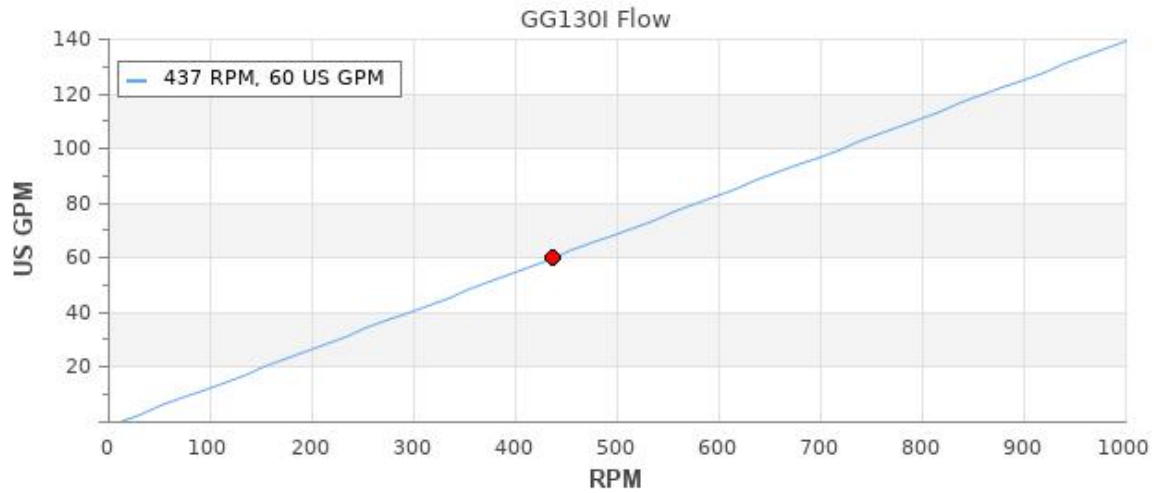




New Project Performance Curve for Item/Tag#:



Performance Curve Based on the Conditions of

Model: GG130I

RPM: 450

Fluid Name: Vegetable Oil

Power Requirement: 3.63 BHP

Viscosity: 20.00 cST

Capacity: 60.00 US gpm

Specific Gravity: 0.90

Suction Pressure: 0.00 PSIG

Temperature: 150.00 °F

Discharge Pressure: 75.00 PSIG

NPSHr: 2.42 PSIA

Differential Pressure: 75.00 PSI

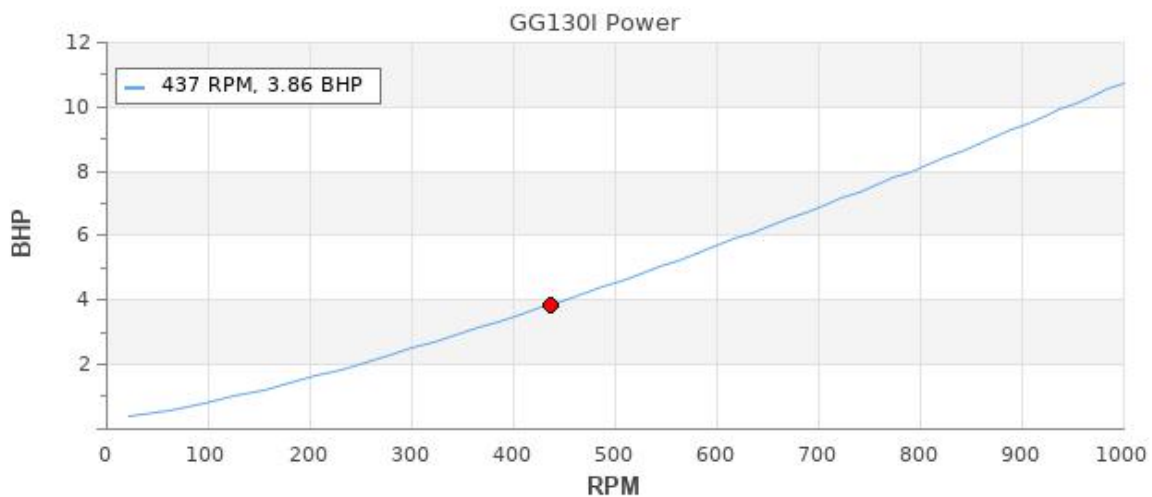
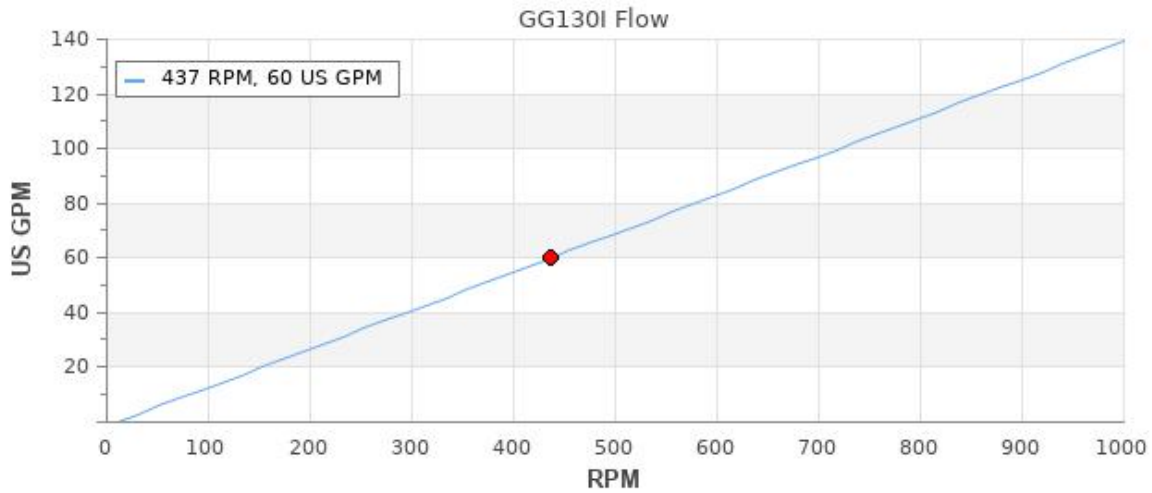
Abrasive: non

