

High Volume Pressure Booster Pump Submittal Data

FW0543 1021
Supersedes 1120

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



CJ103 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 impellers, and mechanical seal with stainless steel, Buna N and carbon-silicon carbide parts. F&W (single phase with ODP motors) 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

PERFORMANCE SPECIFICATIONS

CJ103 SERIES CENTRIFUGAL PUMPS, LOW LEAD BRASS IMPELLERS

MODEL NO.		HP	STAGES	LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	ΔMAX. CASE PRESS.	ΔMAX. LIQUID TEMP.
1 PHASE	3 PHASE				10	15	20	25	30	35	40	45	50				
					CAPACITY U.S. GPM												
CJ103031AB		1/3	1	5 15 25	42 36 28	34 26	21							27	100psig	200° F	
CJ103051AB CJ103051TAB		1/2	1	5 15 25	50 43 33	47 40 30	37 29 15	25 9						32	100psig	200° F	
CJ103071 CJ103071T	CJ103073 CJ103073T	3/4	1	5 15 25	71 66 57	62 54 43	51 40 25	36 19	11					32	100psig	200° F	
CJ103101 CJ103101T	CJ103103T	1	1	5 15 25	76 73 66	69 65 57	61 54 45	50 41 29	36 24	16				39	100psig	200° F	
CJ103151 CJ103151T	CJ103153T	1 1/2	1	5 15 25	94 92 74	88 85 72	80 75 66	70 63 52	59 49 34	44 27	18			43	100psig	200° F	
CJ103201		3	1	5 15 25	109 109 90	103 103 89	96 94 85	86 82 71	75 67 51	61 45	39			44	100psig	200° F	
CJ103201T	CJ103203T	2															

ΔDo not exceed the maximum case pressure and maximum liquid temperature rating of the pump. Performance shown for 60Hz models. 50 Hz models also available. Models with suffix T denotes TEFC motor. All other models utilize ODP motors. Suction and Discharge Tappings 1-1/2" X 1-1/4"



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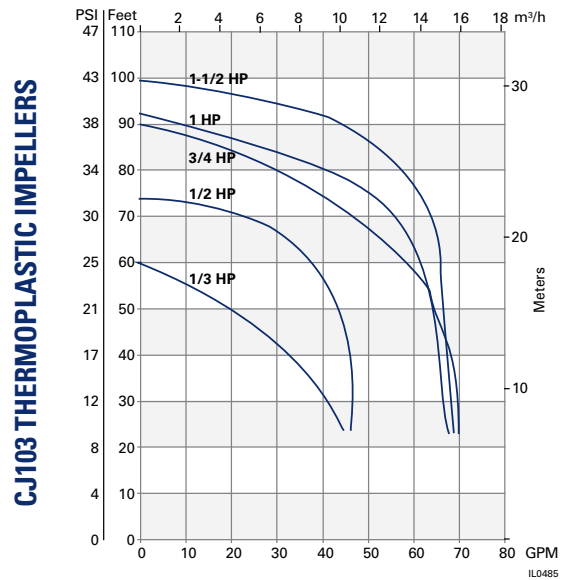
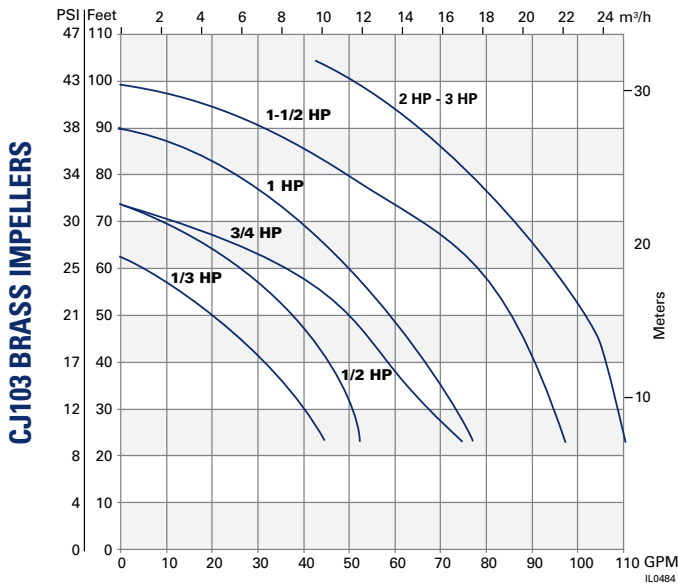
PERFORMANCE SPECIFICATIONS

