



C.R.I. PUMPS

Pumping trust. Worldwide.

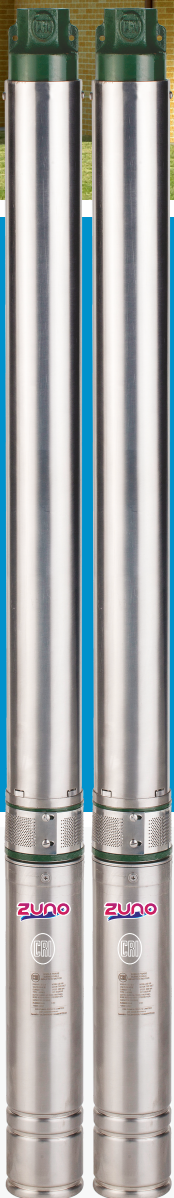


ZUNO

100mm Borewell Submersible Pumpsets

ZUNO Series

C.R.I. Zuno 100 mm Borewell submersible motors are pre-filled with non-toxic liquid for best performance in low voltage and high efficiency. The 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.



SALIENT FEATURES

- Motor portion covered with corrosive resistance Stainless steel (SS 304) shell
- More durable and hygiene
- High operating efficiency
- Specially designed angular contact bearing to withstand high axial thrust load
- Easy removal of stator ensures service feasibility
- Designed for wide voltage operation
- Non-toxic pre filled liquid motor ensures low voltage performance

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

SPECIFICATIONS	100mm ZUNO
Power range	0.37 kW - 2.2 kW (0.5 HP - 3 HP)
Speed	2850 RPM
Version	Single phase 230 V; Three phase 415V, 50Hz, AC Supply
Maximum head	220 metre
Maximum flow rate	7 lps (25.2 m³/h)
Maximum outer diameter	98 mm
Nominal outlet size	32, 40 & 50 mm
Degree of protection	IP 58
Direction of rotation	Counter clockwise from driving end - Single phase
Thrust load	0.37kW - 0.75kW - 650 lbs; 1.1kW - 1.5kW - 1000 lbs;
Minimum cooling flow along the motor	0.15 m/sec
Type of duty	S1 (Continuous)
Method of starting	1Ph - CSCR / CSR
Maximum starts per hour	20 times

PERFORMANCE CHART

ZUNO SERIES	2850 RPM - At Rated Voltage - Single Phase - 220 Volts, Three Phase - 380 - 400 Volts
100mm BOREWELL SUBMERSIBLE PUMPSETS	50Hz, A.C. Supply. Maximum Outer Diameter : 98mm

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m³/hr	0	0.72	1.08	1.44	1.80	2.16	2.52	2.88	3.24	Star Rating
						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	59	55	52	47	40	31	17			
CRI4F-1F/16*	0.75	1	16	32		129	125	121	106	84	56	34	18	4	
CRI4R-2N/06*	0.37	0.5	6	32		45	42	39	36	33	29	25	22	17	5
CRI4R-2N/08*	0.55	0.75	8	32		62	57	54	50	46	41	35	29	22	5
CRI4R-2N/13*	0.75	1	13	32		97	88	82	76	69	60	51	43	33	4
CRI4R-2N/19*	1.1	1.5	19	32		141	129	122	112	102	90	80	66	50	3
CRI4R-2N/25*	1.5	2	25	32		183	167	158	146	134	119	102	83	65	4
CRI4R-2N/30	1.5	2	30	32		220	198	184	169	155	138	115	94	73	

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m³/hr	0	1.44	1.80	2.16	2.52	2.88	3.24	3.60	4.32	Star Rating
						lps	0	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
CRI4F-3/14*	1.1	1.5	14	32	Head in Metres	110	102	98	94	90	85	77	67	44	4

RADIAL FLOW

Model	kW	HP	Stage	Outlet Size in mm	m³/hr	0	1.80	2.16	2.52	2.88	3.24	3.60	4.32	5.04	Star Rating
						lps	0	0.5	0.6	0.7	0.8	0.9	1.0	1.2	
CRI4R-3E/05	0.75	1	5	32	Head in Metres	37	35	34	32	30	27	24	18	10	5
CRI4R-3E/07*	0.75	1	7	32		54	50	49	47	45	43	40	31	24	5
CRI4R-3E/09*	0.75	1	9	32		71	66	64	61	58	54	50	41	32	5
CRI4R-3E/10	0.75	1	10	32		77	66	64	61	58	55	52	44	19	5
CRI4R-3E/11*	1.1	1.5	11	32		89	84	82	79	76	73	69	54	38	4
CRI4R-3E/15	1.1	1.5	15	32		109	94	91	87	83	78	71	56	38	5
CRI4R-3E/14	1.5	2	14	32		112	103	99	96	92	88	82	67	50	
CRI4R-3E/16	1.5	2	16	32		125	118	115	112	106	99	93	77	59	
CRI4R-3E/17	1.5	2	17	32		121	114	111	107	103	99	91	74	56	
CRI4R-3E/24*	2.2	3	24	32/40		182	171	167	162	157	148	138	120	86	

* Marked pumpsets are having ISI licence

PERFORMANCE CHART

ZUNO SERIES

100mm 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	3.24	3.60	4.32	5.04	5.76	6.48	7.20	7.92	Star Rating
						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	43	41	38	34	29	24	17	10	5
CRI4R-5/09*	1.1	1.5	9	40		66	58	56	52	47	40	34	28	20	4
CRI4R-5/10*	1.5	2	10	50		73	65	63	59	53	47	39	28	19	
CRI4R-5/12	1.5	2	12	40		89	78	76	71	65	58	47	35	23	
CRI4R-5/15*	2.2	3	15	40		111	97	95	89	82	71	59	45	30	
CRI4R-5/18*	2.2	3	18	40/50		132	116	113	104	95	85	71	53	35	

MIXED FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	5.40	7.20	9.00	10.80	12.60	14.40	16.20
						0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
CRI4M-8E/8	1.5	2	8	65	Head in Metres	51	44	40	32	25	17		
CRI4M-13/9	2.2	3	9	50/65		47		41	38	35	31	26	19.5

MIXED FLOW

Model	kW	HP	Stage	Outlet Size in mm	m ³ /hr lps	0	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2
						0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
CRI4P-20/06	2.2	3	6	65	Head in Metres	39	30	28	25	23	20	17	14	11

MATERIAL OF CONSTRUCTION - PUMP

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

MATERIAL OF CONSTRUCTION - MOTOR

Part Name	Material
Shaft seal	Nitrile butyl rubber / Mechanical seal
Rotor shaft	SS 410 / SS 431
Stator shell	SS 304
Bearing	SS Ball Bearing & SS Angular contact bearing
Diaphragm	High Nitrile Butyl rubber

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