ORIGINAL KIRLOSKAR PUMP

Kirloskar

Enriching Lives

STRENGTHENED BY 99.9% PURE EC GRADE **COPPER WINDING WIRES**

KIRLOSKAR PUMPS
VERSATILE AND RELIABLE,
FOR EVERY USE, EVERYWHERE

PRODUCT CATALOGUE

KIRLOSKAR BROTHERS LIMITED
Established 1888
A Kirloskar Group Company

A HISTORY OF **EXCELLENCE**

Kirloskar Brothers Limited is a world-class pump manufacturing company with experience in engineering and manufacture of systems for fluid management. Established in 1888 and incorporated in 1920, KBL is the flagship company of the $2.1 billion Kirloskar Group. The market leader in fluid management, KBL provides complete fluid management solutions for large infrastructure projects in the areas of water supply, power plants, irrigation, oil & gas and marine & defence.

KBL's commitment to quality and sustainability is as reliable as its products. This is why all plants of KBL are ISO 9001 & ISO 14001, OHSAS 18001, ISO 14000 Environment Standard Certified. The plants apply Total Quality Management tools using European foundation for Quality Management (EFQM) model.

As one of the largest pump manufacturers in India, KBL offers over 75 types of pumps in over 500 variants with up to 1,200 metre head and discharge of up to 120,000 cubic metres per hour. These pumps ensure the lowest life cycle cost; it is because KBL pumps offer maximum reliability under all operating conditions, ensuring trouble-free operations at all times and eliminating costly downtime. Additionally, KBL pumps are constructed with materials that offer the best resistance to corrosion and abrasion, enhancing performance for years together.

Technological innovations employed in pump engineering also reduces overall energy use, enhancing efficiency and cost saving.


Enriching Lives

Enriching Lives

INDUSTRIAL
PRODUCT RANGE

OPENWELL SUBMERSIBLE PUMPS
THREE PHASE

Enriching Lives

KOSM

THREE PHASE
OPEN-WELL PUMPS

FEATURES

Wide Voltage Design
The motor is designed to withstand wide voltage variation from 300 to 440 volts and reduces motor burning in case of low/high voltage.

Lightweight and Compact Design
Constructed with special grade engineering materials, compact designs for ease of handling and installation.

Dynamically Balanced Rotating Parts
Minimum vibration protects the components from damage during the operation, thus ensuring consistent performance as concentricity is maintained.

Replaceable Wearing Parts
All wearing parts within the pumps are easily accessible and replaceable which facilitates ease of maintenance thereby extending the life of the pump.

Easy Maintainable Designs
Easy maintainable design and better interchangeability of components so that the pump can be serviced even at remote locations by semi-skilled technicians.

CED – Cathodic Electro Deposition
CED is the latest coating technology for corrosion resistance with uniform coating. It provides 5 times more protection over conventional painting, resulting in longer life. All major CI parts of Kirloskar pumps coming in contact with the water are CED coated.

High Efficiency and Energy Saving Design
Innovative design manufactured at state-of-the-art plant, delivers optimum efficiency at lower energy consumption resulting in significant cost savings.

Advanced Water Cooled Motors Designs
The motor is filled with potable water which protects it from overheating and facilitates smoother and trouble free operation for years.

TECHNICAL SPECIFICATION

Head Range	-	Up to 38 Metres
Discharge Range	-	Up to 11 LPS
Power Rating	-	0.75 to 1.5 kW (1.0 to 2 HP)
Voltage Range	-	300 to 440 Volts (Three Phase)
Insulation	-	PP
Protection	-	IP68

MATERIAL OF CONSTRUCTION

Impeller	-	Cast Iron / Noryl
Delivery Casing	-	Cast Iron
Motor Body	-	Cast Iron
Pump Shaft	-	Stainless Steel

