

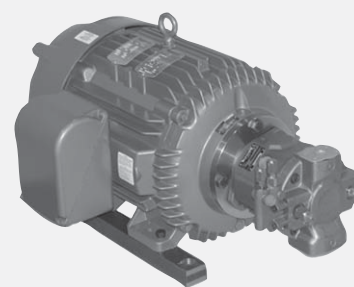
Close-Coupled Motor Pump Groups Axial Piston Variable Displacement Motor Sizes: 25 to 100 HP

RA 12742/07.10
Replaces: 08.07

1/8

MPGB-A10VSO

Flows up to 64 gpm
See RA 12 740 for sizes 2 to 20 HP



Pre-assembled Motor Pump Groups

Unique new design provides interchangeable adapter plates for numerous pump flange mountings and permits for a new vertical mounting option. Dimensions of the previous hard coupling motor designs are held, allowing this new design to be an interchangeable replacement.

The flexible drive coupling

A nylon-coupling sleeve requires no lubrication and has a non-destructive failure mode to both the pump and motor shafts. The nylon-coupling sleeve is a durable item with a low replacement cost. The coupling permits up to 2 degrees of total misalignment between the two shafts and a multiple selection of pump shaft options.

Size/Range

The horsepower range is 25 to 100 hp with a Wye-Delta winding as a standard. For other options consult the factory.

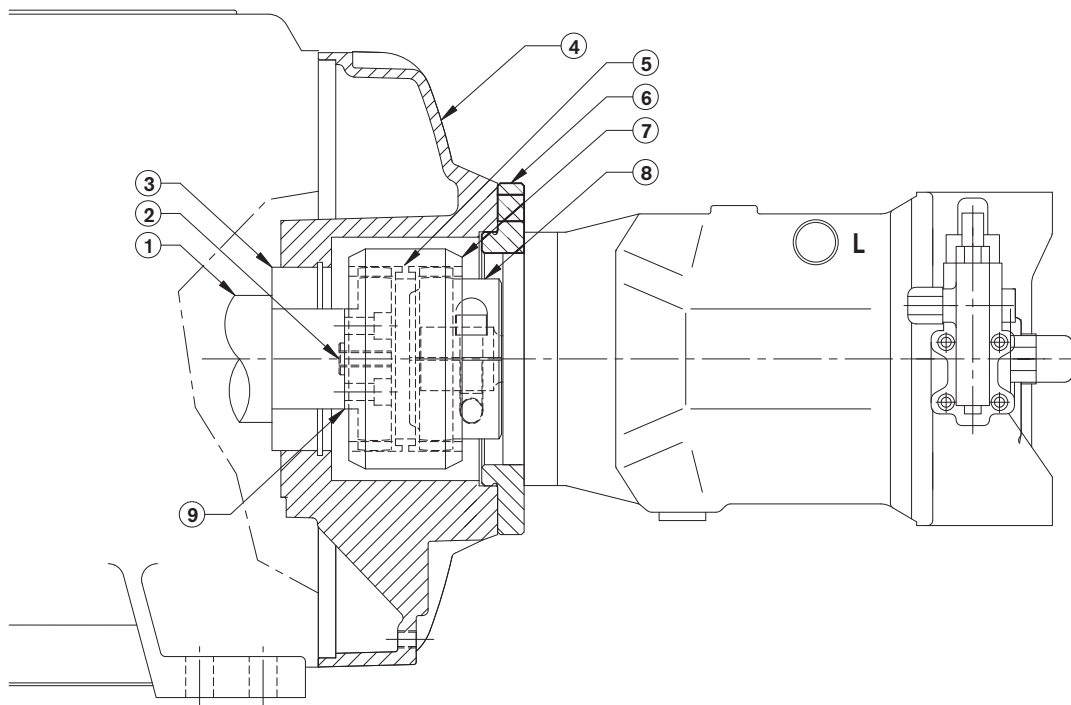
Reference:

RA 92711 for additional AA10VSO pump info.
RA 92713 for additional A10VSO pump info.

Advantages:

- | | |
|--------------------------------|--|
| Availability: | Standard motor pump groups are available from stock |
| Convenience: | Eliminate the need for multiple vendors by giving you one source of supply. |
| Space Saving: | The new closed-coupled feature dramatically reduces the overall length of the motor pump group. |
| Modular Design Concept: | Interchangeable options for pump flange and shaft type. |
| Durable Construction: | Proven drive-coupling technology.
Multiple frequency / voltage ranges.
Wye-delta windings standard.
Increased fan-cooling capacity. |

Standard Motors



The motor shaft (1) centers into the motor end-bell (4) by a pressed shaft bearing (3). A small press fitted pilot (2) centers the motor coupling hub (9) on the motor shaft (1). The coupling sleeve (7) has an internal spline, which slides over the external splines of the two coupling hubs (8, 9). An internal stop ring (5) retains the coupling sleeve (7) between the two coupling hubs (8, 9). The pump coupling hub (8) is the only axial adjusted component within the coupling assembly; the pump shaft may extend beyond the pump coupling hub (8).

An interchangeable pump adapter plate (6) allows for a multitude of pump mounting options with orientation increments of 45 degrees. The coupling is well suited for blind assembly and can be used in either vertical or horizontal applications. The coupling hubs (8, 9) are steel or sintered metal depending on size. The double crown tooth design of the coupling hubs allows for both angular and/or parallel displacements. The double crown tooth designs has reduced friction and wear on its coupling sleeve due to reduced edge pressure contact. The nylon-coupling sleeve (7) is compatible with most fluids, has good electrical isolation characteristics, and is very dirt and moisture resistant. The nylon-coupling sleeve (7) has a non-destructive failure mode to both the pump and motor shafts.