Mechanical Efficiency: 72.29 %

Volumetric Efficiency: 94.49 %



New Project Performance Curve for Item/Tag#:



Performance Curve Based on the Conditions of

Model: GG130I

RPM: 437

Fluid Name: Vegetable Oil

Power Requirement: 3.86 BHP

Viscosity: 100.00 cST

Capacity: 60.00 US gpm

Specific Gravity: 0.90

Suction Pressure: 0.00 PSIG

Temperature: 50.00 °F

Discharge Pressure: 75.00 PSIG

NPSHr: 1.66 PSIA

Differential Pressure: 75.00 PSI

Abrasive: non

Mechanical Efficiency: 68.00 %

Volumetric Efficiency: 97.43 %



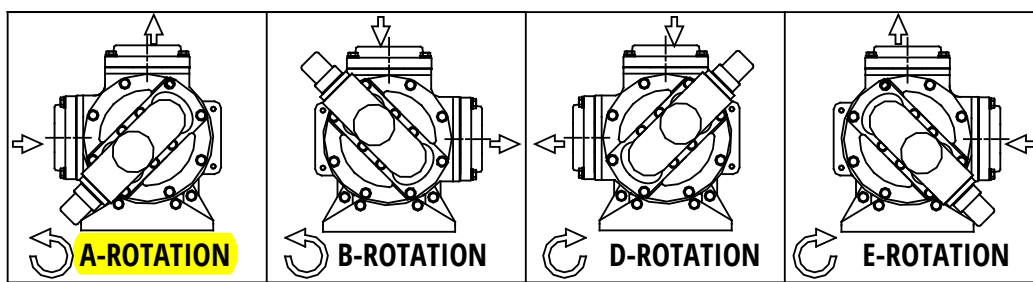
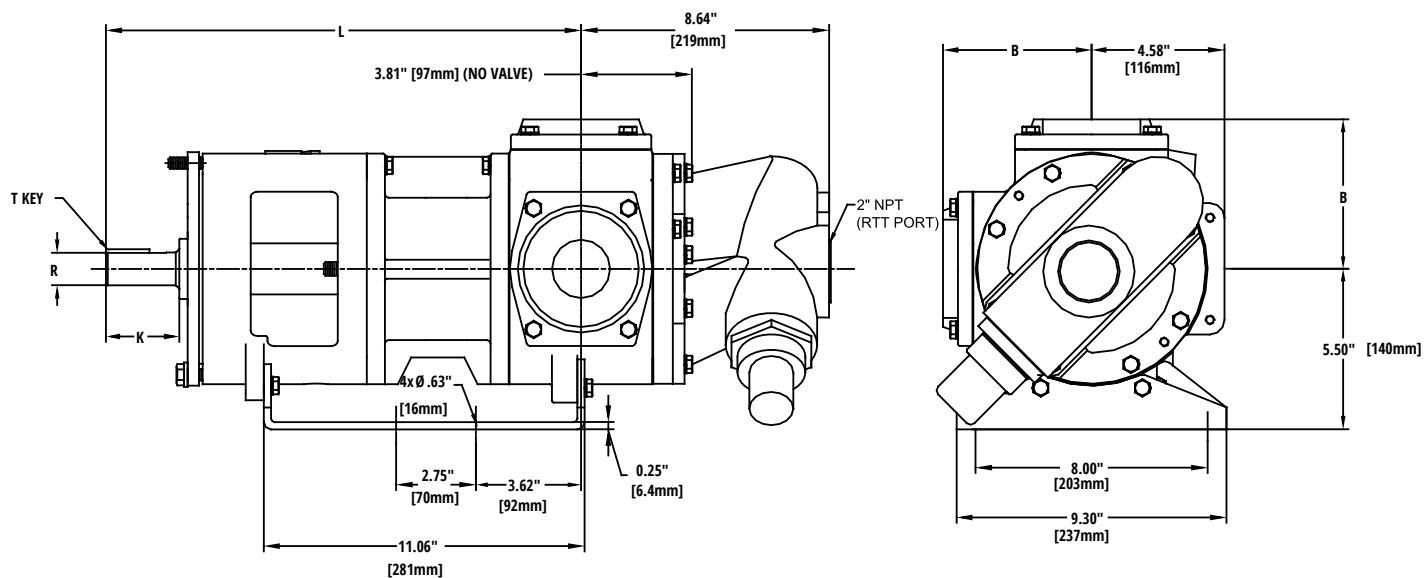
Bio Pumps

Item/Tag#:

