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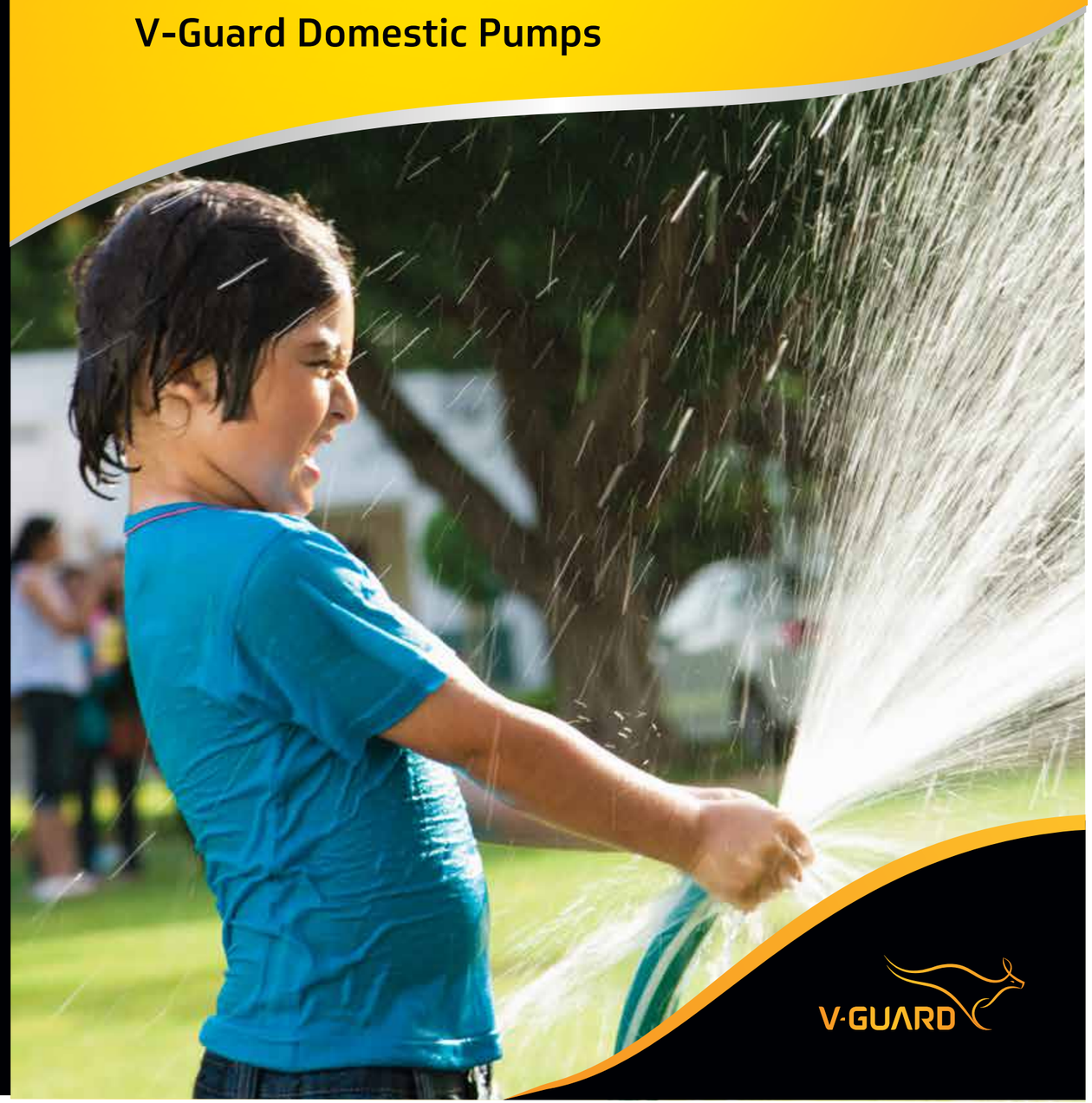
High-pressure pumps for low-stress water solutions

V-Guard Domestic Pumps



Lasting Performance

For over four decades V-Guard lived up to the reputation of making reliable products that were designed to work efficiently and last a lifetime. And now we are taking our next quantum leap. Harnessing the learnings, insights and experience of four decades it will be our endeavour to understand human lives and its relationship with the tools and appliances that he uses. And then to evolve a seamless experience with thoughtfully engineered products in our quest to enriching consumer lives.

V-Guard's Domestic Pumps designed specially to ensure a smooth and silent solution to modern households in India. Long-lasting, sturdy, lightweight and compact, these pumps guarantee a satisfactory experience to your family.

Salient Features

99.9% Copper motor winding

Wide voltage range operation

Assured Quality via Stringent QA process

Range available

REGENERATIVE PUMPS
Premium-Series I Neon & Revo-Series I Nova & Neon N-Series I Super & Wonder-Series I Slow Speed-Series

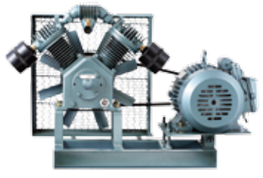
CENTRIFUGAL PUMPS
VC-Series Normal Voltage I VC-Series Special Voltage I VCN & Neon-Series I Extended Shaft-Series I VCSW-Series I VCM-Series

CENTRIFUGAL BOOSTER PUMPS
VB-Series I Mini Booster Pumps I Circulatory Pumps

JET CENTRIFUGAL PUMPS
VJ-Series I Neon-Series

OPENWELL PUMPS
VOS & VOSS-Series I VOSR-Series I Neon-Series I Revo-Series I Nova-Series I VOSO-Series I VOSV-Series

BOREWELL SUBMERSIBLE PUMPS
3" VBS3 & VBS3AM-Series I 3.5" VBS4SAM-Series I 4" VBS-Series I 4" VBSR-Series I 4"VBS2-Series
3" VBSO3-Series I 4"VBSO-Series I 4"Neon-Series



BOREWELL COMPRESSOR PUMP FOR LIFTING WATER WITH AIR DISTRIBUTOR PIPE
Monobloc Compressor Pumps I Belt Driven Compressor pumps

FEATURED PUMPS
Prime Pumps I Fountain Pumps

V-GUARD PUMPS are designed and developed by V-Guard Industries Ltd, the company which has carved a niche for itself in the last 40 years with a wide range of electrical & electronic products that are used and trusted by more than 50 million people across India. V-Guard Pumps are made from top-grade castings, finest components and high-quality Gun metal using state-of-the-art technology, to conform to the latest International standards. Besides each and every stage in the manufacturing process is closely monitored through stringent quality tests to ensure impeccable standards, superior performance and unmatched durability. V-Guard Pumps are available in more than 800 models, ranging from 0.25 HP to 30.0 HP (single and 3 phase variants) to suit all requirements.

IMPORTANT NOTE

- All performance data & technical specifications given in this brochure are based on our lab tests conducted at standard conditions and are likely to change with various field conditions. Friction and flow losses in pipe fittings have not been calculated.
- As improvements are made in design from time to time, specifications and performance are subject to change without prior information.
- The 'Power' shown in the table indicates the output power of the motor; i.e, input power to the pump. So the actual power consumption, that is the input to the motor will be higher than this output and this fact has to be considered while calculating the connected load.

Regenerative Pumps

Compact, Lucrative, and Hassle free.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of Domestic water supply, gardens and Lawn sprinklers.
*Max. liquid temperature 45°C

TEFC, CSCR* induction motors as prime mover
Provides constant speed and better torque.
(*Totally enclosed fan cooled, Capacitor start Capacitor run)

Aluminium extruded/die-casted Motor body*
Makes extremely compact and light weight.
(*Except for VSP series)

Forged Brass impeller*
Ensures prolonged life.
(*Except for VSP &VCSW series)

99.99% Super enamelled copper windings
Constitutes efficient and long lasting motor.

Superior quality electrical stampings
Ascertain highly efficient motor.

High quality alloy steel motor shaft
Offers rust free, stuck free persistent operation.

Double sealed ball bearings with life lubrication
Enables smooth and silent functioning.

High quality mechanical seal with graphite face
Contributes leak free operation.

Equipped with Thermal overload protector
Assures safe and secure operation.

Wide voltage Band operation
Maintaining consistent performance.

Operating/Technical specifications

Input supply: 1Φ AC, 180-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.18 – 1.1kW (0.25 to 1.5HP)

Head range: up to 60m (200 ft.)

Flow range: 3700 – 550LPH

Speed: 2800rpm

Type of duty: S1 (Continuous)

Insulation class: F/B

Rotation: Counter clockwise, when viewed from pump side

Premium Series

VSPAR, VSPAD, VSPA & VSPRC Series

Speciality

- Premium quality pump sets.
- ISI Models available.
- Brass inserted casing for improved performance and serviceability in VSPAR Series.
- Light weight, compact, powder coated aluminium die–casted body in VSPAR & VSPAD Series.
- VSPA Series possess powder coated Aluminium extruded body.
- F-Class electrical insulation in VSPAR & VSPAD Series while B-Class in VSPA Series.
- Energy efficient motor.
- Stainless steel hardwares (except VSPA series).
- IP 55 dust proof and splash proof (only for VSPAR).
- Available models from 0.25 - 1.5HP.
- Provides 25/18 months service warranty.

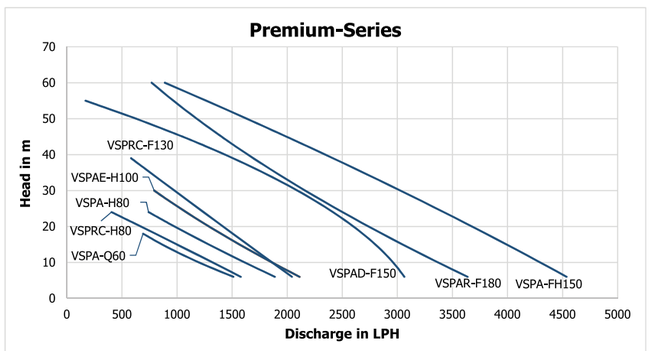
VSPAR-F180

VSPRC-F130

VSPAD-H100

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH																	
					m	6	9	12	15	18	21	24	27	30	33	36	39	42	45	50	53	55	60
	HP	kW	Suction	Delivery	ft	20	30	40	50	60	70	80	90	100	110	120	130	140	150	165	170	180	200
Super Premium Model																							
VSPAR-F180*•	1	0.75	2.5/1	2.5/1	LPH	3700	3500	3200	3000	2800	2600	2500	2350	2150	2050	1850	1700	1600	1400	1200	1100	1000	700
*Super premium model with 25 months service warranty.																							
Premium Model																							
VSPA-Q60•	0.25	0.18	2.0/0.75	2.0/0.75	LPH	1500	1300	1050	850	700													
VSPA-H80•	0.5	0.37	2.5/1	2.5/1		1900	1650	1500	1300	1100	900	750											
VSPRC-H80	0.5	0.37	2.5/1	2.5/1		1600	1350	1200	1000	825	600	400											
VSPAE-H100•	0.5	0.37	2.5/1	2.5/1		2200	1840	1700	1550	1400	1250	1150	980	720									
VSPAD-H100•	0.5	0.37	2.5/1	2.5/1		2200	1840	1700	1550	1400	1250	1150	980	720									
VSPAD-F110	1	0.75	2.5/1	2.5/1		2550	2350	2150	1950	1730	1500	1250	1000	750	450								
VSPRC-F130	1	0.75	2.5/1	2.5/1		2050	1900	1750	1650	1520	1400	1230	1100	1000	800	700	610						
VSPA-F150•	1	0.75	2.5/1	2.5/1		4300	4050	3800	3650	3400	2550	2450	2200	2050	1900	1700	1500	1300	1100	600			
VSPAD-F150	1	0.75	2.5/1	2.5/1		4300	4050	3800	3650	3400	2550	2450	2200	2080	1900	1700	1500	1300	1050	700	300		
VSPA-FH150	1.5	1.1	2.5/1	2.5/1		4500	4250	4200	4000	3800	3650	3400	3250	3000	2800	2700	2350	2150	2050	1700	1400	1200	900
•ISI Models																							



NEON & REVO Series

Speciality

- Economic pump set.
- ISI models are available.
- **Normal voltage as well as Low voltage** models are available in Revo Series.
- Aluminium extruded motor body with FG 200 Castings.
- High Quality alloy steel Motor shaft.
- B-Class electrical insulation.
- Zinc coated hardwares.
- Comes with 18 / 12 months service warranty.

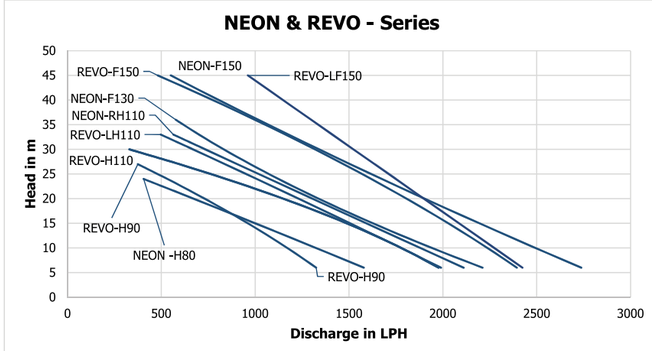
NEON-RH110

NEON-F150

REVO-H110

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH														
					m	6	9	12	15	18	21	24	27	30	33	36	39	42	45	
	HP	kW	Suction	Delivery	ft	20	30	40	50	60	70	80	90	100	110	120	130	140	150	
NEON -H80*	0.5	0.37	2.5/1	2.5/1	LPH	1600	1350	1200	1000	825	600	400								
NEON-RH110	0.5	0.37	2.5/1	2.5/1		2100	1950	1800	1550	1400	1250	1100	900	750	550					
NEON-F130•	1	0.75	2.5/1	2.5/1		2250	2000	1775	1600	1450	1275	1150	1000	850	700	550	300			
NEON-F150*	1	0.75	2.5/1	2.5/1		2700	2550	2450	2200	2000	1850	1650	1500	1300	1200	1050	850	700	550	
REVO Series - Normal Voltage Models																				
REVO-H80*	0.5	0.37	2.5/1	2.5/1	LPH	1600	1350	1200	1000	825	600	400								
REVO-H90•	0.5	0.37	2.5/1	2.5/1		1350	1200	1050	950	850	700	550	350							
REVO-H100	0.5	0.37	2.5/1	2.5/1		2000	1800	1650	1500	1300	1100	850	550	350						
REVO-H110*	0.5	0.37	2.5/1	2.5/1		2200	1950	1700	1500	1350	1150	1000	850	700	475					
REVO-F150*	1	0.75	2.5/1	2.5/1		2400	2250	2150	2050	1900	1800	1600	1500	1250	1150	1050	800	650	500	
REVO Series - Low Voltage Models																				
REVO-LH110	0.5	0.37	2.5/1	2.5/1	LPH	2000	1800	1700	1500	1350	1150	1000	850	700	475					
REVO-LF150	1	0.75	2.5/1	2.5/1		2400	2300	2200	2000	1900	1800	1600	1500	1250	1150	1050	800	650	500	
*ISI models • Models with 12 months service warranty																				



V-GUARD

NOVA & NEON - N Series

Speciality

- Economic pump set.
- Aluminium extruded motor body with FG 200 Castings.
- High Quality alloy steel motor shaft.
- B-Class electrical insulation.
- Zinc coated hardwares.
- 12 months service warranty.

