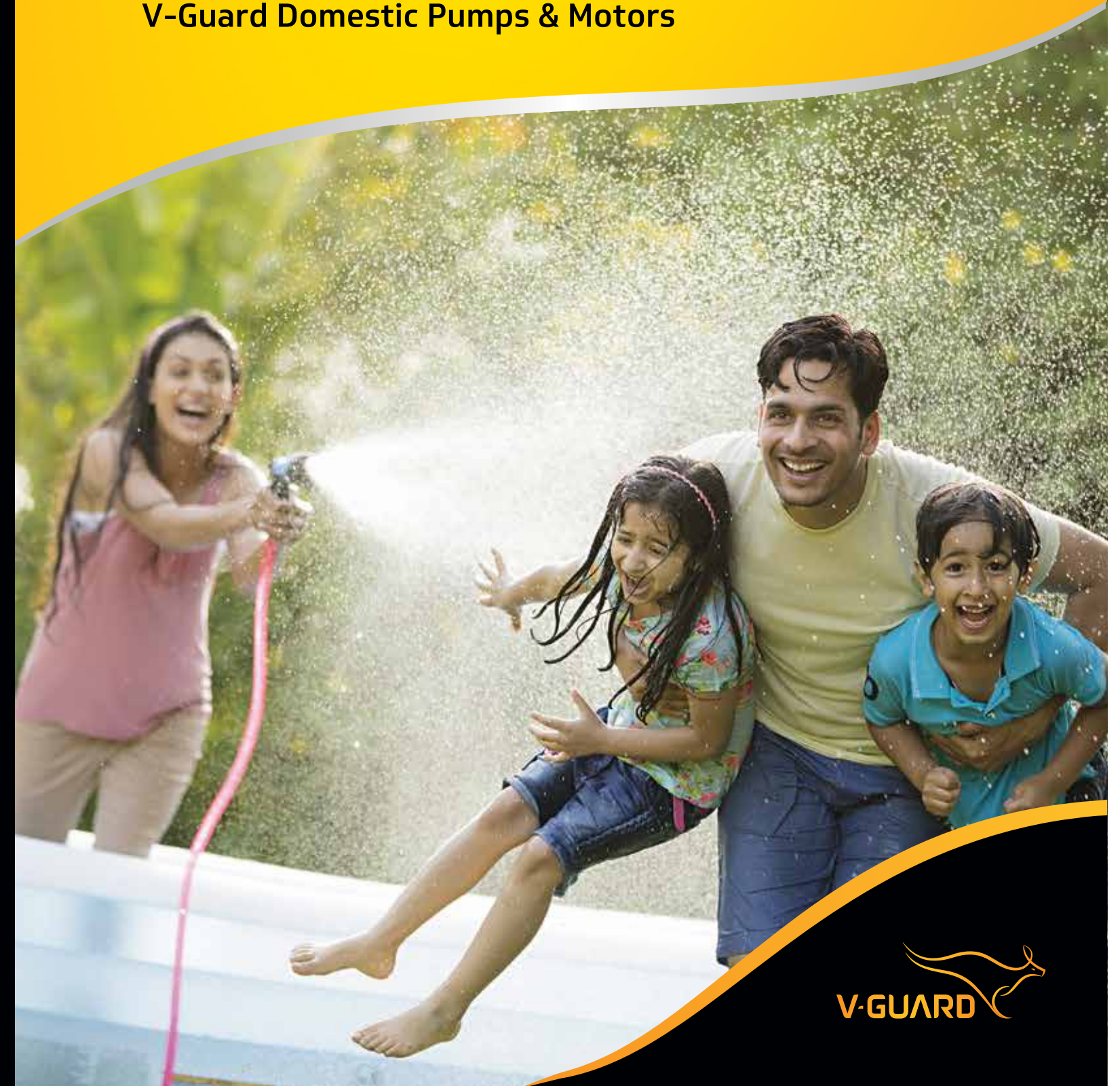


# Efficient Pumps. Powerful Motors. The perfect combination.

V-Guard Domestic Pumps & Motors



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CIN: L31200KL1996PLC010010

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# Lasting Performance

The making of V-Guard's Pumps and Motors begins with the procurement of top-grade castings and the finest components. The state-of-the-art manufacturing process is closely monitored with stringent quality checks that meet and exceed international quality standards. The Pumps are built to be sturdy, compact and most importantly, powerful. The Motors make the perfect counterpart for the Pumps by way of delivering superior performance with the least consumption of power. All of this, combined with V-Guard's promise of enriching the consumer's life with thoughtfully engineered products, has come together to make the impeccable combination of V-Guard's Pumps and Motors.

## Salient Features



99.9% Copper motor winding



Wide voltage range operation



Assured Quality via Stringent QA process



Guaranteed performance



Silent operation

## Products available



### REGENERATIVE PUMPS

Premium Series | Neon & Revo Series  
| Nova & Neon N Series | Super & Wonder Suction Series  
| Slow Speed Series

### CENTRIFUGAL PUMPS

VC-Normal Voltage Series | VCN & Neon Series  
| VC-Special & Low Voltage Series | Extended Shaft Series  
| VCSW Series | VCM & VP Series | VCM Series



### BOOSTER PUMPS

Centrifugal Booster Series | Regenerative  
Mini Booster Series | Circulatory Series

### JET CENTRIFUGAL PUMPS

VJ & VJO Series | Neon Series



### OPENWELL PUMPS

VOS & VOSS Series | VOSR Series | Neon & Revo Series  
| Nova & VOSK Series | VOSV Series

### BOREWELL SUBMERSIBLE PUMPS

3" VBS3 & VBS3AM Series | 2.5" NOVA Series | 3" VBS03 Series | 3.5" VBS4SAM Series  
| 4" VBS Series | 4" VBSN & VBSNAM Series | 4" NEON Series | 4" VBSR Series  
| 4" VBS2 Series | 4" VBSRAM & VBSRAMW Series | 4" VBSO & VBSAM Series | 4" NOVA Series





### BOREWELL COMPRESSOR PUMP FOR LIFTING WATER WITH AIR DISTRIBUTOR PIPE

Monobloc Compressor Pumps  
I Belt Driven Compressor pumps

### SEWAGE PUMPS

Dry type submersible induction motor I With SS fasteners  
I Rugged cast iron pump housing



### PUMP CONTROL PANELS

Powder coated MS and Acrylonitrile Butadiene Styrene (ABS) Panels available  
I Provided with pushbutton for voltmeter for enhanced life

### SMART SERIES

Three phase Electric motors conform to IS 12615  
I Comes in Cast Iron body as well as aluminium body



### DELITE SERIES

Single phase commercial duty motors with performance conform to IS 996 I Comes in MS body



### ENDURA SERIES

Single phase standard duty and heavy duty motors with performance conform to IS 996 I Comes in Cast Iron body and aluminium body

# High-pressure pumps for low-stress water solutions

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 350 models, ranging from 0.18 HP to 3.00 HP to suit all domestic 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\*, CSR\* / CSCR\* / CSIR\* induction motors as prime mover

Provides constant speed and better torque.  
(\*Totally enclosed fan cooled, \*Capacitor start and run, #Capacitor start Capacitor run & \*Capacitor start induction run)

## Cast iron and Aluminium extruded/die-casted Motor body\*

Makes extremely compact and light weight.  
(\*Except for VSP series)

## Forged Brass impeller

Ensures prolonged life.

## 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 (T.O.P)

Assures safe and secure operation.

## Wide voltage band operation

Maintaining consistent performance.

## Operating/Technical specifications

**Input supply:** 1Φ AC, 160-240V\*, 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:** 4500 – 300LPH

**Rated 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/Die Casted body.
- F-Class electrical insulation in VSPAR & VSPAD Series while B-Class in VSPA Series.
- Energy efficient motor.
- Stainless steel hardware (except VSPA series).
- IP 55 dust proof and splash proof (only for VSPAR).
- Available models from 0.25 - 1.5HP.
- 24/25 months service warranty.



VSPAR-F180



VSPAD-H100



VSPRC-F130

## PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH																		
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	45	50	53	55	60
Super Premium Model																							
VSPAR-F180**	1	0.75	2.5	2.5	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 Models																							
VSPA-Q60*	0.25	0.18	2.0	2.0	LPH	1500	1300	1050	850	700													
VSPA-H80*	0.5	0.37	2.5	2.5		1900	1650	1500	1300	1100	900	750											
VSPRC-H80-PRO	0.5	0.37	2.5	2.5		1900	1650	1400	1250	1050	850	650	450										
VSPAD-H100*	0.5	0.37	2.5	2.5		2200	1840	1700	1550	1400	1250	1150	980	720									
VSPAD-F110	1	0.75	2.5	2.5		2550	2350	2150	1950	1730	1500	1250	1000	750	450								
VSPRC-F130	1	0.75	2.5	2.5		2100	1950	1750	1600	1450	1250	1100	950	750	600	450	300						
VSPAD-F150	1	0.75	2.5	2.5		3550	3350	3100	3000	2800	2550	2450	2200	2050	1900	1700	1500	1300	1100	900	750		
VSPA-F160-PRO	1	0.75	2.5	2.5		3600	3450	3300	3100	2900	2700	2550	2300	2100	1950	1750	1550	1350	1200	950	800	650	
VSPAD-FH180	1.5	1.1	2.5	2.5		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.
- 12/18/24 months service warranty.
- Available models from 0.5 - 1.5HP.



NEON-F150



NEON-RH110



REVO-H Plus

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH														
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	45
NEON -H80*	0.5	0.37	2.5	2.5	LPH	1600	1350	1200	1000	825	600	400							
NEON-RH110*	0.5	0.37	2.5	2.5		2100	1950	1800	1550	1400	1250	1100	900	750	550				
NEON-F130	1	0.75	2.5	2.5		2100	1950	1750	1600	1450	1250	1100	950	750	600	450	300		
NEON-F150*	1	0.75	2.5	2.5		2700	2550	2450	2200	2000	1850	1650	1500	1300	1200	1050	850	700	550
NEON-FH150*	1.5	1.1	2.5	2.5		4300	4100	3900	3700	3500	3250	3000	2750	2500	2250	2000	1750	1500	750
REVO Series – Normal Voltage Models																			
REVO-H90	0.5	0.37	2.5	2.5	LPH	1350	1200	1050	950	850	700	550	350						
REVO-H Plus	0.5	0.37	2.5	2.5		1550	1300	1150	950	800	550	350							
REVO-F Plus	1	0.75	2.5	2.5		2100	1950	1750	1600	1450	1250	1100	950	700	550	400			
REVO Series – Low Voltage Models																			
REVO-LH110	0.5	0.37	2.5	2.5	LPH	2000	1700	1550	1350	1150	1050	900	750	600	350				
REVO-LF150	1	0.75	2.5	2.5		2700	2550	2450	2200	2000	1850	1650	1500	1300	1200	1050	850	700	550
*ISI models																			

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.
- 18 months service warranty.