Pump Features		
Option	Name	
Model/Part#	GG130IAVC01AIIA000	
Port Position	90 Degree Orientation, A Rotation	
Relief Valve	Internal Relief Valve	
Seal Method	Cartridge Seal	
Seal Type	No Gland or Packing	
Seal Flush	Vent to Suction	
Port Style	FNPT tapped	
Port Size	2"	
Shaft Dimensions	Standard	
Bushings And Idler Pin	Bronze Bushings, Steel Pin	
Tutriding	None	
Jacketing	None	
Clearances	No additional clearances (-100 to 200 degrees F)	



GG120 - GG130 with Angle Ports (CI & SS Only) Mounting Dimensions



Shaft Dimensions

Shaft Design	K	R	T	L
Inch (")	2.41	1.125	1/4 x 1/4 x 2	16.38

Port Dimensions

Port Type	B
2" FNPT	5.12" [130mm]
2" ANSI 150#	5.19" [132mm]
3" ANSI 125# / 150#	5.25" [133mm]
3" ANSI 250# / 300#	5.62" [143mm]

Back Pull-Out Dimensions

Size	Min Spacer
GG120	3.31" [84 mm]
GG130	3.73" [95 mm]

Face Type

	Size-Rating
Raised Face	3"- ANSI 125#, 150#, & 250#
Flat Face	2"- ANSI 150#



Selection Data

1750 RPM Input		Nominal Ratio	Overhung Load Output Shaft ¹⁾ (lbs.)	Part Number Codes (in blue)			
Input HP	Output Torque (in. lbs.)			Base Module	Motor Adapter/ NEMA Motor	Compatible NEMA C-Frame ²⁾ with Designated Motor Adapter	Optional Input Shaft ³⁾

520 RPM Output (Approximate)

7.92*	933	3.373	319	C202_0034	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
8.73	1,023	3.352	429	C302_0034	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
8.99*	1,060	3.373	319	C202_0034	MR200/180	182/184TC	AW200/014
					MR200/180	182/184TC	AW200/014
14.77*	1,732	3.352	429	C302_0034	MR250/180	182/184TC	AW250/102
					MR250/210	213/215TC	

500 RPM Output (Approximate)

17.04*	2,083	3.497	746	C402_0035	MR200/180	182/184TC	AW200/014
19.60	2,399	3.501	847	C502_0035	MR200/180	182/184TC	AW200/014
20.89*	2,554	3.497	746	C402_0035	MR250/180	182/184TC	AW250/102
					MR250/210	213/215TC	
32.36*	3,961	3.501	847	C502_0035	MR250/180	182/184TC	AW250/102
					MR250/210	213/215TC	
					MR300/180	182/184TC	AW300/110
					MR300/210	213/215TC	
					MR300/250	254/256TC	
					MR300/280	284/286TC	

450 RPM Output (Approximate)

2.60	349	3.835	151	C002_0038	MR140/050	56C	AW140/010
2.61	354	3.883	271	C102_0039	MR140/050	56C	AW140/010
2.70	362	3.835	151	C002_0038	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
5.36	727	3.883	271	C102_0039	MR160/050	56C	AW160/012
					MR160/140	143/145TC	AW160/012
					MR200/180	182/184TC	AW200/014
					MR200/180	182/184TC	AW200/014
6.87	934	3.888	335	C202_0039	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
7.70	1,044	3.878	450	C302_0039	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
8.18*	1,111	3.888	335	C202_0039	MR200/180	182/184TC	AW200/014
8.46	1,151	3.894	773	C402_0039	MR160/050	56C	AW160/012
					MR160/140	143/145TC	
13.41*	1,818	3.878	450	C302_0039	MR200/180	182/184TC	AW200/014
					MR250/180	182/184TC	AW250/102
					MR250/210	213/215TC	
14.86*	2,024	3.894	773	C402_0039	MR200/180	182/184TC	AW200/014
17.24	2,330	3.867	875	C502_0039	MR200/180	182/184TC	AW200/014
19.45*	2,648	3.894	773	C402_0039	MR250/180	182/184TC	AW250/102
					MR250/210	213/215TC	

