

Pressure Booster Pump Submittal Data

FW0540 1020
Supersedes 0319

Job or Customer	
Engineer	
Contractor	
Submitted by	Date
Approved by	Date
Specification Reference	
Quote Date	Quote Number



Quantity	Model Number	System Discharge Pressure (PSI)	Flow (GPM)	System Inlet Pressure (PSI)	Volts	Phase	Comments

PERFORMANCE SPECIFICATIONS

PRESSURE ADDED - PSI†					10	20	40	60	80	100	120	140	160	180	200	220	Max. Press. PSI	Suction Pipe Tap NPT	Disch. Pipe Tap NPT
Stainless Steel Fitted	Powder-Coated Cast Iron Fitted	Cast Iron Fitted	HP	Stage	Output - Gallons per Minute														
60Hz Models																			
PB0508S031 Δ	PB0508C031	PB0508A031	1/3	8	10.2	9.6	8.3	6.5	4.3								96	3/4"	3/4"
PB0512S051 Δ	PB0512C051	PB0512A051	1/2	12	10.0	9.5	8.3	7.1	6.0	4.0	2.3						132		
PB0516S071 Δ	PB0516C071	PB0516A071	3/4	16	10.2	9.7	9.1	8.3	7.5	6.6	5.8	4.6	3.3				189		
PB0712S071 Δ	PB0712C071	PB0712A071	3/4	12	14.0	13.4	12.2	10.9	9.5	8.9	7.0	4.6					158		
PB1014S101 Δ	PB1014C101	PB1014A101	1	14	*	*	14.5	13.4	12.3	11.2	9.8	8.0	6.0	2.3			183		
PB1016S151 Δ	PB1016C151	PB1016A151	1-1/2	16	*	*	15.0	14.1	13.1	12.1	11.0	9.8	8.2	5.2	2.0		212		
PB1914S201 ††	PB1914C201 ††	PB1914A201	2	14	27.6	27.0	25.7	24.2	22.6	20.8	18.7	16.2	12.9	7.7			190	1"	1"
PB3506S201	PB3506C201	PB3506A201	2	6	48.0	47.0	42.5	35.2	24.0								85		
PB2711S201	PB2711C201	PB2711A201	2	11	*	*	31.5	29.5	27.1	24.2	20.3	13.0					147		
PB3508S301	PB3508C301	PB3508A301	3	8	48.0	47.5	44.0	40.0	35.2	27.5							118		
PB2714S301 ††	PB2714C301 ††	PB2714A301	3	14	*	*	33.0	31.5	29.8	27.9	25.6	22.8	18.9	11.1			187		
PB2717S303A**	-	-	3	17	*	*	*	34.1	32.3	30.5	28.3	25.8	23.1	20.0	16.6	11.4	225		
-	-	PB5504A201	2	4	77.6	71.5	52.5										55	2"	2"
-	-	PB5506A301	3	6	77.8	74.4	65.0	51.1	31.9								83		
-	-	PB8504A201	2	4	105.8	90.0	47.0										49		
-	-	PB8505A301	3	5	108.8	98.8	60.0	25.0									60		
50Hz Models																			
PB0508Y031 Δ	PB0508Z031	PB0508X031	1/3	8	7.5	6.8	5.0	2.0									66	3/4"	3/4"
PB0514Y051 Δ	PB0514Z051	PB0514X051	1/2	14	*	7.3	6.4	5.3	4.0	2.1							113		
PB0714Y071 Δ	PB0714Z071	PB0714X071	3/4	14	*	10.9	9.7	8.5	7.0	5.2	2.8						132		
PB1020Y101	PB1020Z101	PB1020X101	1	20	*	13.0	12.2	11.4	10.5	9.5	8.2	6.8	5.0	2.0			183		
PB1022Y101	PB1022Z101	PB1022X101	1	22	*	12.0	12.2	11.4	10.5	9.5	8.4	7.4	6.0	4.3	2.0		203		
PB1023Y101	PB1023Z101	PB1023X101	1	23	*	12.0	12.2	11.4	10.5	9.6	8.6	7.6	6.5	5.1	3.3		213		
PB1920Y151	PB1920Z151	PB1920X151	1-1/2	20	*	22.1	21.0	19.5	18.0	16.1	14.1	11.6	8.3	2.0			182	1"	1"
PB2717Y201	PB2717Z201	PB2717X201	2	17	*	30.8	28.9	26.7	24.1	21.2	18.0	13.5					160		
PB3508Y151	PB3508Z151	PB3508X151	1-1/2	8	*	39.4	33.9	27.0	14.0								84		
PB3514Y301T	PB3514Z301T	PB3514X301T	3	14	*	*	38.5	36.5	32.1	28.1	23.0	14.4					146		

† Example: If PB0508A031 pump is connected to supply line of sufficient capacity, carrying water at 40 PSI, and the output of the pump is held to 7.3 GPM by a gate valve, the pump will add 40 PSI to line pressure for a total output pressure of 80 PSI.

