

Inverter Duty CCP Motors

Totally Enclosed Fan Cooled, Closed Coupled Pump Horizontal AC Motors



Specifications

Horsepower: 1-50 HP

Speeds: 3600 - 1800 RPM

Speed Range: 20:1 Variable Torque, 5:1 Constant Torque

Design Voltages: 230/460 Volts

Enclosure: Totally Enclosed Fan Cooled (TEFC)

Industry Standard: NEMA



Product Overview

U.S. MOTORS® TEFC Inverter Duty Closed Coupled Pump motor line features Unimount® aluminum frame construction up to 30HP and World Motor HOSTILE DUTY® cast iron frame construction on 30HP to 50HP, offering enhanced performance and energy savings in variable-speed pumping applications used in data centers, water treatment, commercial building, petrochemical, and food processing.

This product line is built to withstand inverter driven applications with Nidec Motor Corporation's patented Inverter Grade® insulation system, which allows these motors to withstand spike and transient voltages induced by variable frequency drive. Making it fully compliant and exceeding NEMA MG-1, Part 30 & 31. For an added level of protection, every TEFC Inverter Duty Closed Coupled Pump motor is equipped with an Aegis shaft grounding ring, to eliminate issues caused by shaft voltage, ensuring long bearing life.

The warranty of TEFC Inverter Duty Closed Coupled Pump motors is 36 months from date of installation not to exceed 42 months from date of manufacture.

Key Features and Benefits

UNIMOUNT® (UJ)

- INVERTER GRADE® Insulation System (Meets NEMA®† MG-1 Part 31)
- Premium Efficient Design, F1 Assembly Position
- Class F Insulation, 1.25 S.F. On Sine Wave / 1.0 S.F. On PWM
- 40°C Ambient, NEMA®† Design B Performance On 60 Hertz SineWave Power
- Double Dip & Bake With Extra Bracing
- Extruded Aluminum Frame (140: Rolled Steel)
- Aluminum End Shields With Steel Bearing Inserts
- Removable Base 180 Frame & Larger, Lifting Provisions 180 Frame & Larger
- Regreasable Shaft-End Bearing 180 Frame & Larger
- Sealed Bearings 56-140, Double Shielded Bearings 180-280
- Special Balance (< 0.08 In/Sec Vibration)
- Shaft Grounding Ring

HOSTILE DUTY® (HJ)

- INVERTER GRADE® Insulation System (Meets NEMA®† MG-1 Part 31)
- Premium Efficient Design, F1 Assembly Position
- Class F Insulation, 1.15 S.F. On Sine Wave / 1.0 S.F. On PWM
- 40°C Ambient, NEMA®† Design B Performance On 60 Hertz SineWave Power
- Double Dip & Bake With Extra Bracing
- Cast Iron Frame, Cast Iron End Brackets, Lifting Provisions
- Corrosion Resistant Mill & Chemical Duty Paint
- Stainless Steel Nameplate & Zinc Plated Hardware
- Regreasable Ball Bearings, Double Shielded Bearings
- Shaft Slinger On Pulley End For IP54 Protection
- Special Balance (< 0.08 In/Sec Vibration)
- Shaft Grounding Ring

**Special Application Close Coupled Pump
Three Phase Totally Enclosed Fan Cooled (TEFC) Inverter Duty 20:1 (3-60 Hertz)
Speed Range Variable Torque, 5:1 (12-60 Hertz) Speed Range Constant Torque**