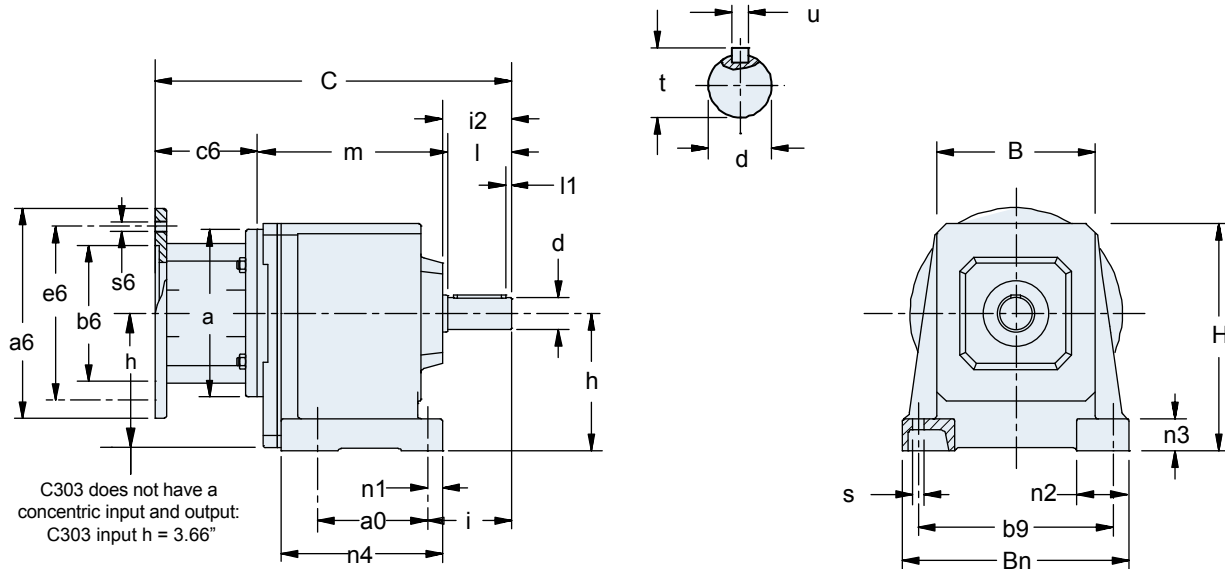
* Thermal HP Limit

Base Module Size	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9
HP Limit	2.95	5.36	7.38	12.34	14.75	20.12	29.50	40.23	53.63	67.05

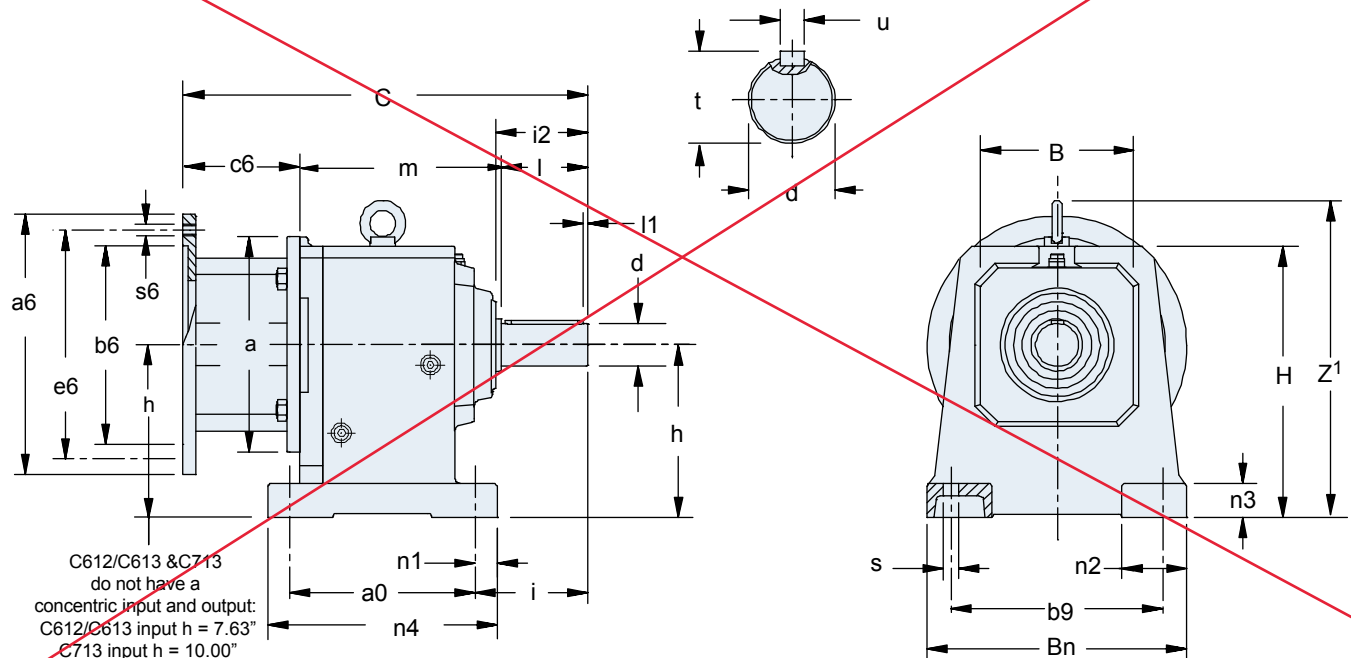
C
INLINE – Solid Shaft Output

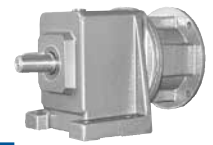
“N” Foot Mount —

C002N thru C503N



~~C612N thru C913N~~





Dimensional Data

Table 1 C Series Unit Dimensions (Inches) – “N” Foot Mount Housing

Base Module	a0	B	Bn	b9	H	h	i	i2	l	l1	n1	n2	n3	n4	s	Z1
C0	2.44	3.62	5.20	4.33	5.67	3.23	2.17	1.73	1.57	0.16	0.43	1.38	0.79	3.74	0.28	—
C1	2.76	4.88	6.93	5.91	6.97	4.02	2.64	2.13	1.97	0.16	0.51	1.65	0.98	4.65	0.35	—
C2	3.35	5.43	7.87	6.69	7.68	4.53	3.11	2.56	2.36	0.16	0.55	1.97	1.18	5.31	0.43	—
C3	4.13	5.91	8.46	7.28	8.46	5.12 ¹⁾	3.11	2.56	2.36	0.16	0.55	1.97	1.18	6.06	0.43	—
C4	4.33	6.89	10.04	8.66	9.65	5.71	4.13	3.39	3.15	0.16	0.75	2.36	1.38	7.09	0.55	—
C5	5.12	7.56	11.42	9.65	11.42	6.69	4.25	3.39	3.15	0.16	0.87	2.76	1.57	7.76	0.71	—
C6	8.46	6.97	11.81	9.65	12.40	7.87 ¹⁾	5.12	4.17	3.94	0.20	0.98	2.95	1.57	10.43	0.71	14.44
C7	9.25	7.56	14.37	11.81	14.76	9.25 ¹⁾	6.42	5.00	4.72	0.20	0.98	3.54	1.97	11.22	0.71	17.16
C8	11.81	8.78	17.13	13.39	17.72	11.42	7.48	5.83	5.51	0.39	1.14	3.74	2.17	14.17	0.87	20.12
C9	13.39	10.91	20.08	15.75	20.87	13.39	8.74	7.01	6.69	0.39	1.34	4.33	2.36	16.14	1.02	23.63

1) C303, C612/C613 and C713 do not have a concentric input and output. Refer to the h input height dimension on the drawing for these units.