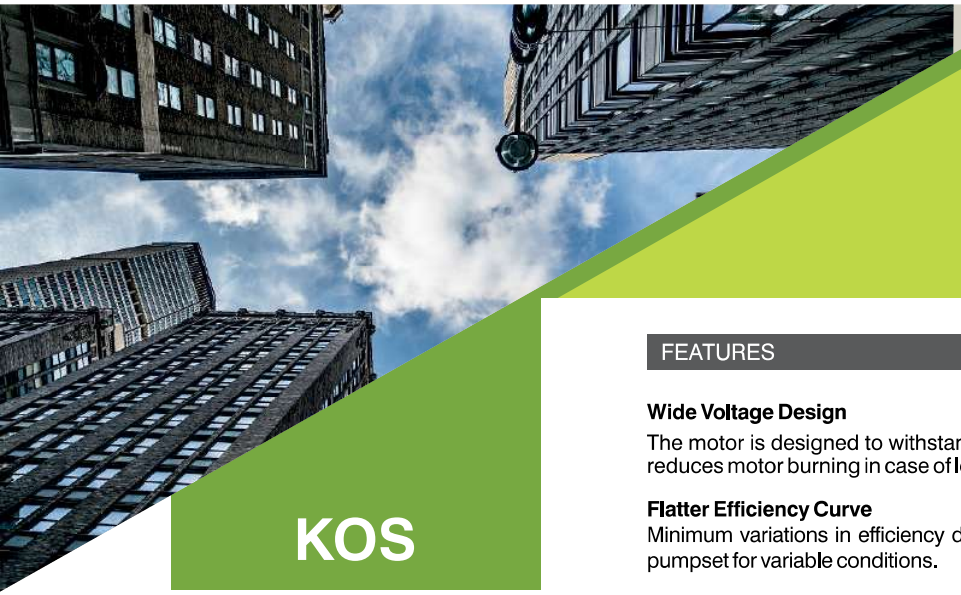
APPLICATIONS

- Domestic and community water supply
- Gardening and small farm irrigation
- Water fountains
- Construction site
- Water supply to over head tanks

PERFORMANCE CHART FOR 'KOS-M' SERIES, 2 POLE, OPENWELL SUBMERSIBLE PUMPS,AT RATED VOLATGE, 50 Hz FREQUENCY, THREE PHASE A.C. POWER SUPPLY																					
S. No.	PUMP MODEL	Power Rating		Pipe Size (mm)		Rated Voltage (Volts)	TOTAL HEAD IN METERS														
							8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38
		kW	HP	SUC.	DEL.		DISCHARGE IN LITRES PER SECONDS															
1	KOS - 116M	0.75	1.0	50	40	415	4.9	4.4	3.9	3.1	1.7	-	-	-	-	-	-	-	-	-	-	-
2	KOS - 123M	0.75	1.0	32	25	415	4.8	4.5	4.2	3.8	3.5	3.0	2.4	1.5	-	-	-	-	-	-	-	-
3	KOS - 134M	0.75	1.0	25	25	415	-	-	1.9	1.8	1.8	1.7	1.6	1.5	1.4	1.3	1.1	0.9	0.6	0.2	-	-
4	KOS - 1.522M	1.1	1.5	50	40	415	6	5.7	5.3	4.9	4.4	3.6	2.5	-	-	-	-	-	-	-	-	-
5	KOS - 1.525M	1.1	1.5	50	40	415	-	-	3.6	3.5	3.4	3.2	2.9	2.7	2.4	2.1	1.7	0.6	-	-	-	-
6	KOS - 1.540M	1.1	1.5	32	25	415	-	-	-	-	-	-	-	-	1.9	1.8	1.6	1.4	1.3	1.1	0.9	0.6
7	KOS - 216M	1.5	2.0	65	50	415	11.0	9.9	8.7	6.9	-	-	-	-	-	-	-	-	-	-	-	-
8	KOS - 225M	1.5	2.0	50	40	415	-	-	4.8	4.6	4.4	4.2	3.7	3.2	2.5	-	-	-	-	-	-	-
9	KOS - 235M	1.5	2.0	50	40	415	-	-	4.4	4.2	4.0	3.8	3.6	3.3	3.0	2.7	2.3	1.7	0.8	-	-	-

Note:

- All models are also available in single phase. expect KOS-235M
- Performance under standard test conditions and may vary on site conditions.
- Performance applicable to liquid of specific gravity 1 and viscosity as of water.



