

# High Volume Pressure Booster Pump Submittal Data

FW0542 1020  
Supersedes 0319

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



## CJ101 SERIES

For continuous-duty high flow, pressure boosting applications such as increasing water pressure from city mains or private water systems. Units are not self-priming but will lift water up to 25 ft. with foot valve and pump suction piping filled

with water. Heavy-duty cast-iron body, low lead brass or thermoplastic impellers, and mechanical seal with stainless steel, Buna N and carbon-silicon carbide parts. F&W 3450 RPM motor. NEMA 56J frame with threaded shaft.

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

## PUMP PERFORMANCE

CJ101 SERIES CENTRIFUGAL PUMPS, LOW LEAD BRASS IMPELLERS																	
MODEL NO.			HP	STAGES	LIFT FT.	Discharge Pressure PSI								MAX. PRESS. PSI	*MAX. CASE PRESS.	*MAX. LIQUID TEMP.	
1 PHASE	3 PHASE	LESS MOTOR				10	20	30	40	50	60	70	80				90
						CAPACITY U.S. GPM											
CJ101B071AB CJ101B071TAB	CJ101B073AB CJ101B073TAB	CJ101B0710AB	3/4	2	5 15 25	39 38 31	34 33 29	29 26 23	21 18 12	5				54	160psig	200° F	
CJ101B101AB CJ101B101TAB	CJ101B103AB CJ101B103TAB	CJ101B1010AB	1	2	5 15 25	42 40 32	38 36 31	33 31 28	26 24 21	18 14				62	160psig	200° F	
CJ101B151AB CJ101B151TAB	CJ101B153AB CJ101B153TAB	CJ101B1510AB	1 1/2	2	5 15 25	48 44 34	44 42 33	39 37 32	34 31 29	17 14 10				69	160psig	200° F	
CJ101B201AB CJ101B201TAB	CJ101B203AB CJ101B203TAB	CJ101B2010AB	2	2	5 15 25	56 50 37	52 49 36	47 45 35	41 39 34	24 19				70	160psig	200° F	
CJ101C201AB CJ101C201TAB	CJ101C203AB CJ101C203TAB		2	3	5 15 25	49 45 35	47 44 34	43 42 33	40 39 32	36 35 31	32 31 29	28 26 23	22 19 15	12	98	160psig	200° F
CJ101C301AB CJ101C301TAB	CJ101C303AB Δ CJ101C303TAB		3	3	5 15 25	56 50 37	54 49 36	51 48 36	48 46 35	44 42 34	39 37 33	33 31 29	27 24 20	18	95	160psig	200° F