CJ103 SERIES CENTRIFUGAL PUMPS, PLASTIC IMPELLERS

MODEL NO.		HP	STAGES	LIFT FT.	Discharge Pressure PSI										MAX. PRESS. PSI	ΔMAX. CASE PRESS.	ΔMAX. LIQUID TEMP.							
1 PHASE	3 PHASE				10	15	20	25	30	35	40	45	50											
															CAPACITY U.S. GPM									
CJ103P031		1/3	1	5 15 25	43 35 26	35 24	21								26	100psig	160° F							
CJ103P051	CJ103P053	1/2	1	5 15 25	45 41 31	45 41 29	44 38 27	36 24	19						32	100psig	160° F							
CJ103P071	CJ103P073	3/4	1	5 15 25	69 64 49	68 62 48	64 57 45	57 46 31	42 28	20					38	100psig	160° F							
CJ103P101		1	1	5 15 25	67 61 47	65 59 46	64 58 45	62 55 43	51 41	35					40	100psig	160° F							
CJ103P151		1 1/2	1	5 15 25	68 62 48	67 61 47	66 60 46	65 59 45	63 55 41	52 39	31				44	100psig	160° F							

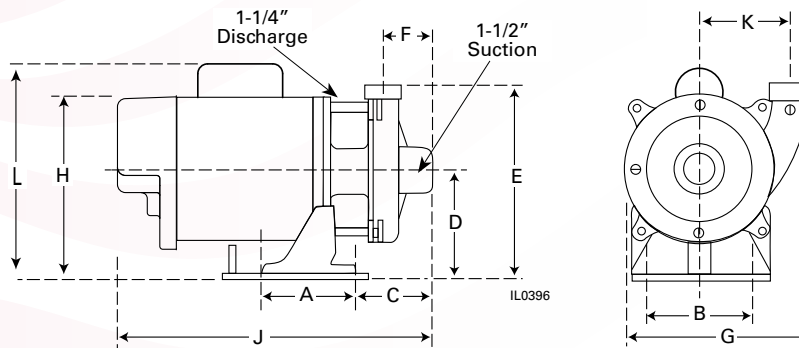
ΔDo not exceed the maximum case pressure and maximum liquid temperature rating of the pump. Performance shown for 60Hz models. 50 Hz models also available. Models with suffix T denotes TEFC motor. All other models utilize ODP motors. Suction and Discharge Tappings 1-1/2" X 1-1/4"

PERFORMANCE CURVES



High Volume Pressure Booster Pump

PUMP DIMENSIONS 60 HZ



Dimensions in Inches for ODP Motor

HP	A	B	C	D	E	F	G	H	J	K	L	
1/3	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	13-1/4	3-7/8	-	
1/2	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	13-1/2	3-7/8	-	
3/4	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	14	3-7/8	-	
1*	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	14-1/2	3-7/8	10-1/4	
1-1/2*	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	15-1/8	3-7/8	10-1/4	
1 Phase	3	4	4-5/8	3-11/16	5	9-1/2	2-1/8	8-1/4	8-1/8	15-5/8	3-7/8	10-1/4

Contact manufacturer for TEFC dimensions.

PUMP DATA

Flow Range 1.5 to 80 GPM
 Pressure Boost Range 27 - 45 PSI
 Liquid Temperature 34°F to 200°F
 Maximum Case Pressure 100 PSI