Enriching Lives

KOS

THREE PHASE
OPEN-WELL PUMPS

FEATURES

Wide Voltage Design
The motor is designed to withstand wide voltage variation from 200 to 440 volts and reduces motor burning in case of low/high voltage.

Flatter Efficiency Curve
Minimum variations in efficiency during entire operating range increases the utility of pumpset for variable conditions.

Dynamically Balanced Rotating Parts
Minimum vibration protects the components from damage during the operation, thus ensuring consistent performance as concentricity is maintained.

Replaceable Wearing Parts
All wearing parts within the pumps are easily accessible and replaceable which facilitates ease of maintenance thereby extending the life of the pump.

Easy Maintainable Designs
Easy maintainable design and better interchangeability of components so that the pump can be serviced even at remote locations by semi-skilled technicians.

CED – Cathodic Electro Deposition
CED is the latest coating technology for corrosion resistance with uniform coating. It provides 5 times more protection over conventional painting, resulting in longer life. All major CI parts of Kirloskar pumps coming in contact with the water are CED coated.

High Efficiency and Energy Saving Design
Innovative design manufactured at state-of-the-art plant, delivers optimum efficiency at lower energy consumption resulting in significant cost savings.

Advanced Water Cooled Motors Designs
The motor is filled with potable water which protects it from overheating and facilitates smoother and trouble free operation for years.

TECHNICAL SPECIFICATION

Head Range	-	Up to 76 Metres
Discharge Range	-	Up to 38 LPS
Power Rating	-	2.2 to 11 kW (3 to 15 HP)
Voltage Range	-	200 to 440 Volts
Insulation	-	PP
Protection	-	IP68

MATERIAL OF CONSTRUCTION

Impeller	-	Cast Iron
Delivery Casing	-	Cast Iron
Motor Body	-	Cast Iron
Pump Shaft	-	Stainless Steel

APPLICATIONS

- Industrial service water supply schemes
- Domestic and community water supply
- Construction site
- Irrigation in horticulture & agriculture
- Water supplies for high rise building

PERFORMANCE CHART FOR KOS SERIES, 2 POLE, OPENWELL SUBMERSIBLE PUMP, AT RATED VOLTAGE, 50 Hz FREQUENCY, THREE PHASE A.C. POWER SUPPLY