Table 2 C Series — Shaft Output (Carbon Steel)

(see page 104 for standard SS, and other optional outputs)

Base Module	Standard Shaft - inches			Optional Shaft - mm		
	d	t	u	d	t	u
C0	3/4	0.83	3/16x3/16x1-7/32	20k6	22.5	A6x6x32
C1	1	1.11	1/4x1/4x1-9/16	25k6	28	A8x7x40
C2	1-1/4	1.36	1/4x1/4x1-15/16	30k6	33	A8x7x50
C3	1-1/4	1.36	1/4x1/4x1-15/16	30k6	33	A8x7x50
C4	1-5/8	1.79	3/8x3/8x2-7/8	40k6	43	A12x8x70
C5	1-5/8	1.79	3/8x3/8x2-7/8	40k6	43	A12x8x70
C6	2-1/8	2.35	1/2x1/2x3-5/32	50k6	53.5	A14x9x90
C7	2-3/8	2.65	5/8x5/8x3-15/16	60m6	64	A18x11x100
C8	2-7/8	3.21	3/4x3/4x4-5/16	70m6	74.5	A20x12x125
C9	3-5/8	4.01	7/8x7/8x5-1/2	90m6	95	A25x14x140

Table 3 Motor Adapter Dimensions (Inches)

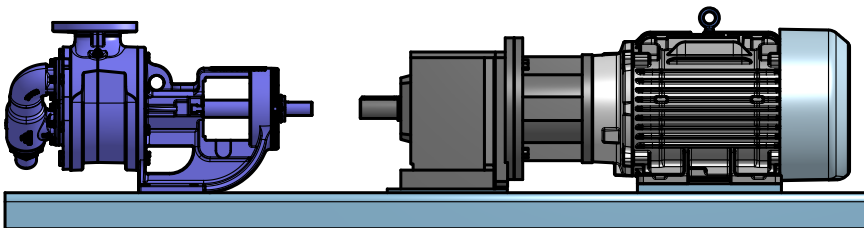
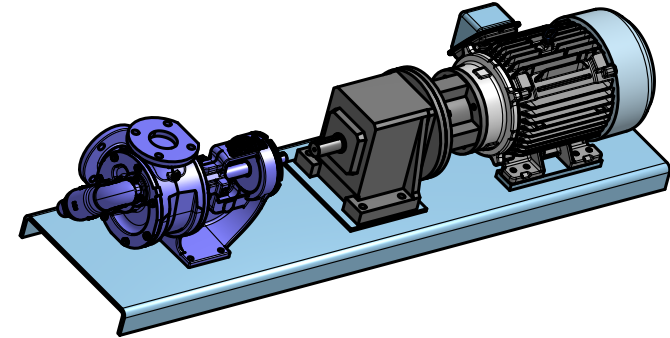
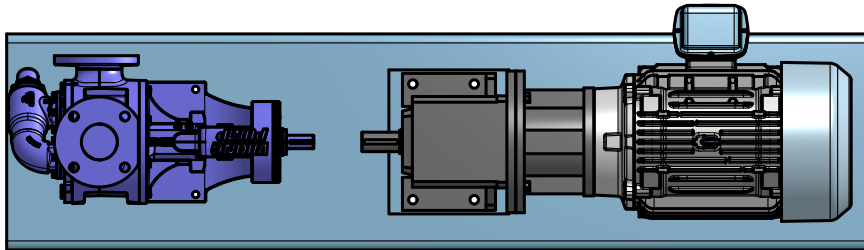
Motor Adapter	NEMA C-Flange	a	a6	b6	c6	e6	s6	Wt. lbs.
MR140/050	56C	5.51	6.50	4.500	3.31	5.87	0.41	9
MR160/050	56C	6.30	6.50	4.500	3.86	5.87	0.41	16
MR160/140	143/145TC							
MR200/180	182/184TC	7.87	9.00	8.500	4.80	7.25	0.55	23
MR250/180	182/184TC							
MR250/210	213/215TC	9.84	9.00	8.500	5.31	7.25	0.55	36
MR300/180	182/184TC		9.00	8.500		7.25		
MR300/210	213/215TC		9.00	8.500		7.25		
MR300/250	254/256TC	11.81	9.00	8.500	6.50	7.25	0.57	75
MR300/280	284/286TC		11.13	10.500		9.00		
MR350/320	324/326TC	13.78	13.37	12.500	7.09	11.00	0.70	133
MR350/360	364/365TC							

