



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 with stainless steel shaft.

Specially designed **DEEP DRAWN TYPE PUMP*** ensures perfect alignment and thereby increases the life of the pumpset.

SPECIFICATIONS

100mm (4") GENIE

Power range	0.37 kW - 7.5 kW (0.5 HP - 10 HP)
Speed	2850 RPM
Version	Single phase 220V, Three phase 380 - 400V, 50Hz, AC Supply
Maximum total head	650 metre
Maximum flow rate	7 lps (25.20 m ³ /h)
Maximum outer diameter	98 mm
Nominal outlet size	32, 40, 50 & 65 mm
Degree of protection	IP 58
Direction of rotation	1Ph -Counter clockwise from driving end; 3Ph -Electrically Reversible
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

SALIENT FEATURES

- Motor portion covered with corrosive resistance Stainless steel (SS 304) shell
- More durability and hygiene
- High operating efficiency
- Specially designed thrust bearing to withstand high axial thrust load
- Extremely hardwearing water lubricated bearing
- Thread type motor construction ensures rigidity & service feasibility
- Designed for wide voltage operation
- Additional intermediate bearing in higher stage pumps

APPLICATIONS

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



PERFORMANCE CHART

GENIE SERIES

100mm (4") BOREWELL SUBMERSIBLE PUMPSETS

2850 RPM - At Rated Voltage - Single Phase - 220 Volts,

Three Phase - 380 - 400 Volts 50Hz, A.C. Supply.

Maximum Outer Diameter : 98mm

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		0	0.72	1.08	1.44	1.80	2.16	2.52	2.88
					lps	0	0.2	0.3	0.4	0.5	0.6	0.7	0.8	
CRI4F-1F/07*	0.37	0.5	7	32	Head in Metres	58.8	55.4	51.9	47.1	39.6	31.2	16.9		
CRI4F-1F/11#	0.55	0.75	11	32		88.4	83.2	77.1	68.6	60.3	39.6	17.7		
CRI4F-1F/16*#	0.75	1	16	32		129	125.4	120.9	105.5	84.1	56.3	34.2	18.1	
CRI4F-1F/21*#	1.1	1.5	21	32		176	166.5	155.1	135.8	111.5	81.5	32.6		
CRI4F-1F/27*#	1.5	2	27	32		218	208.3	197.4	178.8	152	113.3	56.9		
CRI4F-2/32*	2.2	3	32	32		245.0	238.3	231.1	223.2	210.5	191.7	168.1	141.0	

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		0	1.44	1.80	2.16	2.52	2.88	3.24	3.60	4.32
					lps	0	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	
CRI4F-3/14*#	1.1	1.5	14	32	Head in Metres	110.0	101.9	98.3	94.3	90.4	84.6	76.9	67.0	43.9	

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		0	0.72	1.08	1.44	1.80	2.16	2.52	2.88	3.24
					lps	0	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
CRI4R-2/40*	2.2	3	40	32/40	Head in Metres	277.8	264.4	253.1	239.7	220.9	201.5	176.0	145.7		
CRI4R-2/52*	3.7	5	52	32/40		359.4	346.6	334.1	314.8	289.6	258.4	227.6	191.3	151.7	
CRI4R-2/55	4.5	6	55	32/40		388	369	354	334	308	277	240	208		
CRI4R-2/60	4.5	6	60	32/40		410.0	398.6	384.4	363.9	335.2	294.8	262.8	221.7		
CRI4R-2/65	5.5	7.5	65	32/40		466	437	418	390	357	320	283	242		
CRI4R-2/70	5.5	7.5	70	32/40		497	472	451	421	388	346	300	254		
CRI4R-2/75	5.5	7.5	75	32/40		502.2	472.9	456.6	440.0	422.3	396.3	341.3	258.9		

* Marked pumpsets are having ISI licence # Marked pumpsets are having BEE star label

PERFORMANCE CHART

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100mm (4") BOREWELL SUBMERSIBLE PUMPSETS

2850 RPM - At Rated Voltage - Single Phase - 220 Volts,

Three Phase - 380 - 400 Volts 50Hz, A.C. Supply.

