

Specifications, Motor, Tonkaflo

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1 Scope

This specification establishes the minimum requirements for the motors used for Tonkaflo Pumps. Motors are categorized based on type and location of use. Additional information can be found in Appendix1; Table A.

2 Motor Specifications

Minimum requirements shall be used:

2.1 100HP rated at 60Hz

2.1.1 404/405TSC

Standard Features:

- NEMA MG-1 rated
- Number of Poles: 2, 3 Phase
- Rated Voltage: 230/460V
- Insulation Class: F
- Temp Rise: 80C
- Starting Method: Inverter Duty
- Ambient Temperature: -20C to 40C
- Ingress Protection rating: IP55
- Enclosure: TEFC
- Duty Cycle: Continuous
- Winding Thermal Protection: Thermostat

These items are NOT included in the with the standard motor:

- Factory Motor test reports
- Space heaters
- AEGIS shaft grounding rings
- RTDs
- Thermistors
- Insulation class H

2.2 75HP rated at 60Hz

2.2.1 364/365TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.3 60HP rated at 60Hz

2.3.1 364/365TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.4 50 HP rated at 60Hz

2.4.1.1 324/326TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.5 40HP rated at 60Hz

2.5.1 324/326TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.6 30HP rated at 60Hz

2.6.1 284/286TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.7 25HP rated at 60Hz

2.7.1 284/286TSC

Standard Features:

NEMA MG-1 rated
Number of Poles: 2, 3 Phase
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.8 20HP rated at 60Hz

2.8.1 254/256TSC

Standard Features:

NEMA MG-1 rated
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.9 15HP rated at 60Hz

2.9.1 213/215TSC

Standard Features:

NEMA MG-1 rated
Phase: 3
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Max. Temp Rise: +40C
Starting Method: Inverter Duty
NEMA Design B at 60Hz
Ingress Protection rating: IP43
Enclosure: TEFC
Duty Cycle: Continuous
Altitude Limits: 3300 FASL

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

10HP rated at 60Hz**2.9.2 213/215TC**

Standard Features:

NEMA MG-1 rated
Phase: 3
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Max. Temp Rise: +80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.10 7.5HP rated at 60Hz

2.10.1 182/184TC

Standard Features:

NEMA MG-1 rated
Phase: 3
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.11 5HP rated at 60Hz

2.11.1 182/184TC

Standard Features:

NEMA MG-1 rated
Phase: 3
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

2.12 3HP rated at 60Hz

2.12.1 56HJ

Minimum Requirements/Features:

NEMA MG-1 rated
Phase: 3
Number of Poles:2
Rated Voltage: 230/460V
Insulation Class: F
Temp Rise: 80C
Starting Method: Inverter Duty
Ambient Temperature: -20C to 40C
Ingress Protection rating: IP55
Enclosure: TEFC
Duty Cycle: Continuous

Some common items NOT included in the standard features, but also not limited to:

Factory Motor test reports
Space heaters
AEGIS shaft grounding rings
RTDs
Thermistors
Insulation class H
Winding Thermal Protection: Thermostat

3 Revision History

Revision	Description	Date	Revised By	Approved By
A	Initial Release.	04/17/24	JCG	SCF

4 Appendices

4.1 See Table A spreadsheet for Motor Interface Needs



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