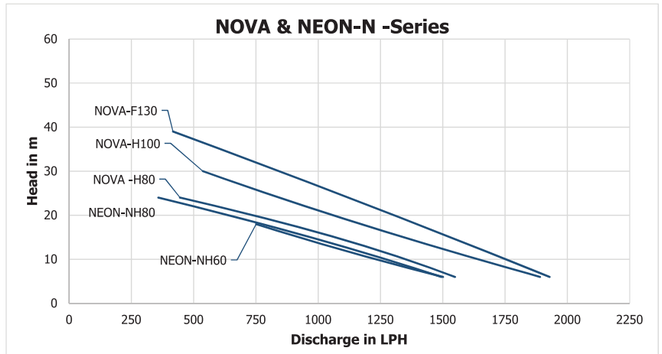
NOVA-F130

NOVA-H80

NEON-NH80

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH												
					m	6	9	12	15	18	21	24	27	30	33	36	39
	HP	kW	Suction	Delivery	ft	20	30	40	50	60	70	80	90	100	110	120	130
NEON-NH60	0.5	0.37	2.5/1	2.5/1	LPH	1500	1300	1100	925	750							
NEON-NH80	0.5	0.37	2.5/1	2.5/1		1500	1325	1150	950	800	575	350					
NOVA -H80	0.5	0.37	2.5/1	2.5/1		1550	1400	1250	1050	900	650	450					
NOVA-H100	0.5	0.37	2.5/1	2.5/1		1900	1700	1500	1350	1175	1000	850	700	525			
NOVA-F130	1	0.75	2.5/1	2.5/1		1900	1800	1700	1550	1400	1250	1100	950	850	700	600	400



SUPER & WONDER Series

Speciality

- Improved suction capacity.
- Faster self priming capability
- Aluminium extruded motor body with FG 200 Castings.
- Cast iron motor body is also available. (VSPS series & VSPAW F100)
- ISI models available in Super & Wonder suction Series.
- FG-260 castings in VSPS-H100.
- High Quality alloy steel Motor shaft.
- B-Class electrical insulation.
- Zinc coated hardwares.
- Available upto 1.0HP.
- 18 / 12 months service warranty.

VSPAW-F100

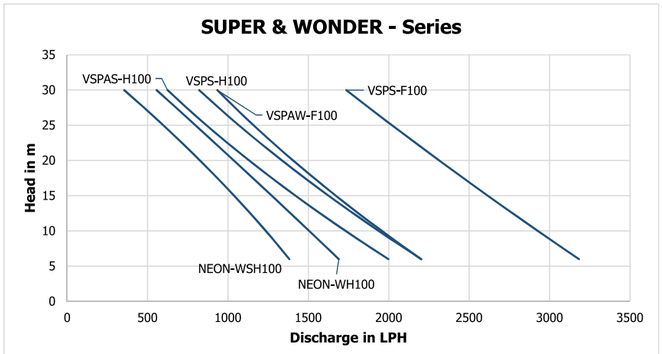
NEON-WSH100

VSPS-H100

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH								
					m	6	9	12	15	18	21	24	27	30
	HP	kW	Suction	Delivery	ft	20	30	40	50	60	70	80	90	100
Super Suction Models														
VSPS-H100*	0.5	0.37	2.5/1	2.5/1	LPH	2300	1900	1780	1600	1450	1300	1200	1000	750
VSPAS-H100	0.5	0.37	2.5/1	2.5/1		2100	1700	1550	1400	1250	1100	1000	800	550
VSPS-F100	1	0.75	2.5/1	2.5/1		3200	3000	2800	2550	2400	2300	2150	1900	1700
Wonder Suction Models•														
VSPAW-H100	0.5	0.37	2.5/1	2.5/1	LPH	1950	1850	1700	1650	1450	1250	1150	1000	900
VSPAW-F100	1	0.75	2.5/1	2.5/1		2200	2000	1850	1700	1500	1350	1200	1050	950
NEON-WH100	0.5	0.37	1.25/0.5	1.25/0.5		1700	1550	1400	1250	1150	1000	850	700	550
NEON-WSH100	0.5	0.37	1.25/0.5	1.25/0.5		1400	1250	1150	1050	900	800	650	500	350

*ISI model •12 months service warranty models



Slow Speed Series

VSP Series

Speciality

- 1440 rpm motors with Minimum wear and tear.
- Higher self-priming capabilities.
- Rigid CI/MS Body imparts longer endurance and easy maintenance.
- High tensile brass impeller.
- B-Class electrical insulation.
- 12 months service warranty.

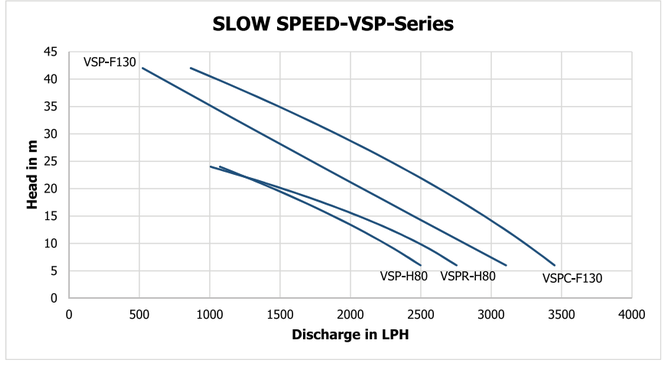
VSP-F130

VSP-H80

VSPC-F130

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)		Total head in metres/feet Vs Discharge in LPH													
					m	6	9	12	15	18	21	24	27	30	33	36	39	42
	HP	kW	Suction	Delivery	ft	20	30	40	50	60	70	80	90	100	110	120	130	140
VSP -H80 / 1440	0.5	0.37	2.5/1	2.5/1	LPH	2500	2300	2100	1900	1650	1300	1100						
VSPR-H80 / 1440	0.5	0.37	2.5/1	2.5/1		2800	2500	2300	2050	1850	1350	1000						
VSP-F130 / 1440	1	0.75	2.5/1	2.5/1		3150	2900	2650	2400	2150	2000	1800	1650	1400	1200	950	700	500
VSPC-F130	1	0.75	2.5/1	2.5/1		3400	3300	3200	2950	2800	2550	2300	2100	1900	1650	1450	1150	850



Precautions to use Regenerative Pumps !

- Ensure sufficient ventilation to the pump set and then cover it suitably for protection against unfavorable conditions of weather.
- Connect quality strainers at suction pipe to check entry of foreign particles in to.
- Use standard and proper size cable for electrical connection.
- Cable joint should be intact and as per Instruction manual.
- If seems as if stuck, do electrically isolate the pump set first and then rotate it manually for any stuck; if not, then restart it.

Centrifugal Pumps

Sturdy, Durable and Ace pumping.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of domestic water supply, gardens, small farms, irrigation and agricultural applications, draining of wells and tanks, filling water in swimming pool.

*Max. liquid temperature 45°C

TEFC, Capacitor start and run type induction motor
Provides constant speed and better torque.

Rigid Cast Iron-FG200/Aluminium extruded Motor body
Ensures constructional ruggedness for long lasting consistent performance.

Cast iron impeller*
Ensures prolonged operating life.
(*Except for VCM series & NEON-CH45 (Noryl) and VCG-H60 (Gun metal).

99.99% Super enamelled copper windings
Constitutes efficient and long lasting motor.

Superior quality electrical stampings
Ascertain highly efficient motor.

High quality alloy steel motor shaft
Offers rust free, stuck free persistent operation.

Double sealed ball bearings with life lubrication
Enables smooth and silent functioning.

High quality mechanical seal with graphite face
Contributes leak free operation.

Equipped with Thermal overload protector
Assures safe and secure operation.

Wide voltage Band operation
Maintaining consistent performance.

Operating/Technical specifications

Input supply: 1Φ AC, 120-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.37 – 1.5kW (0.5 to 2HP)

Head range: up to 45m (150 ft.)

Flow range: 67200 – 600LPH

Speed: 2800rpm

Type of duty: S1 (Continuous)

Insulation class: F/B

Rotation: Counter clockwise, when viewed from suction side

V-GUARD

VC Series -Normal Voltage

Speciality

- Premium quality pump sets.
- Energy efficient motor.
- ISI Models available.
- Cast iron impeller; exceptionally Gun metal for VCG H60.
- High quality alloy steel motor shaft.
- F-Class electrical insulation in VCS F80; rest of all are B-class.
- Available up to 2HP.
- Provides 12 months service warranty.

VC-H60

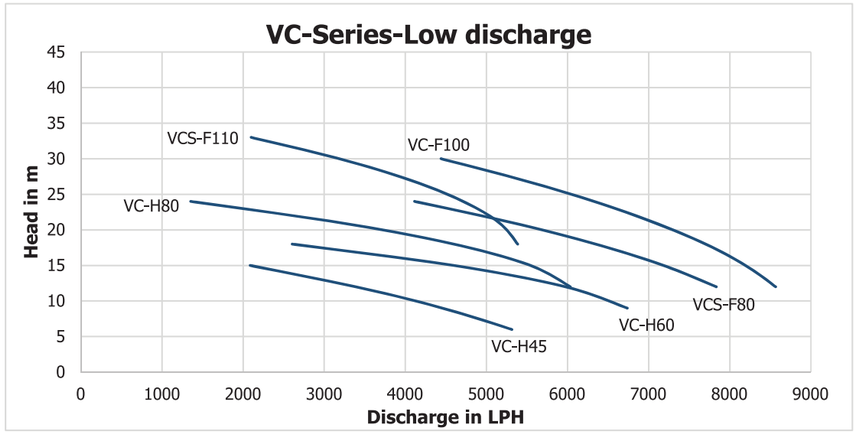
VCA-TF90

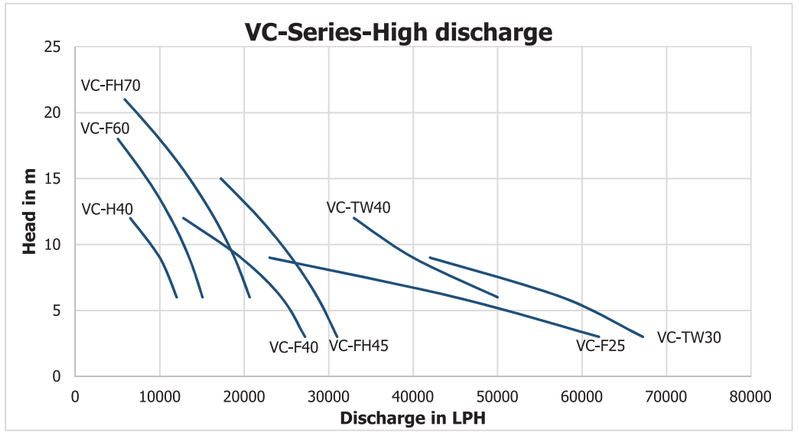
VCS-F80

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)		Total head in metres/feet Vs Discharge in LPH													
					m	3	6	9	12	15	18	21	24	27	30	33	42	
	HP	kW	Suction	Delivery	ft	10	20	30	40	50	60	70	80	90	100	110	140	
VC-H40	0.5	0.37	4.0/1.5	4.0/1.5		*	12000	10000	6500									
VC-H45✦	0.5	0.37	2.5/1	2.5/1		*	5300	4500	3350	2100								
VC-H50	0.5	0.37	2.5/1	2.5/1		*	6000	5000	3800	2500								
VC-H60✦	0.5	0.37	2.5/1	2.5/1		*	7000	6500	6000	4800	2500							
VC-H80✦	0.5	0.37	2.5/1	2.5/1		*	*	*	6100	5450	4480	3450	1250					
VC-TF80	0.75	0.55	2.5/1	2.5/1		*	*	*	5800	5300	4500	2800	1500					
VCA-TF90	0.75	0.55	2.5/1	2.5/1		*	*	*	7600	6450	5900	5050	4050	3300				
VC-F25	1	0.75	7.5/3	7.5/3		62000	45000	23000										
VC-F40	1	0.75	5.0/2	5.0/2		27000	25000	19000	13000									
VC-F60✦	1	0.75	4.0/1.5	4.0/1.5		*	15000	13200	12500	7150	5500							
VC-F80	1	0.75	3.2/1.25	2.5/1		*	*	*	9500	7200	6000	3250	1500					
VCS-F80⌑	1	0.75	2.5/1	2.5/1	LPH	*	*	*	8000	6800	6500	5500	4000					
VCA-F90	1	0.75	2.5/1	2.5/1		*	*	*	8000	7350	6600	5500	5150	3400				
VC-F100	1	0.75	3.2/1.25	2.5/1		*	*	*	8500	8300	7700	7100	6200	5500	4450			
VCS-F110	1	0.75	2.5/1	2.5/1		*	*	*	*	*	5500	5000	4600	4200	3300	2000		
VC-FH40	1.5	1.1	6.5/2.5	5.0/2		34000	30000	26000	23000									
VC-FH45	1.5	1.1	5.0/2	5.0/2		31100	28500	25500	22100	17100								
VC-FH70✦	1.5	1.1	5.0/2	4.0/1.5		*	20400	19100	17000	12800	10000	6000						
VC-FH140	1.5	1.1	2.5/1	2.5/1		*	*	*	*	7500	7400	6800	6200	5600	5000	4000	2000	
VC-TW30	2	1.5	10/4	10/4		67200	57600	42000										
VC-TW40	2	1.5	7.5/3	7.5/3		*	50000	40000	33000									
VC-TW70	2	1.5	5.0/2	5.0/2		*	*	*	28000	25000	21000	13000						
VC-TW80	2	1.5	4.0/1.5	4.0/1.5		*	*	*	16080	15300	14280	13500	11000					
VCS-TW100	2	1.5	4.0/1.5	4.0/1.5		*	*	*	14500	13500	12500	11000	9000	7500	5000			

⌑Star model ✦ISI models * Denotes over loading region





VC Series- Special & Low Voltages

Speciality

- Low voltage models (Voltage range 120-200V) as well as wide voltage models are available.
- Rigid Cast Iron-FG200 Motor body.
- B-Class electrical insulation.
- Available upto 3 HP.
- Comes with 12 Months service warranty.