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

MOTOR DATA

HP	Locked-Rotor Torque (Starting Torque)	Single Phase							3 Phase						
		Service Factor Amps 1 Phase		S.F.	Max. Amb.	Breakdown Torque	Peak Output Power		Service Factor Amps 3 Phase		S.F.	Max. Amb.	Breakdown Torque	Peak Output Power	
		In-Lbs.	115V				230V	In-Lbs.	HP	kW				230V	460V
1/3	16	8.6	4.3	1.75	65° C/ 149° F	17	0.85	0.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/2	23	13.0	6.5	1.6	65° C/ 149° F	27	1.3	1.0	3.5	1.75	1.6	65° C	42	2.0	1.5
3/4	29	14.0	7.0	1.5	65° C/ 149° F	42	2.1	1.6	3.5	1.75	1.5	65° C	49	2.3	1.7
1	48	N/A	8.1	1.4	65° C/ 149° F	52	2.5	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-1/2	59	N/A	10.2	1.3	65° C/ 149° F	65	3.4	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	63	N/A	13.5	1.0	65° C/ 149° F	70	3.8	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Motor

All CJ103 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

CJ103 Single Phase: 1/3 through 3/4 HP - 115/230V, 60/50HZ;
 1 through 3 HP, 230V, 60HZ

CJ103 Three Phase: 1/2 through 3/4 HP - 208-230V/460V, 50/60HZ

Totally Enclosed Fan Cooled (TEFC) motor voltage

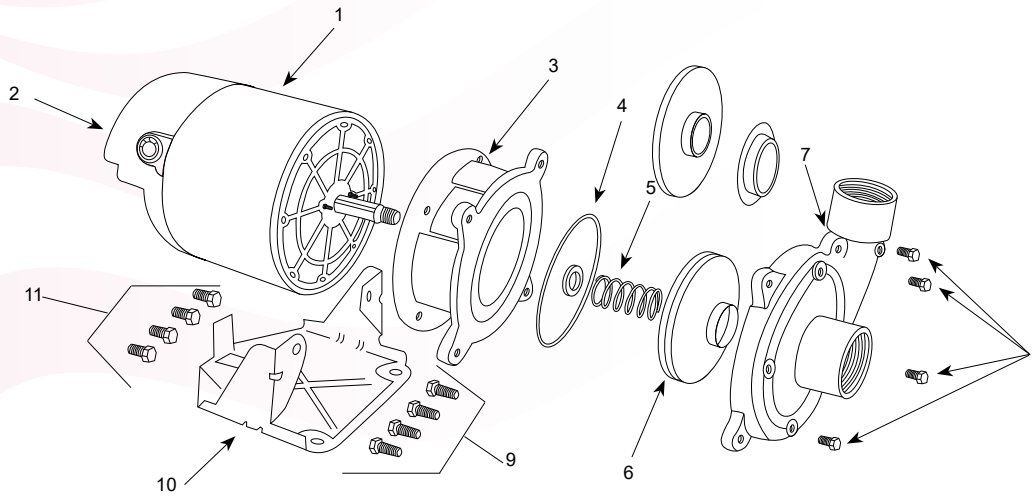
Single Phase: 1/2 through 3 HP - 115/230V 60/50HZ

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



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CONSTRUCTION MATERIALS - PUMP AND F&W MOTOR



ITEM NO.	DESCRIPTION	MATERIALS
1	Motor Shell (F&W)	Zinc-Clad Steel
2	Motor Access Cover (F&W)	Valox
3	Mounting Ring	Cast Iron
4	Gasket	Buna "O" Ring
5	Mechanical Seal Assembly	Carbon-silicon carbide, stainless steel spring, and Buna-N
6	Impeller	Low lead brass / plastic
7	Body w/Clearance Ring	Cast Iron
8	1/8" NPT Plug	Plated Steel
9	3/8 x 1" Pump End Bolts	Plated Steel
10	Base	Stamped Steel
11	3/8 x 3/4" Motor Mounting Ring Bolts	Plated Steel

CJ103 DOE Compliance

PUMP MODEL	Impeller Dia.	P.E.I.cl	PUMP MODEL	Impeller Dia.	P.E.I.cl	PUMP MODEL	Impeller Dia.	P.E.I.cl
CJ103101	4.870"	0.98	CJ103P151	5.090"	0.90	CJ103103T	4.870"	0.91
CJ103151	5.090"	0.99	CJ103101T	4.870"	0.99	CJ103153T	5.090"	0.93
CJ103201	5.090"	0.98	CJ103151T	5.090"	0.99	CJ103203T	5.090"	0.91
CJ103P101	5.000"	0.98	CJ103201T	5.090"	0.99			

