



**C.R.I. PUMPS**  
Pumping trust. Worldwide.



**AGRICULTURAL PUMPS**



## 150mm /175mm & 150mm /200mm Borewell Submersible Pumpsets - CONGO Series

C.R.I. Borewell Submersible Pumpsets are powered by water filled, rewindable submersible motor suitable for continuous duty. The stator is wound with special water proof synthetic film insulated copper winding wires and made up of low watt loss silicon steel laminations assembled under pressure and rigidly locked in stainless steel stator shell. T-Bolt design in all motor ensures rigid construction. Optimal design of impellers and diffusers offers best possible hydraulic efficiency. Built-in check valve prevents back flow and reduces the risk of water hammering.

This 175mm & 200mm submersible pumpsets are supplied with 150mm motor combination

### SALIENT FEATURES

- High operating efficiency • Dynamically balanced rotating parts ensures minimum vibration and longer life • Extremely tough and hard wearing lubricated journal bearings are used • Designed for wide voltage fluctuations • Better efficiency and consistent performance • Specially designed high performance thrust bearing (SS 420 with Graphite Carbon) to withstand high axial thrust load • SS 410 impellers and hard chrome SS Sleeves are used to increase the life of the pump.

### APPLICATION

- Agriculture • Domestic • Irrigation • Gardens • Civil & Industrial water supply • Rural Water Supply • Ponds • Firefighting
- Pressure boosting



**SPECIFICATIONS**

	150mm/175mm	150mm/200mm
Power Range	4.5 kW - 15 kW (6HP - 20HP)	5.5 kW - 18.5 kW (7.5HP - 25HP)
Speed	2900 rpm	
Version	Three phase 380 - 415V, 50Hz AC Supply	
Maximum total head	101 metre	88 metre
Maximum flow rate	31 lps (111.6 m <sup>3</sup> /h)	33.33 lps (120 m <sup>3</sup> /h)
Maximum outer diameter	165 mm	195 mm
Nominal outlet size	100 mm	
Degree of protection	IP 58	
Direction of rotation	Electrically Reversible	
Thrust load	4.5 kW - 15 kW - 3500 lbs	5.5 kW - 11 kW - 3500 lbs 15 kW - 18.5 kW - 6000 lbs
Type of duty	S1 (Continuous)	
Method of starting	D.O.L upto 5.5 kW, SD upto 15kW	SD 5.5 kW - 18.5 kW
Maximum starts per hour	20 times	10 times

High  
Efficiency

Rigid  
Construction

Wide Voltage  
Operation



# PERFORMANCE CHART

## 150mm /175mm BOREWELL SUBMERSIBLE PUMPSETS - CONGO Series

2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

																	MIXED FLOW		
Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	18	23.98	27	33.01	39.02	45	51.01	56.98	63	69.01	74.98		
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
					lps	0	5	6.66	7.5	9.17	10.84	12.5	14.17	15.83	17.5	19.17	20.83		
WC7CM-50/6/03	4.5	6	3	100	Head in Metres	40	35	34	33	31	30	28	26	25	23	21	18		
WC7CM-50/7.5/04	5.5	7.5	4	100		45	41	41	40	39	37	35	31	29	26	22	18		
WC7CM-50/10/05	7.5	10	5	100		62	56	53	52	49	47	45	42	40	38	35	31		
WC7CM-56/6/02	4.5	6	2	100		30	29	28	27	25	23	21	20	19	18	17	15		
WC7CM-56/7.5/03	5.5	7.5	3	100		41	37	36	35	34	32	31	29	28	26	24	22		
WC7CM-56/10/04	7.5	10	4	100		52	48	46	45	42	41	39	37	36	34	32	31		
WC7CM-56/12.5/05	9.3	12.5	5	100		67	62	60	59	56	54	51	48	46	43	40	36		
WC7CM-56/15/06	11	15	6	100		74	71	69	69	67	65	63	60	58	55	51	48		
WC7CM-56/17.5/07	13	17.5	7	100		88	84	82	81	78	76	73	70	68	64	61	57		
WC7CM-60/10/03	7.5	10	3	100		46	42	41	40	39	37	36	34	33	31	29	27		
WC7CM-60/12.5/04	9.3	12.5	4	100		63	57	55	54	52	49	47	44	43	40	38	35		
WC7CM-60/15/05	11	15	5	100		75	69	67	66	64	61	59	56	53	51	48	45		
WC7CM-60/17.5/06	13	17.5	6	100		85	78	76	75	72	70	67	64	61	57	53	49		
WC7CM-60/20/07	15	20	7	100		99	91	89	88	85	81	78	73	69	65	61	57		