Table 4 C Series Unit Dimensions (Inches) – “MR” Motor Adapter

Base Module	MR140/050			MR160/050 MR160/140			MR200/180			MR250/180 MR250/210			MR300/180 MR300/210 MR300/250 MR300/280			MR350/320 MR350/360			Approx. Wt. lbs.
	C	I	m	C	I	m	C	I	m	C	I	m	C	I	m	C	I	m	
C002	9.37	1.57	4.49	10.08	1.57	4.65	—	—	—	—	—	—	—	—	—	—	—	—	18
C102	10.67	1.97	5.39	11.38	1.97	5.55	12.40	1.97	5.63	—	—	—	—	—	—	—	—	—	29
C103	12.13	1.97	6.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34
C202	11.77	2.36	6.10	12.48	2.36	6.26	13.50	2.36	6.34	—	—	—	—	—	—	—	—	—	38
C203	13.23	2.36	7.56	14.17	2.36	7.95	—	—	—	—	—	—	—	—	—	—	—	—	45
C302	—	—	—	13.23	2.36	7.01	14.25	2.36	7.09	14.88	2.36	7.21	—	—	—	—	—	—	49
C303	13.98	2.36	8.31	14.92	2.36	8.70	—	—	—	—	—	—	—	—	—	—	—	—	56
C402	—	—	—	15.12	3.15	8.11	16.14	3.15	8.19	16.77	3.15	8.31	—	—	—	—	—	—	71
C403	—	—	—	16.81	3.15	9.80	—	—	—	—	—	—	—	—	—	—	—	—	78
C502	—	—	—	15.95	3.15	8.94	16.97	3.15	9.02	17.59	3.15	9.13	19.33	3.15	9.68	—	—	—	95
C503	—	—	—	17.64	3.15	10.63	—	—	—	—	—	—	—	—	—	—	—	—	111
C612	—	—	—	—	—	—	17.91	3.94	9.17	18.54	3.94	9.29	20.24	3.94	9.80	—	—	—	115
C613	—	—	—	18.62	3.94	10.82	20.35	3.94	11.61	—	—	—	—	—	—	—	—	—	159
C712	—	—	—	—	—	—	20.00	4.72	10.48	20.59	4.72	10.56	22.29	4.72	11.07	—	—	—	199
C713	—	—	—	—	—	—	22.40	4.72	12.88	23.38	4.72	13.35	—	—	—	—	—	—	221
C812	—	—	—	—	—	—	—	—	—	23.22	5.51	12.40	24.53	5.51	12.52	26.42	5.51	13.82	322
C813	—	—	—	—	—	—	25.04	5.51	14.73	26.02	5.51	15.20	—	—	—	—	—	—	342
C912	—	—	—	—	—	—	—	—	—	—	—	—	27.56	6.69	14.37	29.06	6.69	15.28	596
C913	—	—	—	—	—	—	—	—	—	27.87	6.69	15.87	—	—	—	—	—	—	678

INLINE – Solid Shaft Output

For Conceptual / Reference Purposes



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES ANGULAR = $\pm$ ° SURFACE FINISH  DO NOT SCALE DRAWING BREAK ALL SHARP EDGES AND REMOVE BURRS THIRD ANGLE PROJECTION 		NAME	DATE			
	DRAWN	MH	04/13/2020			
	CHECKED			TITLE		
	APPROVED			Tuthill GG130 Gear Pump, Stober Gear Reducer, Base, 184TC XP Motor		
				SIZE	DWG NO.	REV.
				A		
				SCALE	1:16	WEIGHT
						SHEET
						1 of 1

TEXP EXPLOSION PROOF FAMILY



AEHHXV/AEHHXU, NEMA PREMIUM [XP]

AEHHXG/AEHHXF, NEMA PREMIUM, FOOTED C-FACE (1 HP - 100 HP)[XP_C]

AEUHXG/AEUHXF, NEMA PREMIUM, ROUND BODY C-FACE (1 HP - 75 HP)[XPV_C]

Effective 07-08-18
Supersedes 03-24-17



APPLICATIONS:

- Grain Elevators
- Pumps
- Blowers
- Applications Where Explosive Gases are Present
- Applications Where Explosive Dusts/ Grains are Present

FEATURES:

- Output Range: 1 - 400 HP
- Speed: 3600, 1800, 1200 & 900 RPM
- Enclosure: Totally Enclosed Fan Cooled - Explosion Proof (IP55)
- Voltage: 230/460V (Usable on 208V); 150HP and Larger is 460V Only⁽¹⁾
- Three Phase, 60 Hz, 1.15 Service Factor (Continuous); 50 Hz, 1.0 Service Factor (Continuous)
- Class I, Div. 1, Group C & D and Class II, Groups E, F and G - Temp Code T2D/T3B Up to and Including F# 256T
- Class I, Div. 1, Group D and Class II, Groups E, F and G - Temp Code T2D/T3B for F# 284T and Larger
- UL File: E84757
- CSA File: #64671
- Class F Insulation
- Class B Temperature Rise
- NEMA Design B Torques
- Standard with Klaxon 9700K Temperature Limiting Switch, 1 per Phase
- Grounding Terminal Inside Main Conduit Box
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - F1 Mounted
- Dual Drilled Back Feet on 447/9 and 5007/9 Frames
- Designed for 40°C Ambient Temperature⁽²⁾
- Designed for 3300 ft. Elevation⁽³⁾
- Bi-Directional Rotation
- Cast Iron Frame, Fan Cover, End Brackets and Main Conduit Box
- Capable of Withstanding Explosion Force as Required by UL
- Stainless Steel Breather Drains with Bronze Filters (For Horizontal Mount Only)
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction through 449 Frame; Fabricated Copper Bar on 5000 Frame
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Blue - Munsell 5 PB 4.5/2
- Double Shielded Bearings Pre-Packed with MULTEMP SRL for F# 140T - 280T (Non-regreasable)
- High Quality Ball (or Roller) Bearings Regreasable with Mobil Polyrex™ EM for F# 280TS and Larger
- Bronze Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps for F#280TS and Larger
- Stainless Steel Nameplate
- Suitable for Inverter Use per NEMA MG-1 Part 31.4.4.2^(4,5)
- UL Listed for Inverter Duty^(4,5)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 Volts
- Inverter Duty Speed Ranges: VT = 3 - 60 Hz CT for 140T - 210T Frames = 10 - 60 Hz
CT for 250T - 320T Frames = 13 - 60 Hz CT for 260T - 440T Frames = 16 - 60 Hz
- 9 Leads for 5 HP and Smaller; 12 Leads for 7.5 HP to 125 HP; 6 Leads for 150 HP and Larger