JM Shaft For Mechanical Seal

HP	RPM (Max Speed)	Voltage	Frame	Catalog Number	List	Discount Symbol	SF	"C" Dim. (inches)	Ship Wt. (lbs)	NEMA Nom. Eff.	Full Load Amps	Notes
1	3600	230/460	143JM	UJ1V1BM	\$708	DS-VST	1.25	15.3	30	80.0	2.8/1.4	SGR
	1800	230/460	143JM	UJ1V2BM	\$621	DS-VST	1.25	15.3	30	85.5	3.1/1.6	SGR
1 1/2	3600	230/460	143JM	UJ32V1BM	\$708	DS-VST	1.25	15.3	30	84.0	3.9/1.9	SGR
	1800	230/460	145JM	UJ32V2BM	\$683	DS-VST	1.25	15.3	35	86.5	4.3/2.2	SGR
2	3600	230/460	145JM	UJ2V1BM	\$832	DS-VST	1.25	15.3	35	85.5	5/2.5	SGR
	1800	230/460	145JM	UJ2V2BM	\$744	DS-VST	1.25	15.3	35	86.5	5.6/2.8	SGR
3	3600	230/460	145JM	UJ3V1BFM	\$987	DS-VST	1.25	15.3	35	86.5	7.6/3.8	14,SGR
	3600	230/460	182JM	UJ3V1BM	\$982	DS-VST	1.25	17.8	60	86.5	7.8/3.9	SGR
	1800	230/460	182JM	UJ3V2BM	\$880	DS-VST	1.25	17.8	60	89.5	7.7/3.8	SGR
5	3600	230/460	184JM	UJ5V1BM	\$1,206	DS-VST	1.25	17.8	70	88.5	12.2/6.1	SGR
	1800	230/460	184JM	UJ5V2BM	\$1,006	DS-VST	1.25	18.6	70	89.5	12.3/6.2	SGR
7.5	3600	230/460	184JM	UJ7V1BFM	\$1,471	DS-VST	1.25	17.8	70	89.5	19/9.5	14,SGR
	3600	230/460	213JM	UJ7V1BM	\$1,464	DS-VST	1.25	19.9	105	89.5	18.4/9.2	SGR
	1800	230/460	213JM	UJ7V2BM	\$1,333	DS-VST	1.25	19.9	105	91.7	19.3/9.6	SGR
10	3600	230/460	215JM	UJ10V1BM	\$1,700	DS-VST	1.25	21.4	120	90.2	23.5/11.8	SGR
	1800	230/460	215JM	UJ10V2BM	\$1,590	DS-VST	1.25	21.4	120	91.7	25.7/12.8	SGR
15	3600	230/460	215JM	UJ15V1BFM	\$1,893	DS-VST	1.25	22.4	120	91.0	35/17.3	SGR
	3600	230/460	254JM	UJ15V1BM	\$2,343	DS-VST	1.25	24.1	180	91.0	34/17.1	SGR
	1800	230/460	254JM	UJ15V2BM	\$2,225	DS-VST	1.25	24.1	180	92.4	37/18.4	SGR
20	3600	230/460	256JM	UJ20V1BM	\$2,884	DS-VST	1.25	25.8	230	91.0	46/22.8	SGR
	1800	230/460	256JM	UJ20V2BM	\$2,590	DS-VST	1.25	25.8	230	93.0	47/23.5	SGR
25	3600	230/460	256JM	UJ25V1BFM	\$3,475	DS-VST	1.25	25.8	230	91.7	56/28.1	14,SGR
	3600	230/460	284JM	UJ25V1BM	\$3,752	DS-VST	1.25	29.1	280	91.7	57/28.3	SGR
	1800	230/460	284JM	UJ25V2BM	\$3,318	DS-VST	1.25	29.1	280	93.6	59/29.3	SGR
30	3600	230/460	286JM	HDJ30V1BM	\$3,940	DS-VSTW	1.15	28.4	320	91.7	69/35	SGR
	1800	230/460	286JM	UJ30V2BM	\$3,827	DS-VST	1.25	29.1	300	93.6	70/35	SGR
40	3600	230/460	324JM	HDJ40V1BM	\$4,124	DS-VSTW	1.15	30.4	410	92.4	92/46	SGR
	1800	230/460	324JM	HDJ40V2BM	\$4,010	DS-VSTW	1.15	30.4	450	94.1	92/46	SGR
50	3600	230/460	326JM	HDJ50V1BM	\$5,402	DS-VSTW	1.15	30.4	480	93.0	112/56	SGR
	1800	230/460	326JM	HDJ50V2BM	\$4,890	DS-VSTW	1.15	30.4	550	94.5	112/56	SGR

Note 14 NEMA® Design A
Note SGR Shaft Grounding Ring

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