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	25.2	32.4	39.6	46.8	54	61.2	68.4	75.6	82.8	90	97.2	104.4	111.6
						DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE
					lps	0	7	9	11	13	15	17	19	21	23	25	27	29	31
WC7CM-61/7.5/02	5.5	7.5	2	100	Head in Metres	34	29	28	27	26	25	23	21	19	16	14	11		
WC7CM-61/15/04	11	15	4	100		66	60	59	56	54	52	50	48	45	42	37	32		
WC7CM-61/20/05	15	20	5	100		80	71	69	67	65	62	60	56	51	45	39	31		
WC7CM-61/25/06	18.5	25	6	100		101	91	88	86	84	81	77	74	69	63	57	50	43	34

S - Stands for Special Voltage Design

# PERFORMANCE CHART

## 150mm / 175mm BOREWELL SUBMERSIBLE PUMPSETS - CONGO Series

2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

																			MIXED FLOW	
Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	25.2	32.4	39.6	46.8	54	61.2	68.4	75.6	82.8	90	97.2	104.4	111.6	
						lps	0	7	9	11	13	15	17	19	21	23	25	27	29	31
WC7CM-69/10/02	7.5	10	2	100	Head in Metres	39	35	34	33	32	30	29	27	25	22	19	16			
WC7CM-69/12.5/03	9.3	12.5	3	100		54	48	47	46	44	43	42	40	38	35	32	28			
WC7CM-69/15/03	11	15	3	100		56	48	46	45	44	43	41	40	37	34	31	26			
WC7CM-69/20/04	15	20	4	100		77		75	70	65	61	57	54	51	48	44	38			
WC7CM-69/25/05	18.5	25	5	100		91	84	82	80	78	75	73	70	65	60	54	48	42	34	

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	25.2	32.4	39.6	46.8	54	61.2	68.4	75.6	82.8	90	97.2	104.4	111.6
						lps	0	7	9	11	13	15	17	19	21	23	25	27	29
WC7CM-61/10/03 (SPL)	7.5	10	3	100	Head in Metres	48	43	42	41	40	38	36	35	33	29	25	22	19	15
WC7CM-61/10/02N (SPL)	7.5	10	2	100		34	29	28	27	26	25	23	21	19	16	14	11		
WC7CM-69/7.5/03 (SPL)	5.5	7.5	3	100		45	39	38	37	36	35	33	31	28	25	22	18		
WC7CM-69/12.5/02 (SPL)	9.3	12.5	2	100		39	35	34	33	32	30	29	27	25	22	19	16		
WC7CM-69/10/03N (SPL)	7.5	10	3	100		54	48	47	46	44	43	42	40	38	35	32	28		

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	10	20	30	40	50	60	65	Star Rating
						lps	0	2.77	5.56	8.34	11.11	13.88	16.66	
S7C-50/10/3	7.5	10	3	100	Head in Metres	48	46	44	42	40.5	37.5	33.5	31	3 star
S7C-50/12.5/4	9.3	12.5	4	100		65	62	60	57	54	50.1	44	41	3 star