* Operation of pump in this range may result in reduced pump life and/or motor damage.

To keep pump and seal lubricated, a minimum flow of 1.5 GPM must always be maintained through the pump.

** Only available in 3 phase

†† Models marked are also available in 575V, 3 Phase Only.

Motor voltage:

Open Drip Proof

Single Phase 1/3 - 2 HP - 115/230; 3 HP - 230V 60 Hz.

Three Phase 1/2 - 2 HP - 208-230/460, 50/60Hz.

Three Phase 3 HP - 208-230/460, 60 HZ

Three Phase 2 - 3 HP - 575V, 60Hz

For three phase models, use suffix "3" on the model no.

Example: PB0512A053

Totally Enclosed Fan Cooled

Single Phase: 1/2 thru 3 HP - 115/230V 60/50Hz

Three Phase: 1/2 thru 3 HP - 208/230/460V 60/50Hz

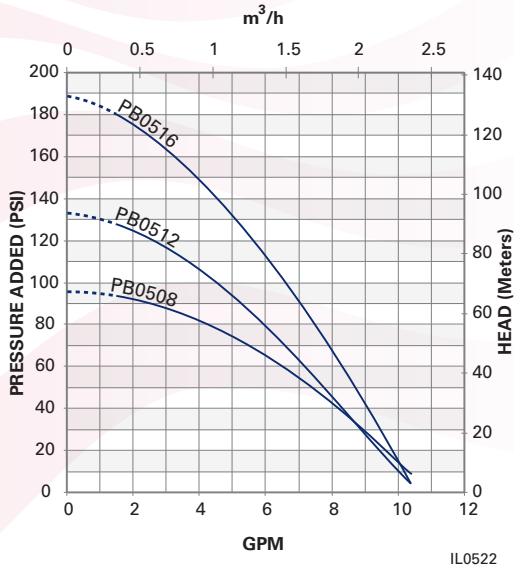
Δ Less than 50% US content



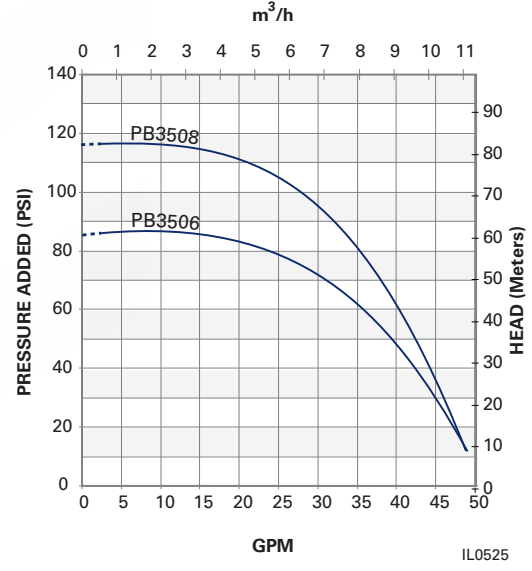
BOOSTER PUMP

60 Hz PERFORMANCE CURVES

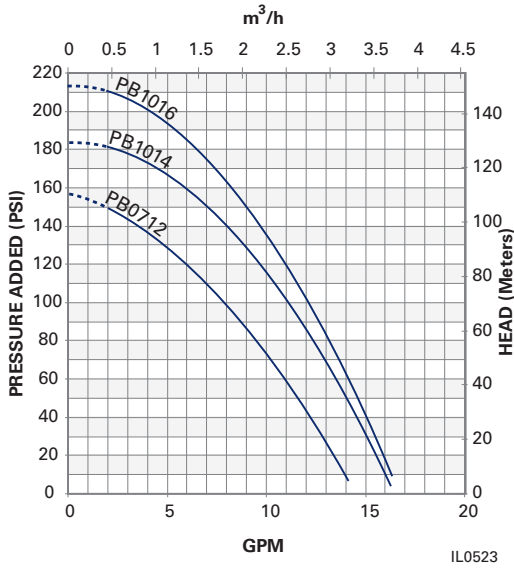
5 GPM



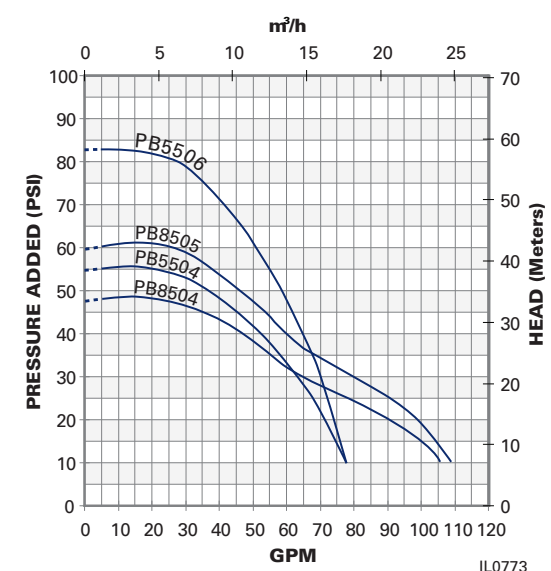
35 GPM



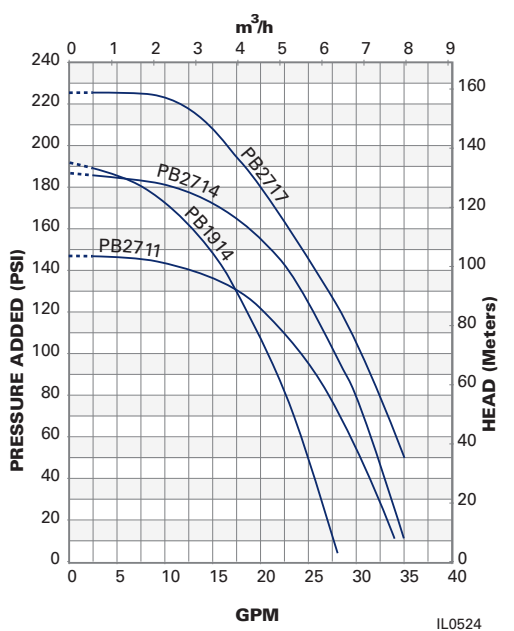
7 and 10 GPM



55 & 85 GPM



19 & 27 GPM



Do not operate pumps in flow range indicated by dotted line.

PUMP DATA

Flow Range: 1.5 TO 41.5 U.S. GPM