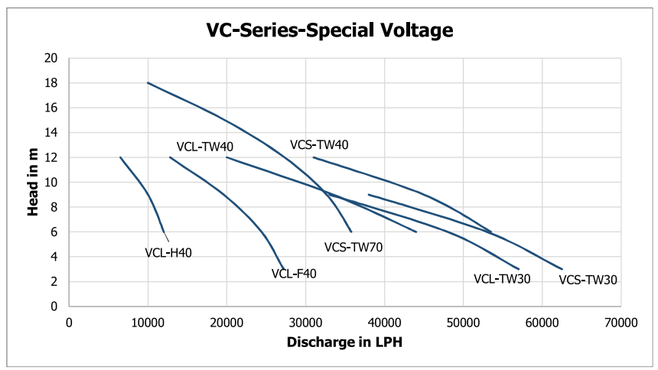
VCS-TW30

VCL-TW40

VCL-H40

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH						
					m	3	6	9	12	15	18
	HP	kW	Suction	Delivery	ft	10	20	30	40	50	60
Special Voltage Models											
VCS-FH50	1.5	1.1	6.5/2.5	5.0/2	LPH	*	35000	28000	22000	15500	
VCS-TW30	2	1.5	10/4	10/4		62500	53000	38000			
VCS-TW40	2	1.5	7.5/3	7.5/3		*	53500	45000	31000		
VCS-TW70	2	1.5	6.5/2.5	5.0/2		*	36500	31500	26500	22000	9000
VCS-TR50	3	2.2	8.0/3	8.0/3		*	67000	59800	48500	24000	
Low Voltage Models											
VCL-H40	0.5	0.37	4.0/1.5	4.0/1.5	LPH	*	12000	10000	6500		
VCL-F40	1	0.75	5.0/2	5.0/2		27000	25000	19000	13000		
VCL-TW30	2	1.5	10/4	10/4		57000	48000	33000			
VCL-TW40	2	1.5	7.5/3	7.5/3		*	44000	33500	20000		
*Overloading region											



VCN & NEON Series

Speciality

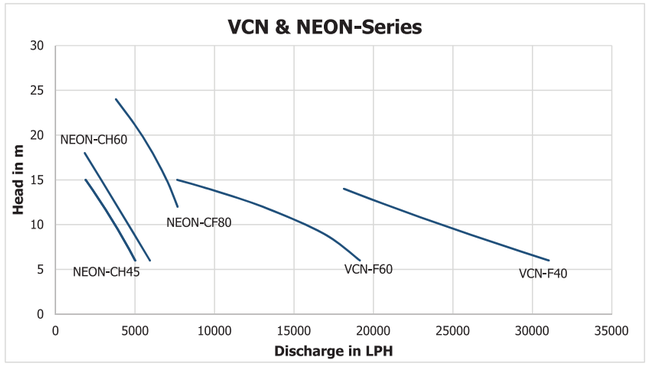
- Aluminium extruded Motor body* (*except for VCN-F60, VCN-F40_Rigid Cast Iron-FG200).
- ISI models available in VCN series.
- Noryl impeller in NEON-CH45.
- Comes with B-Class electrical insulation.
- Covers a service warranty of 12 months.

VCN-F40

NEON-CH45

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)			Total head in metres/feet Vs Discharge in LPH							
					m	3	6	9	12	15	18	21	24
	HP	kW	Suction	Delivery	ft	10	20	30	40	50	60	70	80
VCN-H45•	0.5	0.37	2.5/1	2.5/1	LPH	*	5000	4100	3000	1900			
VCN-H60•	0.5	0.37	2.5/1	2.5/1		*	5600	4800	3600	1150			
VCN-F40	1	0.75	5.0/2	5.0/2		*	31000	26000	21000				
VCN-F60	1	0.75	5.0/2	4.0/1.5		*	19000	17300	12600	7800			
NEON-CH45	0.5	0.37	2.5/1	2.5/1		*	5000	4100	3000	1900			
NEON-CH60	0.5	0.37	2.5/1	2.5/1		*	5900	4950	4000	2700	1900		
NEON-CF80	1	0.75	3.2/1.25	2.5/1		*	*	*	7800	6700	6200	5200	3700
•ISI models *Overloading region													



V-GUARD

Special Application Centrifugal Pumps
Extended Shaft

Speciality

- Specially designed to operate with prime movers other than induction motors and in certain situations as a prime mover for other machines as well.
- Rigid Cast Iron-FG200 body ensures constructional ruggedness.
- Equipped with B-Class electrical insulation.
- Covers a service warranty of 12 months.

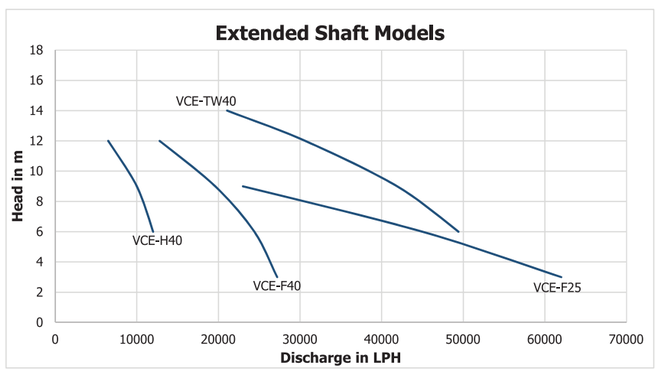
VCE-H40

VCE-TW40

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)		Total head in metres/feet Vs Discharge in LPH				
					m	3	6	9	12
	HP	kW	Suction	Delivery	ft	10	20	30	40
VCE-H40	0.5	0.37	4.0/1.5	4.0/1.5	LPH	*	12000	10000	6500
VCE-F25	1	0.75	7.5/3	7.5/3		62000	45000	23000	
VCE-F40	1	0.75	5.0/2	5.0/2		27000	25000	19000	13000
VCE-TW40	2	1.5	7.5/3	7.5/3		*	50000	40000	33000

•**ISI** model * Overloading region



VCSW Series (Self-Priming Centrifugal Jet)

Speciality

- Aluminium extruded motor body with FG 200 Castings (Except in VCSWT-F120; Aluminium die-casted body).
- Available with CI impeller; except in VCSW-NH70 (NORYL impeller), VCSWT-F120 (Gunmetal impeller).
- Economic models are also available, VCSW-N in Noryl impeller.
- Having B-Class electrical insulation.
- Suction Capacity upto 9 metre.
- Provides a service warranty of 12 months.

VCSWT-F120

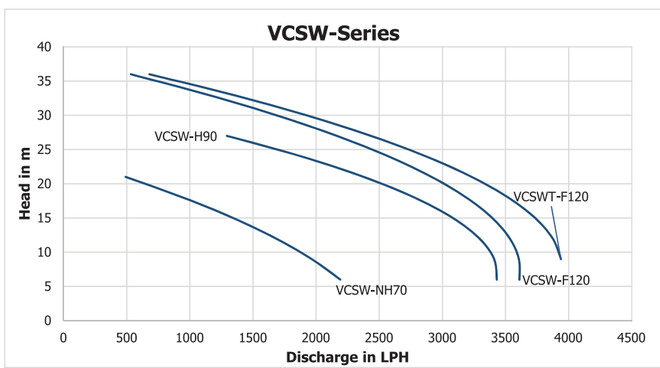
VCSW-F120

VCSW-H90

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)		Total head in metres/feet Vs Discharge in LPH												
					m	3	6	9	12	15	18	21	24	27	30	33	36
	HP	kW	Suction	Delivery	ft	10	20	30	40	50	60	70	80	90	100	110	120
VCSW-NH70	0.5	0.37	2.5/1	2.5/1	LPH	*	2170	2000	1700	1300	950	500					
VCSW-H90	0.5	0.37	2.5/1	2.5/1		*	3500	3300	3250	3150	2850	2400	1750	1350			
VCSW-F120	1	0.75	2.5/1	2.5/1		*	3700	3600	3450	3300	3150	2900	2700	2300	1750	900	600
VCSWS-F120	1	0.75	2.5/1	2.5/1		*	3700	3600	3450	3300	3150	2900	2700	2300	1750	900	600
VCSWT-F120	1	0.75	2.5/1	2.5/1		*	*	3900	3800	3750	3650	3400	2900	2300	1700	1300	850

* Overloading region



Multistage
VCM Series

Speciality

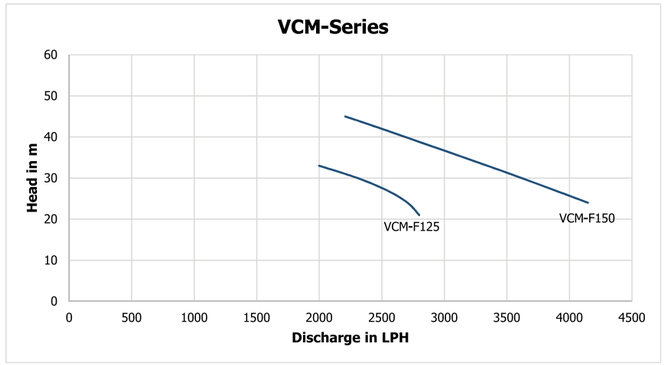
- Multistage centrifugal pump set.
- Aluminium extruded motor body.
- SS pump body for rust free operation.
- Engineered plastic; Noryl bowl sets for smooth & silent operation.
- B-class electrical insulation.
- Provides a service warranty of 12 months.

VCM-F150

VCM-F125

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)		Total head in metres/feet Vs Discharge in LPH													
					m	3	6	9	12	15	18	21	24	27	30	33	42	45
	HP	kW	Suction	Delivery	ft	10	20	30	40	50	60	70	80	90	100	110	140	150
VCM-F125	1	0.75	25	25	LPH	*	*	*	*	*	*	2800	2700	2550	2300	2000		
VCM-F150	1	0.75	25	25		*	*	*	*	*	*	*	4200	3800	3600	3400	2500	2200
* Overloading region																		



Precautions to use Centrifugal Pumps !

- Ensure sufficient ventilation to the pumpset and then cover it suitably for protection against unfavorable conditions of weather.
- Select a pump that is best suited for the total head requirements as per field conditions and capability to deliver the required volume of water.
- Never use high head models for low head applications.
- Use standard and proper size cable for electrical connection.
- Cable joint should be intact and as per Instruction manual.

Centrifugal Booster Pumps

Up-surged, Incessant and Reliable.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of residential pressure boosting applications

*Max. liquid temperature 90°C

Aluminium pressure die-casted body
For non-corrosive, long lasting life.

SS Impeller*
For rust free and consistent performance.
(*Except for mini boosters with brass impellers).

99.9% pure copper winding wires
Provides better electrical operational characteristics.

Superior quality electrical stampings
Ascertain highly efficient motor.

SS410 motor shaft
Offers rust free, stuck free persistent operation.

High quality double sealed ball bearings
For a smooth & silent functioning.

F Class insulation
Improved insulation protection and prevents unwanted energy losses.

SS Hardwares
Ensures endurance against aggressive corrosion failures.

World class pressure tanks
Imported tanks are meant to assure safe working and prolonged operational consistency.

Operating/Technical specifications

Input supply: 1Φ AC, 180-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.37 – 1.1kW (0.5 to 1.5HP)

Flow range: 7900 - 550 LPH

Pressure range: 1.5 - 4.5 bar

Rated Speed: 2800rpm

Type of duty: S1(Continuous)

Insulation class: F

Rotation: Counter clockwise, when viewed from pump side

V-GUARD

VB Series

Speciality

- Premium quality pump sets.
- Rust preventive Aluminium die-casted motor body.
- Rigid built cast iron casings.
- Stainless steel hardwares.
- Fitted with hot water seal.
- Imported pressure tank.
- F-class insulation.