S. No.	PUMP MODEL	Power Rating		Pipe Size (mm)		Rated Voltage (Volts)	TOTAL HEAD IN METRES																
							8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		kW	HP	SUC.	DEL.		DISCHARGE IN LITRES PER SECOND																
1	KOS - 314	2.2	3	80	80	380	16.0	15.2	13.6	10.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-
2	KOS - 318	2.2	3	65	50	380	12.8	12.2	11.4	10.4	9.2	7.7	4.8	-	-	-	-	-	-	-	-	-	-
3	KOS - 325	2.2	3	65	50	380	-	-	8.8	8.4	7.9	7.5	6.9	6.3	5.6	4.7	3.1	-	-	-	-	-	-
4	KOS - 335	2.2	3	50	40	380	-	-	-	-	-	6.5	6.4	6.2	6.0	5.7	5.1	4.6	4.0	3.0	2.2	-	-
5	KOS - 520	3.7	5	80	80	380	22.6	21.5	20.0	18.7	17.3	15.5	13.2	10.0	-	-	-	-	-	-	-	-	-
6	KOS - 527	3.7	5	80	65	380	16.2	15.7	15.0	14.4	13.6	12.8	12.0	10.8	9.6	8.4	6.0	-	-	-	-	-	-
7	KOS - 822	5.5	7.5	100	100	380	-	-	27.0	25.6	24.0	22.0	20.0	17.5	14.0	-	-	-	-	-	-	-	-
8	KOS - 830	5.5	7.5	80	65	380	-	-	-	-	18.7	17.9	17.0	16.0	15.0	13.8	12.4	10.5	7.0	-	-	-	-
9	KOS - 1030	7.5	10	100	100	380	-	-	32.0	31.0	29.8	28.2	27.0	25.0	23.5	21.0	18.0	13.5	-	-	-	-	-
10	KOS - 1040	7.5	10	80	65	380	-	-	-	20.6	20.3	19.9	19.4	18.9	18.3	17.7	17.0	16.4	15.5	14.5	13.5	12.0	9.5
11	KOS - 1331	9.3	12.5	100	100	380	-	-	-	-	-	-	38.0	37.0	36.0	33.0	30.0	28.0	25.0	20.0	-	-	-
12	KOS - 1537	11	15	100	100	380	-	-	-	-	38.0	37.2	36.8	36.0	34.5	33.0	30.5	28.0	25.0	21.0	15.0	-	-
							22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
13	KOS - 538	3.7	5	65	50	380	8.8	8.3	7.8	7.2	6.6	6.0	5.0	4.0			-	-	-	-	-	-	-
14	KOS - 550	3.7	5	50	40	380	-	-	-	-	-	-	4.5	4.3	4.1	3.8	3.5	3.2	2.7	2.2	1.0	-	-
15	KOS - 844	5.5	7.5	65	65	380	-	10.7	10.3	10.1	9.7	9.2	8.7	8.0	7.3	6.5	5.3	3.0	-	-	-	-	-
16	KOS - 852	5.5	7.5	65	50	380	-	-	-	-	-	8.4	8.2	7.9	7.7	7.3	6.9	6.5	5.5	4.7	4.0	-	-
17	KOS - 1050	7.5	10	65	65	380	-	12.8	12.6	12.4	12.2	12.0	11.7	11.3	10.9	10.5	10.0	9.4	8.7	8.0	7.0	6.0	4.0
18	KOS - 1348	9.3	12.5	80	65	380	-	-	-	22.0	20.5	20.0	19.0	18.0	17.0	16.0	15.0	13.5	12.5	11.0	-	-	-
19	KOS - 1555	11	15	80	65	380	-	22.7	22.5	22.1	22.0	21.5	21.0	20.5	19.8	18.5	17.5	16.5	15.2	14.0	13.0	11.5	7.5
							42	44	46	48	50	52	56	60	64	68	72	76	-	-	-	-	-
20	KOS - 1065	7.5	10	65	50	380	7.1	7.0	6.8	6.6	6.4	6.2	5.7	5.1	4.2	2.8	-	-	-	-	-	-	-
21	KOS - 1575	11	15	65	50	380	-	-	-	-	-	7.4	7.0	6.5	6.0	5.4	4.8	3.5	-	-	-	-	-

Note:

- Performance under standard test conditions and may vary on site conditions.
- Performance applicable to liquid of specific gravity 1 and viscosity as of water.

Enriching Lives

DOMESTIC
PRODUCT RANGE

OPENWELL SUBMERSIBLE PUMP
Single Phase

Enriching Lives

KOSi

SINGLE PHASE OPEN-WELL SUBMERSIBLE PUMPS

FEATURES

Wide Voltage Design
The motor is designed to withstand wide voltage variation from 160 to 260 volts and reduces motor burning in case of low /high voltage.

Lightweight and Compact Design
Constructed with special grade engineering materials, compact designs for ease of handling and installation.

Dynamically Balanced Rotating Parts
Minimum vibration protect components from damage during the operation, thus ensuring consistent performance as concentricity is maintained.

Replaceable Wearing Parts
All wearing parts within the pumps are easily accessible and replaceable which facilitates ease of maintenance thereby extending the life of the pump.

Easy Maintainable Designs
Easy maintainable design and better interchangeability of components so that pump can be serviced even at remote locations by semi-skilled technicians.

CED – Cathodic Electro Deposition
CED is the latest coating technology for corrosion resistance with uniform coating. It provides 5 times more protection over conventional painting, resulting in longer life. All major CI parts of Kirloskar pumps coming in contact with the water are CED coated.

