



100mm (4") BOREWELL SUBMERSIBLE PUMPSETS GENIE SERIES

C.R.I. Genie 100 mm (4") Borewell submersible pump is firmly coupled to a submersible electric motor which operates submerged beneath the surface of water. The optimal design of impeller and diffuser enables the best possible hydraulic efficiency. Built-in check valve prevents back flow and reduces the risk of water hammering. All vital components of these pumps are made up of corrosive resistance thermoplastic and the shaft is of SS 431.



SALIENT FEATURES	SPECIFICATIONS		100mm (4") GENIE
• Motor portion covered with corrosive resistance Stainless steel (SS 304) shell	Power Range	0.37 kW - 7.5 kW (0.5 HP - 10 HP)	
• More durability and hygiene	Speed	2850 RPM	
• High operating efficiency	Version	Single phase 230V, Three phase 380 - 415V, 50Hz, AC Supply	
• Specially designed thrust bearing to withstand high axial thrust load	Maximum total head	553 metre	
• Extremely hardwearing water lubricated bearing	Maximum flow rate	7 lps (25.20 m³/h)	
• Thread type motor construction ensures service feasibility	Maximum outer diameter	98 mm	
• Specially designed Deep Drawn type pump ensures perfect alignment and thereby increases the life of the pumpset	Normal outlet size	32, 40, 50 & 65 mm	
• Designed for wide voltage operation	Degree of protection	IP 58	
• Best alternative for JET & Compressor pumpset	Direction of rotation	Counter clockwise from driving end - 1Ph; Electrically Reversible - 3Ph	
• Additional intermediate bearing in higher stage pumps.	Thrust load	0.37kW - 0.75kW - 650 lbs; 1.1kW - 1.5kW - 1000 lbs; 2.2kW - 7.5kW - 1500 lbs	
	Minimum cooling flow along the motor	0.15 m/sec	
	Type of duty	S1 (Continuous)	
	Method of starting	1Ph -Capacitor Start Capacitor Run(CSCR); 3Ph -Direct Online(D.O.L)	
	Maximum starts per hour	20 times	

APPLICATIONS

- Domestic and municipal water supply
- Rural water supply
- Sprinkler system
- Pressure boosting units
- Fire fighting system
- Industrial and mining application
- Fountains
- Gardens

PUMPED LIQUIDS

Clean, thin, non-aggressive, non explosive, clear, cold, fresh water without abrasives & solid particles.

PERFORMANCE CHART

GENIE SERIES

100mm BOREWELL SUBMERSIBLE PUMPSETS - 2850 RPM – AT RATED VOLTAGE – SINGLE PHASE - 230 VOLTS, THREE PHASE - 380 - 415 VOLTS 50Hz, A.C.SUPPLY. Maximum Outer Diameter : 98mm

Model	kW	HP	Stage	Outlet Size in mm	m³/hr lps	DISCHARGE							
						0	0.72	1.08	1.44	1.80	2.16	2.52	2.88
CRI4F-1F/07*	0.37	0.5	7	32	62	59	55	49	44	35	26	16	
CRI4F-1F/11	0.55	0.75	11	32	98	94	90	83	74	61	47	27	
CRI4F-1F/16*	0.75	1	16	32	130	122	119	109	98	80	58	34	
CRI4F-1F/21*	1.1	1.5	21	32	185	172	168	158	143	119	85	51	
CRI4F-1F/27*	1.5	2	27	32	247	230	220	199	182	146	106	64	
CRI4F-2/06	0.55	0.75	6	32	54	50	49	48	42	38	32	25	
CRI4F-2/08*	0.75	1	8	32	72	70	68	67	63	59	42	27	
CRI4F-2/12	0.75	1	12	32	106	100	96	95	87	74	61	45	
CRI4F-2/32	2.2	3	32	32	264	256	253	244	222	195	172	145	

Model	kW	HP	Stage	Outlet Size in mm	m³/hr lps	DISCHARGE							
						0	1.44	1.80	2.16	2.52	2.88	3.24	3.60
CRI4F-3/14	1.1	1.5	14	32	106	95	93	91	85	77	69	59	38

Model	kW	HP	Stage	Outlet Size in mm	m³/hr lps	DISCHARGE							
						0	3.24	3.60	4.32	5.04	5.76	6.48	7.20
CRI4F-5/07*	0.75	1	7	40	50	47	45	44	40	36	20	19	17
CRI4F-5/09*	1.1	1.5	9	40	66	59	58	57	53	48	41	32	22
CRI4F-5/12*	1.5	2	12	40	87	79	78	77	71	63	54	43	33
CRI4F-5/15	2.2	3	15	40	110	95	94	92	83	73	60	48	36
CRI4F-5/18*	2.2	3	18	40	128	113	111	107	98	87	74	58	42
CRI4F-5/25	3.7	5	25	40	181	156	155	151	134	109	100	78	54
CRI4F-5/27	3.7	5	27	40	189	164	163	160	146	128	108	85	59