 Pressure Boost Range: 86 to 216 PSI
 Liquid Temperatures: 34°F to 140°F



Agency Approvals:
 Duty Cycle Continuous
 Pumping Medium Clear Water
 Service/Repair Information Pump and Motor Field Serviceable



BOOSTER PUMP

MOTOR DATA

HP	Locked-Rotor Torque (Starting Torque) In-Lbs.	Single Phase						3 Phase				
		S.F.	Max. Amb.	Max. Amb. @ SF before Overload Tripping	Breakdown Torque In-Lbs.	Peak Output Power		S.F.	Max. Amb.	Breakdown Torque In-Lbs.	Peak Output Power	
						HP	kW				HP	kW
1/3	16	1.75	65° C/149° F	70° C/158° F	17	0.85	0.6	N/A	N/A	N/A	N/A	N/A
1/2	23	1.6	65° C/149° F	70° C/158° F	27	1.3	1.0	1.6	65° C	42	2.0	1.5
3/4	29	1.5	65° C/149° F	70° C/158° F	42	2.1	1.6	1.5	65° C	49	2.3	1.7
1	48	1.4	65° C/149° F	66° C/151° F	52	2.5	1.9	1.4	65° C	74	3.5	2.6
1.5	59	1.3	65° C/149° F	66° C/151° F	76	3.8	2.8	1.3	65° C	90	4.3	3.2
2	63	1.25	65° C/149° F	66° C/151° F	80	4.0	3.0	1.25	65° C	112	5.3	4.0
3	65	1.0	65° C/149° F	66° C/151° F	95	4.5	3.4	1.0	50° C	125	5.9	4.4
3**	65							1.15	40° C	135	6.4	4.7

** Only available in 3 phase

Motor voltage:

Open Drip Proof

Single Phase 1/3 - 2 HP - 115/230; 3 HP - 230V 60 Hz.