Standard Motors:

Part Number Model	HP	RPM (HZ)	Voltage	Winding	EFF	ENCL	SCFM @ 1800 RPM	Box	Wt. (lbs.)
R978002513 MTRB25H1450/1750R284 TYZ50/60HZ F1-M	25	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	460	F1	417
R978934906 MTRB30H1450/1750R286 TYZ50/60HZ F1-M	30	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	460	F1	492
R978002514 MTRB40H1450/1750R324 TYZ50/60HZ F1-M	40	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416,230/460 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	550	F1	578
R978934907 MTRB50H1450/1750R326 TYZ50/60HZ F1-M	50	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416,230/460 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	550	F1	634
R978004076 MTRB60H1450/1750R364 TYZ50/60HZ F1-M	60	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416,230/460 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	710	F1	782
R978004077 MTRB75H1450/1750R365 TYZ50/60HZ F1-M	75	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416,230/460 60HZ -200/400,208/416,230/460,240/480	WYE-DELTA	STD	TEFC	710	F1	832
R978934905 MTRB100H1450/1750R405 TYZ50/60HZ F3-M	100	1450/1750 (50/60 HZ)	50HZ -190/380,200/400,208/416,230/460 60HZ -230/460,240/480	WYE-DELTA	STD	TEFC	900	F3	1169

Ordering Code: Motor / Pump / Group A10VO...

Bold Selections are Preferred

MPGB	XXXH	TYM	4D	XX	W	S	X	X	A10	XXX	XXXX	X	NN	X	XX	XXXXX
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Horsepower: (XXX)H

025	030	040	050	060	075	100
25HP	30HP	40HP	50HP	60HP	75HP	100HP

No. of Poles/Hertz

No. Poles	5 50 Hertz	6 60 Hertz	D 50/60 Hertz
4	1450 rpm	1750 rpm	1450/1750 rpm

Standard Voltage Options:

Std. Volt	OP	OP	PR	PR	PR	PR	RS
HP	25	30	40	50	60	75	100

O – 50HZ/190/380,200/400,208/416V
 P – 60HZ/200/400,208/416,230/460,240/480V
 R – 50HZ/190/380,200/400,208/416,230/460V
 S – 60HZ/230/460,240/480V

Additional Non-Standard Voltage Options:

HZ – 60HZ/575V	MZ – 50HZ/220V
IZ – 60HZ/200V	NZ – 60HZ/380/460V
KZ – 50HZ/220/380/440V	

Windings: W – WYE Delta

Efficiency: S – Standard

Junction Box Location:

1 – F1	2 – F2	3 – F3
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25–75 HP standard F1, 100 HP standard F3

Note: F3 box location has limited voltage options. Box locations defined on page 9.

Mounting Position: H – Horizontal, V – Vertical

Pump: A10

25 HP or 30 HP

018	A10V018	045	A10V045
028	A10V028	071	A10V071

40 HP or 50 HP

028	A10V028	071	A10V071
045	A10V045	100	A10V100

60 HP, 75 HP or 100 HP

045	A10V045 (1)	100	A10V100
071	A10V071	140	A10V140

(1) Spline shaft N/A for 100 HP applications, use keyed pump shaft with coupling hub R978003748.

Control: DR, DFR, DFR1, DRG, DFLR, DFEE

Shaft: K – Keyed, S – Spline

NN (No through drive), Consult factory for thru drive options

Pump Suction Port Orientation:

1	Down, Inline with Motor Feet
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Customer can rotate pump if required.

Mounting Rails: NN – None, DR – Damping Rails

Internal Reference Number:

Example of Ordering Code:

1) **MPGB025HTYM4DOPWS1HA10028DFRSNN1DR**

25HP Motor, 4 Poles, 50/60 Hertz, 190/380, 200/400, 208/416, 230/460, 240/480 Volt, WYE-Delta Voltage, Standard Efficiency, Junction Box F1, Horizontal Mounting, Pump A10VO28, DFR Control, Splined Shaft, No Thru Drive, Pump Section Down, with Damping Rails