High Efficiency and Energy Saving Design
Innovative design manufactured at state of art plant, delivers optimum efficiency at lower energy consumption resulting in significant cost savings.

Advanced Water Cooled Motors Designs
The motor is filled with potable water which protects it from overheating and facilitates smoother and trouble free operation for years.

TECHNICAL SPECIFICATION

Head Range	-	Up to 42 Metres
Discharge Range	-	Up to 9.7 LPS
Power Rating	-	0.37 to 1.5 kW (0.5 to 2 HP)
Voltage Range	-	160 to 260 Volts (Single Phase)
Insulation	-	PP
Protection	-	IP68

MATERIAL OF CONSTRUCTION

Impeller	-	Cast Iron / Noryl
Delivery Casing	-	Cast Iron
Motor Body	-	Stainless Steel
Shaft	-	Stainless Steel

APPLICATIONS

- Domestic and community water supply
- Gardening and small farm irrigation
- Water fountains
- Construction site
- Water supply to over head tanks

PERFORMANCE CHART FOR 'KOSi' SERIES, 2 POLE, OPENWELL SUBMERSIBLE PUMPS, 50 Hz FREQUENCY, SINGLE PHASE A.C. POWER SUPPLY

S. No.	PUMP MODEL	Power Rating		Pipe Size (mm)		Rated Voltage (Volts)	TOTAL HEAD IN METERS																	
		kW	HP	SUC.	DEL.		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
							DISCHARGE IN LITRES PER SECONDS																	
1	KOSi - 0520	0.37	0.5	25	25	210	-	-	1.80	1.50	1.05	0.45	-	-	-	-	-	-	-	-	-	-	-	-
2	KOSi - 123	0.75	1	50	40	210	4.80	4.45	4.10	3.75	3.35	2.90	2.15	-	-	-	-	-	-	-	-	-	-	-
3	KOSi - 135	0.75	1	25	25	210	-	-	-	-	2.45	2.25	2.10	1.90	1.70	1.45	1.20	0.80	0.30	-	-	-	-	-
4	KOSi - 1.522	1.1	1.5	50	40	210	-	6.10	5.60	5.10	4.50	3.70	2.80	-	-	-	-	-	-	-	-	-	-	-
5	KOSi - 1.540	1.1	1.5	32	25	210	-	-	-	-	-	-	-	3.05	2.80	2.60	2.30	1.95	1.60	1.20	0.70	-	-	-
6	KOSi - 216	1.5	2	65	50	210	-	9.70	8.40	7.10	5.20	-	-	-	-	-	-	-	-	-	-	-	-	-
7	KOSi - 225	1.5	2	50	40	210	-	-	6.30	5.80	5.30	4.70	4.10	3.40	2.60	1.30	-	-	-	-	-	-	-	-
8	KOSi - 245	1.5	2	32	25	210	-	-	-	-	-	-	-	-	-	-	3.25	3.00	2.70	2.35	1.95	1.55	1.10	0.35

Note:

- Performance under standard test conditions and may vary on site conditions.
- Performance applicable to liquid of specific gravity 1 and viscosity as of water.

Enriching Lives

KOSi C

SINGLE PHASE OPEN-WELL SUBMERSIBLE PUMPS

WITH CAST IRON MOTOR BODY

FEATURES

Wide Voltage Design
The motor is designed to withstand wide voltage variation from 160 to 260 volts and reduces motor burning in case of low/high voltage.

Lightweight and Compact Design
Constructed with special grade engineering materials, compact designs for ease of handling and installation.

Dynamically Balanced Rotating Parts
Minimum vibrations protect components from damages during the operations, thus ensuring consistent performance as concentricity is maintained.

Replaceable Wearing Parts
All wearing parts within the pumps are easily accessible and replaceable which facilitates ease of maintenance thereby extending the life of the pump.

Easy Maintainable Designs
Easy maintainable design and better interchangeability of components so that pump can be serviced even at remote locations by semi-skilled technicians.