Δ Less than 50% US content



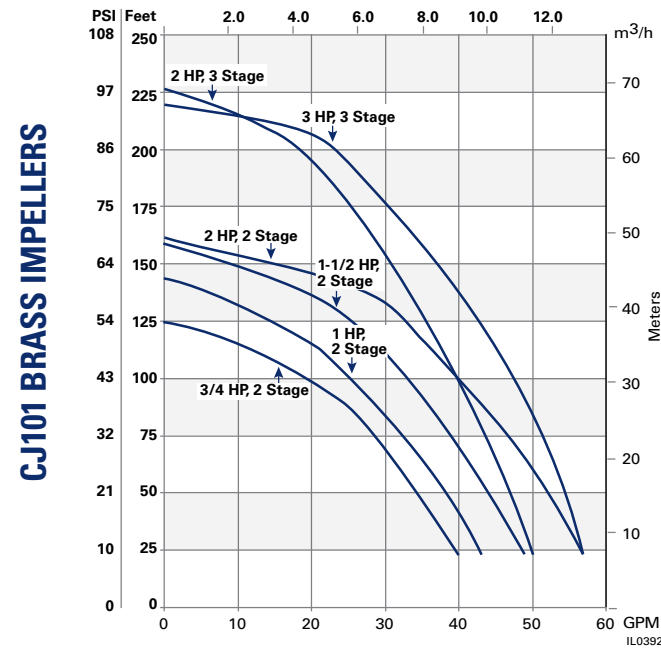
# High Volume Pressure Booster Pump

## PUMP PERFORMANCE

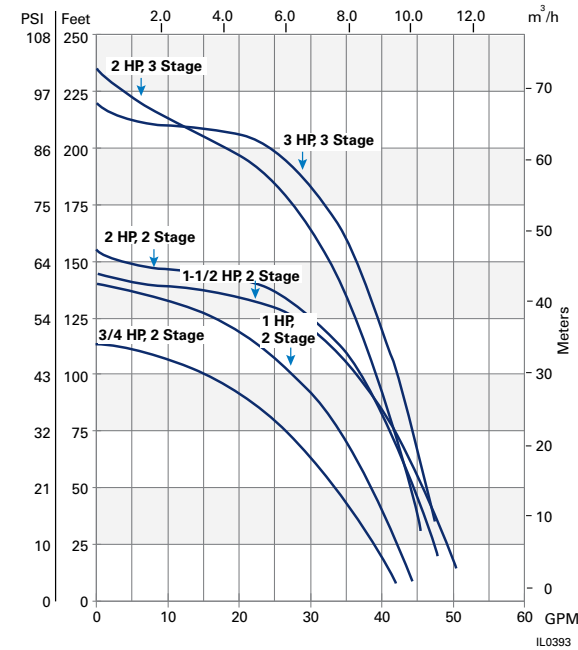
CJ101 SERIES CENTRIFUGAL PUMPS, PLASTIC IMPELLERS																
MODEL NO.		HP	STAGES	LIFT FT.	Discharge Pressure PSI									MAX. PRESS. PSI	*MAX. CASE PRESS.	*MAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	20	30	40	50	60	70	80	90			
CAPACITY U.S. GPM																
CJ101P071	CJ101P073	3/4	2	5 15 25	41 38 32	35 32 29	28 26 22	20 13						49	160psig	160° F
CJ101P101	CJ101P103	1	2	5 15 25	45 42 35	40 39 33	35 33 26	28 22 15						60	160psig	160° F
CJ101P151	CJ101P153	1 1/2	2	5 15 25	54 48 37	50 46 35	44 42 33	38 35 28						61	160psig	160° F
CJ101P201	CJ101P203	2	2	5 15 25	55 49 37	52 47 36	47 45 33	41 39 32	23 17					67	160psig	160° F
CJ101D201	CJ101D203	2	3	5 15 25	44 26 26	44 26 24	44 24 24	41 24 24	37 22 20	28 20 15	22 16	11		101	160psig	160° F
	CJ101D303	3	3	5 15 25	54 48 36	52 47 36	50 46 36	47 45 35	44 42 33	39 37 31	33 30 27	25 22 19	15	95	160psig	160° F

\*Do not exceed the maximum case pressure and maximum liquid temperature rating of the pump. Performance shown for 60Hz models. 50 Hz models also available. Suction and Discharge Tappings 1-1/2" X 1-1/4"

## PERFORMANCE CURVES

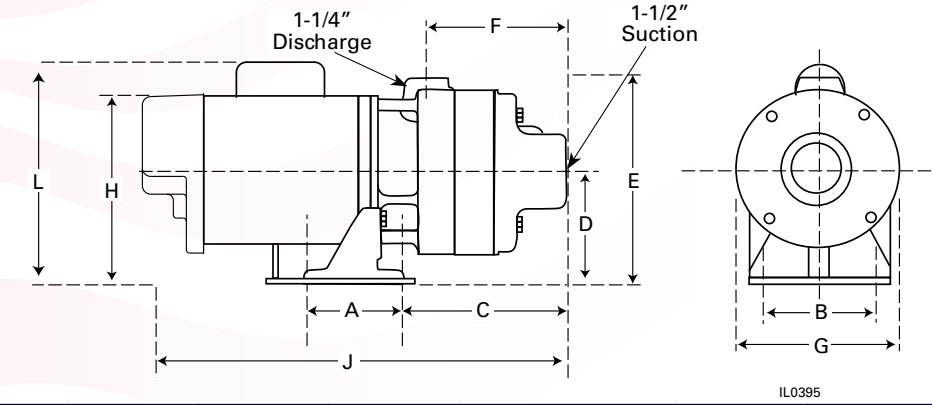


## CJ101 THERMOPLASTIC IMPELLERS



# High Volume Pressure Booster Pump

## PUMP DIMENSIONS 60 HZ



HP	Dimensions in Inches										Ship Wt. Lbs.
	A	B	C	D	E	F	G	H	J	L	
3/4	4	4-5/8	7-9/16	5-1/4	9-1/4	6-1/4	7	8-1/2	17-7/8	-	67
1	4	4-5/8	7-9/16	5-1/4	9-1/4	6-1/4	7	8-1/2	18-3/8	-	71
1-1/2	4	4-5/8	7-9/16	5-1/4	9-1/4	6-1/4	7	8-1/2	19	-	73
2	4	4-5/8	7-9/16	5-1/4	9-1/4	6-1/4	7	8-1/2	19-1/2	-	79
2	4	4-5/8	9-7/16	5-1/4	9-1/4	8-1/8	7	8-1/2	21-3/8	-	92
3	4	4-5/8	9-7/16	5-1/4	9-1/4	8-1/8	7	8-1/2	21-3/8	10-5/8	93