NOVA-F130



NOVA-H80



NEON-NH80

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH														
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39		
NEON-NH60	0.5	0.37	2.5	2.5	LPH	1500	1300	1100	925	750									
NEON-NH80	0.5	0.37	2.5	2.5		1550	1300	1150	950	800	550	350							
NOVA -H60	0.5	0.37	2.5	2.5		1250	1100	900	750	650									
NOVA -H80	0.5	0.37	2.5	2.5		1550	1300	1150	950	900	550	350							
NOVA-F130	1	0.75	2.5	2.5		2100	1950	1750	1650	1450	1250	1100	950	750	600	450	300		





SUPER & WONDER Suction Series

Speciality

- 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 up to 1.0HP.
- 18 / 12 months service warranty.



VSPAW-F100



NEON-WSH100



VSPS-H100

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH									
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30
Super Suction Models														
VSPS-H100*	0.5	0.37	2.5	2.5	LPH	2300	1900	1780	1600	1450	1300	1200	1000	750
VSPAS-H100	0.5	0.37	2.5	2.5		2250	1800	1650	1500	1350	1200	1100	900	650
VSPS-F100	1	0.75	2.5	2.5		3200	3000	2800	2550	2400	2300	2150	1900	1700
Wonder Suction Models														
VSPAW-H100	0.5	0.37	2.5	2.5	LPH	1950	1850	1700	1650	1450	1250	1150	1000	900
VSPAW-F100	1	0.75	2.5	2.5		2200	2000	1850	1700	1500	1350	1200	1050	950
NEON-WSH100	0.5	0.37	1.25	1.25		1600	1500	1300	1150	1050	900	750	600	400
NEON-WSF100	1	0.75	2.5	2.5		2150	2000	1850	1700	1500	1350	1200	1050	850
*ISI model														

\*ISI model

Slow Speed Series

VSP Series

Speciality

- 1440 rpm motors with Minimum wear and tear.
- Higher self-priming capabilities.
- Rigid Cast Iron/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 DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH													
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42
VSP-H80 / 1440	0.5	0.37	2.5	2.5	LPH	2500	2300	2100	1900	1650	1300	1100						
VSP-F130 / 1440	1	0.75	2.5	2.5		3150	2900	2650	2400	2150	2000	1800	1650	1400	1200	950	700	500
VSPC-F130 / 1440	1	0.75	2.5	2.5		3400	3300	3200	2950	2800	2550	2300	2100	1900	1650	1450	1150	850
Single Capacitor Models																		
VSPR-H80 / 1440	0.5	0.37	2.5	2.5	LPH	2800	2500	2300	2050	1850	1350	1000						
VSPR-F130 / 1440	1	0.75	2.5	2.5		3300	3200	3100	2800	2600	2450	2150	1950	1700	1450	1200	950	750

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, NEON-CH60, VCN-H80, VCN-H45 (Noryl) and VCA-TF80 (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 (T.O.P)

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 – 2.2kW (0.5 to 3HP)

**Head range:** Up to 50m

**Flow range:** 67200 – 500LPH

**Rated Speed:** 2800rpm

**Type of duty:** S1 (Continuous)

**Insulation class:** F/B

**Rotation:** Counter clockwise, when viewed from pump side

# VC Series - Normal Voltage

## Speciality

- Premium quality pump sets.
- Energy efficient motor.
- ISI Models and Star rated available.
- Cast iron impeller; exceptionally Gun metal for VCA-TF80.
- High quality alloy steel motor shaft.
- F-Class electrical insulation in VCS F80; rest of all are B-class.
- Available up to 2HP.
- 12 months service warranty.



VC-H60



VCA-TF90



VCS-F80

## PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH													
	HP	KW	Suction	Delivery	m	3	6	9	12	15	18	21	24	27	30	33	42	
VC-H40	0.5	0.37	4.0	4.0	LPH	*	12000	10000	6500									
VC-H45*	0.5	0.37	2.5	2.5		*	5300	4500	3350	2100								
VC-H50	0.5	0.37	2.5	2.5		*	6000	5000	3800	2500								
VC-H60*	0.5	0.37	2.5	2.5		*	7000	6500	6000	4800	2500							
VC-H80	0.5	0.37	2.5	2.5		*	*	*	6100	5450	4480	3450	1250					
VCA-TF80	0.75	0.55	2.5	2.5		*	*	*	7000	6000	5000	4000	2500	600				
VCA-TF90	0.75	0.55	2.5	2.5		*	*	*	7600	6450	5900	5050	4050	3300				
VC-F25	1	0.75	7.5	7.5		62000	45000	23000										
VC-F40	1	0.75	5.0	5.0		27000	25000	19000	13000									
VC-F60*	1	0.75	4.0	4.0		*	15000	13200	12500	7150	5500							
VC-F80	1	0.75	3.2	2.5		*	*	*	9700	9000	8000	6800	5500					
VCS-F80	1	0.75	3.2	2.5		*	*	*	8000	6800	6500	5500	4000					
VCA-F90	1	0.75	2.5	2.5		*	*	*	8000	7350	6600	5500	5150	3400				
VC-F100	1	0.75	3.2	2.5		*	*	*	8500	8300	7700	7100	6200	5500	4450			
VCS-F110	1	0.75	2.5	2.5		*	*	*	*	*	5500	5000	4600	4200	3300	2000		
VC-FH40	1.5	1.1	6.5	5.0		34000	30000	26000	23000									
VC-FH45	1.5	1.1	5.0	5.0		31100	28500	25500	22100	17100								
VC-FH70	1.5	1.1	5.0	4.0		*	20400	19100	17000	12800	10000	6000						
VC-FH100	1.5	1.1	4.0	3.2		*	*	*	*	12000	10500	9000	6900	3000				
VC-FH140	1.5	1.1	3.2	2.5		*	*	*	*	7500	7400	6800	6200	5600	5000	4000	2000	
VC-TW30	2	1.5	10	10		67200	57600	42000										
VC-TW40	2	1.5	7.5	7.5		*	50000	40000	33000									
VC-TW70	2	1.5	5.0	5.0		*	*	*	28000	25000	21000	13000						
VC-TW80	2	1.5	4.0	4.0		*	*	*	16080	15300	14280	13500	11000					
VCS-TW100	2	1.5	4.0	3.2		*	*	*	14500	13500	12500	11000	9000	7500	5000			
VC-TW110	2.0	1.5	4.0	4.0		*	*	*	*	*	*	10800	9600	8100	5700	3900		
*Star rated model •ISI models * Denotes over loading region																		

⚡ Star rated model • ISI models \* Denotes over loading region





VCN & NEON Series

Speciality

- Aluminium extruded Motor body\*  
[\*Cast Iron body for VCN-F60, VCN-F40].
- ISI models available in VCN series.
- Available with Noryl impeller.
- Comes with B-Class electrical insulation.
- 12 months service warranty.



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH								
	HP	KW	Suction	Delivery	m	3	6	9	12	15	18	21	24
VCN-H45*	0.5	0.37	2.5	2.5	LPH	*	5000	4100	3000	1900			
VCN-H60*	0.5	0.37	2.5	2.5		*	5700	4900	3900	2400	1900		
VCN-H80	0.5	0.37	2.5	2.5		*	*	*	5700	4700	3700	2300	800
VCN-F40	1	0.75	5.0	5.0		*	31000	26000	21000				
VCN-F60	1	0.75	5.0	4.0		*	19000	17300	12600	7800			
NEON-CH45*	0.5	0.37	2.5	2.5		*	4900	4000	2400	1800			
NEON-CH60*	0.5	0.37	2.5	2.5		*	5500	4800	3800	2100	1900		
NEON-CF80	1	0.75	3.2	2.5		*	*	*	7800	6700	6200	5200	3700

\*ISI models \*Overloading region #Noryl impeller

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 & F-Class electrical insulation.
- Available up to 3 HP.
- 12 months service warranty.



PERFORMANCE DETAILS

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

\*Overloading region





# 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 insulation.
- 12 months service warranty.



VCE-H40



VCE-TW40

## PERFORMANCE DETAILS

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

# VCSW Series (Self-Priming Centrifugal Jet)

## Speciality

- Aluminium extruded motor body with FG 200 Castings (Aluminium die-casted body for VCSWT-F120).
- Available with Cast Iron, Noryl and Gunmetal impeller.
- Having B-Class electrical insulation.
- Suction Capacity upto 9 metre.
- 12 months service warranty.



VCSW-H90



VCSW-F120



VCSWT-F120

## PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH												
	HP	kW	Suction	Delivery	m	3	6	9	12	15	18	21	24	27	30	33	36
VCSW-NH70	0.5	0.37	2.5	2.5	HPT	*	2170	2000	1700	1300	950	500					
VCSW-H90	0.5	0.37	2.5	2.5		*	3500	3300	3250	3150	2850	2400	1750	1350			
VCSW-F120	1	0.75	2.5	2.5		*	3700	3600	3450	3300	3150	2900	2700	2300	1750	900	600
VCSWS-F120	1	0.75	2.5	2.5		*	3700	3600	3450	3300	3150	2900	2700	2300	1750	900	600
VCSWT-F120	1	0.75	2.5	2.5		*	*	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.
  - Noryl bowl sets for smooth & silent operation.
  - B-class electrical insulation.
  - 12 months service warranty.



VCM-F150

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH													
	HP	KW	Suction	Delivery	m	3	6	9	12	15	18	21	24	27	30	33	42	45
VCM-F150	1	0.75	2.5	2.5	LPH	*	*	*	*	*	*	*	4200	3800	3600	3400	2500	2200
* Overloading region																		

\* Overloading region

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

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)													
	HP	kW	Suction	Delivery	m	1.5	3	6	9	12	15	18	21	24	27	30
VPA-H100*	0.5	0.37	2.5	2.5	LPH	*	*	2200	1840	1700	1550	1400	1250	1150	980	720
*ISI model																

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.