* Marked pumpset are having ISI licence



GENIE SERIES

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	0.72	1.08	1.44	1.80	2.16	2.52	2.88	3.24
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
CRI4R-2/06*	0.37	0.5	6	32	Head in Metres	42	39	37	34	30	26	21	15	10
CRI4R-2/08*	0.55	0.75	8	32		58	56	53	49	44	39	32	25	18
CRI4R-2/11*	0.75	1	11	32		79	76	73	68	61	53	45	35	25
CRI4R-2/13*	0.75	1	13	32/40		96	87	81	73	65	56	47	36	25
CRI4R-2/17*	1.1	1.5	17	32		119	111	106	99	91	80	68	54	39
CRI4R-2/19*	1.1	1.5	19	32		134	127	120	111	100	87	72	55	38
CRI4R-2/23*	1.5	2	23	32		170	153	142	130	116	101	85	67	46
CRI4R-2/25*	1.5	2	25	32		184	164	153	140	126	110	92	72	51
CRI4R-2/35	2.2	3	35	32/40		261	234	214	196	178	156	127	90	48
CRI4R-2/42*	3	4	42	32/40		308	278	261	240	216	187	156	121	83
CRI4R-2/52	3.7	5	52	32/40		380	353	332	305	273	236	194	148	99

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	0.72	1.08	1.44	1.80	2.16	2.52	2.88
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
CRI4R-2/30	1.5	2	30	32	Head in Metres	207	191	182	172	156	135	111	85
CRI4R-2/32	2.2	3	32	32/40		230	215	206	197	185	167	143	115
CRI4R-2/40	2.2	3	40	32/40		277	259	249	238	222	198	174	147
CRI4R-2/50	3	4	50	32		350	325	311	294	274	244	207	164
CRI4R-2/60	4.5	6	60	32/40		442	410	391	370	343	307	262	211
CRI4R-2/75	5.5	7.5	75	32/40		544	504	483	459	428	378	310	241

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	1.80	2.16	2.52	2.88	3.24	3.60	4.32	5.04
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
CRI4R-3E/05*	0.55	0.75	5	32	Head in Metres	37	35	34	32	30	27	24	18	10
CRI4R-3E/07*	0.75	1	7	32		52	48	47	44	42	38	34	25	14
CRI4R-3E/09*	0.75	1	9	32		66	62	60	57	53	48	43	31	18
CRI4R-3E/11*	1.1	1.5	11	32		82	77	74	69	64	58	50	34	18
CRI4R-3E/14*	1.5	2	14	32		106	99	95	90	84	77	69	51	32
CRI4R-3E/17*	1.5	2	17	32		130	117	113	107	100	92	83	61	36
CRI4R-3E/20	2.2	3	20	32/40		157	144	138	131	123	113	101	76	47
CRI4R-3E/24*	2.2	3	24	32/40		185	168	161	152	142	130	116	84	49

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Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	1.80	2.16	2.52	2.88	3.24	3.60	4.32	5.04
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
CRI4R-3E/26	2.2	3	26	32/40	Head in Metres	204	180	173	163	152	139	124	90	52
CRI4R-3E/40	3.7	5	40	32/40		320	274	260	245	228	209	188	142	91
CRI4R-3E/38	3.7	5	38	32		289	263	255	247	235	220	202	156	
CRI4R-3E/43	4.5	6	43	32/40		335	318	310	298	284	268	252	210	
CRI4R-3E/54	5.5	7.5	54	32/40		427	371	358	343	327	308	284	222	

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	1.80	2.16	2.52	2.88	3.24	3.60	3.96	4.32	4.68	5.04	5.4	5.76
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	
CRI4R-3F/100	7.5	10	100	32	Head in Metres	553	479	461	439	417	392	367		312	282	202		152
CRI4R-3F/113	7.5	10	113	40		650	572	553	527	493	458	425	389	356	323	284	235	179

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	3.24	3.60	4.32	5.04	5.76	6.48	7.20	7.92
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	
CRI4R-5/07*	0.75	1	7	32/40	Head in Metres	46	38	36	32	28	24	19	14	8
CRI4R-5/09*	1.1	1.5	9	40		66	55	53	49	43	37	31	23	16
CRI4R-5/10	1.5	2	10	40		72	64	62	58	52	45	36	27	16
CRI4R-5/12*	1.5	2	12	40		85	73	71	65	57	47	36	23	10
CRI4R-5/15	2.2	3	15	40		115	94	91	84	76	66	55	42	29
CRI4R-5/18	2.2	3	18	40/50		134	110	106	98	87	75	61	46	31
CRI4R-5/25	3.7	5	25	40		178	159	155	145	133	121	97	73	
CRI4R-5/27	3.7	5	27	40		192	164	158	148	133	112	92	68	
CRI4R-5/32	3.7	5	32	40		227	198	192	179	163	148	118	83	