VB24-F4A

Accessories

Pressure Tank

Pressure sensing switch

Pressure gauge

Flexible Hose

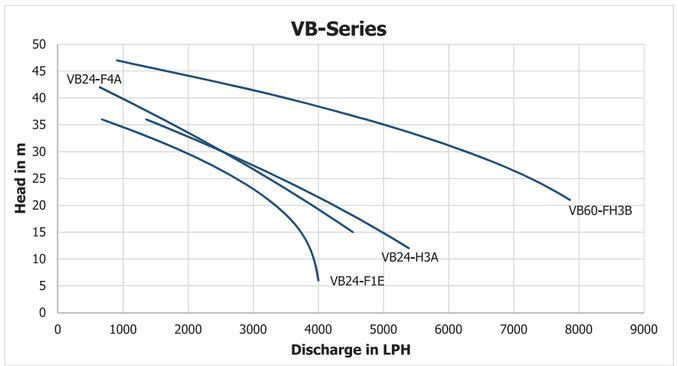
3 Pin Plug

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH														
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	47
				ft	20	30	40	50	60	70	80	90	100	110	120	130	140	155
VB24-H3A	0.5	0.37	2.5/2.5	LPH	*	*	5300	5000	4700	4200	3400	2900	2600	2100	1300			
VB24-F1E	1	0.75	2.5/2.5		3900	3900	3800	3750	3650	3400	2900	2300	1700	1300	850			
VB24-F4A	1	0.75	2.5/2.5		*	*	*	4600	4300	3500	3200	3000	2700	2200	1600	1100	600	
VB60-FH3B	1.5	1.1	2.5/2.5		*	*	*	*	*	7900	7400	6800	6150	5800	5000	3500	2700	1000

Models	Power		Pump Stage	Type of Tank	Tank Capacity (L)	Drawdown capacity (L)	Pressure setting range (kg/cm^2)	Max capacity (LPH)	Approximate suitable for
	HP	kW							
VB24-H3A	0.5	0.37	3	Inline vertical	24	10	2.0 to 3.5	5600	2 Bathrooms
VB24-F1E	1	0.75	1	Inline vertical	24	9	2.0 to 3.5	4200	3 Bathrooms
VB24-F4A	1	0.75	4	Inline vertical	24	12	2.0 to 4.5	6000	4 Bathrooms
VB60-FH3B	1.5	1.1	3	Inline vertical	60	35	2.0 to 4.0	9500	5 Bathrooms

*Overloading region



Regenerative Mini Booster Pumps

Speciality

- Premium quality pump sets.
- Rust preventive Aluminium die casted body.
- Rigid built cast iron casings.
- Stainless steel hardware.
- Brass impeller.
- Imported pressure tank.
- F-class insulation.

VB1-H1S

Accessories

Pressure Tank

Pressure sensing switch

PERFORMANCE CHARTS

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH														
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	
				ft	20	30	40	50	60	70	80	90	100	110	120	130	140	
VB1-H1S	0.5	0.37	2.5/2.5	LPH	2200	1950	1700	1650	1400	1150	970	760	550					

Models	Power		Pump Stage	Type of Tank	Tank Capacity (L)	Drawdown capacity (L)	Pressure setting range (kg/cm^2)	Max capacity (LPH)	Approximate suitable for
	HP	kW							
VB1-H1S	0.5	0.37	1	Inline	1	0.5	1.5 to 2.5	2800	1 Bathroom

Circulatory Pumps

Speciality

- High efficiency Inline circulating pump.
- Vibration less, noiseless operation.
- Generates constant pressure.
- B class electrical insulation.
- IP 44 protection.

VCB14-FO30

PERFORMANCE CHARTS

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH					
	HP	kW	Suction X Delivery	m	2	4	5	6	8
				ft	6.5	13	16	20	26
VCB14-FO30	0.18	0.14	1.25/1.25	LPH	1080	790	610	540	215

Operating/Technical specifications

Input supply: 1Φ AC, 230V*, 50Hz
(*Voltage required at motor input terminal)
Current: 0.54 A
Power: 140W (0.18HP)
Pressure: 1bar
Discharge: 30LPM
Max.Head: 9 Metre

Precautions to use Booster Pumps !

- Pump should be protected against weather by giving proper covering.
- The pump must be used for handling clear, cold fresh water. (Max. liquid temperature 45°C, Equipped with hot water seal upto 90°C) having the characteristics specified as Max. Chloride ion density 500 ppm, Total solids - 3000 ppm, pH value - 6.5 to 8, Specific gravity 1.004, Hardness: 300 mg.
- All pipes joints must be leak proof; it is advisable to use GI/PVC pipes with ISI mark.
- Check the pre-charged air pressure inside the pressure tank periodically to ensure the smooth working of pressure booster pump.
- A bypass line should be provided to facilitate normal flow of water in the absence of electricity.
- The difference in pressure should not be lesser than 1.9 bar.

V-GUARD

Jet Centrifugal Pumps

Persistent, Steadfast and Lofty up lifter.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of deep water source-lifting applications. Also suitable for 2",3", 4" & 6" bore well applications.

*Max. liquid temperature 45°C

Dynamically Balanced Impeller
Provides better consistent performance

Specially designed Gun Metal Jet Assembly
Ensures corrosion free long life.

TEFC, CSCR type induction motors as prime mover
Provides constant speed and better torque.

99.99% Super enamelled copper winding
Constitutes efficient and long lasting motor.

Superior quality electrical stamping
Ascertain highly efficient motor

High quality alloy steel motor shaft
Offers rust free, stuck free persistent operation.

Double sealed ball bearings with life lubrication
Enables smooth and silent functioning.

High quality mechanical seal with graphite face
Contributes leak free operation

Equipped with Thermal overload protector (TOP)
Assures safe and secure operation.

Wide voltage band
Allows maintaining consistent performance.

Operating/Technical specifications
Input supply: 1Φ AC, 180-240V*, 50Hz
(*Voltage required at motor input terminal)

Power range: 0.37 – 1.1kW (0.5 to 1.5HP)

Head range: up to 60m (200 Ft)

Flow range: 3400 - 100LPH

DLWL Range: Up to 65m

Speed: 2800rpm

Type of duty: S1 (Continuous)

Insulation class: F/B

Rotation: Counter clockwise, when viewed from suction side

VJ Series (VJ, VJO, VJP2 & VJT)

Speciality
- Premium quality pump sets.
- ISI Models available.
- CI FG200 Impeller. (Except for VJON & VJT Models)
- CI / Gun metal Jet assembly.
- B-class electrical insulation.
- Energy efficient motor.
- Available up to 1.5HP.
- Provides 12 months service warranty.


VJ-H70


VJON-F100


VJT-F200

Accessories


Jet assembly


PRV

PERFORMANCE CHARTS & CURVES

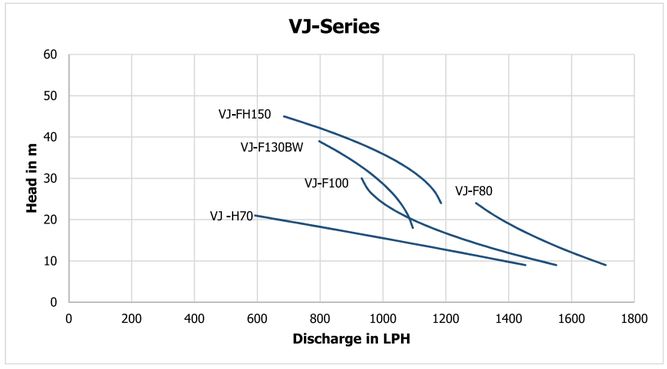
Models	Power		Pipe size (cm/Inch)	DLWL* in metres/feet Vs Discharge in LPH																
				m	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
	HP	kW	Suc X Pre X Del	ft	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
VJ -H70♦	0.5	0.37	3.2x2.5x2.5 (1.25x1x1)	LPH	1450	1250	1050	800	600											
VJ-F60	1	0.75	4x3.2x2.5(1.5x1.25x1)		3400	3050	2600	2100												
VJ-F80♦	1	0.75	4x3.2x2.5(1.5x1.25x1)		1700	1620	1500	1425	1350	1300										
VJG - F80♦	1	0.75	4x3.2x2.5(1.5x1.25x1)		1700	1620	1500	1425	1350	1300										
VJ-F100	1	0.75	4x3.2x2.5(1.5x1.25x1)		1600	1325	1250	1175	1100	1000	950	925								
VJ - F100BW♦	1	0.75	4x3.2x2.5(1.5x1.25x1)		1600	1325	1250	1175	1100	1000	950	925								
VJ-F130BW	1	0.75	3.2x2.5x2.5 (1.25x1x1)					1100	1075	1050	1025	975	950	850	800					
VJ-F150BW	1	0.75	3.2x2.5x2.5 (1.25x1x1)					1100	1075	1050	1025	800	700	600	400	300				
VJ-FH150♦	1.5	1.1	4x3.2x2.5(1.5x1.25x1)							1200	1150	1100	1080	1000	925	800	680			
VJ-FH150BW	1.5	1.1	3.2x2.5x2.5 (1.25x1x1)							1175	1100	1050	925	900	850	750	650			
VJ-FH180BW	1.5	1.1	3.2x2.5x2.5 (1.25x1x1)								1100	1075	1050	1000	900	800	750	700	650	500

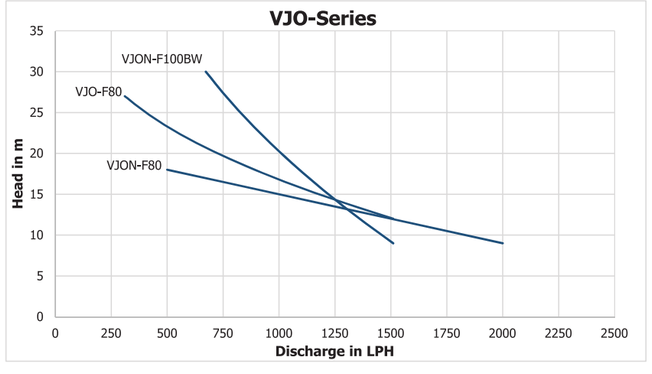
*Depth to low water level ♦ISI Models

Models	Power		Pipe size (cm/Inch)	DLWL in metres/feet Vs Discharge in LPH								
				m	9	12	15	18	21	24	27	30
	HP	kW	Suc X Pre X Del	ft	30	40	50	60	70	80	90	100
VJO-F80	1	0.75	4x3.2x2.5(1.5x1.25x1")	LPH		1500	1200	900	600	500	300	
VJON-F80	1	0.75	4x3.2x2.5(1.5x1.25x1")		2000	1500	1000	500				
VJON-F100BW	1	0.75	3.2x2.5x2.5 (1.25x1x1")		1550	1300	1200	1125	1000	850	750	675
VJO-F100BWP*	1	0.75	3.2x2.5x2.5 (1.25x1x1")		1550	1300	1200	1125	1000	850	750	675
*ISI model												

Models	Power		Pipe size (cm/Inch)	DLWL in metres/feet Vs Discharge in LPH									
				m	30	35	40	45	50	55	60	65	70
	HP	kW	Suc X Pre X Del	ft	110	115	131	148	164	180	197	213	230
VJT-F200	1	0.75	3.2x2.5x2.5 (1.25x1x1)	LPH		1080	936	720	504	324	210	130	100

Models	Power		Pipe size (cm/Inch)	DLWL in metres/feet Vs Discharge in LPH									
				m	6	9	12	15	18	21	24	27	30
	HP	kW	Suc X Pre X Del	ft	20	30	40	50	60	70	80	90	100
VJP2-F100*	1	0.75	3.2x2.5x2.5 (1.25x1x1")	LPH		1800	1550	1300	1000	700	550	300	100
*Packer Jet													





NEON Series

Speciality

- Economic pump set.
- FG 200 CI Impeller.
- Aluminium extruded motor body with FG 200 Casting for Neon JF80.
- High Quality alloy steel Motor shaft.
- B-Class electrical insulation.
- Brass/CI jet assembly.

NEON-JF80

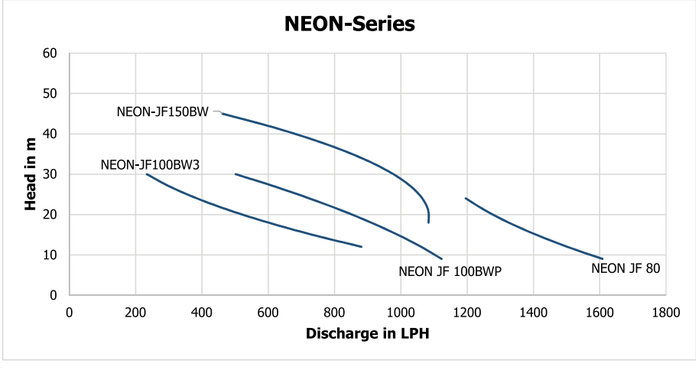
Accessories

Jet assembly

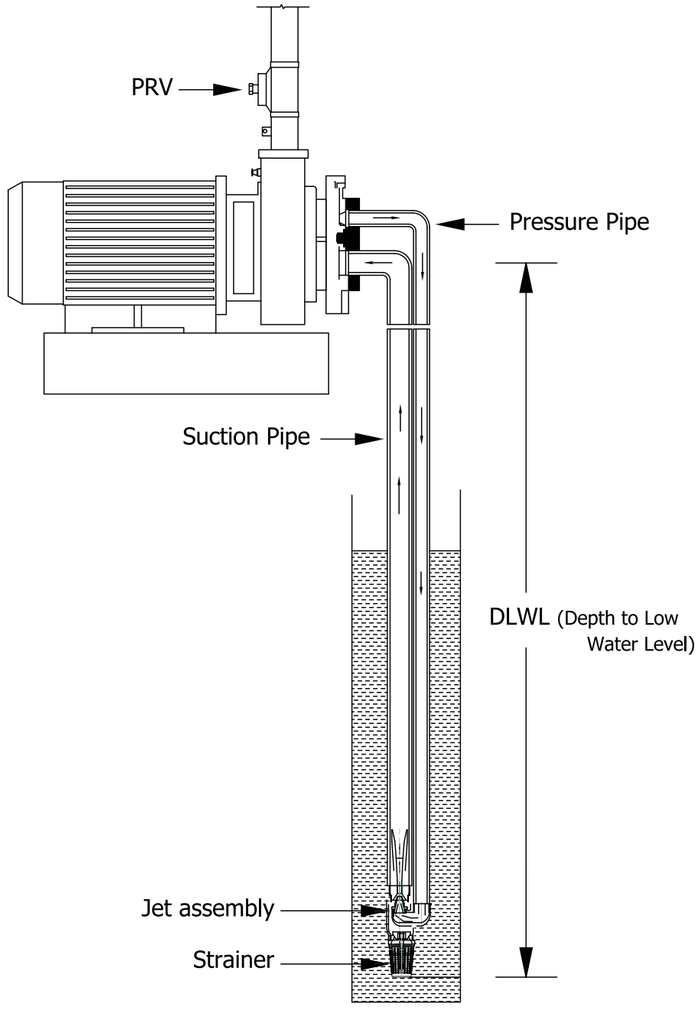
PRV

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/Inch)	DLWL in metres/feet Vs Discharge in LPH														
				m	6	9	12	15	18	21	24	27	30	33	36	39	42	45
	HP	kW	Suc X Pre X Del	ft	20	30	40	50	60	70	80	90	100	110	120	130	140	150
NEON-JF 80	1	0.75	4.0x3.2x2.5 (1.5x1.25x1)	LPH		1600	1520	1400	1325	1250	1200							
NEON JF 100BWP•	1	0.75	3.2x2.5x2.5 (1.25x1x1)			1150	1025	975	925	825	750	600	500					
NEON-JF100BW3*	1	0.75	2.5x2.0x2.5 (1x0.75x1)				900	700	600	500	390	300	230					
NEON-JF150BW	1	0.75	3.2x2.5x2.5 (1.25x1x1)						1100	1075	1050	1025	975	900	850	725	600	450
*Suitable for 3" Borewells, •ISI model																		



Jet Pump Installation



Precautions to use Jet Centrifugal Pumps !