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:** 0.14 – 1.1kW  
(0.18 to 1.5HP)  
**Flow range:** 7900 - 215 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





Centrifugal Booster 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.
  - Suitable for hot water application.

Accessories



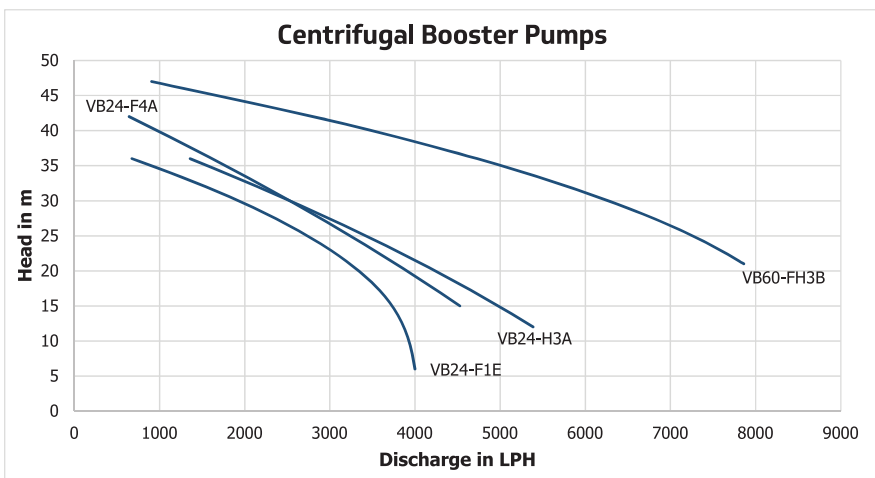
VB60-FH3B

PERFORMANCE DETAILS & CURVES

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH														
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	47
VB24-H3A	0.5	0.37	2.5	2.5		*	*	5250	5000	4450	4000	3450	2900	2300	1800	1100			
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		*	*	*	5600	5250	4900	4400	4000	3700	3150	2650	2150	1350	
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 4.5	9500	5 Bathrooms

\*Overloading region



Regenerative Mini Booster Pumps

- Speciality
- Premium quality pump sets.
  - Rust preventive Aluminium die-casted body.
  - Rigid built cast iron casing.
  - Stainless steel hardware.
  - Brass impeller.
  - Imported pressure tank.
  - F-class insulation.
  - Suitable for hot water application.

Accessories

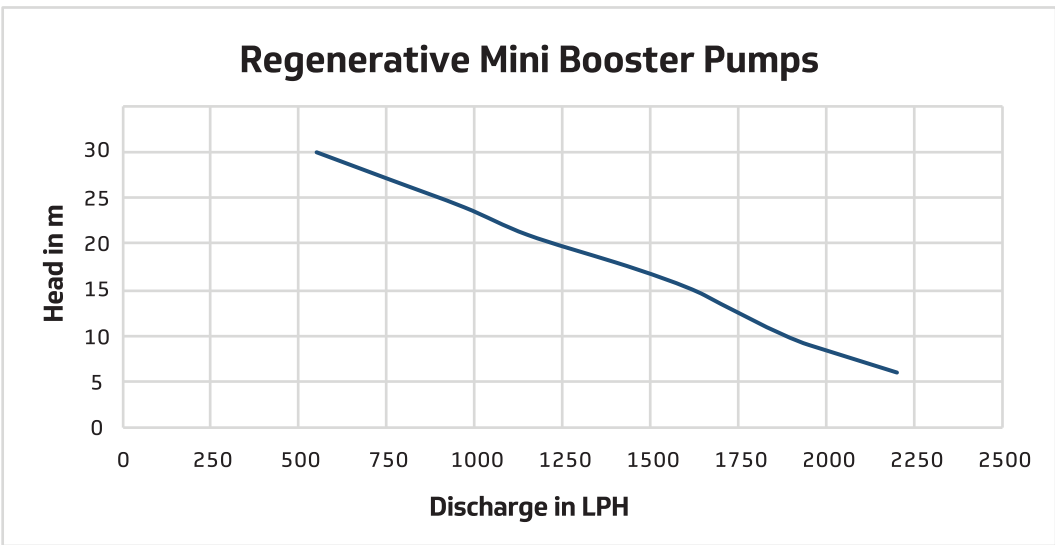


VB1-H1S

PERFORMANCE DETAILS & CURVES

Models	Power		Pipe size (cm)		Total head in metres Vs Discharge in LPH														
	HP	kW	Suction	Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	47
VB1-H1S	0.5	0.37	2.5	2.5		LPH	2200	1950	1700	1650	1400	1150	970	760	550				
VB1-H1S PRO	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
VB1-H1S PRO	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.
- Automatic and Manual operation.
- Suitable for hot water application.



VCB14-F030

### Operating/Technical specifications

**Input supply:** 1Φ AC, 160-240V\*, 50Hz  
[\*Voltage required at motor input terminal]  
**Current:** 0.54 A  
**Power:** 140W (0.18HP)  
**Pressure:** 1bar  
**Discharge:** 1800LPH  
**Max.Head:** 9 metre  
**Insulation Class:** B  
**Pipe Size:** 1.2 cm x 1.2 cm



VCB25-F040

### Operating/Technical specifications

**Input supply:** 1Φ AC, 160-240V\*, 50Hz  
[\*Voltage required at motor input terminal]  
**Current:** 1.13 A  
**Power:** 250W (0.33HP)  
**Pressure:** 1.3bar  
**Discharge:** 3000LPH  
**Max.Head:** 13 metre  
**Insulation Class:** F  
**Pipe Size:** 2 cm x 2 cm

## 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, having the (Max. liquid temperature 45°C, Equipped with hot water seal upto 90°C) 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 pipe 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 in Centrifugal Booster Pumps.



# 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" borewell applications.

\*Max. liquid temperature 45°C

### Dynamically Balanced Impeller

Provides better consistent performance

### Specially designed Gunmetal 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 (T.O.P)

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:** 0.37 – 1.1kW (0.5 to 1.5HP)  
**Head range:** Up to 70m  
**Flow range:** 3400 – 100LPH  
**DLWL Range:** Up to 70m  
**Rated Speed:** 2800rpm  
**Type of duty:** S1 (Continuous)  
**Insulation class:** F/B  
**Rotation:** Counter clockwise, when viewed from pump side



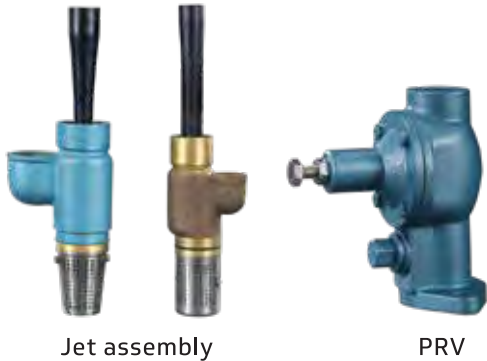
VJ & VJO Series

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



VJON-F100

Accessories



Jet assembly

PRV



VJ-H70

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	DLWL* in metres Vs Discharge in LPH																	
	HP	KW		Suc X Pre X Del	m	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
VJ -H70*	0.5	0.37	3.2x2.5x2.5	LPH	1450	1250	1050	800	600												
VJG - F80	1	0.75	4x3.2x2.5		1700	1620	1500	1425	1350	1300											
VJ-FH180BW	1.5	1.1	3.2x2.5x2.5		*	*	*	*	*	*	1100	1075	1050	1000	900	800	750	700	650	500	
*Depth to low water level    •ISI Models																					

Models	Power		Pipe size (cm)	DLWL in metres Vs Discharge in LPH									
	HP	kW		Suc X Pre X Del	m	9	12	15	18	21	24	27	30
VJON-F80	1	0.75	4x3.2x2.5		LPH	2000	1500	1000	500				
VJON-F100BW	1	0.75	3.2x2.5x2.5			1550	1300	1200	1125	1000	850	750	675

VJP2 & VJT Series



VJP2-F100



VJT-F200

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	DLWL in metres Vs Discharge in LPH										
	HP	kW		Suc X Pre X Del	m	30	35	40	45	50	55	60	65	70
VJT-F200	1	0.75	3.2x2.5x2.5		LPH	*	1080	936	720	504	324	210	130	100

Models	Power		Pipe size (cm)	DLWL in metres Vs Discharge in LPH										
	HP	kW		Suc X Pre X Del	m	6	9	12	15	18	21	24	27	30
VJP2-F100*	1	0.75	3.2x2.5x2.5		LPH	*	1800	1550	1300	1000	700	550	300	100