# PERFORMANCE CHART

## 150mm / 200mm BOREWELL SUBMERSIBLE PUMPSETS - CONGO Series

2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

																			MIXED FLOW	
Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	18	23.98	27	33.01	39.02	45	51.01	56.98	63	69.01	74.98	81	87.01	
					DISCHARGE	0	5	6.66	7.5	9.17	10.84	12.5	14.17	15.83	17.5	19.17	20.83	22.5	24.17	
					Head in Metres	54	52	50	49	47	45	43	40	38	35	32	29	25	21	
WC8CM-50/10/3	7.5	10	3	100	Head in Metres	54	52	50	49	47	45	43	40	38	35	32	29	25	21	

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	20	30	40	50	60	65	68	70	80	90
					DISCHARGE	0	5.55	8.33	11.11	13.88	16.66	18.05	18.88	19.44	22.22	25
					Head in Metres	56	50	48.5	46	43	38	34	32	27	20.5	13.5
WC8CM-58/10/03	7.5	10	3	100	Head in Metres	56	50	48.5	46	43	38	34	32	27	20.5	13.5

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	18	23.98	27	33.01	39.02	45	51.01	56.98	63	69.01	74.98	81
					DISCHARGE	0	5	6.66	7.5	9.17	10.84	12.5	14.17	15.83	17.5	19.17	20.83	22.5
					Head in Metres	36	35	34	33.5	33	31	30	28	27	25		23	21
WC8CM-60/7.5/2	5.5	7.5	2	100	Head in Metres	36	35	34	33.5	33	31	30	28	27	25		23	21
WC8CM-60/12.5/3	9.3	12.5	3	100	Head in Metres	60	55	53	52	51	49	48	47	46	45	44	41	39

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	18	23.98	27	33.01	39.02	45	51.01	56.98	63	69.01	74.98	
					DISCHARGE	0	5	6.66	7.5	9.17	10.84	12.5	14.17	15.83	17.5	19.17	20.83	
					Head in Metres	36	35	34	33.5	33							21	
WC8CM-60/10/02N-SPL	7.5	10	2	100	Head in Metres	36	35	34	33.5	33								21
WC8CM-60/15/03N-SPL	11	15	3	100	Head in Metres	60	55	53	52	51	49	47	46	45	44	41	29	

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	18	23.98	27	33.01	39.02	45	51.01	56.98	63	69.01
					DISCHARGE	0	5	6.66	7.5	9.17	10.84	12.5	14.17	15.83	17.5	19.17
					Head in Metres	68	60	57	55	51	47	43	42	36	30	24
WC8CM-65/12.5/03	9.3	12.5	3	100	Head in Metres	68	60	57	55	51	47	43	42	36	30	24
WC8CM-65/15/04	11	15	4	100	Head in Metres	84	77	73	68	64	58	53	51	44	35	26

# PERFORMANCE CHART

## 150mm / 200mm BOREWELL SUBMERSIBLE PUMPSETS - CONGO Series

2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

### MIXED FLOW

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	36.8	69.2	84.4	95.5	106.7	113.9	122.0
					lps	0	10.23	19.21	23.44	26.54	29.65	31.64	33.88
WC8CM-68/10/2	7.5	10	2	100	Head in Metres	43.0	39.2	35.31	31.41	27.58	23.73	19.79	11.94

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	24	54.4	74.1	85.2	84.1	94.9	110.9
					lps	0	6.7	15.1	20.6	23.7	23.4	26.4	30.8
WC8CM-68/12.5/02N-SPL	11	15	3	100	Head in Metres	43	39.2	35.31	31.41	27.58	23.73	19.79	11.94

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	24	54.4	74.1	85.2	84.1	94.9	110.9	120.2
					lps	0	6.7	15.1	20.6	23.7	23.4	26.4	30.8	33.4
WC8CM-68/15/3	11	15	3	100	Head in Metres	67.2	61.2	56.4	51.5	46.6	41.6	36.8	31.8	22