CED – Cathodic Electro Deposition
CED is the latest coating technology for corrosion resistance with uniform coating. It provides 5 times more protection over conventional painting, resulting in longer life. All major CI parts of Kirloskar pumps coming in contact with the water are CED coated.

High Efficiency and Energy Saving Design
Innovative design manufactured at state of art plant, delivers optimum efficiency at lower energy consumption resulting in significant cost savings.

Advanced Water Cooled Motors Designs
The motor is filled with potable water which protects it from overheating and facilitates smoother and trouble free operation for years.

TECHNICAL SPECIFICATION

Head Range	-	Up to 36 Metres
Discharge Range	-	Up to 9.7 LPS
Power Rating	-	0.37 to 1.5 kW (0.5 to 2 HP)
Voltage Range	-	160 to 260 Volts (Single Phase)
Insulation	-	PP
Protection	-	IP68

MATERIAL OF CONSTRUCTION

Impeller	-	Cast Iron / Noryl
Delivery Casing	-	Cast Iron
Motor Body	-	Cast Iron
Shaft	-	Stainless Steel

APPLICATIONS

- Domestic and community water supply
- Gardening and small farm irrigation
- Water fountains
- Construction site
- Water supply to over head tanks

PERFORMANCE CHART FOR 'KOSi Cast Iron Motor Body' SERIES, 2 POLE, OPENWELL SUBMERSIBLE PUMPS, 50 Hz FREQUENCY, SINGLE PHASE A.C. POWER SUPPLY																				
S. No.	PUMP MODEL	Power Rating		Pipe Size (mm)		Rated Voltage (Volts)	TOTAL HEAD IN METERS													
							8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
		kW	HP	SUC.	DEL.		DISCHARGE IN LITRES PER SECONDS														
1	KOSi - 0520	0.37	0.5	25	25	210	-	-	1.80	1.50	1.05	0.45	-	-	-	-	-	-	-	-	-
2	KOSi - 123	0.75	1	50	40	210	4.80	4.45	4.10	3.75	3.35	2.90	2.15	-	-	-	-	-	-	-	-
3	KOSi - 135	0.75	1	25	25	210	-	-	-	-	2.45	2.25	2.10	1.90	1.70	1.45	1.20	0.80	0.30	-	-
4	KOSiC - 1.522	1.1	1.5	50	40	210	-	5.90	5.30	4.80	4.10	3.30	1.20	-	-	-	-	-	-	-	-
5	KOSiC - 1.540	1.1	1.5	32	25	210	-	-	-	-	-	-	-	3.05	2.80	2.60	2.30	1.95	1.60	1.20	0.70
6	KOSiC - 216	1.5	2	65	50	210	-	9.70	8.40	7.10	5.20	-	-	-	-	-	-	-	-	-	-
7	KOSi - 225	1.5	2	50	40	210	-	-	6.30	5.80	5.30	4.70	4.10	3.40	2.60	1.30	-	-	-	-	-

Note:

- Performance under standard test conditions and may vary on site conditions.
- Performance applicable to liquid of specific gravity 1 and viscosity as of water.

Enriching Lives

SUBMERSIBLE
PRODUCT RANGE

OPENWELL SUBMERSIBLE PUMPSET

Enriching Lives

JOS

HORIZONTAL
OPENWELL PUMPS

FEATURES

Wide Voltage Design
The motor is designed to withstand wide voltage variations which reduces the chances of motor burning at low voltage.

Design to Prevent Overloading
Lesser chances of motor burning even if the pump operates at lower head than recommended as motor does not get overload thus ensures substantial saving from maintenance cost and breakdown.

High Efficiency and Energy Saving Design
Innovative design manufactured at state of art plant, delivers optimum efficiency at lower energy consumption resulting in significant cost savings.

Dynamically Balanced Rotating Parts
Minimum vibration protects components from damage during the operation, thus ensures consistent performance over longer time period as concentricity is maintained.

Advanced Water Cooled Motors Designs
The motor is filled with potable water, protects from overheating and facilitates smoother and trouble free operation for the years.

Wide Voltage Motor Designs
Motors are designed with extra overload capacities, more water spaces and engineered with high grade materials to performs well in low voltage with minimum discharge drops and suitable for wide voltage applications.