Motor / Pump / Group / B – Assembly Numbers, A10VO..., Horizontal Mounting

Assembly Number	A10VSO...Pump Part Number	Motor Assembly	Max. Pump Flow* GPM (l/min)	Max. Pressure @ Full Flow** PSI (bar)	Damping Rails Qty. (2)	Damping Bolts Qty. (4)	Pump Ports L1 Port, Case Drain Plugged at Factory
R978012202	A10VO18DR \ R910948645	284TYZ \ 25 HP R978012035	8.3 (31.4)	4000 (276) [†]	NONE		Pressure: 3/4" Flg. Code 61
R978012204	A10VO18DFR \ R910946939						Suction: 1" Flg. Code 61
R978012203	A10VO18DR \ R910948645	284TYZ \ 25 HP R978012035	8.3 (31.4)	4000 (276) [†]	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 06,9/16-18 UNF-2B
R978012205	A10VO18DFR \ R910946939						
R978012206	A10VO28DR \ R910912880	284TYZ \ 25 HP R978012039	13 (49)	2813 (194)	NONE		Pressure: 3/4" Flg. Code 61
R978012208	A10VO28DFR \ R910913495						Suction: 1 1/4" Flg. Code 61
R978012207	A10VO28DR \ R910912880	284TYZ \ 25 HP R978012039	13 (49)	2813 (194)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 08,3/4-16 UNF-2B
R978012209	A10VO28DFR \ R910913495						
R978012210	A10VO45DR \ R910939563	284TYZ \ 25 HP R978012043	20.8 (79)	1751 (121)	NONE		Pressure: 1" Flg. Code 61
R978012212	A10VO45DFR \ R910924971						Suction: 1 1/2" Flg. Code 61
R978012211	A10VO45DR \ R910939563	284TYZ \ 25 HP R978012043	20.8 (79)	1751 (121)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012213	A10VO45DFR \ R910924971						
R978012214	A10VO71DR \ R902401002	284TYZ \ 25 HP R978012047	32.8 (124.1)	1110 (77)	NONE		Pressure: 1" Flg. Code 61
R978012216	A10VO71DFR \ R902401202						Suction: 2" Flg. Code 61
R978012215	A10VO71DR \ R902401002	284TYZ \ 25 HP R978012047	32.8 (124.1)	1110 (77)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012217	A10VO71DFR \ R902401202						
R978012222	A10VO28DR \ R910912880	286TYZ \ 30 HP R978012055	13 (49)	3362 (232)	NONE		Pressure: 3/4" Flg. Code 61
R978012224	A10VO28DFR \ R910913495						Suction: 1 1/4" Flg. Code 61
R978012223	A10VO28DR \ R910912880	286TYZ \ 30 HP R978012055	13 (49)	3362 (232)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 08,3/4-16 UNF-2B
R978012225	A10VO28DFR \ R910913495						
R978012226	A10VO45DR \ R910939563	286TYZ \ 30 HP R978012059	20.8 (79)	2101 (145)	NONE		Pressure: 1" Flg. Code 61
R978012228	A10VO45DFR \ R910924971						Suction: 1 1/2" Flg. Code 61
R978012227	A10VO45DR \ R910939563	286TYZ \ 30 HP R978012059	20.8 (79)	2101 (145)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012229	A10VO45DFR \ R910924971						
R978012230	A10VO71DR \ R902401002	286TYZ \ 30 HP R978012063	32.8 (124)	1333 (92)	NONE		Pressure: 1" Flg. Code 61
R978012232	A10VO71DFR \ R902401202						Suction: 2" Flg. Code 61
R978012231	A10VO71DR \ R902401002	286TYZ \ 30 HP R978012063	32.8 (124)	1333 (92)	R978883833	HH Bolt GR 5 1/2 -13 X 1 1/2 R978801164	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012233	A10VO71DFR \ R902401202						
R978012234	A10VO28DR \ R910912880	324TYZ \ 40 HP R978012067	13 (49)	4000 (276) [†]	NONE		Pressure: 3/4" Flg. Code 61
R978012236	A10VO28DFR \ R910913495						Suction: 1 1/4" Flg. Code 61
R978012235	A10VO28DR \ R910912880	324TYZ \ 40 HP R978012067	13 (49)	4000 (276) [†]	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	Case Drain L/L1: SAE 08,3/4-16 UNF-2B
R978012237	A10VO28DFR \ R910913495						
R978012238	A10VO45DR \ R910939563	324TYZ \ 40 HP R978012071	20.8 (79)	2802 (193)	NONE		Pressure: 1" Flg. Code 61
R978012240	A10VO45DFR \ R910924971						Suction: 1 1/2" Flg. Code 61
R978012239	A10VO45DR \ R910939563	324TYZ \ 40 HP R978012071	20.8 (79)	2802 (193)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012241	A10VO45DFR \ R910924971						
R978012242	A10VO71DR \ R902401002	324TYZ \ 40 HP R978012075	32.8 (124)	1777 (123)	NONE		Pressure: 1" Flg. Code 61
R978012244	A10VO71DFR \ R902401202						Suction: 2" Flg. Code 61
R978012243	A10VO71DR \ R902401002	324TYZ \ 40 HP R978012075	32.8 (124)	1777 (123)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012245	A10VO71DFR \ R902401202						
R978012246	A10VO100DR \ R910912430	324TYZ \ 40 HP R978012079	46.2 (175)	1261 (87)	NONE		Pressure: 1 1/4" Flg. Code 61
R978012248	A10VO100DFR \ R902500328						Suction: 2 1/2" Flg. Code 61
R978012247	A10VO100DR \ R910912430	324TYZ \ 40 HP R978012079	46.2 (175)	1261 (87)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012249	A10VO100DFR \ R902500328						
R978012254	A10VO45DR \ R910939563	326TYZ \ 50 HP R978012087	20.8 (79)	3502 (242)	NONE		Pressure: 1" Flg. Code 61
R978012256	A10VO45DFR \ R910939971						Suction: 1 1/2" Flg. Code 61
R978012255	A10VO45DR \ R910939563	326TYZ \ 50 HP	20.8 (79)	3502 (242)	R978883834	HH Bolt GR 5 5/8-11 x 1 1/2 R978801171	Case Drain L/L1: SAE 10, 7/8-14 UNF-2B
R978012257	A10VO45DFR \ R910924971						

* Theoretical flow actual flows are lower depending on pressure and viscosity.

** All max. pressures reflect an 85% overall efficiency

† MPG limited by maximum continuous pressure of pump.

Note: All motors have a 1.15 SF (not considered in calculations)