Three Phase 1/2 - 2 HP - 208-230/460, 50/60Hz.

Three Phase 3 HP - 208-230/460, 60 HZ

Three Phase 2 - 3 HP - 575V, 60Hz

For three phase models, use suffix "3" on the model no.

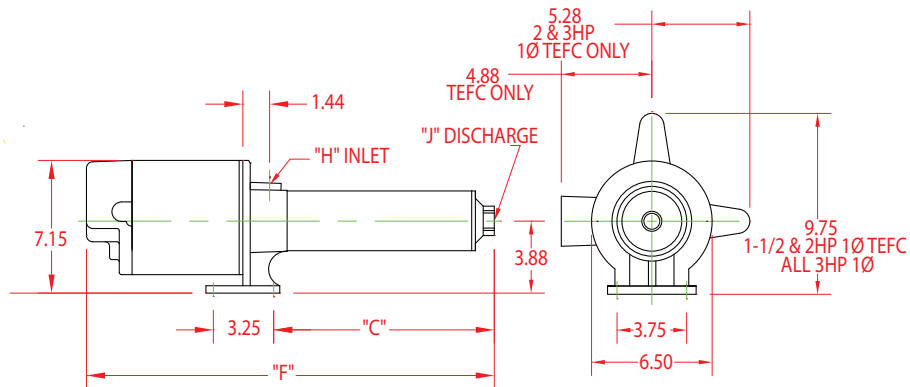
Example: PB0512A053

Totally Enclosed Fan Cooled

Single Phase: 1/2 thru 3 HP - 115/230V 60/50Hz

Three Phase: 1/2 thru 3 HP - 208/230/460V 60/50Hz

PUMP DIMENSIONS 60 HZ



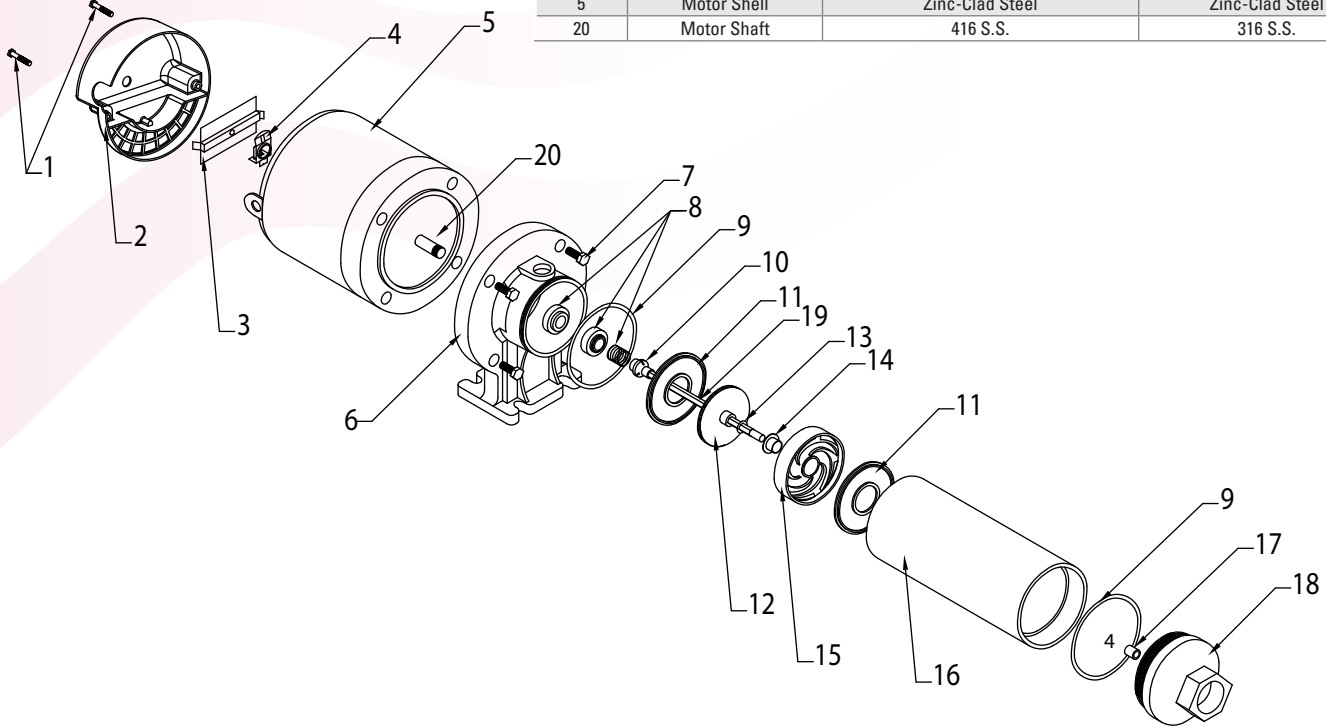
HP	GPM	Stage	"C"	F			H	J
				F&W	TEFC			
					1 Phase	3 Phase		
1/3	5	8	10.2	19.8	-	-	.75	.75
1/3*	5	8	10.2	20.1	22.0	-	.75	.75
1/2	5	12	13.4	23.3	23.2	24.1	.75	.75
1/2*	5	14	15.0	25.3	26.8	25.7	.75	.75
3/4	5	16	16.5	26.9	28.8	27.5	.75	.75
3/4	7	12	13.4	23.8	25.6	24.4	.75	.75
3/4*	7	14	15.0	25.8	27.2	25.9	.75	.75
1	10	14	16.3	27.2	29.2	28.0	.75	.75
1-1/2	10	16	18.1	29.6	31.5	30.1	.75	.75
1*	10	20	21.7	33.2	34.5	33.4	.75	.75
1*	10	22	23.5	35.0	36.4	35.2	.75	.75
1*	10	23	24.4	35.9	37.7	36.1	.75	.75
2	19	14	17.9	29.9	32.1	30.9	.75	.75
1-1/2*	19	20	24.1	36.1	37.4	36.0	.75	.75
2*	19	22	26.1	38.1	40.4	39.1	.75	.75
2	27	11	15.4	27.4	29.6	28.4	1.0	1.0
3	27	14	18.5	30.5	33.9	33.4	1.0	1.0
2*	27	17	21.6	33.6	35.8	34.6	1.0	1.0
3	27	17	21.6	33.7	-	-	1.0	1.0