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	19.3	45.7	65.3	77.1	86.1	100	121.7	123.3
					lps	0	5.63	12.7	18.15	21.43	23.92	27.79	33.8	34.26
WC8CM-68/20/4	15	20	4	100	Head in Metres	87.1	81.02	76.07	71.21	66.35	61.42	51.58	31.9	11.95

Model	kW	HP	Stage	Outlet Size in mm	m <sup>3</sup> /hr	0	20	30	40	50	60	75	80	90	100	110	120
					lps	0	5.55	8.33	11.11	13.88	16.66	20.83	22.22	25	27.78	30.55	33.33
WC8CM-68/25/4	18.5	25	4	100	Head in Metres	88	80	77	75	73	70	64	61	55	48	39	28



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2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

**MIXED FLOW**

Model	kW	HP	Stage	Outlet Size in mm	DISCHARGE																
					m <sup>3</sup> /hr	0	18	22	27	33	39	45	50	57	63	68	75	81	87	93	
					lps	0	5	6	7.5	9.2	10.8	12.5	14	15.8	17.5	19	20.8	22.5	24.2	25.8	
WC8CM-80/17.5/03	13	17.5	3	100	Head in Metres	68	64	63	61	60	58	57	56	54	53	51	49	47	44	41	
WC8CM-90/12.5/02	9.3	12.5	2	100		46	43	42	41	41	40	39	38.5	38	37	36	35	33	32	30	
WC8CM-90/15/02	11	15	2	100		54	50	49	48	47	46	45	44	42	41	40	39	37	36	34	
WC8CM-90/20/03	15	20	3	100		77	70	69	67	65	64	62	61	60	58	57	55	53	51	49	
WC8CM-90/25/03	18.5	25	3	100		81	80	79	77	75	72	70	68	66	63	62	60	59	57	55	

Model	kW	HP	Stage	Outlet Size in mm	DISCHARGE													
					m <sup>3</sup> /hr	0	20	30	40	50	60	65	68	70	80	90	100	
					lps	0	5.55	8.33	11.11	13.88	16.66	18.05	18.88	19.44	22.22	25	27.78	
WC8CM-65/12.5/04(SPL)	9.3	12.5	4	100	Head in Metres	80	72	69	65	60	54	51	49	47	41	33	24	

Model	kW	HP	Stage	Outlet Size in mm	DISCHARGE														Star Rating
					m <sup>3</sup> /hr	0	20	30	40	50	60	75	80	90	100	110	120		
					lps	0	5.56	8.33	11.12	13.90	16.68	20.83	22.22	25	27.77	30.55	33.33		
S68C-62/10/2	7.5	10	2	100	Head in Metres	39	37	36	35	34	32	28	26	23	19	14	8	3 star	
S68C-68/12.5/2	9.3	12.5	2	100	45	43	42	41	40	38	35	34	31	27	24	17	3 star		



# PERFORMANCE CHART

## 150mm / 200mm BOREWELL SUBMERSIBLE PUMPSETS - CONGO Series

2900 RPM, At Rated Voltage – Three Phase 415 Volts, 50hz, A.C. Supply.

MATERIAL OF CONSTRUCTION - PUMP		
	175mm Pump	200mm Pump
Part Name	Material	Material
Check valve housing	Cast iron	Cast iron
Check valve seat	Nitrile butyl rubber	SG iron
Diffuser chamber	Cast iron	Cast iron
Impeller	SS 410	SS 410
Suction inter connector	Cast iron	Cast iron
Inlet screen	SS 202	SS 202
Pump shaft	SS 410 / SS 431	SS 410 / SS 431
Cable guard	SS 202	SS 202
Coupling	SS 410	SS 410 / SS 431

MATERIAL OF CONSTRUCTION - MOTOR	
	150mm Motor
Part Name	Material
Upper and lower housing	Cast iron
Stator shell	Stainless Steel
Shaft	SS 410 & EN 9 with 304
Journal bushes	LTB - 4 & Carbon
Thrust assembly	SS 420 and Graphite carbon
Diaphragm	High nitrile butyl rubber



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