Maximum Outer Diameter : 98mm

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr	DISCHARGE									
						0	0.72	1.08	1.44	1.80	2.16	2.52	2.88	3.24	
						lps	0	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
CRI4R-2N/06*#	0.37	0.5	6	32	Head in Metres	45	41.5	39	36	33	29	25	22	17	
CRI4R-2N/08*	0.55	0.75	8	32		61.5	56.7	53.6	50	46	41	35	29	22	
CRI4R-2N/11*	0.75	1	11	32		83.5	75.5	71.5	66	60.5	54	47	39.5	29.5	
CRI4R-2N/13*#	0.75	1	13	32		96.5	87.5	82	75.5	68.5	59.5	50.5	42.5	32.5	
CRI4R-2N/17*#	1.1	1.5	17	32		126.5	116.5	109.5	102	93.5	82	71.5	59	46.5	
CRI4R-2N/19*#	1.1	1.5	19	32		141	129	121.5	112	101.5	90.4	79.5	65.5	49.5	
CRI4R-2N/23*#	1.5	2	23	32		172	158	147.5	136.5	125	110.5	95	81	64	
CRI4R-2N/25*#	1.5	2	25	32		183	167	157.5	146	134	119	101.5	83	65	
CRI4R-2N/30#	1.5	2	30	32		220	197.5	184	169	154.5	137.5	115	94	73	
CRI4R-2N/32#	2.2	3	32	32/40		241	224	209.5	194	178	160	138.5	115	88	
CRI4R-2N/35*	2.2	3	35	32/40		261	240	223.5	206	188.5	168.5	144.5	118.5	90	
CRI4R-2N/38*#	2.2	3	38	32/40		279	256	240	223	201	179	153	121		
CRI4R-2N/42*#	3	4	42	32/40		313	286	268.5	250	227.5	201.5	173.5	143	112.5	
CRI4R-2N/50	3	4	50	32		369	337.5	315	291.5	265.5	234	198	165.5	125	
CRI4R-2N/52*#	3.7	5	52	32/40		387.5	353	332	308.5	282.5	251.5	215.5	176	132.5	
CRI4R-2N/60	4.5	6	60	32		459	426	401	368	329	298	251	201	151	
CRI4R-2N/65	5.5	7.5	65	40		497	451	425	395	360	315	270	220	158	
CRI4R-2N/70	5.5	7.5	70	32		532	487	454	425	384	347	294	235	176	
CRI4R-2N/75	5.5	7.5	75	32		568	530	501	456	410	364	314	251	201	

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PERFORMANCE CHART

GENIE SERIES 100mm (4") BOREWELL SUBMERSIBLE PUMPSETS

2850 RPM - At Rated Voltage - Single Phase - 220 Volts,
Three Phase - 380 - 400 Volts 50Hz, A.C. Supply.
Maximum Outer Diameter : 98mm

RADIAL FLOW

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
						0	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4
CRI4R-3E/05	0.8	1.0	5	32	Head in Metres	37.0	35.0	34.0	32.0	30.0	27.0	24.0	18.0	10
CRI4R-3E/07*#	0.75	1	7	32		54.0	49.9	48.6	47.0	45.4	43.0	40.1	31.2	24.2
CRI4R-3E/09*	0.75	1	9	32		71.0	65.5	63.5	61.2	58.2	53.6	49.6	41.2	31.8
CRI4R-3E/10#	0.75	1	10	32		77	66	64	61	58	55	52	44	19
CRI4R-3E/11*	1.1	1.5	11	32		88.7	83.6	81.5	79.1	76.4	73.2	69.3	53.5	37.5
CRI4R-3E/15#	1.1	1.5	15	32		109	94	91	87	83	78	71	56	38
CRI4R-3E/15	1.5	2	15	32		109	94	91	87	83	78	71	56	38
CRI4R-3E/14*	1.5	2	14	32		112.0	102.5	99.2	95.8	92.2	88.0	82.3	67.0	50.3
CRI4R-3E/17*	1.5	2	17	32		121.0	113.5	110.5	107.1	103.4	99.0	91.0	73.9	55.9
CRI4R-3E/24*	2.2	3	24	32/40		182.0	171.0	166.9	162.4	156.6	147.6	138.3	119.9	86.1
CRI4R-3E/26*	2.2	3	26	32/40		184.0	166.8	161.7	156.7	152.4	147.1	140.9	122.6	94.0
CRI4R-3E/40*	3.7	5	40	32/40		300.9	272.1	263.5	253.5	239.5	222.3	200.4	151.6	113.1
CRI4R-3E/43*	4.5	6	43	32/40		313.0	284.7	274.5	260.4	245.4	231.8	216.6	176.4	
CRI4R-3E/50	5.5	7.5	50	32/40		391	362	352	340	320	297	273	228	
CRI4R-3E/54#	5.5	7.5	54	32/40		411.5	388.8	382.1	373.5	362.4	346.3	318.5	258.9	

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
						0	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.2
CRI4R-5/07*#	0.75	1	7	32/40	Head in Metres	50.0	42.5	41.3	38.2	34.3	29.3	23.5	16.6	9.7
CRI4R-5/09*#	1.1	1.5	9	40		66.0	57.5	55.9	52.2	46.9	39.7	33.6	27.5	20.2
CRI4R-5/10*	1.5	2	10	50		73.3	65.2	63.4	59.4	52.6	46.7	39.4	28.4	19.1
CRI4R-5/12*#	1.5	2	12	40		89.3	78.1	76.0	70.7	64.7	57.5	47.0	35.3	23.1
CRI4R-5/15*#	2.2	3	15	40		111.0	97.1	94.7	89.3	81.6	71.0	59.2	45.4	30.4
CRI4R-5/18*	2.2	3	18	40/50		132.0	116.0	112.5	104.2	95.4	84.9	70.5	53.4	35.3
CRI4R-5/25*	3.7	5	25	40		181.4	158.2	154.1	144.0	133.9	121.2	100.5	77.0	
CRI4R-5/27*	3.7	5	27	40		191.7	168.8	164.3	152.7	138.3	120.8	98.8	74.9	
CRI4R-5/32*	3.7	5	32	40		214.7	176.9	172.5	160.8	140.6	118.2	97.0	76.8	

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2850 RPM – At Rated Voltage – Single Phase - 220 Volts,

Three Phase - 380 - 400 Volts 50Hz, A.C. Supply.

