heaters, RTDs)
- insulation resistance test & polarization index
- stator resistance
- vibration measurement
- bearing insulation test
- bearing temperature rise

C. Non-Witnessed API 547/541 Complete Test

Frame:	5000	5800
Adder:	16270	19328

Performed per IEEE-112™ Method B
A non-witnessed complete test per API 547/541 comes with the following:

- full-load heat run
- percent slip
- full-load current
- locked rotor current and power factor
- speed-torque curve
- noise test
- locked rotor torque
- breakdown torque
- efficiency and power factor at 100% 75% and 50% of full load

D. Witnessed API 547/541 Complete Test

Frame:	5000	5800
Adder:	21925	26540

Performed per IEEE-112™ Method B
A witnessed complete test per API 547/541 comes with the following:

- full-load heat run
- percent slip
- full-load current
- locked rotor current and power factor
- speed-torque curve
- noise test
- locked rotor torque
- breakdown torque
- efficiency and power factor at 100% 75% and 50% of full load

E. Non-Witnessed Rated Rotor Temperature-Vibration Test

Frame:	5000/5800
Adder:	10705

F. Witnessed Rated Rotor Temperature-Vibration Test

Frame:	5000/5800
Adder:	15745

9. Testing (Continued)

G. Non-Witnessed Sealed Winding Conformance Test

Frame:	5000	5800
Adder:	6623	6623

H. Witnessed Sealed Winding Conformance Test

Frame:	5000	5800
Adder:	9935	9935

10. Vibration Detectors

(QP) Refer to Modifiable TITAN® Quick Pick Chart For Pricing

Frame:	449	5000	5800	6800	8000	9600
Adder:	(QP)	(QP)	(QP)	(QP)	(QP)	(QP)

- Nidec Motor Corporation offers a wide variety of vibration switches and transducers. However, we do not offer the corresponding monitoring equipment. The engineer or end user normally has well-defined monitoring system requirements that are the province of custom panel shops, not Nidec Motor Corporation.
- Monitors and control units, cables, etc., are not included in prices. These are not supplied by Nidec Motor Corporation.
- Nidec Motor Corporation's standard vibration detector for non-classified areas is the ROBERTSHAW®† model # 366.
- Nidec Motor Corporation's standard vibration detector for Division 2 ratings is the METRIX™ Model M5550.
- Nidec Motor Corporation can also arrange to accommodate
- If the "Arrange-To-Accommodate" option is selected, the Manufacturer, Manufacturer's Part Number and Type must be specified at order entry.

11. Proximity Probes (Sleeve Bearing Motors Only)

A. Arrange-To-Accommodate Proximity Probes

Frame:	5000	5800
Adder:	1735	1735

- When requesting "Arrange-To-Accommodate". Customer must specify the series and size. Provision will include a drilled and tapped hole (mounting studs are not included).
- If customer supplied proximity probes are calibrated for "4140" shaft material, please also apply the Shaft Material, High Tensile Steel Adder.

B. BENTLY-NEVADA®† 3300 Series 8mm Proximity Probes

Frame:	5000	5800
Adder:	25135	25135

- BENTLY-NEVADA®† 3300 Series 8mm Proximity Probes are used for monitoring shaft position on a Sleeve Bearing Motor. Two probes are required per bearing. The price adder includes probes, proximiters, mounting studs and cables wired to a dedicated accessory conduit box.

C. BENTLY-NEVADA®† 3300 Series 8mm Proximity Probes With Qty. 1 Keyphaser

Frame:	5000	5800
Adder:	31955	31955

- BENTLY-NEVADA®† 3300 Series 8mm Proximity Probes are used for monitoring shaft position on a Sleeve Bearing Motor. Two probes are required per bearing. The price adder includes probes, proximiters, mounting studs and cables wired to a dedicated accessory conduit box.
- Includes Qty. 1 Keyphaser