\*Packer Jet

NEON Series

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

Accessories



Jet assembly

PRV



NEON-JF80

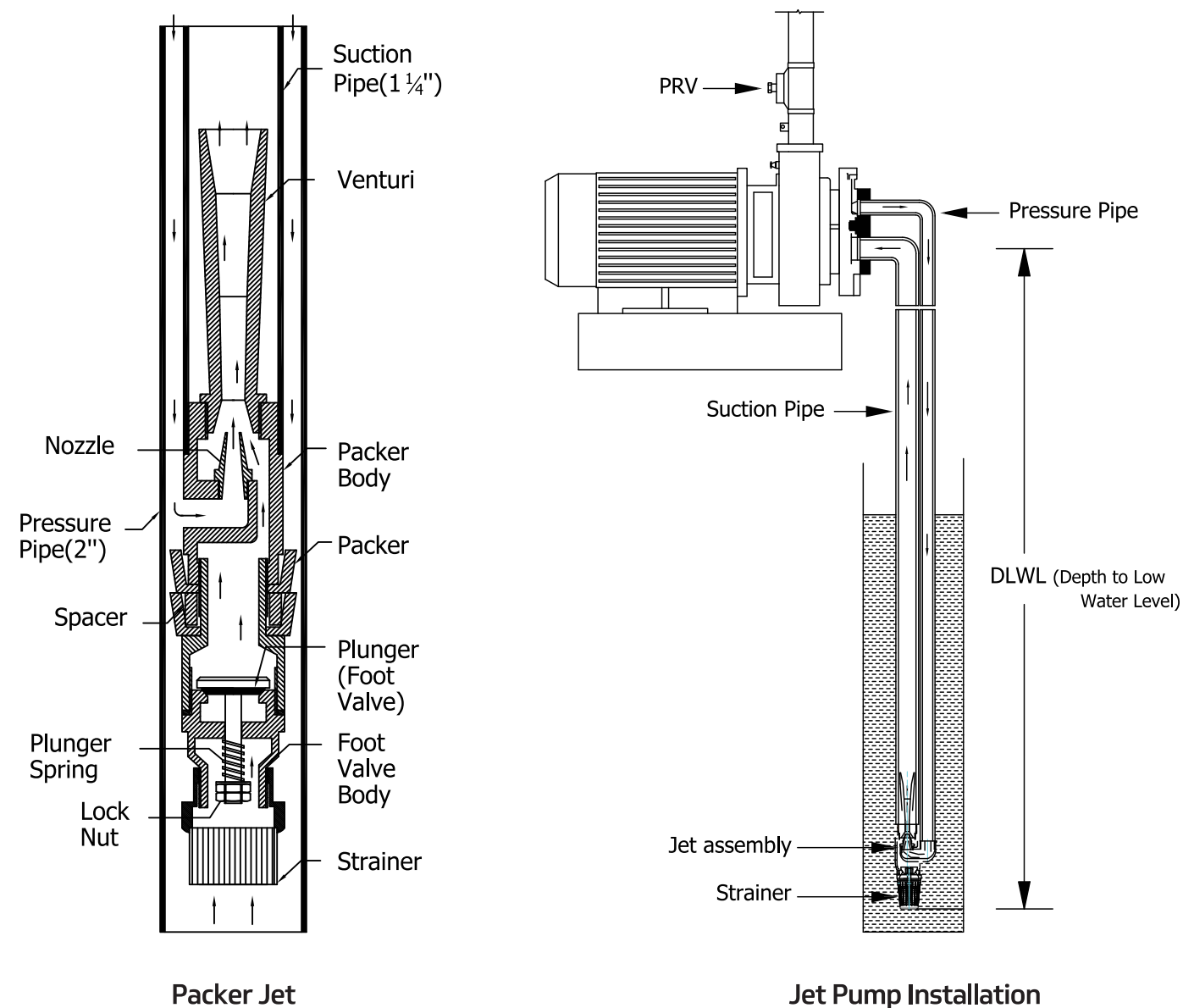
PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	DLWL in metres Vs Discharge in LPH														
	HP	kW	Suc X Pre X Del	m	6	9	12	15	18	21	24	27	30	33	36	39	42	45
NEON-JF 80	1	0.75	4.0x3.2x2.5	LPH	*	1600	1520	1400	1325	1250	1200							
NEON-JF100BWP*	1	0.75	3.2x2.5x2.5		*	1150	1025	975	925	825	750	600	500					
NEON-JF100BW3*	1	0.75	2.5x2.0x2.5		*	*	900	700	600	500	390	300	230					
NEON-JF150BW	1	0.75	3.2x2.5x2.5		*	*	*	*	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 GI/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

### Cast Iron/SS Motor body\*

Provides protection against structural failures due to corrosion.

### Cast Iron impeller\*

Ensures constructional ruggedness, for long lasting consistent performance.

(\*Noryl Impeller in Nova, VOSK & VOSV series)

### Triple layered poly wrapped 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

Marine class water lubricated bush bearings for smooth & silent functioning.

### Marine grade electrical joints

Improves insulation protection and prevents unwanted energy losses.

### 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)

**Head range:** Up to 91m

**Flow range:** 21000 – 1250LPH

**Rated Speed:** 2800rpm

**Type of duty:** S1 (Continuous)

**Insulation class:** B

**Rotation:** Counter clockwise, when viewed from pump side



Water Cooled Horizontal Openwell Submersible Pumps  
VOS & VOSS Series

Speciality

- Rust preventive SS Body with matt 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.
- BEE 5 star rated & ISI Models available.
- Available up to 2HP.

10/15  
METRE  
3 CORE  
CABLE



VOSS-F90



VOS-FH110



VOSS-FH110

Accessories



Control Panel



Pipe bend  
with strainer



Cable joining kit

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH														
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33	36	39	42	45
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-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	3.2 x 2.5		*	*	*	9700	9100	8600	8000	7200	6300	4500				
VOSS-FH110	1.5	1.1	3.2 x 2.5		*	*	*	9700	9100	8600	8000	7200	6300	4500				
VOS-FH150	1.5	1.1	2.5 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 rated models \*Denotes overloading region • Except VOSS-FH110 & VOSS-FH150.

VOSR Series

Speciality

- Reliable motor construction.
- Rust preventive SS Body with matt finish.
- Stainless steel hardwares.
- Prolonged motor life.
- Available up to 1HP.

10  
METRE  
3 CORE  
CABLE



VOSR-F110



VOSR-H60



VOSR-F90

Accessories



Control Panel



Pipe bend  
with strainer



Cable joining kit

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH														
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33				
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 rated model \*Denotes overloading region





NEON & REVO Series

- Speciality
- Reliable motor construction.
  - Rust preventive SS Body with matt finish.
  - Stainless steel hardwares.
  - Available up to 1.5 HP.



NEON-05SH45



REVO-05SF110

Accessories



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH										
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33
NEON-05SH45	0.5	0.37	2.5 x 2.5	LPH	7400	6700	5500	3400						
NEON-05SH60	0.5	0.37	2.5 x 2.5		9000	7000	6000	5000	2500					
NEON-05SF80	1	0.75	3.2 x 2.5		*	*	9500	8600	7350	5800	3600			
NEON-05SF110	1	0.75	3.2 x 2.5		*	*	*	*	8600	8000	7000	6000	4500	3000

\*Denotes overloading region

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH												
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24	27	30	33	36	38
REVO-05SH60	0.5	0.37	2.5 x 2.5	LPH	8000	7000	5800	4500								
REVO-05SF80	1	0.75	3.2 x 2.5		*	*	9800	9000	7600	6000	3800					
REVO-05SF110	1	0.75	3.2 x 2.5		*	*	*	*	8600	8000	7000	6000	4500	3000		
REVO-05SFH130	1.5	1.1	3.2 x 2.5		*	*	*	*	*	6400	6000	5600	4800	4200	3300	2500

\*Denotes overloading region

NOVA & VOSK Series

- Speciality
- Pressure regulating diaphragm
  - Rust preventive SS Body with matt finish
  - Noryl impellers for smooth & silent operation
  - Stainless steel hardwares



NOVA-05SF80



NOVA-05SH60



VOSK-F90

Accessories



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH							
	HP	kW	Suction X Delivery	m	6	9	12	15	18	21	24
NOVA-05SH60	0.5	0.37	2.5 x 2.5	LPH	8000	7000	5800	4500			
NOVA-05SF80	1	0.75	2.5 x 2.5		9000	8500	7800	7300	6300	5500	4500

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH										
	HP	kW	Suction X Delivery	m	6	8	10	12	15	18	21	24	27	30
VOSK-H60	0.5	0.37	2.5 x 2.5	LPH	9000	8500	7800	7000	4300					
VOSK-F90	1	0.75	3.2 x 2.5		*	*	*	9000	8000	6500	4500	3000		
VOSK-F110	1	0.75	3.2 x 2.5		*	*	*	*	9500	8500	7000	5000	3000	600
*Denotes overloading region														



# Water Cooled Vertical Openwell Submersible Pumps VOSV Series

### Speciality

- Suitable for both Openwell & 6” borewell applications.
- Rust preventive SS Body with matt finish.
- Noryl impeller and diffuser for smooth & silent operation.
- Stainless steel hardware.
- 3 metre 3 core cable.
- Available up to 1.5HP.

### Accessories



Control Panel



Cable joining kit



VOSV-F120

### PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH														
	HP	kW	Delivery	m	21	24	30	36	42	45	48	54	60	66	72	76	82	91
VOSV-F120	1	0.75	3.2	LPH	4000	3500	2500	1500										
VOSV-F150	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

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:** Up to 240m

**Flow range:** 21600 - 600 LPH

**Rated Speed:** 2800rpm

**Type of duty:** S1 (Continuous)

**Insulation class:** B

**Rotation:** Counter clockwise, when viewed from top side





3” Borewell Submersible Pumps  
VBS3 & VBS3AM Series - Water Cooled

Speciality

- Premium quality pump sets with 72/75 mm Pump OD.
- Rust preventive SS Body with matt finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced copper rotor/Aluminium rotor (VBSN3AM).
- Energy efficient motor.
- Stainless steel hardwares.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180-240v.
- Poly wrapped winding wire with Least leakage.
- 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



Control Panel



Cable joining kit

Control Panel (For VBS3AM Series only), Cable joining kit, Nylon strainer, Cable guard.



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM											
	HP	kW		LPM	60	50	45	40	35	30	25	20	15	10	0
				LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	0
VBS3-F130/10 #	1	0.75	3.2	Head in Metres	25	29	32	35	37	39	41	43	44	45	50
VBS3-F170/13 #	1	0.75	2.5		33	40	44	47	49	51	53	55	57	59	65
VBS3-F250/20 #	1	0.75	3.2		23	37	43	48	53	58	62	66	70	73	78
VBS3-F120/12 #*	1	0.75	3.2		25	31	34	36	38	40	42	44	45	47	50
VBS3-F150/15 #*	1	0.75	3.2		27	35	39	42	45	48	51	54	56	58	62
VBS3AM-FH325/20	1.5	1.1	3.2		55	64	68	71	74	77	81	85	90	95	100
VBS3AM-FH400/30	1.5	1.1	3.2		25	47	56	65	72	80	90	100	107	115	123
# All models are also available in VBS3AM series (With capacitor box) * Outer diameter of the pump is 72 mm															

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM											
				LPM	60	50	45	40	35	30	25	20	15	10	0
	HP	kW		LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	0
VBSN3AM-F130/10	1	0.75	3.2	Head in Metres	25	29	32	35	37	39	41	43	44	45	50

2.5” Borewell Submersible Pumps  
NOVA Series - Oil Cooled

Speciality

- Premium quality pump sets with 66 mm Pump OD.
- SS body and shaft for both pump and motor
- Food grade paraffin oil filled
- Dynamically balanced rotor
- Anti-friction ball bearings with lifelong lubrication
- 99.99% pure super enamelled copper wire
- Rubber diaphragm balances the pressure fluctuations

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM									
	HP	kW		LPM	40	35	30	25	20	15	10	5	0
				LPH	2400	2100	1800	1500	1200	900	600	300	0
NOVA-02.5T0524	0.5	0.37	2.5	Head in Metres	12	26	36	43	50	54	58	62	66

3” Borewell Submersible Pumps  
VBS03 Series - Oil Cooled

Speciality

- SS body and shaft for both pump and motor.
- Food grade paraffin oil pre filled.
- Dynamically balanced rotor.
- Anti-friction ball bearings with lifelong lubrication.
- 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



Control Panel



Cable joining kit

Control Panel (For VBS03AM Series only), Cable guard.