Motor / Pump / Group / B – Assembly Numbers, A10VO..., Horizontal Mounting

Assembly Number	A10VO...Pump Part Number	Motor Assembly	Max. Pump Flow* GPM (LPM)	Max. Pressure @ Full flow** PSI (BAR)	Damping Rails Qty. (2)	Damping Bolts Qty. (4)	Pump Ports L1 Port, Case Drain Plugged at Factory
R978012258	A10VO71DR \ R902401002	326TYZ \ 50 HP R978012091	32.8 (124)	2221 (153)	NONE		Pressure: 1" Flg. Code 61
R978012260	A10VO71DFR \ R902401202						Suction:
R978012259	A10VO71DR \ R902401002	326TYZ \ 50 HP R978012091	32.8 (124)	2221 (153)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2" Flg. Code 61
R978012261	A10VO71DFR \ R902401202						Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012262	A10VO100DR \ R910912430	326TYZ \ 50 HP R978012095	46.2 (175)	1577 (109)	NONE		Pressure: 1 1/4" Flg. Code 62
R978012264	A10VO100DFR \ R902500328						Suction:
R978012263	A10VO100DR \ R910912430	364TYZ \ 60 HP R978012095	20.8 (79)	4000 (276)†	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2 1/2" Flg. Code 61
R978012265	A10VO100DFR \ R902500328						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012266	A10VO45DR \ R910939563	364TYZ \ 60 HP R978012099	20.8 (79)	4000 (276)†	NONE		Pressure: 1" Flg. Code 61
R978012268	A10VO45DFR \ R910924971						Suction:
R978012267	A10VO45DR \ R910939563	364TYZ \ 60 HP R978012099	20.8 (79)	4000 (276)†	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	1 1/2" Flg. Code 61
R978012269	A10VO45DFR \ R910924971						Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012270	A10VO71DR \ R902401002	364TYZ \ 60 HP R978012103	32.8 (124)	2665 (184)	NONE		Pressure: 1" Flg. Code 61
R978012272	A10VO71DFR \ R902401202						Suction:
R978012271	A10VO71DR \ R902401002	364TYZ \ 60 HP R978012103	32.8 (124)	2665 (184)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2" Flg. Code 61
R978012273	A10VO71DFR \ R902401202						Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012274	A10VO100DR \ R910912430	364TYZ \ 60 HP R978012107	46.2 (175)	1892 (130)	NONE		Pressure: 1 1/4" Flg. Code 62
R978012276	A10VO100DFR \ R902500328						Suction:
R978012275	A10VO100DR \ R910912430	364TYZ \ 60 HP R978012107	46.2 (175)	1892 (130)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2 1/2" Flg. Code 61
R978012277	A10VO100DFR \ R902500328						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012286	A10VO71DR \ R902401002	365TYZ \ 75 HP R978012119	32.8 (124)	3331 (230)	NONE		Pressure: 1" Flg. Code 61
R978012288	A10VO71DFR \ R902401202						Suction:
R978012287	A10VO71DR \ R902401002	365TYZ \ 75 HP R978012119	32.8 (124)	3331 (230)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2" Flg. Code 61
R978012289	A10VO71DFR \ R902401202						Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012290	A10VO100DR \ R910912430	365TYZ \ 75 HP R978012123	46.2 (175)	2365 (163)	NONE		Pressure: 1 1/4" Flg. Code 62
R978012292	A10VO100DFR \ R902500328						Suction:
R978012291	A10VO100DR \ R910912430	365TYZ \ 75 HP R978012123	46.2 (175)	2365 (163)	R978883834	HH Bolt GR 5 5/8 -11 X 1 1/2 R978801171	2 1/2" Flg. Code 61
R978012293	A10VO100DFR \ R902500328						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012298	AA10VSO45DR \ R910940544	405TYZ \ 100 HP R978012131	20.8 (79)	4000 (276)†	NONE		Pressure: 1 1/4" Flg. Code 62
R978012300	AA10VSO45DFR \ R910939612						Suction:
R978012299	AA10VSO45DR \ R910940544	405TYZ \ 100 HP R978012131	20.8 (79)	4000 (276)†	R978883834	HH Bolt GR 5 3/4 -10 X 2 1/2 R978801179	2 1/2" Flg. Code 61
R978012301	AA10VSO45DFR \ R910939612						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012302	A10VO71DR \ R902401002	405TYZ \ 100 HP R978012133	32.8 (124)	4000 (276)†	NONE		Pressure: 1" Flg. Code 61
R978012304	A10VO71DFR \ R902401202						Suction:
R978012303	A10VO71DR \ R902401002	405TYZ \ 100 HP R978012133	32.8 (124)	4000 (276)†	R978012528	HH Bolt GR 5 3/4 -10 X 2 1/2 R978801179	2" Flg. Code 61
R978012305	A10VO71DFR \ R902401202						Case Drain L/L1: SAE 10,7/8-14 UNF-2B
R978012306	A10VO100DR \ R910912430	405TYZ \ 100 HP R978012137	46.2 (175)	3153 (217)	NONE		Pressure: 1 1/4" Flg. Code 62
R978012308	A10VO100DFR \ R902500328						Suction:
R978012307	A10VO100DR \ R910912430	405TYZ \ 100 HP R978012137	46.2 (175)	3153 (217)	R978012528	HH Bolt GR 5 3/4 -10 X 2 1/2 R978801179	2 1/2" Flg. Code 61
R978012309	A10VO100DFR \ R902500328						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B
R978012310	A10VO140DR \ R902401002	405TYZ \ 100 HP R978012141	64.7 (245)	2252 (155)	NONE		Pressure: 1 1/4" Flg. Code 62
R978012312	A10VO140DFR \ R902401202						Suction:
R978012311	A10VO140DR \ R902401002	405TYZ \ 100 HP R978012141	64.7 (245)	2252 (155)	R978012528	HH Bolt GR 5 3/4 -10 X 2 1/2 R978801179	2 1/2" Flg. Code 61
R978012313	A10VO140DFR \ R902401202						Case Drain L/L1: SAE 12,1 1/16-12 UNF-2B

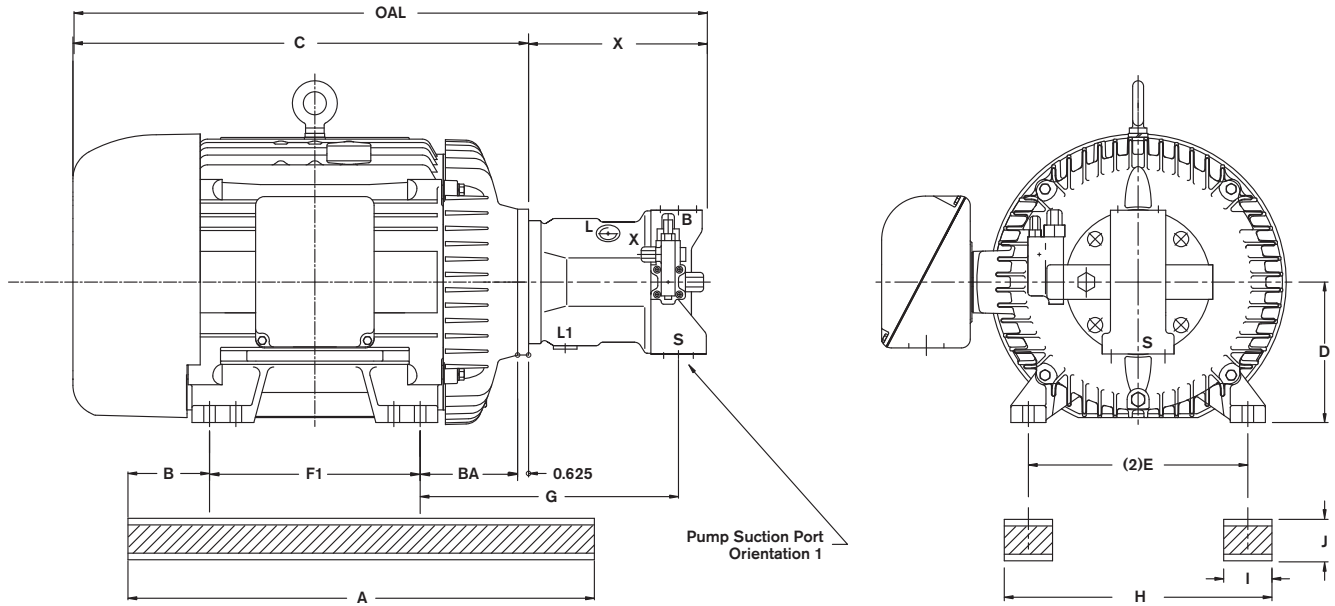
* Theoretical flow actual flows are lower depending on pressure and viscosity.