- Suitably cover the pump set for getting protected against bad weather.
- Use standard and proper size cable for electrical connection.
- Cable joint should be intact and as per Instruction manual.
- If seems as if stuck, do electrically isolate the pump set first and then rotate it manually for any stuck. If not, then restart it.
- Periodically regulate the pressure regulating valve to get maximum discharge under varying DLWL.
- Select a pump that is best suited for the DLWL requirements as per field conditions and capability to deliver the required volume of water. Wrong selection may cause lower efficiency and more power consumption.
- Never use high head pumps for low head applications. If used, it may cause over heating and lead to winding burning of motor.
- All pipe joints must be leak proof. It is advisable to use CI/PVC pipes with ISI mark.

Openwell
Submersible Pumps

Priming free, Vibration free, Noise free.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of household water supply, drip irrigation, gardens, water fountains, water sprinkling and light/medium industrial applications.
*Max. liquid temperature 45°C

CI/SS Motor body*
Provides protection against structural failures due to corrosion.

Cast Iron impeller*
Ensures constructional ruggedness, for long lasting consistent performance.
(*Except for Nova & VOSV series)

Triple layered#/99.9% Super enamelled copper wires¤
For better insulation protection and durability.

Superior quality electrical stampings
Ascertain highly efficient motor.

SS410 motor shaft
Offers rust free, stuck free persistent operation.

LTB Bush bearings*#/Double sealed ball bearings¤
Marine class water lubricated bush bearings for smooth & silent functioning.
(*Except for VOSO series)

Marine grade electrical joints*
Improves insulation protection and prevents unwanted energy losses.
(*Except for VOSO series)
#For water cooled models ¤For oil cooled models

Operating/Technical specifications

Input supply: 1ΦAC, 140-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.37 – 1.5kW (0.5 to 2HP)

Head range: upto 90m (300 ft)

Flow range: 21000 – 1250LPH

Speed: 2800rpm

Type of duty: S1(Continuous)

Insulation class: B

Rotation: Counter clockwise, when viewed from suction side

Water Cooled Horizontal Openwell Submersible Pumps

VOS & VOSS Series

Speciality

- Premium quality pump sets.
- Rust preventive SS BODY with mat finish in VOSS series.
- Rigid built cast iron body in VOS series except for 0.5HP variants.
- High quality stainless steel hardwares.
- Energy efficient motor.
- 10/15metre 3 core cable.
- BEE 5 star rated & ISI Models available.
- Available up to 2HP.

VOSS-F90

Accessories

Capacitor box

Pipe bend with strainer

Cable joining kit

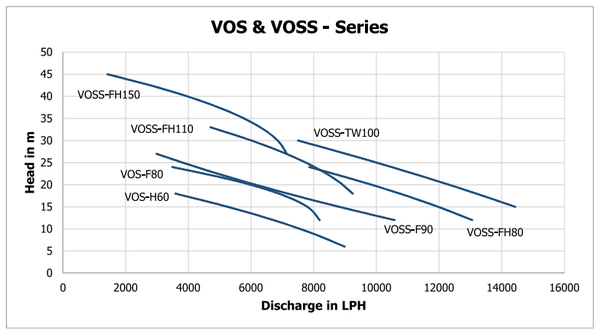
VOS-FH110

VOSS-FH150

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH														
				m	6	9	12	15	18	21	24	27	30	33	36	39	42	45
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70	80	90	100	110	120	130	140	150
VOS-H60	0.5	0.37	2.5 x 2.5	LPH	9000	8000	6500	5500	3500									
VOS-F60	1	0.75	4.0 x 4.0		21000	18500	15000	11000	5000									
VOS-F80♦	1	0.75	2.5 x 2.5		*	*	8200	7700	7100	5250	3550							
VOS-F90⌗	1	0.75	3.2 x 2.5		*	*	10100	9500	7500	5300	3600	3450						
VOSS-F90⌗	1	0.75	3.2 x 2.5		*	*	10100	9500	7500	5300	3600	3450						
VOSS-FH80	1.5	1.1	4.0 x 4.0		*	*	13000	12000	11000	9000	8000							
VOS-FH110	1.5	1.1	2.5 x 2.5		*	*	*	9700	9100	8600	8000	7200	6300	4500				
VOSS-FH110	1.5	1.1	2.5 x 2.5		*	*	*	9700	9100	8600	8000	7200	6300	4500				
VOS-FH150	1.5	1.1	3.2 x 2.5		*	*	*	*	*	*	*	7200	6800	6300	5300	4500	3200	1300
VOSS-FH150	1.5	1.1	2.5 x 2.5		*	*	*	*	*	*	*	7200	6800	6300	5300	4500	3200	1300
VOSS-TW100	2	1.5	5.0 x 5.0		*	*	*	14500	13000	12000	10500	9000	7500					

⌗Star models ♦ISI models *Denotes overloading region



VOSR Series

Speciality

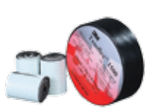
- Semi Premium quality pump sets.
- Rust preventive SS BODY with mat finish.
- Stainless steel hardwares.
- Prolonged motor life.
- 10 metre 3 core cable.
- Available up to 1HP.

VOSR-F90

Accessories

Capacitor box

Pipe bend with strainer



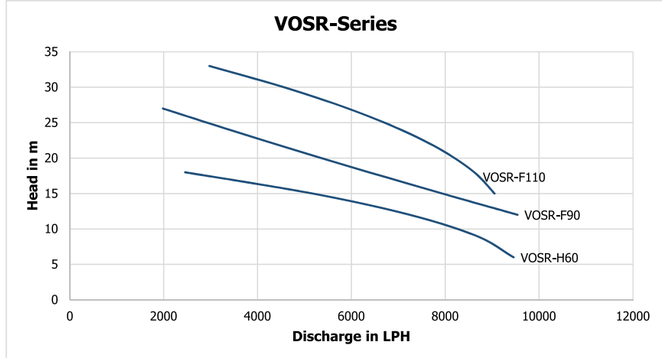
Cable joining kit

VOSR-H60

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH										
				m	6	9	12	15	18	21	24	27	30	33
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70	80	90	100	110
VOSR-F110	1	0.75	3.2 x 2.5	LPH	*	*	*	9300	8600	8000	7000	6000	4500	3000
VOSR-F90⌗	1	0.75	3.2 x 2.5		*	*	9200	8300	6900	4500	2800	2400		
VOSR-H60	0.5	0.37	2.5 x 2.5		9500	8500	7500	5000	2500					

⌗Star model *Denotes overloading region



V-GUARD

NEON Series

Speciality

- Reliable motor construction.
- Rust preventive SS BODY with mat finish.
- Stainless steel hardwares.
- 5 metre 3 core cable.
- Available up to 1HP.

NEON-0SSF80

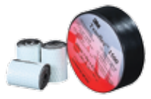
NEON-0SSH45

NEON-0SSH60

Accessories

Capacitor box

Pipe bend with strainer

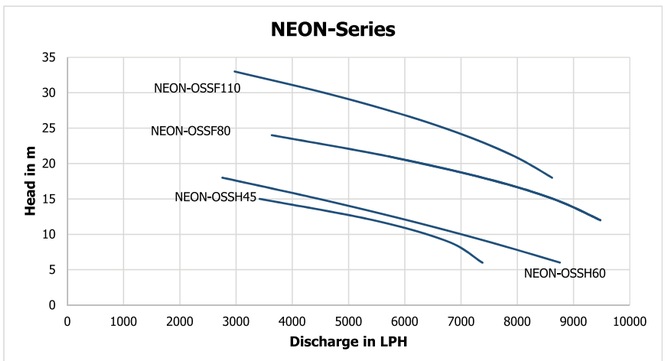


Cable joining kit

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH										
				m	6	9	12	15	18	21	24	27	30	33
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70	80	90	100	110
NEON-0SSH45	0.5	0.37	2.5 x 2.5	LPH	7400	6700	5500	3400						
NEON-0SSH60	0.5	0.37	2.5 x 2.5		9000	7000	6000	5000	2500					
NEON-0SSF80	1	0.75	3.2 x 2.5		*	*	9500	8600	7350	5800	3600			
NEON-0SSF90	1	0.75	3.2 x 2.5		*	*	9500	8600	7350	5800	3600			
NEON-0SSF110	1	0.75	3.2 x 2.5		*	*	*	*	8600	8000	7000	6000	4500	3000

*Denotes overloading region



REVO Series

Speciality

- Optimized motor design.
- Rust preventive SS BODY with mat finish.
- Stainless steel hardwares.
- 5 metre 3 core cable.

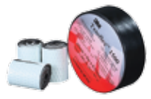
REVO-0SSF80

REVO-0SSF110

Accessories

Capacitor box

Pipe bend with strainer

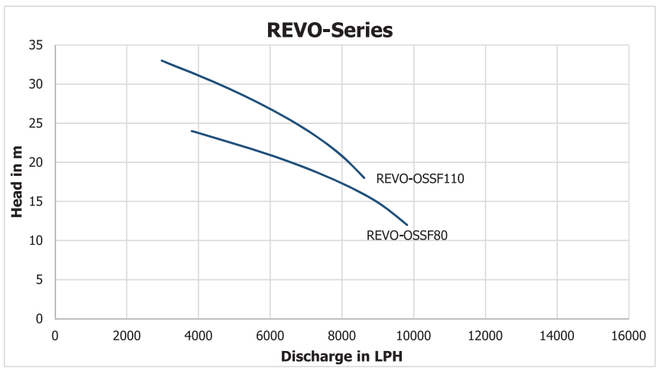


Cable joining kit

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH										
				m	6	9	12	15	18	21	24	27	30	33
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70	80	90	100	110
REVO-0SSF110	1	0.75	3.2 x 2.5	LPH	*	*	*	*	8600	8000	7000	6000	4500	3000
REVO-0SSF80	1	0.75	3.2 x 2.5		*	*	9800	9000	7600	6000	3800			

*Denotes overloading region



V-GUARD

NOVA Series

Speciality

- Pressure regulating diaphragm.
- Rust preventive SS BODY with mat finish.
- Engineered plastic, Noryl impellers for smooth & silent operation.
- Stainless steel hardwares.
- 3 metre 3 core cable.

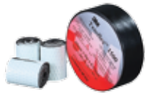
NOVA-OSSF80

NOVA-OSSH60

Accessories

Capacitor box

Pipe bend with strainer



Cable joining kit

Oil Cooled VOSO Series

Speciality

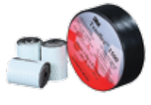
- Oil cooled motor for prolonged product life.
- Double sealed ball bearings.
- Highly reliable motor.
- 99.9% super enamelled copper wire winding.
- Pre-filled food grade paraffin oil as motor coolant.
- Pressure regulating diaphragm.
- Stainless steel hardwares.
- 10 metre 3 core cable.

VOSO-H70

Accessories

Capacitor box

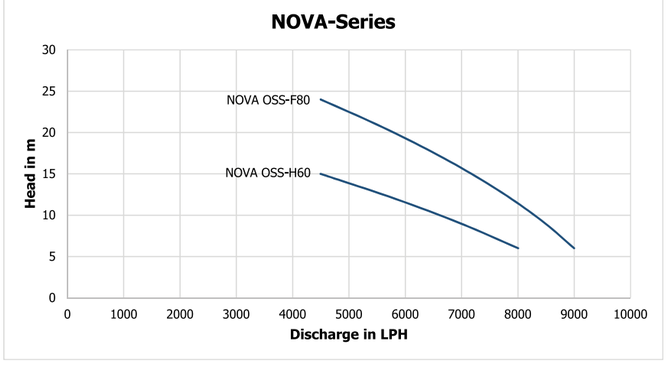
Pipe bend with strainer



Cable joining kit

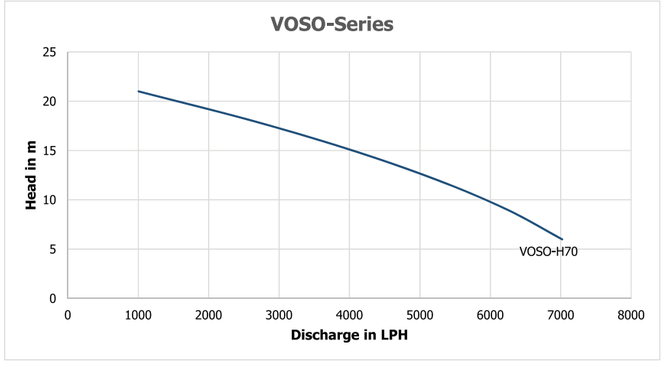
PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH							
				m	6	9	12	15	18	21	24
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70	80
NOVA-OSSH60	0.5	0.37	2.5 x 2.5	LPH	8000	7000	5800	4500			
NOVA-OSSF80	1	0.75	2.5 x 2.5		9000	8500	7800	7300	6300	5500	4500



PERFORMANCE CHARTS & CURVE

Models	Power		Pipe size (cm/ Inch)	Total head in metres/feet Vs Discharge in LPH						
				m	6	9	12	15	18	21
	HP	kW	Suction X Delivery	ft	20	30	40	50	60	70
VOSO-H70	0.5	0.37	2.5 x 2.5	LPH	7000	6200	5250	4500	2000	1250



Water Cooled Vertical Openwell Submersible Pumps

VOSV Series

Speciality

- Suitable for both Openwell & 6" bore well applications.
- Rust preventive SS BODY with mat finish.
- Engineered plastic, Noryl impeller and diffuser for smooth & silent operation.
- Stainless steel hardwares.
- 3 metre 3 core cable.
- Available up to 1.5HP.