EXTRAS/ OPTIONS:

Please refer to pages 147 - 154 for common modifications that can be performed.

Notes:

- (1) Available in 575V. TWMC carries minimal 575V stock; please check availability to ensure required motors are in stock.
Ratings may be available from our Canadian warehouses and/or our factory. Pricing and leadtime may vary.
- (2) Consult a Stock Product Application Specialist for suitability in higher ambient environments.
- (3) Consult a Stock Product Application Specialist for suitability at higher elevations.
- (4) Motor Service Factor is 1.0 when operated on a VFD.
- (5) Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG-1. Part 31.
- (6) Extras/Modification options are limited on TEXP Products. See page 147 for additional details.

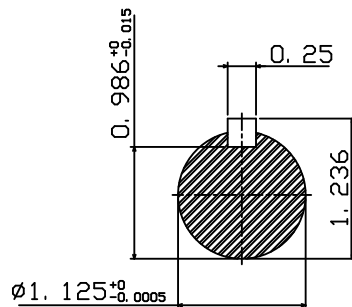
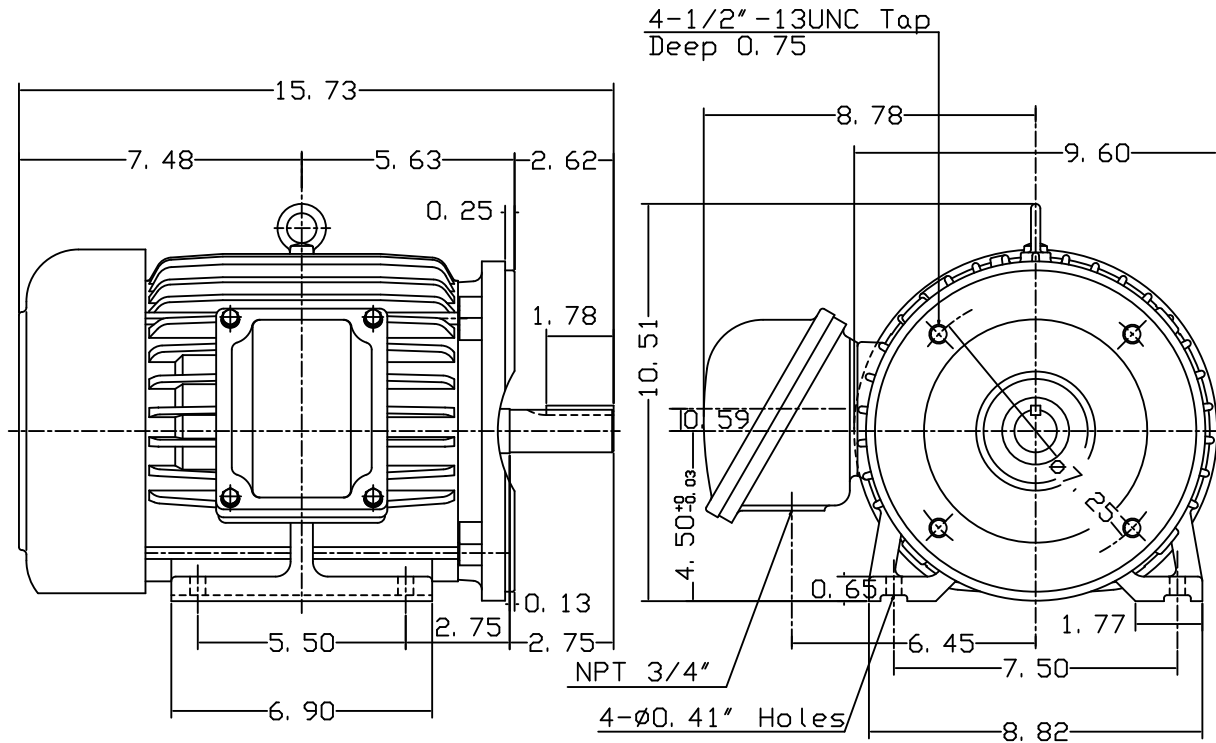
DATE
APRIL 30, 2012
CATALOG NO.
XP0054C

OUTLINE DIMENSIONS 3-PHASE INDUCTION MOTOR

MOTOR TYPE:
AEHHXF
FRAME NO. 184TC

Pole	HP	KW	Hz	VOLT	Syn. Speed RPM
4	5	3.75	60	230/460	1800
Ins	Rating	Dimension in	Approx Weight	Bearings	
F	CONT.	inches	150 lbs.	DE: 6306ZZ	NDE: 6306ZZ

Totally Enclosed Fan-Cooled Type, Squirrel-Cage Rotor.



NOTE:
1. EXPLOSION PROOF:
CLASS I GROUP C, D AND
CLASS II GROUP E, F, G.