** All max. pressures reflect an 85% overall efficiency

† MPG limited by maximum continuous pressure of pump.

Note: All motors have a 1.15 SF (not considered in calculations)

Unit Dimensions: Motor / Pump / Group, A10VO..., Horizontal Mounting (dimension in inches)

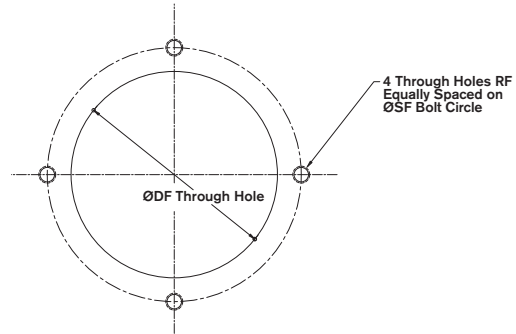
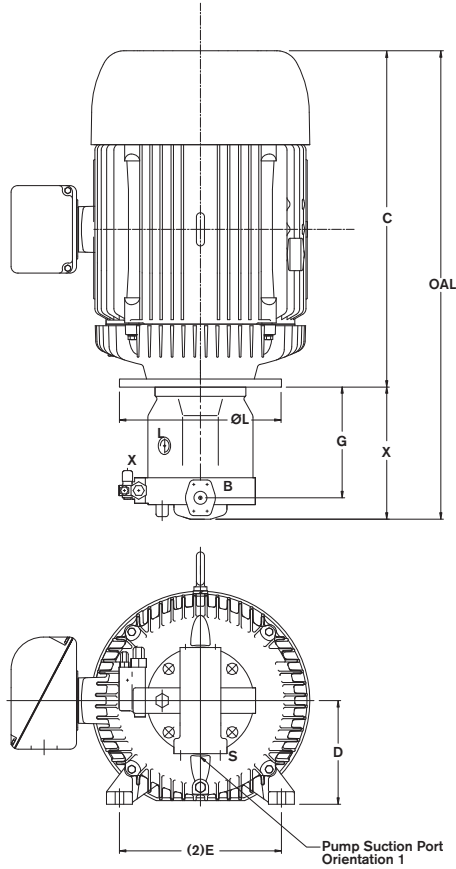


Based on 1800 rpm, F1 box location.

Motor	Pump Model	A	B	BA	C	X	OAL	E	F1	G	H	I	J	D	Total Weight lbs. ⁽¹⁾
284TYZ \ 25 HP 286TYZ \ 30 HP	A10VO10...18	18.00	2.50	4.69	23.50	7.68	31.18	5.50	11.00	11.03	12.97	1.97	1.57	7.00	(25) 457 (30) 532
	A10VO10...28	18.00	2.50	4.69	23.50	8.11	31.62	5.50	11.00	11.80	12.97	1.97	1.57	7.00	(25) 462 (30) 538
	A10VO10...45	18.00	2.50	4.69	23.50	8.82	32.32	5.50	11.00	12.56	12.97	1.97	1.57	7.00	(25) 476 (30) 551
	A10VO10...71	18.00	2.50	4.69	23.50	10.12	33.62	5.50	11.00	13.86	12.97	1.97	1.57	7.00	(25) 501 (30) 576
324TYZ \ 40 HP 326TYZ \ 50 HP	A10VO10...28	23.00	2.50	5.55	25.96	8.11	34.07	6.25	12.00	12.66	14.47	2.78	2.36	8.00	(40) 629 (50) 685
	A10VO10...45	23.00	2.50	5.55	25.96	8.82	34.78	6.25	12.00	13.42	14.47	2.78	2.36	8.00	(40) 642 (50) 698
	A10VO10...71	23.00	2.50	5.55	25.96	10.12	36.08	6.25	12.00	14.72	14.47	2.78	2.36	8.00	(40) 667 (50) 723
	A10VO10...100	23.00	2.50	5.55	25.96	12.48	38.44	6.25	12.00	17.00	14.47	2.78	2.36	8.00	(40) 693 (50) 749
364TYZ \ 60 HP 365TYZ \ 75 HP	A10VO10...45	23.00	2.50	6.75	28.48	8.82	37.3	7.00	12.25	14.62	15.97	2.78	2.36	9.00	(60) 853 (75) 903
	A10VO10...71	23.00	2.50	6.75	28.48	10.12	38.6	7.00	12.25	15.92	15.97	2.78	2.36	9.00	(60) 879 (75) 929
	A10VO10...100	23.00	2.50	6.75	28.48	12.48	40.96	7.00	12.25	18.21	15.97	2.78	2.36	9.00	(60) 905 (75) 955
	A10VO10...140	23.00	2.50	6.75	28.48	13.27	41.63	7.00	12.25	18.21	15.97	2.78	2.36	9.00	(60) 935 (75) 985
405TYZ \ 100 HP	A10VO10...45	17.00	1.50	7.56	32.35	8.82	41.17	8.00	13.75	16.06	17.97	4.00	2.38	10.00	1,256
	A10VO10...71	17.00	1.50	7.56	32.35	10.12	42.47	8.00	13.75	17.36	17.97	4.00	2.38	10.00	1,282
	A10VO10...100	17.00	1.50	7.56	32.35	12.48	44.83	8.00	13.75	19.65	17.97	4.00	2.38	10.00	1,308
	A10VO10...140	17.00	1.50	7.56	32.35	13.27	45.62	8.00	13.75	19.65	17.97	4.00	2.38	10.00	1,338

(1) Total weight without oil, flanges, fittings, hoses, damping rails, etc.... () in weight column indicates HP of motor.
Total weight with damping rails, add 0.593 lbs/in X total length in inches.