Accessories

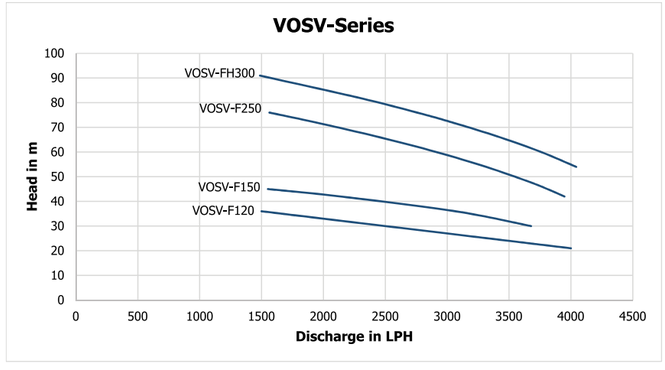
Capacitor box

Cable joining kit

VOSV-F120

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm)	Total head in metres/feet Vs Discharge in LPH														
				m	21	24	30	36	42	45	48	54	60	66	72	76	82	91
	HP	kW	Delivery	ft	70	80	100	120	140	150	160	180	195	215	235	250	270	300
VOSV-F120	1	0.75	3.2	LPH	4000	3500	2500	1500										
VOSVF-150	1	0.75	3.2		*	4000	3600	3100	2200	1500								
VOSV-F250	1	0.75	3.2		*	*	*	*	4000	3800	3600	3300	2900	2500	2000	1500		
VOSV-FH300	1.5	1.1	3.2		*	*	*	*	*	*	*	4000	3800	3500	3000	2700	2300	1500
*Denotes overloading region																		



Precautions to use Openwell Submersible Pumps !

- Fill the motor with enough clear, cold drinking water (except VOSO series) before installation.
- Use standard and proper size cable for connection.
- Cable joint should be intact and as per Instruction manual.
- Electrical connections are to be made as per circuit diagrams given in instruction manual/capacitor box.
- Do not operate the pump set without minimum submergence of 1.5m.

Borewell Submersible Pumps

Priming free, Efficient and Tranquil.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of household water supply, agricultural applications, Multi-storied buildings and light/medium industrial applications.

*Max. liquid temperature 45°C

SS Motor body
Provides protection against structural failures due to corrosion.

Noryl Bowl sets
Engineered plastic impellers & diffusers maintain the dimensional stability for consistent performance.

Triple layered copper*/99.99% super enamelled# copper wires
For better insulation protection and durability.

Superior quality electrical stamping
Ascertain highly efficient motor.

Stainless steel motor shaft
Offers rust free, stuck free persistent operation.

LTB Bush bearings*/double sealed ball bearings# with life lubrication
Marine class water lubricated bush bearings for smooth & silent functioning.

Marine grade electrical joints
Improves insulation protection and prevents unwanted energy losses.

*For water cooled models # For oil cooled models

Operating/Technical specifications

Input supply: 1ΦAC, 180-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.37 – 2.2kW (0.5 to 3HP)

Head range: 32 - 800 ft.

Flow range: 21600 - 900 LPH

Speed: 2800rpm

Type of duty: S1 (Continuous)

Insulation class: B

Rotation: Counter clockwise, when viewed from driving side

V-GUARD

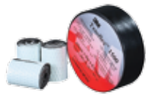
Water Cooled Borewell Submersible Pumps
3” VBS3 & VBS3AM Series

Speciality

- Premium quality pump sets with 72/75 mm Pump OD.
- Rust preventive SS BODY with mat finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardwares.
- 1.5 metre 3- core flat cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180 -240v.
- Least leakage loss poly wrapped winding wire.
- Hylum pad prevents initial stuck possibilities.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box

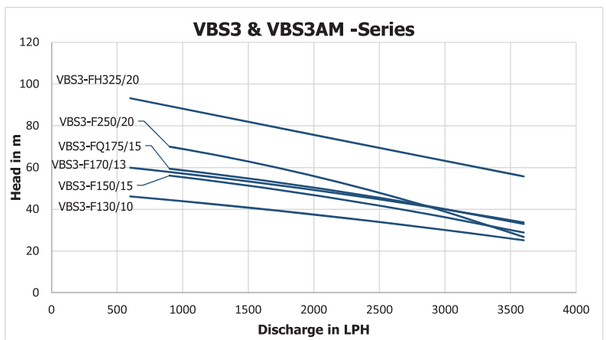


Cable joining kit

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	60	50	45	40	35	30	25	20	15	10	5	0
	HP	kW		LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	300	0
VBS3-F130/10 #	1	0.75	3.2/1.25	Head in Meters	25	29	32	35	37	39	41	43	44	45		50
VBS3-F170/13 #	1	0.75	2.5/1		33	40	44	47	49	51	53	55	57	59		65
VBS3-F250/20 #	1	0.75	2.5/1		23	37	43	48	53	58	62	66	70			78
VBS3-F120/12 #*	1	0.75	3.2/1.25		25	31	34	36	38	40	42	44	45			50
VBS3-F150/15 #*	1	0.75	3.2/1.25		27	35	39	42	45	48	51	54	56			62
VBS3-FQ175/15 #*	1.25	0.93	3.2/1.25		33	39	44	47	50	52	54	57	60			65
VBS3AM-FH325/20	1.5	1.1	3.2/1.25		55	64	68	71	74	77	81	85	90	95		100

All models are also available in VBS3AM series (With capacitor box) * Outer diameter of the pump is 72 mm



Water Cooled Borewell Submersible Pumps
3.5” VBS4SAM Series

Speciality

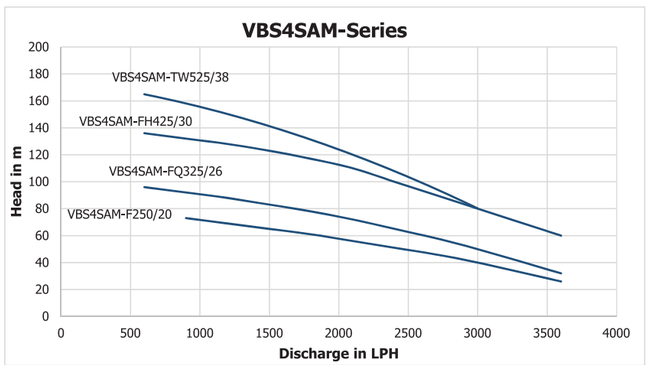
- High quality alloy steel SS body for both pump and motor.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardwares.
- 1.5 metre 3-core flat cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180 -240v.
- Least leakage loss poly wrapped winding wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box, Cable joining kit, 1.5 metre V Guard 3-core flat cable, Nylon strainer, Cable guard.

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	60	50	45	40	35	30	25	20	15	10	5	0
	HP	kW		LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	300	0
VBS4SAM-F250/20	1	0.75	2.5/1	Head in Metres	26	40	46	51	56	61	65	69	73			80
VBS4SAM-FH325/26	1.5	1.1	2.5/1		32	50	58	65	72	78	83	88	92	96		110
VBS4SAM-FH425/30	1.5	1.1	2.5/1		60	80	90	100	110	117	123	128	132	136		150
VBS4SAM-TW525/38	2	1.5	2.5/1			80	100	110	120	130	142	150	160	165		175



V-GUARD

Water Cooled Borewell Submersible Pumps 4” VBS SERIES

Speciality

- **Aluminium rotor model with enhanced low voltage performance.**
- Rust preventive SS BODY with mat finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardware.
- 1.5 metre 3 core cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180 -240v.
- Least leakage loss poly wrapped winding wire.

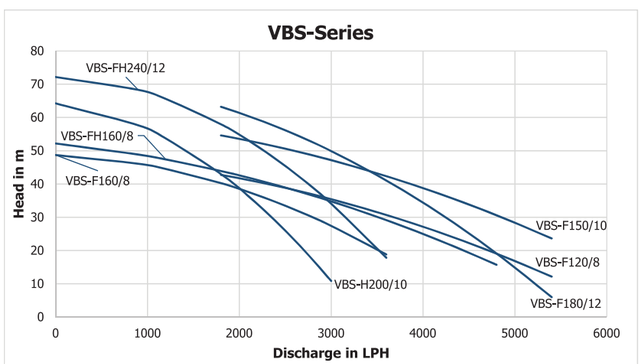
Accessories

Capacitor box* (For VBSAM Series only), Cable joining kit, 1.5 metre V Guard 3 core cable, Nylon strainer, Cable guard.

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	90	80	70	60	50	45	40	35	30	20	15	0
	HP	kW		LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBS-H200/10	0.5	0.37	3.2/1.25	Head in Meters					15	24	32	38	44	54	59	64
VBS-F120/8	1	0.75	3.2/1.25		13	20	26	30	34	38	41	42	43			48
VBS-F150/10	1	0.75	3.2/1.25		16	25	33	38	43	47	51	53	54			60
VBS-F160/8 ⌗	1	0.75	4/1.5					14	22	30	34	37	40	42	44	50
VBS-F180/12	1	0.75	3.2/1.25		20	30	40	46	52	57	62	63	65			72
VBS-FH160/8	1.5	1.1	4/1.5			11	19	26	32	37	40	42	44	45	46	54
VBS-FH180/12	1.5	1.1	3.2/1.25		21	31	41	47	53	58	63	64	66			73
VBS-FH240/12	1.5	1.1	4/1.5					21	33	45	51	56	60	63	66	74

⌗Star model



Water Cooled Borewell Submersible Pumps 4” VBSR & VBSRAM Series

Speciality

- Rust preventive SS BODY with mat finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardware.
- 1.5 metre 3-core flat cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180 -240v.
- Least leakage loss poly wrapped winding wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box*(For VBSRAM Series only), Cable joining kit, 1.5 metre V Guard 3 core cable, Nylon strainer, Cable guard.

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM								
				LPM	50	45	40	35	30	20	15	0
	HP	kW		LPH	3000	2700	2400	2100	1800	1200	900	0
VBSR-H220/10 ⌗	0.5	0.37	3.2/1.25	Head in Metres	16	25	33	39	45	55	60	68
VBSR-F220/10 # ⌗	1	0.75	3.2/1.25		26	35	40	45	50	60	65	69
VBSR-F330/15 # ⌗	1	0.75	3.2/1.26		24	38	50	59	68	83	90	98
VBSR-FH330/15	1.5	1.1	3.2/1.25		38	53	60	68	75	90	96	101
VBSR-FH440/20 # ⌗	1.5	1.1	3.2/1.26		32	50	66	78	90	110	120	134
VBSR-FH550/25 # ⌗	1.5	1.1	3.2/1.27		40	63	83	98	113	138	150	168
VBSR-TW440/20	2	1.5	3.2/1.25		50	70	80	90	100	120	128	135
VBSR-TW650/30 # ⌗	2	1.5	3.2/1.25		48	75	99	117	135	165	180	199

⌗Star models # Models are also available in VBSRAM series(With capacitor box)

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	90	80	70	60	50	45	40	35	30	20	15	0
	HP	KW		LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBSR-TW240/10	2	1.5	5/2.0	Head in Meters	40	45	50	52	55	60	62	65	69			72

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	390	360	330	300	270	240	210	180	150	120	90	0
	HP	kW		LPH	23400	21600	19800	18000	16200	14400	12600	10800	9000	7200	5400	0
VBSR-TW90/6 * ⌗	2	1.5	5/2.0	Head in Meters		11	13	15	17	18	20	21	22	24	25	29
VBSR-TR120/8 *⬥	3	2.2	5/2.0			14	17	20	23	26	28	30	32	34	35	40
VBSR-TR135/9 *⬥	3	2.2	5/2.0			19	22	25	28	31	33	35	38	40	42	45

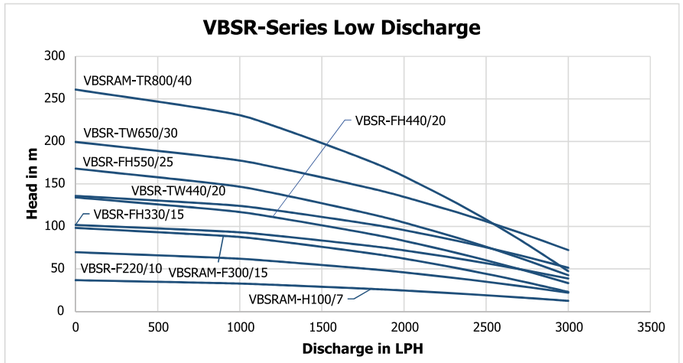
⌗ Star model ⬥ ISI models * Mixed flow models