Easy Maintainable Designs
Easy maintainable design and better interchangeability of components so that pump can be serviced even at remote locations by semi-skilled technicians

High Head Applications
The pump has been designed to deliver large volumes of water for high head applications, helping customers to achieve high turnaround time and productivity.

TECHNICAL SPECIFICATION

Head Range	-	Up to 64 Metres
Discharge Range	-	Up to 48.5 LPS
Power Rating	-	2.2 to 15 kW (3 to 20 HP)
Voltage Range*	-	200 to 440 Volts (Three Phase)
Insulation	-	PP
Protection	-	IP68

*Under ideal condition with suitable cable size.

MATERIAL OF CONSTRUCTION

Impeller	-	Cast Iron
Delivery Casing	-	Cast Iron
Motor Body	-	Cast Iron
Pump Shaft	-	Stainless Steel

APPLICATIONS

- Irrigation in horticulture & agriculture
- Sprinkler and drip irrigation
- Water supplies for high rise building
- Rural water supply
- Domestic and community water supply

PERFORMANCE CHART FOR JOS SERIES, 2 POLE, OPENWELL PUMPS, AT RATED VOLTAGE, 50 Hz FREQUENCY, THREE PHASE A.C. POWER SUPPLY																					
S. No.	PUMP MODEL	Power Rating		Pipe Size (mm)		Rated Voltage (Volts)	TOTAL HEAD IN METRES														
							10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		kW	HP	SUC.	DEL.		DISCHARGE IN LITRES PER SECOND															
1	JOS - 326	2.2	3	65	65	380	-	13.2	12.4	11.6	10.4	8.8	7.2	4.4	-	-	-	-	-	-	-	-
2	JOS - 330	2.2	3	65	50	380	11.9	11.5	11.0	10.4	9.7	9.0	8.0	6.6	4.8	2.0	-	-	-	-	-	-
3	JOS - 335	2.2	3	50	40	380	-	-	-	-	-	-	-	-	5.8	5.4	4.8	4.2	3.2	2.2	-	-
4	JOS - 531	3.7	5	65	65	380	-	-	-	14.8	14.4	13.9	13.4	12.4	11.5	9.2	6.0	-	-	-	-	-
5	JOS - 540	3.7	5	65	50	380	-	-	-	-	-	-	-	11.3	10.8	10.2	9.2	8.4	6.8	5.2	3.2	-
6	JOS - 835	5.5	7.5	80	65	380	-	-	-	-	20.2	19.9	19.2	18.5	17.2	15.8	14.0	12.2	9.5	-	-	-
							20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
7	JOS - 550	3.7	5	50	40	380	-	-	-	-	-	5.5	5.4	5.2	5.1	4.8	4.6	4.2	3.8	3.4	2.8	2.2
8	JOS - 846	5.5	7.5	65	50	380	15.7	15.2	14.6	14.0	13.4	12.7	11.8	11.0	10.1	9.2	7.8	6.0	4.0		-	-
9	JOS - 854	5.5	7.5	65	50	380	-	-	-	-	-	-	13.0	12.3	11.6	10.9	10.0	9.0	8.0	6.5	4.0	-
10	JOS - 1040	7.5	10	80	65	380	20.0	19.3	18.5	17.7	16.8	15.9	14.5	13.3	12.0	10.5	-	-	-	-	-	-
11	JOS - 1050	7.5	10	65	65	380	-	-	-	-	-	-	-	11.6	11.2	10.6	10.2	9.5	8.8	8.0	7.0	6.0
12	JOS - 2040	15	20	100	100	380	48.5	46.5	44.5	42.0	39.8	37.0	34.0	30.5	26.0	21.0	12.0	-	-	-	-	-
							28	30	32	34	36	38	40	42	44	46	48	50	52	56	60	64
13	JOS - 1065	7.5	10	65	50	380	-	-	-	-	-	-	-	-	7.4	7.2	7.0	6.6	6.2	5.6	4.7	3.6