Unit Dimensions: Motor / Pump / Group, A10VO..., Vertical Mounting (dimension in inches)



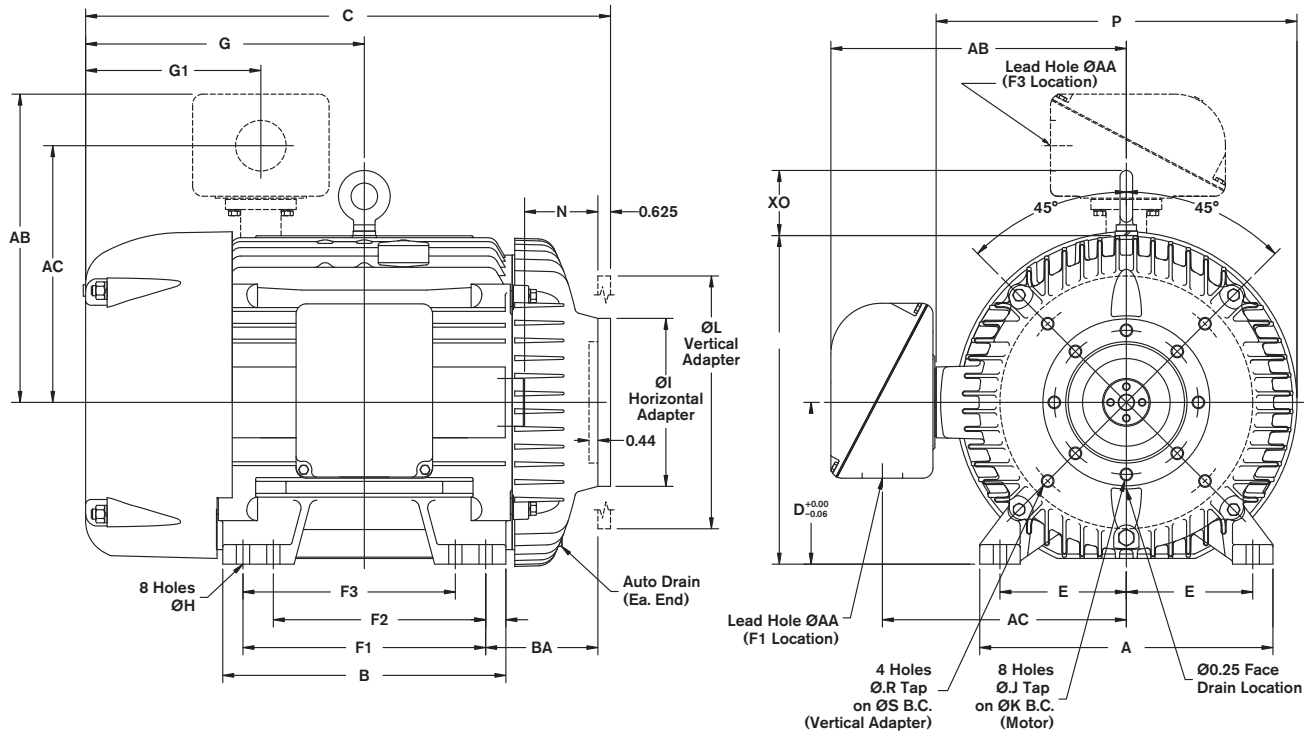
Recommended Fabrication Cut-out

Motor	Frame	RF	Ø SF B.C.	Ø DF
25	284TYZ	9/16	11.00	9.875
30	286TYZ			
40	324TYZ			
50	326TYZ			
60	364TYZ	11/16	14.50	13.25
75	365TYZ			
100	405TYZ			

Motor	Pump Model	C	X	OAL	E	G	D	Ø L	Ø R (4) Holes	S	Total Weight lbs. ⁽¹⁾
284TYZ \ 25 HP 286TYZ \ 30 HP	A10VO10...18	23.50	7.68	31.18	5.50	5.71	7.00	12.50	1/2-13 UNC	11.00	(25) 470 (30) 545
	A10VO10...28	23.50	8.11	31.62	5.50	6.48	7.00	12.50	1/2-13 UNC	11.00	(25) 475 (30) 550
	A10VO10...45	23.50	8.82	32.32	5.50	7.24	7.00	12.50	1/2-13 UNC	11.00	(25) 488 (30) 563
	A10VO10...71	23.50	10.12	33.62	5.50	8.54	7.00	12.50	1/2-13 UNC	11.00	(25) 513 (30) 588
324TYZ \ 40 HP 326TYZ \ 50 HP	A10VO10...28	25.96	8.11	34.07	6.25	6.48	8.00	12.50	1/2-13 UNC	11.00	(40) 642 (50) 698
	A10VO10...45	25.96	8.82	34.78	6.25	7.24	8.00	12.50	1/2-13 UNC	11.00	(40) 655 (50) 711
	A10VO10...71	25.96	10.12	36.08	6.25	8.54	8.00	12.50	1/2-13 UNC	11.00	(40) 680 (50) 736
	A10VO10...100	25.96	12.48	38.44	6.25	10.83	8.00	12.50	1/2-13 UNC	11.00	(40) 706 (50) 762
364TYZ \ 60 HP 365TYZ \ 75 HP	A10VO10...45	28.48	8.82	37.3	7.00	7.24	9.00	16.00	5/8-11 UNC	14.50	(60) 873 (75) 923
	A10VO10...71	28.48	10.12	38.6	7.00	8.54	9.00	16.00	5/8-11 UNC	14.50	(60) 899 (75) 949
	A10VO10...100	28.48	12.48	40.96	7.00	10.83	9.00	16.00	5/8-11 UNC	14.50	(60) 924 (75) 975
	A10VO10...140	28.48	13.27	41.63	7.00	10.83	9.00	16.00	5/8-11 UNC	14.50	(60) 958 (75) 1,007
405TYZ \ 100 HP	A10VO10...45	32.35	8.82	41.17	8.00	7.24	10.00	16.00	5/8-11 UNC	14.50	1,276
	A10VO10...71	32.35	10.12	42.47	8.00	8.54	10.00	16.00	5/8-11 UNC	14.50	1,302
	A10VO10...100	32.35	12.48	44.83	8.00	10.83	10.00	16.00	5/8-11 UNC	14.50	1,328
	A10VO10...140	32.35	13.27	45.62	8.00	10.83	10.00	16.00	5/8-11 UNC	14.50	1,360