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	2.88	3.24	3.60	4.32	5.04	5.76	6.48	7.20	7.92	8.64	9.36
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	
CRI4R-5E/37*	3.7	5	37	40	Head in Metres	221	200	196	193	182	168	152	132	112			
CRI4R-5E/56	5.5	7.5	56	40		325	277	270	263	246							
CRI4R-7E/36	5.5	7.5	36	40		236				210	200	190	178	162	142	122	100

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Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE						
					lps	0	4.32	5.04	5.76	7.20	7.92	9.36	10.80
CRI4R-8/07	1.1	1.5	7	40/50	Head in Metres	51	45	43	42	37	34	27	20
CRI4R-8/09	1.5	2	9	40		66	58	56	54	47	43	35	26
CRI4R-8/14	2.2	3	14	40/50		105	90	86	83	72	66	53	38
CRI4R-8/20	3.7	5	20	40		146	126	121	116	104	95	76	56
CRI4R-8/23*	3.7	5	23	40		169	150	143	137	123	114	94	70
CRI4R-8/28	4.5	6	28	40		203	177	172	165	143	131	103	71
CRI4R-8/34	5.5	7.5	34	40		244	216	210	201	176	160	127	91

GENIE SERIES
 100mm BOREWELL SUBMERSIBLE PUMPSETS - 2850 RPM – AT RATED VOLTAGE – SINGLE PHASE - 230 VOLTS, THREE PHASE - 380 - 415 VOLTS 50Hz, A.C.SUPPLY. Maximum Outer Diameter : 98mm

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE							
					lps	0	5.40	7.20	9.00	10.80	12.60	14.40	16.20	18.00
CRI4M-13/9	2.2	3	9	50/65	Head in Metres	49		42	41	38	34	28	22	
CRI4M-13/12	3.7	5	12	50		65		62	59	54	48	40	32	
CRI4M-13/14	3.7	5	14	50		73		70	65	57	49	42	33	
CRI4M-13/16	5.5	7.5	16	65		82	75	71	67	62	56	49	42	32
CRI4M-8E/8	1.5	2	8	50/65		49	42	38	33	27	19			
CRI4M-8E/12*	2.2	3	12	50/65		80	71	64	55	44	31			
CRI4M-8E/17	3.7	5	17	50		107	99	92	82	69	49			

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE							
					lps	0	12.60	14.40	16.20	18.00	19.80	21.60	23.40	25.20
CRI4P-20/06	2.2	3	6	65	Head in Metres	38	28	26	24	22	19	17	15	12
CRI4P-20/07	3	4	7	65		46	33	31	28	26	23	20	17	14
CRI4P-20/08	3	4	8	65		52	38	35	33	29	27	23	20	17
CRI4P-20/10	3.7	5	10	65		65	48	46	42	39	35	31	28	23
CRI4P-20/12	4.5	6	12	65		78	56	53	49	45	40	36	32	27
CRI4P-20/14	5.5	7.5	14	65		90	67	62	57	53	48	43	37	32

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Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE						
					lps	0	7.92	10.01	11.98	14.00	15.85	18.00	20.02
CRI4P-14/10	2.2	3	10	50	Head in Metres	59	49	45	40	34	29	22	15

CHARACTERISTICS OF CLEAR COLD WATER

Maximum liquid temperature	33°C max
Permissible amount of sand	25 g/m ³
Allowable solids	3000 ppm (max.)
Chloride ion density	500 ppm (max.)
Turbidity	50 ppm silica scale (max.)
Hardness (Drinking water)	300 ppm (max.)
Specific gravity	1.004 (max.)
Viscosity	1.75 x 10 ⁶ m ² /sec (max.)
pH Value	6.5 to 8.5

MATERIAL OF CONSTRUCTION - MOTOR

Part Name	Material
Shaft seal	Nitrile butyl rubber
Shaft	SS - 410 / 431
Stator Shell	SS - 304
Journal bushes	LTB 4
Snap ring	SS - 316
Thrust assembly	SS - 420 & Graphite Carbon
Diaphragm	High Nitrile butyl rubber
Motor base	Cast Iron / SS - 304

MATERIAL OF CONSTRUCTION - PUMP

Part Name	Material
Check valve housing	Cast iron
Check valve	Delrin
Outer shell	SS - 304
Impeller	Noryl / Delrin
Diffuser chamber	SS - 304 / Cast Iron / Noryl
Counter thrust pad	SS - 304 / Hylem
Intermediate bearing (Sleeve / Bush)	SS - 304 / NBR / LTB 4
Suction inter connector	Cast iron
Pump Shaft	SS - 431
Coupling	SS - 304 / 410