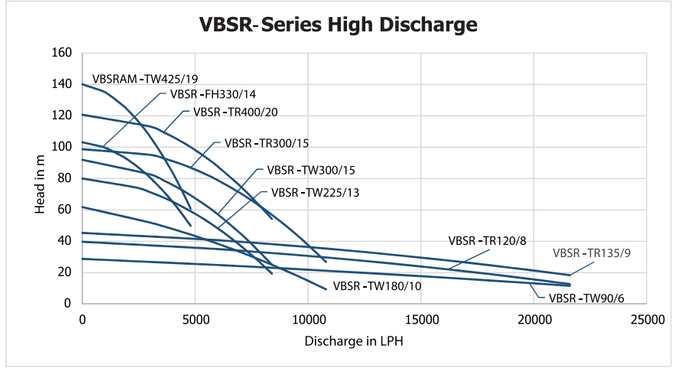
Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	200	180	160	140	120	100	90	80	70	60	50	0
	HP	kW		LPH	12000	10800	9600	8400	7200	6000	5400	4800	4200	3600	3000	0
VBSR-TW180/10 ⌗	2	1.5	5/2.0	Head in Meters		13	21	29	35	40	43	46	48	49	50	63
VBSR-TW225/13 #	2	1.5	4/1.5					22	35	49	55	60	65	68	71	80
VBSR-TW300/15 # ⌗	2	1.5	4/1.5					24	40	56	63	69	75	78	82	92
VBSR-TR300/15 ⌗	3	2.2	5/2.0			24	40	56	70	80	83	86	89	92	93	100
VBSR-TR400/20	3	2.2	4/1.5					35	59	80	90	96	100	104	108	122

⌗ Star models # Models are also available in VBSRAM series (With capacitor box)

VBSRAM Series

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	90	80	70	60	50	45	40	35	30	20	15	0
	HP	kW		LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBSRAM-H100/7	0.5	0.37	3.2/1.25	Head in Meters					16	20	24	26	28	31		37
VBSRAM-H150/10	0.5	0.37	3.2/1.25						23	29	34	38	41	45		54
VBSRLAM-H180/12	0.5	0.37	3.2/1.25								22	36	40	50	53	58
VBSRAM-F150/7	1	0.75	3.2/1.25						18	25	28	32	35	42	45	47
VBSRAM-F200/10	1	0.75	3.2/1.25						18	27	35	41	47	57	62	67
VBSRAM-F300/15 ⌗	1	0.75	3.2/1.25						24	38	50	59	68	83	90	98
VBSRAM-FH330/14	1.5	1.1	3.2/1.25			43	56	69	77	82	86	90	94			103
VBSRAM-TW425/19 ⌗	2	1.5	3.2/1.25			58	76	93	105	111	117	122	127			140
VBSRAM-TW525/25	2	1.5	3.2/1.25						40	63	83	98	113	138	150	163
VBSRAM-TR750/30 ⌗	3	2.2	3.2/1.25			90	117	144	165	174	183	191	198			229
VBSRAM-TR800/40 ⌗	3	2.2	3.2/1.25						64	100	132	156	180	220	240	260
⌗ Star models																





Water Cooled Borewell Submersible Pumps 4” VBS2 Series

Speciality

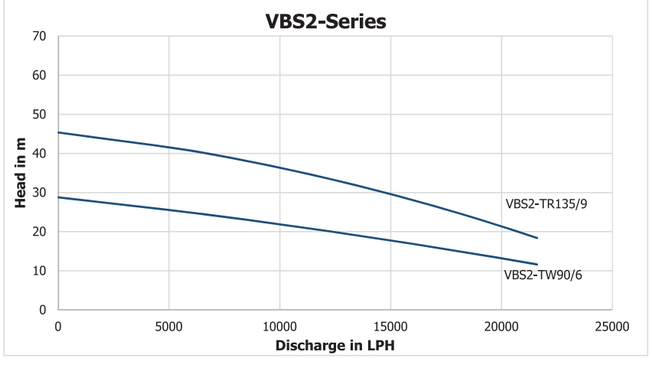
- High discharge mixed flow model.
- Wide voltage band 180 -240v.
- Rust preventive SS BODY with mat finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardware.
- 1.5 metre 3 core cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Least leakage loss poly wrapped winding wire.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Cable joining kit, 1.5 metre V Guard 3 core cable, Nylon Strainer, Cable guard.

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	390	360	330	300	270	240	210	180	150	120	90	0
	HP	kW		LPH	23400	21600	19800	18000	16200	14400	12600	10800	9000	7200	5400	0
VBS2-TR135/9 *	3	2.2	5/2.	Head in Meters		19	22	25	28	31	33	35	38	40	42	45
VBS2-TW90/6 *	2	1.5	5/2.			11	13	15	17	18	20	21	22	24	25	29
* Mixed flow models																



Oil Cooled Borewell Submersible Pumps
3” VBSO3 Series

Speciality

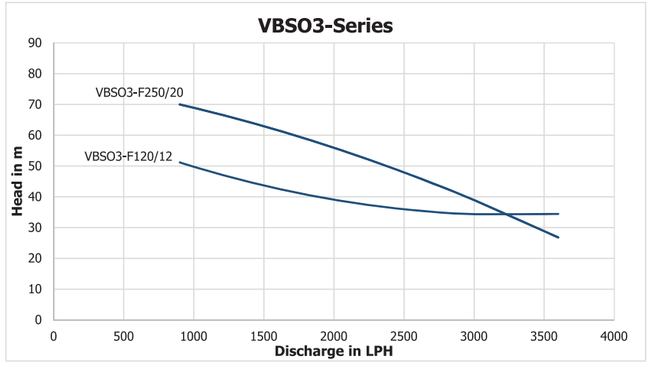
- High quality alloy steel, SS body for both pump and motor.
- Food grade paraffin oil pre filled.
- Dynamically balanced rotor.
- SS Shaft for both motor and pump.
- Anti-friction ball bearings with lifelong lubrication.
- B-Class Electrical insulation.
- Wide voltage band (180 -240v) operation.
- 99.99% pure super enamelled copper wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box, 1.5 metre V Guard 3 core cable, Cable guard

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	60	50	45	40	35	30	25	20	15	10	5	0
	HP	kW		LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	300	0
VBSO3-F250/20	1	0.75	2.5/1	Head in Meters	23	37	43	48	53	58	62	66	70			78
VBSO3AM-F250/20	1	0.75	2.5/1		23	37	43	48	53	58	62	66	70			78
VBSO3-F120/12	1	0.75	3.2/1.25		25	31	34	36	38	40	42	44	45			70



Oil Cooled Borewell Submersible Pumps
4” VBSO Series (VBSO, VBSOAM)

Speciality

- High quality alloy steel, SS body for both pump and motor.
- Food grade paraffin oil pre filled.
- Dynamically balanced rotor.
- SS Shaft for both motor and pump.
- Anti-friction ball bearings with lifelong lubrication.
- B-Class Electrical insulation.
- Wide voltage band (180 -240) operation.
- 99.99% pure super enamelled copper wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

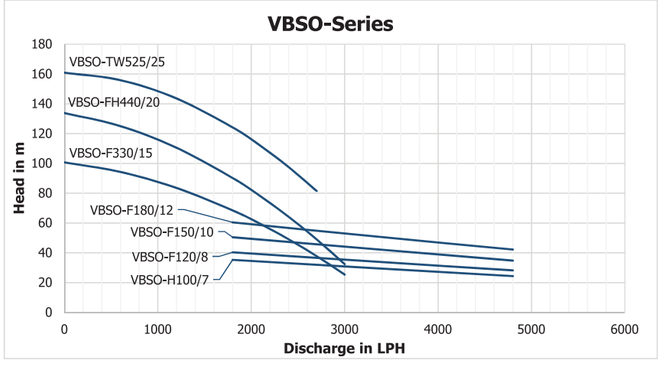
Capacitor box*(For VBSOAM Series only), 1.5 metre V Guard 3 core cable, Cable guard.

PERFORMANCE CHARTS & CURVES

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	90	80	70	60	50	45	40	35	30	20	10	0
	HP	kW		LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	600	0
VBSOAM-H100/7 #	0.5	0.37	3.2/1.25	Head in Meters		24	27	29	31	32	33	34	35			42
VBSOAM-F120/8 # ⌗	1	0.75	3.2/1.25			28	31	33	35	37	38	39	40			48
VBSOAM-F150/10 # ⌗	1	0.75	3.2/1.25			35	38	41	44	46	48	49	50			60
VBSOAM-F180/12 # ⌗	1	0.75	3.2/1.25			42	46	49	52	55	57	59	60			72
VBSOAM-F330/15	1	0.75	3.2/1.25						24	38	50	59	68	83	94	101
VBSOAM-FH180/12 #	1.5	1.1	3.2/1.25			44	48	51	54	57	59	61	62			74
VBSOAM-FH325/21 # ⌗	1.5	1.1	3.2/1.25						48	65	75	85	93	103	110	115
VBSOAM-FH440/20	1.5	1.1	3.2/1.25						32	50	66	78	90	110	125	134
VBSOAM-TW525/25 ⌗	2	1.5	3.2/1.25							80	100	120	130	140	150	165

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	160	150	140	130	120	110	100	90	80	70	60	0
	HP	kW		LPH	9600	9000	8400	7800	7200	6600	6000	5400	4800	4200	3600	0
VBSO-FH180/10 ⌗#	1.5	1.1	4.0/1.5	Head in Meters		20	25	30	34	37	40	43	46	49	52	60

⌗ Star models # All models are also available in VBSO series (Without capacitor box)



Borewell Submersible Pumps

4” NEON Series

Speciality
Water cooled model

- Rust preventive SS body with mat finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor.
- Energy efficient motor.
- Stainless steel hardware.
- 1.5 metre 3-core flat cable.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180 -240v.
- Least leakage loss poly wrapped winding wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box, Cable joining kit, 1.5 metre V- Guard 3-core flat cable, Nylon strainer, Cable guard.

Speciality
Oil cooled model

- High quality alloy steel, SS body for both pump and motor.
- Food grade paraffin oil filled.
- Dynamically balanced rotor.
- SS Shaft for both motor and pump.
- Anti-friction ball bearings with lifelong lubrication.
- B-Class Electrical insulation.
- Wide voltage band (180 -240v) operation.
- 99.99% pure super enamelled copper wire.
- Non return valve to avoid return flow and sand accumulation in pump.
- Rubber diaphragm balances the pressure fluctuations.

Accessories

Capacitor box, 1.5 metre 3-core flat cable, Cable guard.

PERFORMANCE CHARTS

Models	Power		Pipe size (cm/ Inch)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	70	60	50	45	40	35	30	25	15	10	5	0
	HP	kW		LPH	4200	3600	3000	2700	2400	2100	1800	1500	900	600	300	0
NEON-T0110#	1	0.75	3.2/1.25	Head in Meters	30	39	45	48	51	54	57	60				66
NEON O-T0110*•	1	0.75	3.2/1.25		30	39	45	48	51	54	57	60				66

* ISI model #Water cooled •Oil cooled

Precautions to use Borewell Submersible Pumps !

- Fill the motor with enough clear, cold drinking water (except oil cooled series) before installation.
- Use standard and proper size cable for connection.
- Cable joint should be intact and as per Instruction manual.
- Electrical connections are to be made as per circuit diagrams given in instruction manual/capacitor box.
- Do not operate the pump set without water under any circumstance, as this will cause damage to the motor.

Borewell Compressor Pump For Lifting Water with Air Distributor Pipe

Robust, Long lasting and Efficient.

For clear, cold* water free from abrasive & chemically aggressive particles to satisfy the needs of water lifting from bore wells having fewer yields, muddy water and at places where tube well pumps are not suitable.

*Max. liquid temperature 45°C

Cast iron Motor body
Ensures constructional ruggedness for long lasting consistent performance.

Superior quality electrical stamping
Ascertain highly efficient motor.

Special steel alloy motor shaft
Offers rust free, stuck free persistent operation.

Splash lubrication
It reduces frictional damages in machine elements.

Special Cast iron Cylinder
Deep finned for quick heat dissipation.

Aluminium alloy Piston
Automotive low expansion type.

Special Steel alloy Valve Plate
For high resistance, high efficiency and for self-floating.

Operating/Technical specifications

Input supply: 1ΦAC, 180-240V*, 50Hz (*Voltage required at motor input terminal)

Power range: 0.37 – 1.5kW (0.5 to 2HP)

Maximum Head: 600 ft.

Type of duty: S1 (Continuous)

Insulation class: B

Rotation: Clockwise, when viewed from motor side

V-GUARD

Monobloc Compressor Pumps

Speciality

- Compact design.
- Less maintenance required.
- Head range up to 400ft.
- Available 1HP to 1.5HP.
- 12 months warranty.

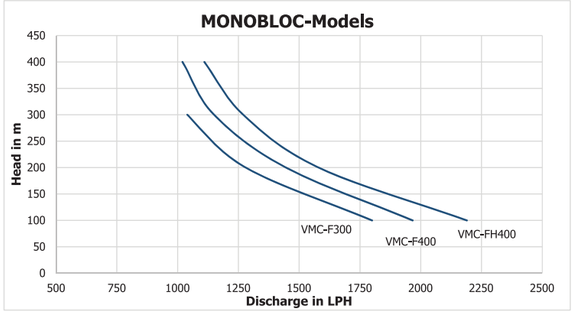
Accessories

Air distributor.

VMC-FH400

PERFORMANCE CHARTS & CURVES

			VMC-F300	VMC-F400	VMC-FH400
Capacity (HP/Kw)			1.0/0.75	1.0/0.75	1.5/1.1
Water pipe size (cm/Inch)			2.5/1"	2.5/1"	2.5/1"
Air pipe Size (cm/ Inch)			1.2/0.5"	1.2/0.5"	1.2/0.5"
Operatng Pressure (kg/cm2)			7	9	9
Speed in RPM			1440	1440	1440
Weight (kg)			40	43.5	45
Total Head(ft)	Pumping Height (ft)	Lifting Height (ft)	Discharge in LPH		
100	25	75	1400	1525	1725
100	50	50	1800	2000	2200
100	75	25	3900	4200	4200
200	50	150	1100	1250	1450
200	100	100	1225	1350	1550
200	150	50	2600	3000	3000
300	75	225	900	1100	1200
300	150	150	1050	1300	1300
300	225	75	2300	2600	2700
400	100	300		900	1050
400	200	200		1200	1250
400	300	100		2500	2600



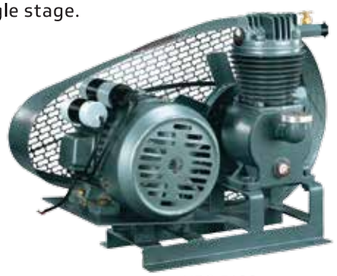
Belt Driven Compressor Pumps

Speciality

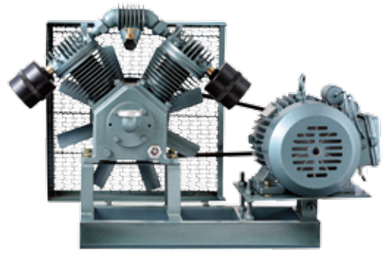
- Available in two type Twin stage & single stage.
- Lower operation temperature.
- Vibration absorption.
- 12 months warranty.
- Available 1.0 HP to 2 HP.
- Head range upto 600ft.

