Pipeline Duty Data Sheet
AC Squirrel Cage Induction
Vertical Motors
[112 kW (150 hp) to
3729 kW (5000 hp)]
U.S. CUSTOMARY UNITS

Job No.		Equip. No.	
P.O. No.		Quantity	
User		Application	
Location		Spec. No.	
Project Name		Project No.	

Submitted for: ○ Proposal ○ Purchase ◉ As-Built

Designed & built in accordance with NEMA MG1 Standard

Motor Type: _____ **Frame Size:** _____
Enclosure: ○ TEFC ◉ WP-II
Power: _____ ○ hp ◉ kW **RPM:** _____ **Poles:** _____
Voltage: _____ **Hz:** _____
Service Factor: **1.0 S.F.** ○ _____ S.F. (Above 1.0)
Insulation Class: **F** ○ _____ Other
-18°C to +40°C Ambient ◉ _____ Ambient (Other)
1000 m Altitude ○ _____ Altitude (Other)
Area Classification:
○ **Div. 2 / Zone 2** **Cl.** _____ **Grps.** _____ **T-Code / AIT** _____ / _____ **°C**
○ **Unclassified**
Temperature Rise: ○ **Class B** ○ _____ Other
Starting Method: ○ Direct-On-Line Start ○ _____ Other

Mechanical Features (Anti-Friction Bearings)
Direction Of Rotation (Viewed From ODE): ○ CCW ○ CW ○ Dual Rot.
Flange Mount: ○ P-Base ○ _____ Other
Shaft Type: ○ Solid Shaft ○ HOLLOSHAFT®
○ Non-Reverse Ratchet ○ _____ Special Endplay Requirement
Bearings: Antifriction
Motor Thrust Load (lbs): _____ Downthrust _____ Upthrust
Rotor/Shaft:
○ _____ Rotor Cage Construction
○ _____ Shaft Runout (Other) ○ _____ API 610 Tolerances

WP-II Accessories
Air Filters (Type & Size): _____
Air Pressure Differential Monitoring:
○ Provisions Only ○ Air Pressure Differential Switch
○ Air Pressure Differential Switch with Visual Gauge
Recommended Settings: Alarm _____ Shutdown _____

Temperature Protection
◉ 100 Ohm Winding RTDs (2/Phase) ○ _____ Other
Recommended Settings: Alarm _____ Shutdown _____
◉ 100 Ohm Bearing RTDs (2/Bearing) ○ _____ Other
Recommended Settings: Alarm _____ Shutdown _____

Heaters
○ Frame Heaters _____ / _____ Hz/V Type _____
○ Main Conduit Box Heater _____ / _____ Hz/V Type _____
○ Oil Sump Heater _____ / _____ Hz/V

Main Terminal Box
○ _____ Main Conduit Box Material (Other)
◉ _____ Main Conduit Box Accessories

Vibration Protection
○ Provisions Qty. & Location _____
○ Vibration Detector(s) Qty. & Location _____
Make/Model _____
Recommended Settings: Alarm _____ Shutdown _____

Tests
○ N.W. Short Commercial & Vibration ○ _____ Other

Motor Data:
- ■ Full Load Torque: _____ ft-lb.
- ■ Locked Rotor Torque (LRT): _____ % FLT
- ■ Pull-up Torque (PUT): _____ % FLT
- ■ Breakdown Torque (BDT): _____ % FLT
- ■ Rotor WK²: _____ lb.-ft²
- ■ Motor Curves: See Motor Data Package
- ■ Efficiency: _____ 100% _____ 75% _____ 50% _____ Other
- ■ Guaranteed Efficiency At Full Load: _____ Per IEEE 112 Method B
- ■ Power Factor: _____ 100% _____ 75% _____ 50% _____ Other
- ■ Current (A): _____ 100% _____ 75% _____ 50% _____ Other
- ■ Locked Rotor Current at 100% Voltage: _____
- ■ Locked Rotor Current at 80% Voltage: _____
- ■ Allowable Stall Time at 100% Voltage: _____ Sec (Cold) _____ Sec (Hot)
- ■ Allowable Stall Time at 80% Voltage: _____ Sec (Cold) _____ Sec (Hot)
- ■ Sound Pressure Level (No Load): _____ at 1 Meter
- ■ Equivalent Circuit Data

_____ kVA at Rated Voltage @ 25°C
At Rated Load at Rated Voltage & Temperature:
Stator R_1 _____ Stator X_1 _____
Rotor R_2 _____ Rotor X_2 _____
Magn R_M _____ Magn X_M _____
At Locked-rotor at Rated Voltage (Zero Speed):
Stator R_1 _____ Stator X_1 _____
Rotor R_2 _____ Rotor X_2 _____
Magn R_M _____ Magn X_M _____
Subtransient Reactance $X_S = X''_{do}$ _____
Fundamental Freq. Component of Stray Load Loss at Rated Current (LLS):
_____ kW
Residual Voltage Open Circuit Time Constant T''_{do}:
Motor Only _____ Sec. With Surge Capacitors _____ Sec.
Phase-to-Phase Resistance _____ Ohms, @ _____ °C
Total Winding Capacitance to Ground _____ uF

Bearing Data:
- ■ Bearing Description: _____ DE Brg. _____ ODE. Brg.
- ■ Lubrication Description: _____
- ■ Recommended Lubricant: _____
- ■ Lubricant Quantities: DE Brg. ODE Brg.

Additional Requirements And Notes:

Rev. No.	Date	Description	Revision By	Approved By

Submit to contactus@nidec-motor.com