Maximum Outer Diameter : 98mm

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE										
					lps	Head in Metres	0	2.88	3.24	3.60	4.32	5.04	5.76	6.48	7.20	7.92	8.64
CRI4R-5E/37*#	3.7	5	37	40	223.9	200.0	195.7	190.8	181.5	169.1	156.3	143.1	123.7				
CRI4R-5E/56	5.5	7.5	56	40	334.9	293.1	285.9	278.7	261.1								
CRI4R-7/10	1.1	1.5	10	40	71	62	61	60	57	54	50	45	41	36	31	26	
CRI4R-7E-36*	5.5	7.5	36	40	236	219	216	214	207	201	194	185	176	165	150	131	

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE										
					lps	Head in Metres	0	4.32	5.04	5.76	7.20	7.92	9.36	10.80			
CRI4R-8/09*#	1.5	2	9	40	65.9	60.3	58.5	56.4	51.6	47.1	34.9	24.8					
CRI4R-8/12	2.2	3	12	50	89	76	74	70	60	54	42	25					
CRI4R-8/14*#	2.2	3	14	40/50	103.9	91.7	88.7	84.7	72.6	65.9	52.5	38.8					
CRI4R-8/20*	3.7	5	20	50	147.4	131.1	127.2	122.1	107.5	99.1	79.4	56.8					
CRI4R-8/23*#	3.7	5	23	40	168.2	146.1	140.8	134.6	119.9	109.4	87.7	61.9					
CRI4R-8/34	5.5	7.5	34	40	231.6	214.9	209.0	197.0	169.3	154.2	126.7	84.7					

MIXED FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr		DISCHARGE										
					lps	Head in Metres	0	5.40	7.20	9.00	10.80	12.60	14.40	16.20	18.00		
CRI4M-8E/8*	1.5	2	8	50/65	50.8	44.0	39.4	32.1	25.0	16.7							
CRI4M-8E/17	3.7	5	17	50	108.3	96.4	84.5	70.3	55.4	39.7							
CRI4M-13/9	2.2	3	9	50/65	46.5		40.5	37.8	34.5	30.6	25.8	19.5					
CRI4M-13/12	3.7	5	12	50	60.3		50.4	47.9	45.0	40.5	31.8	24.0					
CRI4M-13/14*	3.7	5	14	50	79.6		67.4	61.2	56.1	50.8	44.4	37.3					



PERFORMANCE CHART

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Maximum Outer Diameter : 98mm

MIXED FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr	DISCHARGE							
						0	7.92	10.01	11.99	14.00	15.98	18.00	20.02
					lps	0	2.20	2.78	3.33	3.89	4.44	5.00	5.56
CRI4M-14/07	2.2	3	7	50	Head in Metres	38	33	30	29	22	18	14	9
CRI4M-14/10	2.2	3	10	50	Head in Metres	59	49	45	40	34	29	22	15

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr	DISCHARGE								
						0	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2
					lps	0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
CRI4P-20/06	1.5	2	6	65	Head in Metres	37.7	28.2	25.8	23.8	21.7	19.2	16.6	14.2	11.0
CRI4P-20/06	2.2	3	6	65	Head in Metres	38.5	29.6	27.5	25.2	23.1	20.0	17.0	14.2	11.3
CRI4P-20/07	2.2	3	7	65	Head in Metres	43.7	33.0	30.8	28.6	26.2	23.0	19.9	17.2	14.4
CRI4P-20/08	2.2	3	8	65	Head in Metres	52.0	40.0	37.6	34.6	31.5	28.0	24.8	21.0	18.0
CRI4P-20/10	3.7	5	10	65	Head in Metres	62.5	49.5	46.1	42.5	38.6	34.5	30.4	26.9	22.9

MATERIAL OF CONSTRUCTION - PUMP

Part Name	Material
Suction housing	Cast iron
Impeller	Noryl / Delrin
Diffuser chamber	SS 304 / Cast Iron / Noryl
Check valve housing	Cast iron
Check valve	Delrin
Outer shell	SS 304
Pump shaft	SS 304 / SS 410 / SS 431
Counter thrust pad	SS 304 / Hylem
Intermediate bearing (Sleeve / Bush)	SS 304 / NBR / LTB 4 / Teflon Carbon / Gunmetal with rubber
Coupling	SS 304 / 410

MATERIAL OF CONSTRUCTION - MOTOR

Part Name	Material
Shaft seal	Nitrile butyl rubber
Rotor Shaft	SS 410 / 431
Stator Shell	SS 441 / SS 304
Journal bushes	Carbon
Snap ring	SS 316
Thrust assembly	SS 420 & Graphite Carbon
Diaphragm	High Nitrile butyl rubber
Motor base	Cast iron