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM											
	HP	kW		LPM	60	50	45	40	35	30	25	20	15	0	
				LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	0	
VBS03-F250/20	1	0.75	3.2	Head in Metres	23	37	43	48	53	58	62	66	70	78	
VBS03AM-F250/20	1	0.75	3.2		23	37	43	48	53	58	62	66	70	78	



3.5” Borewell Submersible Pumps  
VBS4SAM Series - Water Cooled

Speciality

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

Accessories



Control Panel



Cable joining kit

Control Panel, Cable joining kit, Nylon strainer, Cable guard.



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM											
	HP	kW		LPM	60	50	45	40	35	30	25	20	15	10	0
				LPH	3600	3000	2700	2400	2100	1800	1500	1200	900	600	0
VBS4SAM-F180/15	1	0.75	2.5	Head in Metres	25	35	39	45	47	50	53	56	59	61	65
VBS4SAM-F250/20	1	0.75	2.5		26	40	46	51	56	61	65	69	73	76	80
VBS4SAM-FH325/26	1.5	1.1	2.5		32	50	58	65	72	78	83	88	92	96	110
VBS4SAM-FH475/26	1.5	1.1	3.2			59	78	94	109	122	132	141	146	150	154
VBS4SAM-TW600/33	2	1.5	3.2			75	99	120	139	155	170	178	185	189	195

4” Borewell Submersible Pumps  
VBS Series - Water Cooled

Speciality

- Aluminium rotor model with enhanced low voltage performance.
- Rust preventive SS Body with matt finish.
- Rigid built cast iron housing parts.
- SS Shaft with dynamically balanced rotor.
- Energy efficient motor.
- Stainless steel hardware.
- Water lubricated SS thrust bearing and LTB bush bearings for motor.
- Wide voltage band 180-240v.
- Poly wrapped winding wire with Least leakage.

Accessories



Cable joining kit

Cable joining kit, Nylon strainer, Cable guard.



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	90	80	70	60	50	45	40	35	30	20	15	0
				LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBS-H200/10	0.5	0.37	3.2	Head in Metres					15	24	32	38	44	54	59	64
VBS-F120/8	1	0.75	3.2		13	20	26	30	34	38	41	42	43	45	46	48
VBS-F150/10	1	0.75	3.2		16	25	33	38	43	47	51	53	54	59	58	60
VBS-F180/12	1	0.75	3.2		20	30	40	46	52	57	62	63	65	67	69	72
VBS-FH180/12	1.5	1.1	3.2		21	31	41	47	53	58	63	64	66	68	70	73
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	180	160	140	120	110	100	90	80	70	60	50	0
				LPH	10800	9600	8400	7200	6600	6000	5400	4800	4200	3600	3000	0
VBS-F160/8*	1	0.75	4.0	Head in Metres			14	22	26	30	34	37	40	42	44	50
VBS-FH160/8	1.5	1.1	4.0		11	19	26	32	34	37	40	42	44	45	46	54
VBS-FH240/12	1.5	1.1	4.0				21	33	39	45	51	56	60	63	66	74
* Star rated models.																





4" Borewell Submersible Pumps  
VBSN & VBSNAM Series - Water Cooled

- Speciality
- Aluminium rotor model with enhanced low voltage performance.
  - Rust preventive SS Body with matt finish.
  - Rigid built cast iron housing parts.
  - SS Shaft with dynamically balanced rotor.
  - Energy efficient motor.
  - Stainless steel hardware.
  - Water lubricated SS thrust bearing and LTB bush bearings for motor.
  - Wide voltage band 180 -240v.
  - Poly wrapped winding wire with Least leakage.

Accessories



Control Panel



Cable joining kit



Control Panel\* (For VBSNAM Series only), Cable joining kit, Nylon strainer, Cable guard.

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM											
				LPM	80	70	60	50	45	40	35	30	20	15	0
	HP	kW		LPH	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBSN-H150/7	0.5	0.37	3.2	Head in Metres				12	19	24	30	35	40	44	49
VBSNAM-F200/10	1	0.75	3.2					16	25	33	39	45	55	60	68
VBSNAM-F300/15	1	0.75	3.2							50	59	68	83	90	98
VBSNAM-FH400/19	1.5	1.1	3.2							63	74	86	105	114	124
VBSNAM-FH330/14	1.5	1.1	3.2	Head in Metres	43	56	69	77	82	86	90	94	97	99	103
VBSNAM-FH440/20	1.5	1.1	3.2					32	50	66	78	90	110	120	134
VBSNAM-FH550/25	1.5	1.1	3.2					40	63	89	98	113	138	150	168
VBSNAM-TW650/30	2	1.5	3.2					48	75	99	117	135	165	180	199

4" Borewell Submersible Pumps  
NEON Series - Water Cooled

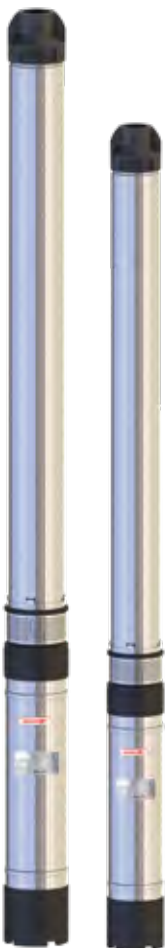
- Speciality
- Rust preventive SS body with mat finish.
  - Rigid built cast iron housing parts.
  - SS Shaft with dynamically balanced Aluminium rotor.
  - Energy efficient motor.
  - Stainless steel hardware.
  - Water lubricated SS thrust bearing and LTB bush bearings for motor.
  - Wide voltage band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

Accessories

Cable joining kit, Nylon strainer, Cable guard.



Cable joining kit



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	80	70	60	50	45	40	35	30	25	15	0	
	HP	kW		LPH	4800	4200	3600	3000	2700	2400	2100	1800	1500	900	0	
NEON-T0108	1	0.75	3.2	Head in Meters		24	31	36	39	41	43	46	48	50	53	
NEON-T0110	1	0.75	3.2			30	39	45	48	51	54	57	60	63	66	
NEON-T1512	1.5	1.1	3.2		36	48	58	66	70	73	77	80	82	85	88	



4” Borewell Submersible Pumps
VBSR Series - Water Cooled

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

Accessories
Cable joining kit, Nylon strainer, Cable guard.



PERFORMANCE DETAILS

4" VBSR Series																
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	90	80	70	60	50	45	40	35	30	20	15	0
				LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBSR-H220/10	0.5	0.37	3.2	Head in Metres					16	25	33	39	45	55	60	68
VBSR-F220/10#	1	0.75	3.2						26	35	40	45	50	60	65	69
VBSR-F330/15	1	0.75	3.2						24	38	50	59	68	83	90	98
VBSR-FH330/15#	1.5	1.1	3.2						38	53	60	68	75	90	96	101
VBSR-FH440/20#	1.5	1.1	3.2						32	50	66	78	90	110	120	134
VBSR-FH550/25	1.5	1.1	3.2						40	63	83	98	113	138	150	168
VBSR-TW440/20	2	1.5	3.2						50	70	80	90	100	120	128	135
VBSR-TW650/30#	2	1.5	3.2					48	75	99	117	135	165	180	199	
⌘ Star rated models. #ISI models																
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	120	110	100	90	80	70	60	50	40	30	20	0
				LPH	7200	6600	6000	5400	4800	4200	3600	3000	2400	1800	1200	0
VBSR-TW240/10	2	1.5	5.0	Head in Metres	23	29	35	40	45	49	54	58	62	66		72
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	390	360	330	300	270	240	210	180	150	120	90	0
				LPH	23400	21600	19800	18000	16200	14400	12600	10800	9000	7200	5400	0
VBSR-TW90/6 *	2	1.5	5.0	Head in Metres		11	13	15	17	18	20	21	22	24	25	29
VBSR-TR120/8 *	3	2.2	5.0			14	17	20	23	26	28	30	32	34	35	40
VBSR-TR135/9 *	3	2.2	6.5			19	22	25	28	31	33	35	38	40	42	45
⌘ Star rated models. #ISI models * Mixed flow models																
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	200	180	160	140	120	100	90	80	70	60	50	0
				LPH	12000	10800	9600	8400	7200	6000	5400	4800	4200	3600	3000	0
VBSR-TW180/10	2	1.5	5.0	Head in Metres		16	24	34	40	46	49	53	56	58	61	64
VBSR-TW300/15	2	1.5	4.0					24	40	56	63	69	75	78	82	92
VBSR-TR300/15	3	2.2	5.0			24	40	56	70	80	83	86	89	92	93	100
VBSR-TR400/20	3	2.2	4.0					35	59	80	90	96	100	104	108	122
⌘ Star rated models.																

4” Borewell Submersible Pumps
VBS2 Series - Water Cooled (Special Voltage)

- Speciality
• High discharge mixed flow model.
• Wide voltage band 200-380v.
• Rust preventive SS Body with matt finish.
• Rigid built cast iron housing parts.
• SS Shaft with dynamically balanced copper rotor.
• Energy efficient motor.
• Stainless steel hardware.
• Water lubricated SS thrust bearing and LTB bush bearings for motor.
• Poly wrapped winding wire with Least leakage.
• Rubber diaphragm balances the pressure fluctuations.

Accessories
Cable joining kit, Nylon strainer, Cable guard.