DWN.	J. H. LIANG	11-12-98
CHKD.	C. S. LO	11-23-98
APPD.	Y. B. HUANG	11-23-98

TEC Westinghouse

DWG NO.
31049M622052



ISSUED March 10, 2005	PERFORMANCE DATA 3-PHASE INDUCTION MOTOR	ENCLOSURE EXPLOSION PROOF
TYPE AEHHXF		CATALOG# XP0054C

NAMEPLATE INFORMATION

OUTPUT		POLE	FRAME SIZE	VOLTAGE	HZ	RATED AMBIENT	INS. CLASS	NEMA DESIGN	TIME RATING	SERVICE FACTOR
HP	KW									
5	3.7	4	184TC	230/460	60	40°C	F	B	CONT.	1.15

TYPICAL PERFORMANCE

FULL LOAD RPM	EFFICIENCY				POWER FACTOR			MAXIMUM POWER FACTOR CORRECTION
	FULL LOAD		3/4 LOAD %	1/2 LOAD %	F. L. %	3/4 LOAD %	1/2 LOAD %	
	MIN. %	NOM. %						
1745	85.5	87.5	88.5	88.5	87.5	84.5	77	1.6 KVAR

CURRENTS

NO LOAD			FULL LOAD			LOCKED ROTOR			NEMA KVA CODE LETTER
AT	AT	AT	AT	AT	AT	AT	AT	AT	
208 VOLT	230 VOLT	460 VOLT	208 VOLT	230 VOLT	460 VOLT	208 VOLT	230 VOLT	460 VOLT	
4.53	4.10	2.05	13.49	12.20	6.10	101.73	92.00	46.00	J

TORQUE

INERTIA

ACCEL TIME

FULL LOAD lb-ft	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	ROTOR WR ² lb-ft ²	NEMA LOAD WK ² lb-ft ²	MAX ALLOWABLE WK ² lb-ft ²	NEMA LOAD WK ² Sec	MAX ALLOWABLE WK ² Sec
15.04	185	140	285	0.422	27	62.00	4.68	10.65

SAFE STALL TIME IN SECONDS

ALLOWABLE STARTS PER HOUR

SOUND PRESSURE LEVEL @ 3 FT dB(A)

COLD	HOT	COLD	HOT	59
32	22	21		

APPROVED:

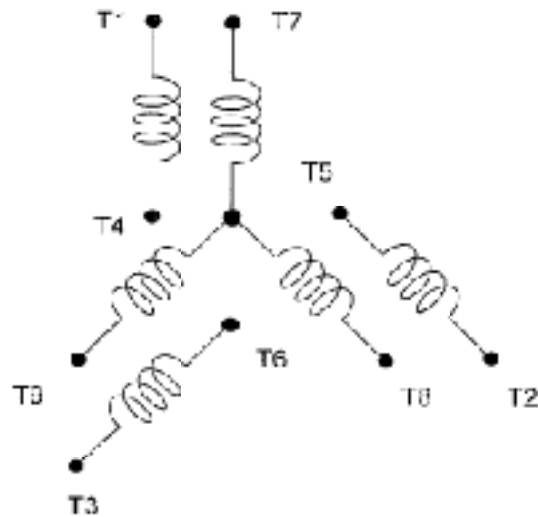
M. PRATER

DRAWING NO.

31057XP0054C

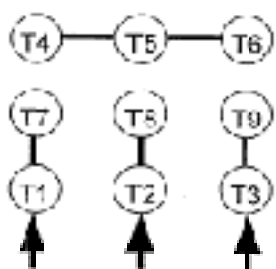
REVISION **0**

DATE: June 27, 2005	CONNECTION DIAGRAM	CATALOG NO.: XP0054C
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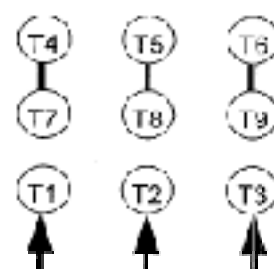


SCHEMATIC - 2Y/Y CONNECTION

ACROSS THE LINE CONNECTION

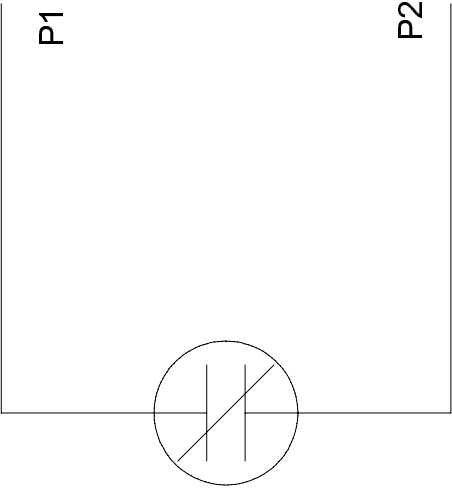


**LINE
230 VOLT CONNECTION**



**LINE
460 VOLT CONNECTION**

NORMALLY CLOSED
OPENS ON RISING TEMP



STATOR WINDING THERMOSTATS SCHEMATIC DIAGRAM

REV DATA	AMT; DEM; 04/30/99		DFTM D. BRYAN		061581	S.O. 1625AA	REV
			APPD G. GODWIN		070881	D SPEC 110A75	02
	APPD J. BROWN		071481	APPD CULBERTSON		DIMENSIONS IN INCHES - NTS	
	APPD			APPD D.F. KOSAR		8629A28	