2	35	6	13.9	25.9	28.2	26.9	1.0	1.0
3	35	8	17.1	29.1	32.5	32.0	1.0	1.0
1-1/2*	35	8	17.1	29.1	30.5	29.1	1.0	1.0
3*	35	14	26.9	38.9	42.2	41.7	1.0	1.0

*50Hz

CONSTRUCTION MATERIALS

CONSTRUCTION MATERIALS - MOTOR

ITEM NO.	DESCRIPTION	Cast Iron/Powder-Coated MODELS	SS MODELS
1	Cover Bolts (2)	Plated Steel	Plated Steel
2	Cover	Valox	Valox
3	Switch	AgCd Contacts	AgCd Contacts
4	Governor	Zinc Plated CRS	Zinc Plated CRS
5	Motor Shell	Zinc-Clad Steel	Zinc-Clad Steel
20	Motor Shaft	416 S.S.	316 S.S.



IL0127

CONSTRUCTION MATERIALS - PUMP

ITEM NO.	DESCRIPTION	Cast Iron/Powder-Coated MODELS	SS MODELS
6	Mounting Ring	Cast Iron/Powder-Coated	316 S.S.
7	Motor/Mounting Ring Bolts (4)	Plated Steel	Plated Steel
8	Seal, Rotary w/Spring	Ceramic - Carbon/S.S. & Buna N	Ceramic-Carbon/S.S. & Viton
9	O-Ring (2)	Buna-N	Viton
10	Coupling	316 Sintered S.S.	316 Sintered S.S.
11	Plate	Celcon	Celcon
12	Impeller	Noryl 731	Noryl 731
13	Shim as Required	300 S.S.	300 S.S.
14	Bearing	300 S.S.	300 S.S.
15	Diffuser	Noryl 731	Noryl 731
16	Barrel	304 S.S.	304 S.S.
17	Discharge Bearing	Sintered Bronze	Sintered Bronze
18	Discharge Head	Cast Iron/Powder-Coated	316 S.S.
19	Pump Shaft	416 S.S.	316 S.S.