Cable joining kit



PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	KW		LPM	390	360	330	300	270	240	210	180	150	120	90	0
				LPH	23400	21600	19800	18000	16200	14400	12600	10800	9000	7200	5400	0
VBS2-TW90/6	2	1.5	5.0	Head in Metres		11	13	15	17	18	20	21	22	24	25	29
VBS2-TR135/9	3	2.2	6.5			19	22	25	28	31	33	35	38	40	42	45
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	KW		LPM	200	180	160	140	120	100	90	80	70	60	50	0
				LPH	12000	10800	9600	8400	7200	6000	5400	4800	4200	3600	3000	0
VBS2-TR240/12	3	2.2	5.0	Head in Metres	20	33	42	52	60	67						80





4” Borewell Submersible Pumps
VBSRAM & VBSRAMW Series - Water Cooled

- Speciality
- SS Shaft with dynamically balanced Copper rotor.
  - High operating efficiency.
  - Clearance increased bowl sets.
  - Corrosion resistant stainless steel body for motor & pump.
  - Water lubricated motor with easily rewindable stator.
  - Specially designed six segment fixed type SS thrust bearing to withstand high axial load.



Control Panel, Cable joining kit, Nylon strainer, Cable guard.

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	90	80	70	60	50	45	40	35	30	20	15	0
				LPH	5400	4800	4200	3600	3000	2700	2400	2100	1800	1200	900	0
VBSRAM-H100/7	0.5	0.37	3.2	Head in Metres					16	20	24	26	28	31	33	37
VBSRAM-F220/10	1	0.75	3.2						26	35	40	45	50	60	65	69
VBSRAM-F330/15	1	0.75	3.2						24	38	50	59	68	83	90	98
VBSRAM-FH330/14	1.5	1.1	3.2			43	56	69	77	82	86	90	94	96	99	103
VBSRAM-FH440/20	1.5	1.1	3.2						32	50	66	78	90	110	120	134
VBSRAM-FH550/25	1.5	1.1	3.2						40	63	83	98	113	138	150	168
VBSRAM-TW425/19	2	1.5	3.2			58	76	93	105	111	117	122	127	132	135	140
VBSRAM-TW525/25	2	1.5	3.2						40	63	83	98	113	138	150	163
VBSRAM-TW650/30	2	1.5	3.2						48	75	99	117	135	165	180	199
VBSRAM-TR750/30	3	2.2	3.2			90	117	144	165	174	183	191	198	211	217	229
VBSRAM-TR800/40	3	2.2	3.2						64	100	132	156	180	220	240	260
⌘ Star rated models																
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	200	180	160	140	120	100	90	80	70	60	50	0
				LPH	12000	10800	9600	8400	7200	6000	5400	4800	4200	3600	3000	0
VBSRAM-TW225/13	2	1.5	4.0	Head in Metres				22	35	49	55	60	65	68	71	80
VBSRAM-TW300/15	2	1.5	4.0					24	40	56	63	69	75	78	82	92
⌘ Star rated models.																
Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
	HP	kW		LPM	130	110	90	80	70	60	50	40	30	20	10	0
				LPH	7800	6600	5400	4800	4200	3600	3000	2400	1800	1200	600	0
VBSRAMW-F200/9	1	0.75	3.2	Head in Metres						7	20	33	45	55	60	65
VBSRAMW-F300/13	1	0.75	3.2							11	24	43	60	70	82	91
VBSRAMW-FH200/8	1.5	1.1	4.0					21	33	41	45	50	55	59	62	65
VBSRAMW-FH300/12	1.5	1.1	4.0					34	46	58	70	80	85	90	95	100
VBSRAMW-FH320/14	1.5	1.1	3.2					40	50	62	75	85	90	95	100	105
VBSRAMW-FH450/20	1.5	1.1	3.2							18	45	75	95	115	130	145
VBSRAMW-FH525/23	1.5	1.1	3.2							19	49	82	110	135	148	160
VBSRAMW-TW650/30	2	1.5	3.2								48	99	135	165	182	199
VBSRAMW-FH250/13	1.5	1.1	4.0			30	40	50	53	58	61	64	68	70	74	77
⌘ Star rated models.																



4” Borewell Submersible Pumps
VBSO & VBSOAM Series - Oil Cooled

- Speciality
- 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.



Control Panel\*(For VBSOAM Series only), Cable guard.

PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	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	Head in Metres		24	27	29	31	32	33	34	35	37	39	42
VBSO-F120/8	1	0.75	3.2			28	31	33	35	37	38	39	40	43	45	48
VBSOAM-F160/10	1	0.75	3.2			35	38	41	44	46	48	49	50	53	56	60
VBSOAM-F180/12	1	0.75	3.2			42	46	49	52	55	57	59	60	64	68	72
VBSOAM-F330/15	1	0.75	3.2						24	38	50	59	68	83	94	101
VBSOAM-FH325/21	1.5	1.1	3.2						48	65	75	85	93	103	110	115
VBSOAM-FH440/20	1.5	1.1	3.2						32	50	66	78	90	110	125	134
VBSOAM-TW525/25	2	1.5	3.2							80	100	120	130	140	150	165
⌘ Star rated models																



4” Borewell Submersible Pumps  
NOVA Series – Oil Cooled

- Speciality**
- 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**



Control Panel



Cable joining kit

Control Panel\* (For NOVA-OTM Series only), Cable joining kit, Nylon strainer, Cable guard.



**PERFORMANCE DETAILS**

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM												
				LPM	140	120	100	90	80	70	60	50	40	30	20	0
	HP	kW		LPH	8400	7200	6000	5400	4800	4200	3600	3000	2400	1800	1200	0
NOVA-OT0110	1	0.75	3.2	Head in Metres					15	29	40	50	58	64	68	72
NOVA-OTM0108	1	0.75	3.2				13	21	28	36	41	46	51	53	54	57
NOVA-OT0108	1	0.75	3.2				13	21	28	36	41	46	51	53	54	57
NOVA-OT1512	1.5	1.1	3.2				27	39	49	58	66	73	78	81	82	87
NOVA-OT1508	1.5	1.1	4.0		19	29	37	40	44	46	48	49	51	52	54	57
NOVA-OT0216	2	1.5	4.0		32	55	70	77	84	89	93	96	99	101	103	108

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH/LPM										
				LPM	55	50	45	40	35	30	25	20	15	0
	HP	kW		LPH	3300	3000	2700	2400	2100	1800	1500	1200	900	0
NOVA-OT00507	0.5	0.37	3.2	Head in Metres	13	21	27	32	36	40	43	45	46	48
NOVA-OT0113	1	0.75	3.2			39	49	58	66	73	79	84	87	90
NOVA-OT1520	1.5	1.01	3.2			60	78	93	105	105	124	134	137	140

**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 borewells 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:** 0.75 – 1.5kW (1HP to 2HP)

**Maximum Head:** 180m.

**Type of duty:** S1 (Continuous)

**Insulation class:** B

**Rotation:** Clockwise, when viewed from motor side





Monobloc Compressor Pumps

Speciality

- Compact design.
- Less maintenance required.
- Head range up to 120m.
- Available 1HP to 1.5HP.
- 12 months warranty.

Accessories

Air distributor.



VMC-FH400

PERFORMANCE DETAILS

			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)			2.5	2.5	2.5
Air pipe Size (cm)			1.2	1.2	1.2
Operatng Pressure (kg/cm2)			7	9	9
Speed in RPM			1440	1440	1440
Weight (kg)			40	43.5	45
Total Head (m)	Pumping Height (m)	Lifting Height (m)	Discharge in LPH		
30	5	25	1400	1525	1725
30	15	15	1800	2000	2200
30	25	5	3900	4200	4200
61	15	45	1100	1250	1450
61	30	30	1225	1350	1550
61	45	15	2600	3000	3000
91	25	70	900	1100	1200
91	45	45	1050	1300	1300
91	70	25	2300	2600	2700
122	30	90		900	1050
122	60	60		1200	1250
122	90	30		2500	2600

Belt Driven Compressor Pumps

Speciality

- Available in two types - Twin stage & Single stage.
- Lower operation temperature.
- Vibration absorption.
- 12 months warranty.
- Available 1.0 HP to 2 HP.
- Head range upto 180m.

Accessories

Belt, hardwares/fasteners.