(1) Total weight without oil, flanges, fittings, hoses, damping, etc. () indicates HP of motor.

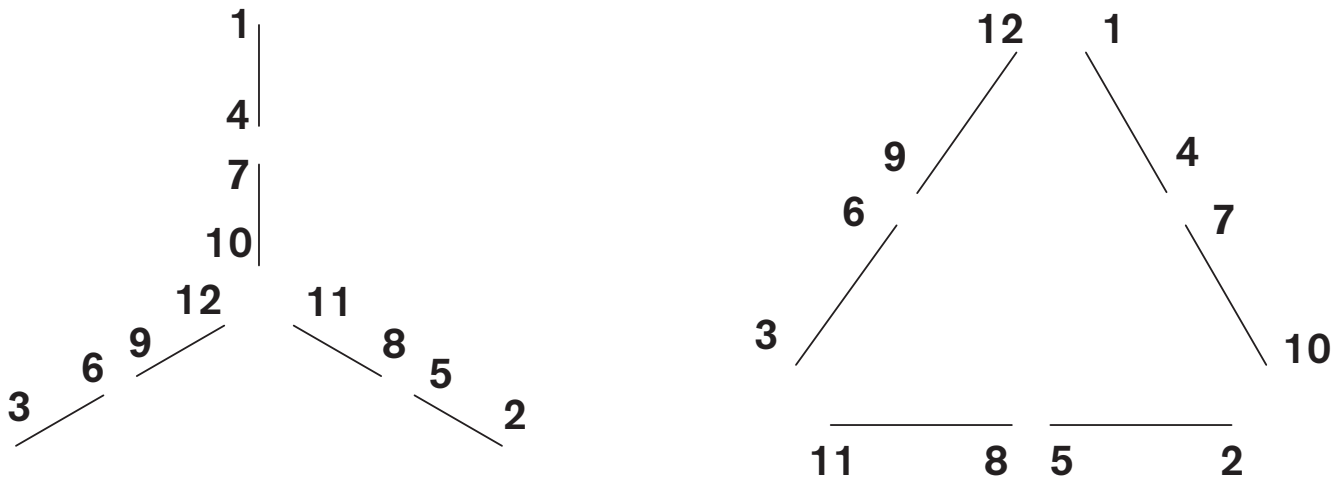
Unit Dimensions: Motor and Adapter (dimensions in inches)



Motor, HP (kW)	Frame Size	A	B	C	D	E	F1	F2, F3	G	G1	H	Ø I	Ø J	K
25 (18.6)	284TYZ-M	12.75	12.84	23.50	7.00	5.50	11.00	9.50	12.69	N/A	0.53	8.33	5/8-11	7.13
30 (22.3)	286TYZ-M	12.75	12.84	23.50	7.00	5.50	11.00	9.50	12.69	N/A	0.53	8.33	5/8-11	7.13
40 (29.5)	324TYZ-M	14.50	14.00	25.96	8.00	6.25	12.00	10.50	13.78	N/A	0.66	8.33	5/8-11	7.13
50 (37.2)	326TYZ-M	14.50	14.00	25.96	8.00	6.25	12.00	10.50	13.78	N/A	0.66	8.33	5/8-11	7.13
60 (44.6)	364TYZ-M	16.50	14.50	28.48	9.00	7.00	12.25	11.25	14.97	N/A	0.66	10.50	3/4-10	9.00
75 (55.8)	365TYZ-M	16.50	14.50	28.48	9.00	7.00	12.25	11.25	14.97	N/A	0.66	10.50	3/4-10	9.00
100 (74.4)	405TYZ-M	18.88	16.63	32.35	10.00	8.00	13.75	12.25	17.28	10.31	0.81	10.50	3/4-10	9.00

Motor, HP (kW)	Frame Size	Ø L	M	N	O	P	Ø R	S	Ø AA	AC	AB	BA	XO
25 (18.6)	284TYZ-M	12.50	0.92	2.56	14.44	15.57	1/2-13	11.00	2.00	10.57	13.11	4.69	2.72
30 (22.3)	286TYZ-M	12.50	0.92	2.56	14.44	15.57	1/2-13	11.00	2.00	10.57	13.11	4.69	2.72
40 (29.5)	324TYZ-M	12.50	1.00	3.62	16.25	17.84	1/2-13	11.00	2.00	12.06	14.61	5.55	3.22
50 (37.2)	326TYZ-M	12.50	1.00	3.62	16.25	17.84	1/2-13	11.00	2.00	12.06	14.61	5.55	3.22
60 (44.6)	364TYZ-M	16.00	1.12	3.62	18.38	19.25	5/8-11	14.50	2.50	12.41	14.95	6.75	3.57
75 (55.8)	365TYZ-M	16.00	1.12	3.62	18.38	19.25	5/8-11	14.50	2.50	12.41	14.95	6.75	3.57
100 (74.4)	405TYZ-M	16.00	1.44	4.34	20.31	21.55	5/8-11	14.50	3.00	15.61	19.12	7.56	3.57

Motor Terminal Markings and Connections for NEMA Nomenclature – 12 Leads WYE Delta Winding



Dual Voltage / Three Phase
 WYE Connection (Start)
 Delta Connection (Run)

Voltage	Connection	L1	L2	L3	JOIN
High	WYE	1	2	3	4&7, 5&8, 6&9, 10&11&12
	DELTA*	1,12	2,10	3,11	4&7, 5&8, 6&9
Low	WYE	1,7	2,8	3,9	4&5&6, 10&11&12
	DELTA*	1,6,7,12	2,4,8,10	3,5,9,11	—

WYE-Delta Motors used in conjunction with reduced voltage starters switch from WYE to Delta configuration during start-up. The delta configuration is maintained after the switching occurs. Reduced voltage starters cost substantially more than full voltage starters and should only be applied when applicable.

