

Typical Motor Construction Features

Vertical Motors with Anti-Friction Bearings

NEMA^{®†} Single Phase (213 thru 254 Frame)

Enclosure	Efficiency Level	Inverter Duty	Stator Frame Material	Holloshaft [®] High-Thrust
WPI	Standard	No	Aluminum	AUC (Cap Start/Induction Run)
				AUR (Cap Start/Cap Run)

NEMA Three Phase (182 thru 447 Frame)

Enclosure	Efficiency Level	Inverter Duty	Stator Frame Material	Shaft/Thrust Configuration	
				HOLLOSHAFT [®]	Solid Shaft
				High-Thrust	Normal-Thrust
WPI	Premium	Yes	Aluminum	AUSI	*
	Premium	No		AUS	AVS
	Premium	Yes	Cast Iron	RUSI	*
	Premium	No		RUS	RVS
TEFC	Premium	Yes	Cast Iron or Aluminum	TUI	*
	Premium	No		TUS	TVS

TITAN[®] Three Phase (449 and 5008 Frame)

Enclosure	Efficiency Level	Inverter Duty	Stator Frame Material	HOLLOSHAFT [®] High-Thrust
WPI	Premium	Yes	Cast Iron	RUSI, RUEI
	Premium	No		RUS, RUE
TEFC	Premium	Yes	Cast Iron	JUEI
	Premium	No		JUE



Typical Motor Construction Features

FRAME MATERIAL:

NEMA[†] FRAMES (180 thru 447)

Type: AVS, AUS, AUSI	Aluminum
RVS, RUS, RUSI,	Cast Iron
TVS, TUS	Aluminum (180-280 Frames)
TVS, TUS, TUI	Cast Iron (320-440 Frames)
TUCI, TCEF, TVCS	Cast Iron

TITAN[®] FRAMES (449 & 5008)

Type: RUS, RUSI, RUE, RUEI	Cast Iron
JUE, JUCEI	Cast Iron

BRACKETS:

NEMA[†] FRAMES

Both end brackets are cast iron except for the following:
 Type AV: Upper bracket on 180 & 210 frames is aluminum.
 Type TV: Upper bracket on 180-280 frames is aluminum.
 Type TU: Upper bracket on 250 & 280 frames is aluminum.

TITAN[®] FRAMES (449 & 5008)

Type: RUS, RUSI, RUE, RUEI	Cast Iron
JUEI, JUCEI	Cast Iron

CANOPY CAP: Constructed of plastic, steel, aluminum, fiberglass or cast iron depending on exact frame and type.

FAN COVER (TEFC): Constructed of plastic, steel, aluminum or cast iron depending on exact frame and type.

BEARING CAPS: All Vertical motors are furnished with lower bearing caps constructed of aluminum or cast iron.

BEARING LUBRICATION

Frame	Type	Upper Bearing	Lower Bearing	Thrust Capacity
180-280	AUC, AUR, AUS, AUSI	Grease	Grease**	High
180-440	AVS, TVS, TCEF, TVCS	Grease	Grease	Normal
320-447	RVS	Grease	Grease	Normal
	RUS, RUSI	Oil	Grease	High
449	RUS, RUSI, JUE, JUCEI	Oil	Grease	High
180-360	TUS, TUCI	Grease	Grease**	High
400-440		Oil	Grease	High
5000	RUE, RUEI	Oil	Grease	High

**Lower bearing is thrust bearing.