Accessories

Belt, hardwares/fasteners.



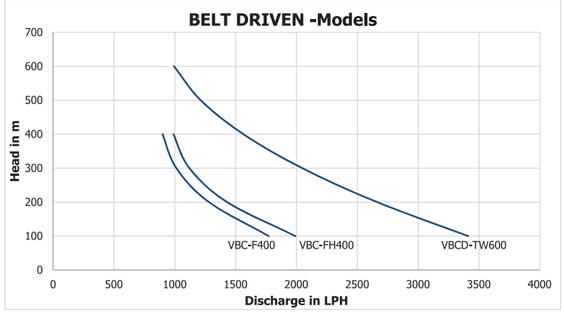
VBC-F400



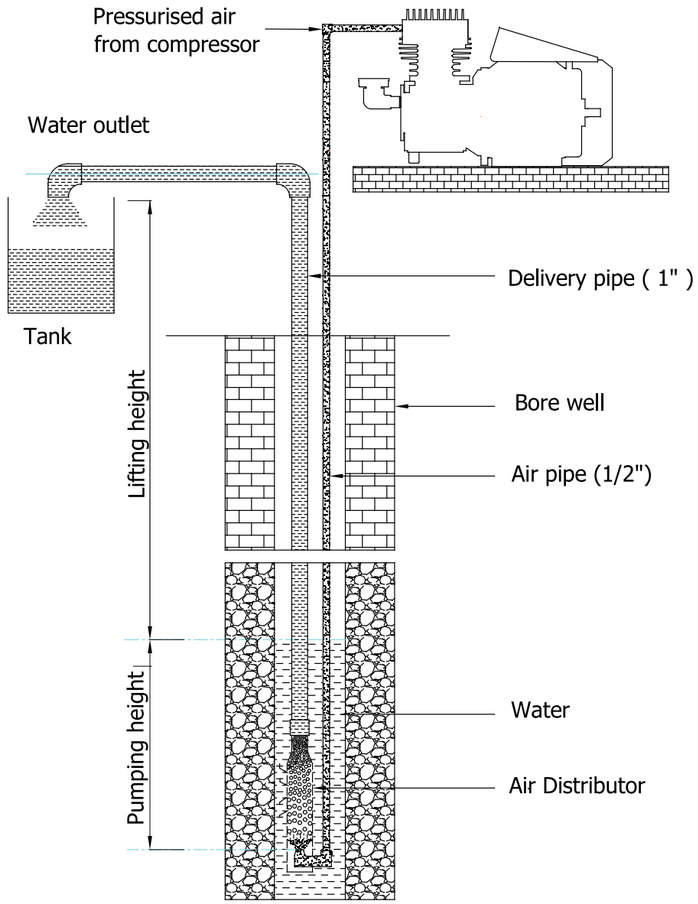
VBCD-TW600

PERFORMANCE CHART & CURVE

			VBC-F400	VBC-FH400	VBCD-TW600
Capacity (HP/Kw)			1.0/0.75	1.5/1.1	2/1.5
Water pipe size (cm/Inch)			2.5/1"	2.5/1"	2.5/1"
Air pipe Size (cm/ Inch)			1.2/0.5"	1.2/0.5"	1.2/0.5"
Operatng Pressure (kg/cm2)			7	7	13
Speed in RPM			1200	900	580
Weight (kg)			29	30	45
Belt			A 38	A 38	B 48
Total Head(ft)	Pumping Height (ft)	Lifting Height (ft)	Discharge in LPH		
100	25	75	1500	1700	2300
100	50	50	1800	2000	3500
100	75	25	4000	4000	7200
200	50	150	1100	1300	1900
200	100	100	1200	1400	2500
200	150	50	2800	2800	6000
300	75	225	900	1000	1650
300	150	150	1100	1100	2000
300	225	75	2400	2500	5000
400	100	300	800	950	1300
400	200	200	950	1000	2000
400	300	100	2300	2400	4500
500	100	400			900
500	250	250			1100
500	400	100			4000
600	200	400			700
600	300	300			1000
600	400	200			3500



Compressor Pump Installation



Precautions to use Borewell Compressor Pump For Lifting Water with Air Distributor Pipe !

- Cable joint should be intact and as per Instruction manual.
- Use standard and proper size cable for connection.
- Pump should be installed in a well-ventilated area and kept away from sunlight and rainfall.
- Motor must be connected to the power supply only through a motor starter; if the starter is tripped at the time of starting, unscrew the air relief valve fitted on the outlet nipple (on delivery side) and allow the air inside the cylinder to escape. Then close the valve and start the compressor.
- Ensure the direction of the fan should be same as the direction indicated on compressor pulley. Clean air filter once in a week. Use GI pipe as air pipe for 15 to 20 feet from the outlet, because air coming from the compressor is too hot to damage PVC pipe. (if used)
- Check the oil level in the crank case daily (oil level should be within the 2 line marked on the oil level indicator), ensure that sufficient quantity of oil is present.
- The oil in the pump has to be removed after 150 hours of working after installation. Then it is required to change the oil for every 500 hours of working.

Featured Pumps

Prime Model

TEFC*, Capacitor start and run type induction motors as prime mover*
Provides constant speed and better torque
*Totally enclosed fan cooled

Aluminium extruded Motor body
Makes extremely compact and light weight.

Forged Brass impeller
Ensures prolonged life.

99.99% Super enamelled copper winding
Constitutes efficient and long lasting motor

Superior quality electrical stamping
Ascertain highly efficient motor.

High quality alloy steel motor shaft
Offers rust free, stuck free persistent operation.

Equipped with Thermal overload protector
Assures safe and secure operation.

Wide voltage Band Operation
Allows maintaining consistent performance.

Operating/Technical specifications

Input supply: 1Φ AC, 180-240V*, 50Hz
(*Voltage required at motor input terminal)
Power range: 0.18 – 0.36kW (0.25 to 0.5HP)
Head range: up to 30 m (100 ft.)
Flow range: 2200 - 720 LPH
Rated Speed: 2800rpm
Type of duty: S1 (Continuous)
Insulation class: B
Rotation: Counter clockwise, when viewed from suction side

V-GUARD

Prime Models
VP Series

Speciality

- TEFC, Capacitor start and run type induction motors as prime mover.
- Aluminium extruded Motor body.
- Forged Brass impeller.
- 99.99% Super enamelled copper winding.
- Superior quality electrical stamping.
- High quality alloy steel motor shaft.
- Equipped with Thermal overload protector.
- Wide voltage Band Operation.
- B-Class electrical insulation.
- Available in 0.5 HP.
- 12 months service warranty.

VPA-H100

Accessories

VGF-M5

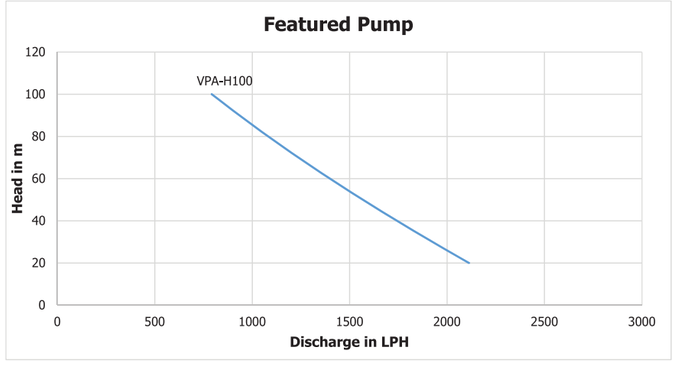
Fountain Pump

Speciality

- ABS rigid body.
- Compact and sleek design.
- Fountain nozzles for custom waterfalls.
- Available with 5metre 3-core flat cable.

PERFORMANCE CHART & CURVE

Models	Power		Pipe size cm											
			m	1.5	3	6	9	12	15	18	21	24	27	30
	HP	kW	ft	5	10	20	30	40	50	60	70	80	90	100
VPA-H100*	0.5	0.37	2.5/2.5	LPH			2200	1840	1700	1550	1400	1250	1150	980	720
VGF-M5	0.06	0.05			300										
*ISI model															



Precautions to use Featured Pumps !

- Use standard and proper size cable for electrical connection.
- Cable joint should be intact and as per Instruction manual.
- If seems as if stuck, do electrically isolate the pump set first and then rotate it manually for any stuck. If not, then restart it.

CABLE SELECTION CHART FOR TUBE WELL PUMPS									
MOTOR RATING			CABLE SIZE IN sq.mm						
VOLTS	kW	HP	1	1.5	2.5	4	6	10	
220-240V	0.37	0.5	80	120	190	290	430	780	Maximum Length In Metres
	0.55	0.75	70	105	170	250	380	700	
	0.75	1	50	75	125	190	280	520	
	0.93	1.25	45	70	110	170	250	440	
	1.1	1.5	-	65	110	160	240	420	
	1.5	2	-	60	100	150	210	380	
	1.86	2.5	-	-	80	120	180	320	
	2.2	3	-	-	60	90	140	240	

CABLE SELECTION CHART FOR OPEN WELL PUMPS									
MOTOR RATING			CABLE SIZE IN sq.mm						
VOLTS	kW	HP	1	1.5	2.5	4	6	10	
220-240V	0.37	0.5	90	135	220	330	490	850	Maximum Length In Metres
	0.55	0.75	76	115	190	280	420	730	
	0.75	1	60	85	138	210	310	530	
	0.93	1.25	57	80	135	200	300	510	
	1.1	1.5	-	70	115	170	260	440	
	1.5	2	-	65	100	150	230	390	
	1.86	2.5	-	-	85	130	190	330	
	2.2	3	-	-	65	100	150	260	

Note:

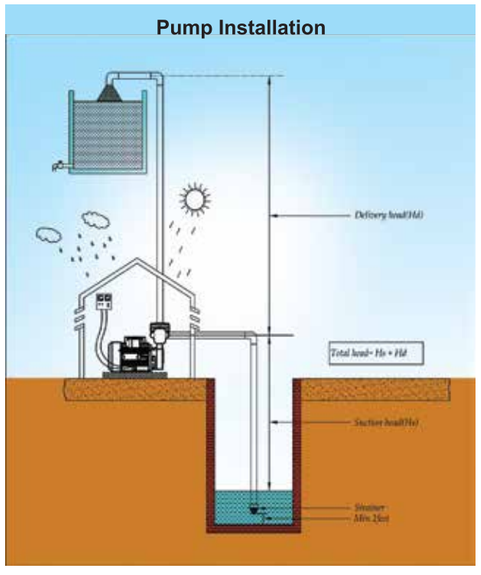
* The table states maximum allowable length of three cores flat PVC sheathed, submersible copper cables for installation of single phase submersible pumps.

* The Maximum Voltage drop considered here is 20V.

V-GUARD

GENERAL POINTS TO BE CONSIDERED WHILE INSTALLING A PUMP

- Pump should be located as near as possible to the water source.
- Reduce the number of pipe fittings and replace 'elbows' with 'bends' in the pipe connection.
- Minimize the usage of flexible green hose pipes because it causes higher friction loss.
- Use only recommended pipe size. Use ISI marked pipes having minimum friction loss.
- Provide proper shielding for the pump to prevent water entry. Ensure that it does not block the air circulation to the pump.
- Install the pump in a dry place. Do not cover the pump with material such as plastic cover, polyethylene sheet, rubber sheet, canvas cloths etc., because it can hold moisture. Higher moisture content will lead to burning of windings.
- Do not operate the pump at peak hours/other than recommended voltage range.



For more *information about the working of pump, selection, installation & any other doubts related to pumps, please contact your nearest V-Guard Branch / Service centres.*

- Use proper gauge wire with sufficient length for electrical connection. Avoid excess length of wires otherwise it may cause Voltage drop. Cable joint should be insulated properly and also avoid loose contacts in the joints.
- It is better to use a good motor starter.
- Use ISI marked foot valve with good quality strainer.
- Avoid using of Submersible pumps in plastic tanks, if used it should be properly earthed.

SELECTION OF PUMPS

Before selecting a pump, the **total head** against which the pump has to work must be calculated. The following factors are to be considered while calculating the total head, (see fig)

Suction Head (Hs): The vertical distance between the top of the water level in the well to the center of the pump. While calculating suction head we have to consider the lowest possible water level in the well *(lowest level considering the seasonal variations)*

Delivery Head (Hd): The vertical distance between the pump side to the top of the delivery pipe i.e, the level at which water is to be delivered.

Friction Head (Hf): The loss due to pipe and pipe fittings must be calculated.

Head loss due to friction at pipe and pipe fittings (Hf)	
Pipe lies in a horizontal position	The friction loss will be in the ratio of 10:1 (ie. for each 10 feet/10 metre of pipe, head loss will be 1 feet/1 metre
Pipe lies in an inclined position	The friction loss will be in the ratio of 8:1 (ie. for each 8 feet/8 metre of pipe, head loss will be 1 feet/1 metre
Bend	The friction loss will be 2 feet for each bend
Elbow	The friction loss will be 3 feet for each elbow

Total head of the pump =Hs + Hd + Hf

Besides that, we have to consider/check the recommended **Voltage range** of the pump, in order to suit the voltage availability at site.

CONVERSION CHART	
1 Metre	3.28 feet
1 Foot	0.305 metre
1 Foot	12 inch
1 Inch	25.4 mm
1 Kg /cm ^{2}	10.33 m of water column
1 HP	746 watts
1 Litre	0.001 cubic metre
1 Cubic metre	1000 litre
1 Gallon	3.78 litre
1 PSI	0.0703 kg / cm^2

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