VBCM-F400



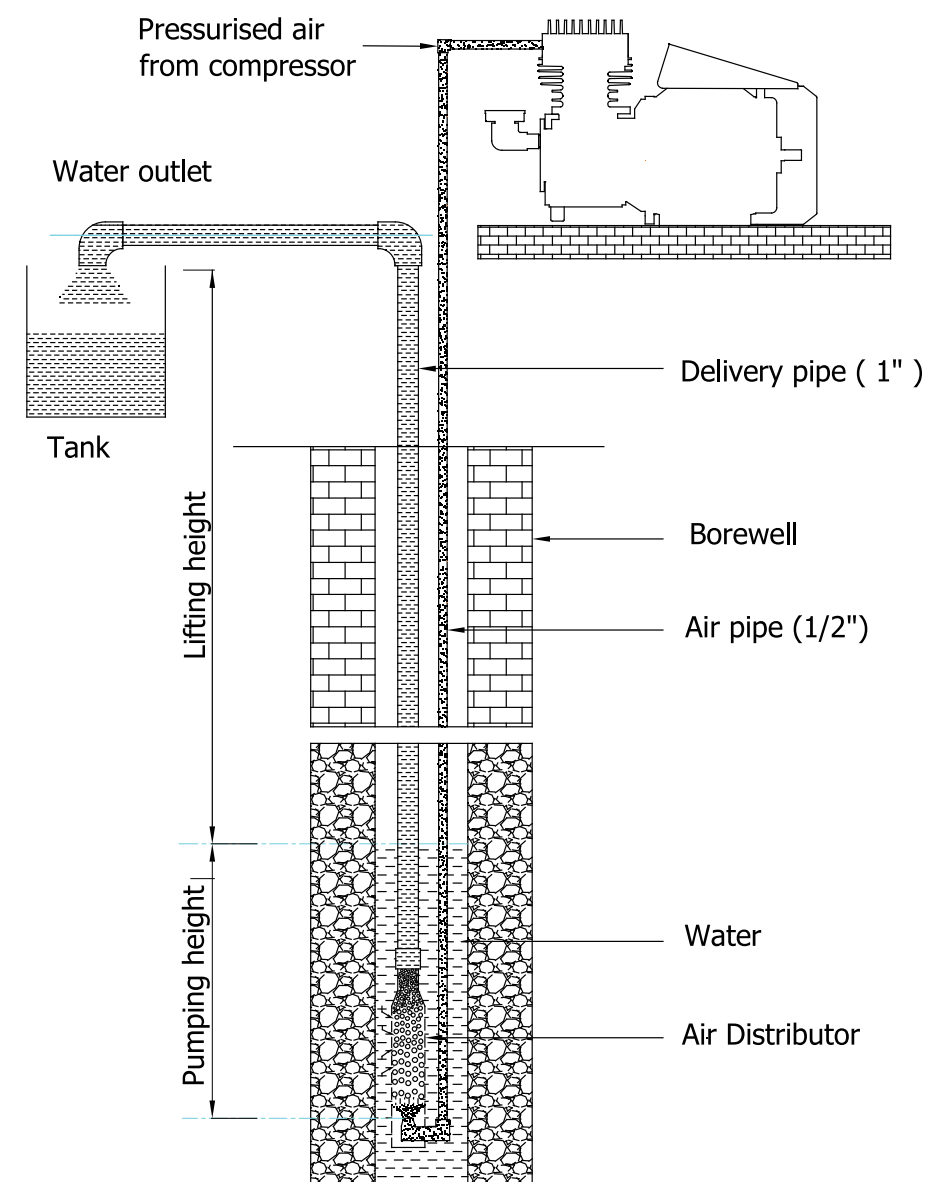
VBCDM-TW600

PERFORMANCE DETAILS

			VBCM-F400	VBCM-FH400	VBCDM-TW600
Capacity (HP/kW)			1.0/0.75	1.5/1.1	2/1.5
Water pipe size (cm)			2.5	2.5	2.5
Air pipe Size (cm)			1.2	1.2	1.2
Operating 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 (m)	Pumping Height (m)	Lifting Height (m)	Discharge in LPH		
30	5	25	1500	1700	2300
30	15	15	1800	2000	3500
30	25	5	4000	4000	7200
61	15	45	1100	1300	1900
61	30	30	1200	1400	2500
61	45	15	2800	2800	6000
91	25	70	900	1000	1650
91	45	45	1100	1100	2000
91	70	25	2400	2500	5000
122	30	90	800	950	1300
122	60	60	950	1000	2000
122	90	30	2300	2400	4500
152	30	120			900
152	75	75			1100
152	120	30			4000
183	60	120			700
183	90	90			1000
183	120	60			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 circle marked on the oil level indicator), ensure that sufficient quantity of oil is present.
- The oil (SAE 40) 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.



# Sewage Pumps

## Robust, Long lasting and Efficient.

The sewage pumps are specifically designed for pumping domestic sewage and effluent liquids with a pH value of 6.5 - 8.5. These pumps are designed for fully submerged continuous operation.

\*Max. liquid temperature 40°C

### CSCR Induction motors as prime mover.

Provides constant speed and better torque.

### The dual silicon carbide mechanical seal system and extra oil seal protection

Protects the motor from sewage contamination, to provide you exceptionally long pump service life. Contributes leak free operation.

### Equipped with auto reset motor protector

Prevents the motor damage from abnormal heat and current.

### 99.99% ; Super enameled copper windings

Constitutes efficient and long-lasting motor.

### Stainless shaft and fasteners

For enhanced life.

### Rugged cast iron pump housing, impeller and motor casing

Long life of operation even with rough condition of usages.

## Operating/Technical specifications

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

**Power range:** 0.75 - 1.5kW (1HP to 2HP)

**Flow range:** 3700 - 6000

**Rated Speed:** 2800

**Type of duty:** S1 (Continuous)

**Insulation class:** B

**Rotation:** Clockwise, when viewed from motor side





# Sewage Pumps

## Speciality

- Dry type submersible induction motor
- Shaft and fasteners are in stainless steel to enhance life
- Impeller and casing are coated with chemical resistance coating to improve life and performance
- Solid handling size upto 20 mm
- Cable connectors filled with resin to prevent water leakage into the motor through the cable wire
- Dual mechanical seal prevents water entry into the dry motor portion at two interfaces, one at pump portion to oil chamber and another at oil chamber to dry motor portion
- Compact in construction
- High Efficiency
- Long Durability



VSW5-F25US



VSW5-TW55US

## PERFORMANCE DETAILS

Models	Power		Pipe size (cm)	Total head in metres Vs Discharge in LPH					
	HP	kW	Delivery	m	3	6	9	12	15
VSW5-F25US	1	0.75	5.0	LPH	24800	19000	7500		
VSW5-FH45US	1.5	1.1	5.0		26000	20500	14000	6000	
VSW5-TW55US	2	1.5	5.0			30000	25200	20000	12000

## Precautions to use Sewage Pumps !

- The pumping medium temperature must not exceed 40 degree Celsius
- pH range of medium between 6.5-8.5
- Ensure proper earthing to avoid electrical risks
- The depth of water must be less than 5 meters, more than 0.5 meters
- The pump must not be operated in dry condition
- The allowable particle size is upto 20 mm



# Pump Control Panels

## Speciality

- Powder coated MS enclosure for complete corrosion resistance <sup>(1)</sup>
- High quality virgin Acrylonitrile Butadiene Styrene (ABS) used <sup>(2)</sup>
- Fitted with premium quality Miniature Circuit Breaker for rapid overload & short circuit protection
- Fitted with Heavy Duty Start & Run Capacitors
- Designed for easy & quick mounting
- Pleasing aesthetic look
- Premium panels with superior quality voltmeter & ammeters <sup>(3)</sup>
- Premium panels with high quality AC contactors with rugged design <sup>(3)</sup>
- Provided with pushbutton for voltmeter for enhanced life
- Fitted with premium quality connectors & wire joints.



Openwell									
Sl.No	Panel Code	Running	Starting	MCB (A)	Contactor (A)	Ammeter	Voltmeter	Panel material	Panel Type
1	NO55-H60	25	Nil	6	Nil	Nil	Nil	ABS	Regular
2	OS-F90	30	40/60	10	Nil	Nil	Nil	Metal	Regular
3	OS-H60	36	Nil	6	Nil	Nil	Nil	ABS	Regular
4	OS-RF90	36	Nil	10	Nil	Nil	Nil	ABS	Regular
5	O5S-F90	45	Nil	10	Nil	Nil	Nil	ABS	Regular
6	OS-RF110	45	Nil	10	Nil	Nil	Nil	ABS	Regular
7	O5S-F110	45	Nil	16	Nil	Nil	Nil	ABS	Regular
8	O5S-TW100	60	100/120	16	Nil	Nil	Nil	Metal	Regular
9	OS-FH110	75	60/80	16	Nil	Nil	Nil	Metal	Regular
10	OS-FH150	75	60/80	16	Nil	Nil	Nil	Metal	Regular

Tubewell									
Sl.No	Panel Code	Running	Starting	MCB (A)	Contactor (A)	Ammeter	Voltmeter	Panel material	Panel Type
1	BAMR-1015	36	100/120	10	12	(0-30A)	(0-300V)	Metal	Regular
2	VBM36D10RE	36	100/120	10	25 -1P	(0-30A)	(0-300V)	Metal	Economy
3	3BAM-1012	50	100/120	10	12	(0-30A)	(0-300V)	Metal	Regular
4	VBM50D12RE	50	100/120	10	25 -1P	(0-30A)	(0-300V)	Metal	Economy
5	BAMR-1520	50	120/150	16	16	(0-30A)	(0-300V)	Metal	Regular
6	BAMRO-15	50	100/120	16	16	(0-30A)	(0-300V)	Metal	Regular
7	3BAM-1018	60	100/120	10	12	(0-30A)	(0-300V)	Metal	Regular
8	BAM-1508	60	100/120	16	16	(0-30A)	(0-300V)	Metal	Regular
9	BAMR-3040	136(100+36)	200/250	25	25	(0-30A)	(0-300V)	Metal	Regular
10	BAMR-2030	90(45+45)	150/200	16	16	(0-30A)	(0-300V)	Metal	Regular
11	BAMR-3009	90(45+45)	150/200	20	25	(0-30A)	(0-300V)	Metal	Regular

(1)Applicable for panels with Sheetmetal body. (2) Applicable for panels with plastic / ABC body. (3) Applicable for premium borewell submersible pump panels.

Cable Selection Chart

CABLE SELECTION CHART FOR BOREWELL 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	

Note:  
\* The table states maximum allowable length of three core flat PVC sheathed, submersible copper cables for installation of single phase submersible pumps.  
\* The Maximum Voltage drop considered here is 20 V.

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	7	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		

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 clothes, 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.
- 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.

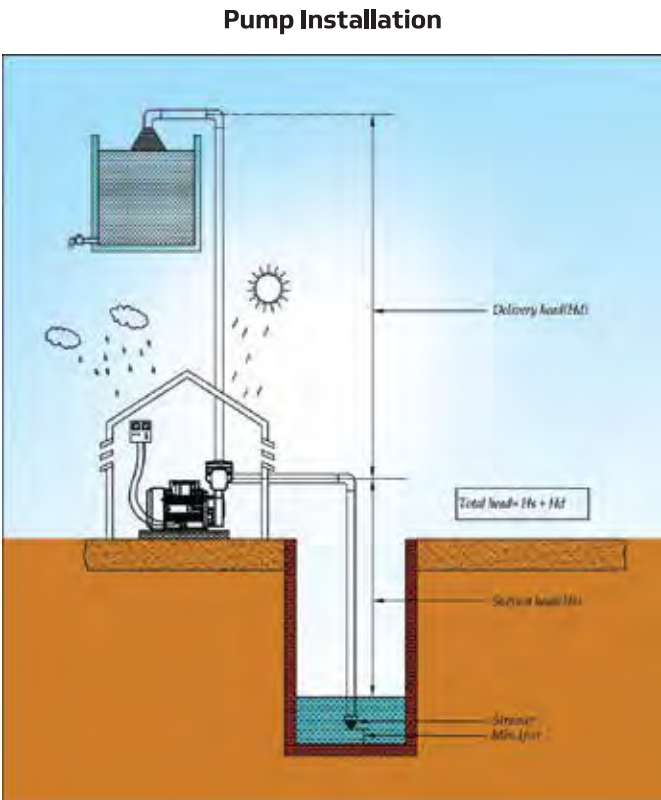
SELECTION OF PUMPS

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 and 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 and 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 (i.e. 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 (i.e. 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/cm²	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/cm²





# V-Guard Electric Motors

Improved efficiency Power packed performance

The most powerful performance in extreme conditions...