(\*) Three Stage

## PUMP DATA

Flow Range . . . . . 1.5 - 51 GPM  
 Pressure Boost Range . . . . . 48 - 95 PSI  
 Liquid Temperature (Low lead brass Impellers) . . . . . 34° F to 200° F  
 Liquid Temperature (Plastic impellers) . . . . . 34° F to 160° F  
 Maximum Case Pressure . . . . . 160 PSI



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

## MOTOR DATA

HP	Full Load Amps		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
3/4	14.0	7.0	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	18.0	9.0	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	21.0	10.5	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	25.0	12.5	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	-	13.5	65	1.0	65° C/149° F	66° C/151° F	95	4.5	3.4	1.0	65° C	125	5.9	4.4



Motor

All CJ101 single phase (with ODP motors) pumps feature Flint & Walling's Service Plus 56 frame NEMA J, single or dual voltage ODP motors with permanently lubricated double ball bearing.

Single or three phase options  
 TEFC motors available on select models.

**Open Drip Proof (ODP) motor voltage**  
 CJ101 Single Phase: 1/3 through 2 HP - 115/230V;  
 3 HP - 230V, 60HZ

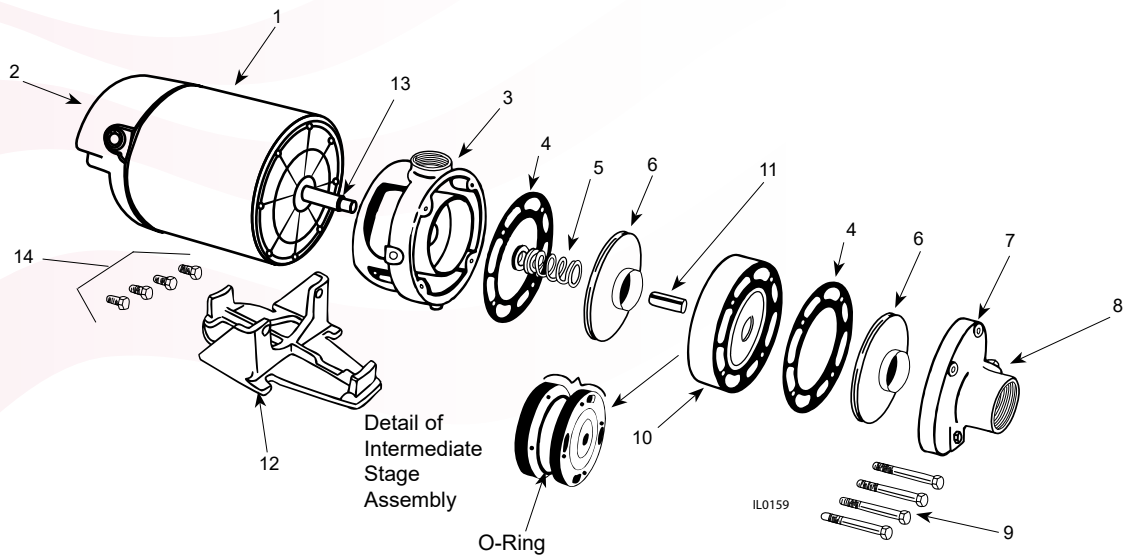
Three Phase: 1/2 through 2 HP - 208-230V/460V, 50/60HZ  
 3 HP - 208-230/460V; 60HZ

**Totally Enclosed Fan Cooled (TEFC) motor voltage**  
 Single Phase: 1/2 through 3 HP - 115/230V 60/50HZ  
 Three Phase: 1/2 through 3 HP - 208-230/460V 60/50HZ



# High Volume Pressure Booster Pump

## CONSTRUCTION MATERIALS - PUMP AND MOTOR



ITEM NO.	DESCRIPTION	MATERIALS
1	Motor Shell	Zinc-Clad Steel
2	Motor Access Cover	Valox
3	Mounting Ring	Cast Iron
4	Gasket	Lexide
5	Mechanical Seal Assembly	Carbon-silicon carbide, stainless steel spring and Buna-N
6	Impeller, Low Lead Brass	Low Lead Brass
6	Impeller, Plastic	Celcon
7	Suction Body w/Clearance Ring	Cast Iron
8	1/4" Plug	Plated Steel
9	3/8 x 3-1/4" Pump thru Bolts (2 stage units)	Plated Steel
9	3/8 x 5" Pump thru Bolts (3 stage units)	Plated Steel
10	Intermediate Stage w/Suction & Hub Clearance Ring	Cast Iron
11	Spacer Sleeve	Cast Iron
12	Base	Cast Iron
13	Pump Shaft	416 Stainless Steel
14	3/8 x 3/4" Motor Mounting Ring Bolts	Plated Steel