* **WYE-Delta motors are compatible with full voltage motor starters.**

WYE Mode:

Motors with WYE-Delta windings reduced the starting line voltage by approximately 1/3. The starting current is reduced approximately 30 percent that of the normal current. The starting torque is reduced approximately 20–30 percent of the rated full load torque.

* **Motors using WYE starting mode should not be started under full load.**

Delta Mode:

Applies full line voltage, current, and torque to the motor when required.

* **When using a full voltage motor starter, only wire per delta connections.**

Standard Part Numbers: Motor / Pump / with or without Mounting Rails

Model Code (without mounting rails)	Part Number	Model Code (with mounting rails)	Part Number
MPGB025HTYM4DOPWS1HA10018DRSNN1NN	R978012202	MPGB025HTYM4DOPWS1HA10018DRSNN1DR	R978012203
MPGB025HTYM4DOPWS1HA10018DFRSNN1NN	R978012204	MPGB025HTYM4DOPWS1HA10018DFRSNN1DR	R978012205
MPGB030HTYM4DOPWS1HA10018DRSNN1NN	R978012218	MPGB030HTYM4DOPWS1HA10018DRSNN1DR	R978012219
MPGB030HTYM4DOPWS1HA10018DFRSNN1NN	R978012220	MPGB030HTYM4DOPWS1HA10018DFRSNN1DR	R978012221
MPGB025HTYM4DOPWS1HA10028DRSNN1NN	R978012206	MPGB025HTYM4DOPWS1HA10028DRSNN1DR	R978012207
MPGB025HTYM4DOPWS1HA10028DFRSNN1NN	R978012208	MPGB025HTYM4DOPWS1HA10028DFRSNN1DR	R978012209
MPGB030HTYM4DOPWS1HA10028DRSNN1NN	R978012222	MPGB030HTYM4DOPWS1HA10028DRSNN1DR	R978012223
MPGB030HTYM4DOPWS1HA10028DFRSNN1NN	R978012224	MPGB030HTYM4DOPWS1HA10028DFRSNN1DR	R978012225
MPGB040HTYM4DPRWS1HA10028DRSNN1NN	R978012234	MPGB040HTYM4DPRWS1HA10028DRSNN1DR	R978012235
MPGB040HTYM4DPRWS1HA10028DFRSNN1NN	R978012236	MPGB040HTYM4DPRWS1HA10028DFRSNN1DR	R978012237
MPGB050HTYM4DPRWS1HA10028DRSNN1NN	R978012250	MPGB050HTYM4DPRWS1HA10028DRSNN1DR	R978012251
MPGB050HTYM4DPRWS1HA10028DFRSNN1NN	R978012252	MPGB050HTYM4DPRWS1HA10028DFRSNN1DR	R978012253
MPGB025HTYM4DOPWS1HA10045DRSNN1NN	R978012210	MPGB025HTYM4DOPWS1HA10045DRSNN1DR	R978012211
MPGB025HTYM4DOPWS1HA10045DFRSNN1NN	R978012212	MPGB025HTYM4DOPWS1HA10045DFRSNN1DR	R978012213
MPGB030HTYM4DOPWS1HA10045DRSNN1NN	R978012226	MPGB030HTYM4DOPWS1HA10045DRSNN1DR	R978012227
MPGB030HTYM4DOPWS1HA10045DFRSNN1NN	R978012228	MPGB030HTYM4DOPWS1HA10045DFRSNN1DR	R978012229
MPGB040HTYM4DPRWS1HA10045DRSNN1NN	R978012238	MPGB040HTYM4DPRWS1HA10045DRSNN1DR	R978012239
MPGB040HTYM4DPRWS1HA10045DFRSNN1NN	R978012240	MPGB040HTYM4DPRWS1HA10045DFRSNN1DR	R978012241
MPGB050HTYM4DPRWS1HA10045DRSNN1NN	R978012254	MPGB050HTYM4DPRWS1HA10045DRSNN1DR	R978012255
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MPGB100HTYM4DRSWS3HA10045DRSNN1NN	R978012298	MPGB100HTYM4DRSWS3HA10045DRSNN1DR	R978012299
MPGB100HTYM4DRSWS3HA10045DFRSNN1NN	R978012300	MPGB100HTYM4DRSWS3HA10045DFRSNN1DR	R978012301

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Standard Part Numbers: Motor / Pump / with or without Mounting Rails (cont.)

Model Code (without mounting rails)	Part Number	Model Code (with mounting rails)	Part Number
MPGB025HTYM4DOPWS1HA10071DFRSNN1NN	R978012216	MPGB025HTYM4DOPWS1HA10071DFRSNN1DR	R978012217
MPGB030HTYM4DOPWS1HA10071DRSNN1NN	R978012230	MPGB030HTYM4DOPWS1HA10071DRSNN1DR	R978012231
MPGB030HTYM4DOPWS1HA10071DFRSNN1NN	R978012232	MPGB030HTYM4DOPWS1HA10071DFRSNN1DR	R978012233
MPGB040HTYM4DPRWS1HA10071DRSNN1NN	R978012242	MPGB040HTYM4DPRWS1HA10071DRSNN1DR	R978012243
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Notes

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