V-Guard Motors 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 motors are made from top grade castings & finest components using state-of-the-art technology, to the latest International Standards. Each and every state in the manufacturing process is closely monitored through stringent quality tests to ensure impeccable standards, superior performance and unmatched durability. V-guard motors are available in more than 200 models ranging from 0.25 HP to 3.0 HP in single phase segment and 0.5 HP to 25 HP in three phase segments.



## ENERGY EFFICIENT INDUCTION MOTOR

### Three Phase Squirrel Cage

#### Smart Series

PRODUCT RANGE

Output range	: 0.5 to 25HP (0.37 kW to 18.5kW)
Frame size	: 71 to 200L
Phase	: Three
No. of pole	: 2/4/6
Enclosure material	: Cast Iron frame
Type of enclosure	: Totally Enclosed Fan Cooled (TEFC)
Mounting Type	: Foot (B3), Flange (B5), Face (B14) and combinations



SALIENT FEATURES

- Superior Energy Efficient Motor as per IS 12615 – Lower on power consumption
- High efficient stator laminations with superior low loss CRNO steel
- Suitable for VFD applications
- Robust & Optimized designs
- Lower heat generation

STANDARDS & REFERENCES

V-Guard “SMART” Series motors conform to the following Indian & International standards

Title	Indian Standards	International Standards
Three phase induction motor	: IS : 12615 - 2011	IEC 60034 – 1
Method of determining losses & efficiency	: IS : 12615 - 2011	IEC 60034 – 2
Dimensions & Output for electric machines	: IS : 1231 – 1974	IEC 60072 - 1
	<b>(Foot mounted motors)</b>	
	IS : 2223 – 1983	
	<b>(Flange mounted motors)</b>	
Classification of degree of protection	: IS : 4691 – 1985	IEC 60034 – 5
Noise limit	: IS : 12065 – 1987	IEC 60034 – 9
Vibration limit	: IS : 12075 – 1987	IEC 60034 – 14
Terminal marking & direction of rotation	: IS : 4728 – 1975	IEC 60034 – 8
Symbols of construction and mounting arrangement	: IS : 2253 – 1974	IEC 60034 – 7
Method of Cooling	: IS : 6362 – 1971	



DERATION FOR HIGHER AMBIENT & ALTITUDE

DERATING FACTORS: The deration factors applicable under different conditions are given below:

Operating conditions: 415V ± 10%,50Hz ± 5%

Table A: Permissible output as % of standard output for different Ambient temperatures

40°C	45°C	50°C	55°C	60°C	65°C
100%	100%	92%	85%	78%	70.5%

Table B: Permissible output as % of standard output at different altitude in meters. (Above MSL)

1000m	1500m	2000m	2500m	3000m	3500m	4000m
100%	95%	90%	84%	78%	75%	70%

Table C: Permissible output as % of standard output for different % of unbalance in Voltage

1%	2%	3%	4%	5%
100%	95%	90%	78%	70%

Table D: Permissible output as % of standard output at different voltages

Voltage	100%	90%	85%	80%	70%
40°C Ambient	100%	100%	90%	85%	75%
45°C Ambient	100%	90%	85%	80%	70%

EFFECT OF VARIATION OF VOLATGE AND FREQUENCY ON THE CHARACTERISTICS OF MOTOR

Characteristics	Voltage		Frequency	
	110%	90%	105%	95%
<b>TORQUE</b> Starting & Maximum	Increase 21%	Decrease 19%	Decrease 10%	Increase 11%
<b>SPEED</b> Synchronous Full load	No Change Increase 1%	No Change Decrease 1.5%	Increase 5% Increase 5%	Decrease 5% Decrease 5%
<b>CURRENT</b> No Load Starting Full Load Temp. Rise Overload Capacity Magnetic Noise	Increase 10-15% Increase 10-12% Decrease 7% Decrease 3-4% Increase 21% Slight Increase	Decrease 10-12% Decrease 10-12% Increase 11% Increase 6-7% Decrease 19% Slight Decrease	Decrease 5-6% Decrease 5-6% Slight Decrease Slight Decrease Slight Decrease Slight Decrease	Increase 5-6% Increase 5-6% Slight Increase Slight Increase Slight Increase Slight Increase
<b>EFFICIENCY</b> Full Load	Increase 0.5-1.0%	Decrease 2%	Slight Increase	Slight Decrease
<b>POWER FACTOR</b>	Decrease 3%	Increase 1%	Slight Increase	Slight Decrease

PERMISSIBLE TEMPERATURE RISE

Standard three phase motors are manufactured with Class ‘F’ insulation and temperature rise restricted to Class ‘B’

Class of insulation	Max. Permissible Temp. Limit °C	Max. Permissible temp rise for windings at Amb. Temp. in °C			
		40	45	50	60
A	105	60	55	50	40
B	130	80	75	70	60
F	155	105	100	90	85
H	180	125	120	115	105

Temperature rise and maximum temperature at the hottest points of the winding Tmax according to the temperature classes of IEC 600034-1/IS 325.



↓ 2 <sup>nd</sup> characteristic numeral	→ 1 <sup>st</sup> characteristic numeral	Non-protected machine	Machine protected against solid objects greater than 50 mm	Machine protected against solid objects greater than 12 mm	Machine protected against solid objects greater than 2.5 mm	Machine protected against solid objects greater than 1 mm	Dust-protected machine	Dust-tight machines
Non-protected machine		0	1	2	3	4	5	6
Machine protected against dripping water		1						
Machine protected against dripping water when tilted up to 15°		2						
Machine protected against spraying water up to 60°		3						
Machine protected against splashing water		4				IP 44		
Machine protected against water jets		5					IP 55	
Machine protected against heavy seas		6						
Machine protected against the effects of immersion		7						
Machine protected against the effects of continuous submersion		8						







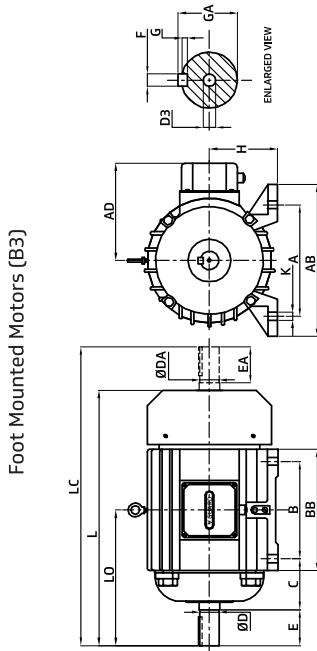
MOUNTING ARRANGEMENTS

Mounting	Foot Mounted	Flange Mounted	Face Mounted	Foot Cum Flange	Foot Cum Face
Basic	B3 /IM 1001	B5 /IM 3001	B14 /IM 3601	B35 / IM 2001	B34 / IM 2101
Variations	B6,B7,B8,V5 & V6	V1 & V3	V18 & V19	V15 & V 36	-
Frames	63 to 160L	63 to 160L	63 to 100L	63 to 160L	63 to 100L

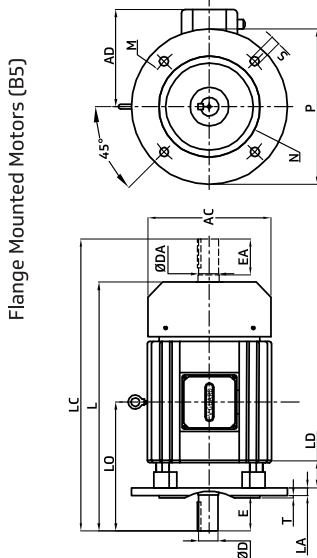
MOUNTING AND OVERALL DIMENSIONS

- Energy efficient induction motor - Three phase squirrel cage
- Single phase squirrel cage induction motor

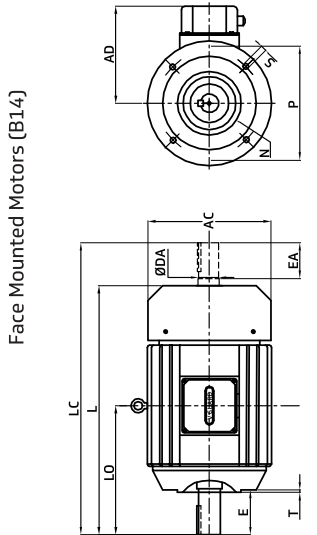
Foot Mounted Motors (B3)



Flange Mounted Motors (B5)



Face Mounted Motors (B14)



FRAME SIZE	COMMON DIMENSIONS										FOOT MOUNT (B3)				FLANGE MOUNT (B5)						FACE MOUNT (B14)							
	ØD, ØDA	E, EA	F	GA	G	ØD3	L	LC	LO	AD	ØAC	A	B	C	H	ØK	ØM	ØN	ØP	S	T max.	LD min	ØM	ØN	ØP	ØS	T max.	
63	116	23	4	12.5	8.5	M4	208	237	103	93	118	100	80	40	63	7	115	95j6	140	10	3	9	16	75	60	90	M5	2.5
71	146	30	5	16	11	M5	253	285	125	115	140	112	90	45	71	7	130	110j6	160	10	3.5	9	16	85	70	105	M6	2.5
80	196	40	6	21.5	15.5	M6	280	321	140	126	160	125	100	50	80	10	165	130j6	200	12	3.5	10	20	100	80	120	M6	3
90S	246	50	8	27	20	M8	320	358	168	136	178	140	100	56	90	10	165	130j6	200	12	3.5	10	20	115	95	140	M8	3
90L	246	50	8	27	20	M8	320	384	168	136	178	140	125	56	90	10	165	130j6	200	12	3.5	10	20	115	95	140	M8	3
100L	286	60	8	31	24	M10	375	438	193	150	200	160	140	63	100	12	215	180j6	250	15	4	11	24	130	110	160	M8	3.5
112M	286	60	8	31	24	M10	388	454	200	168	225	190	140	70	112	12	215	180j6	250	15	4	11	24	-	-	-	-	-
132S	386	80	10	41	33	M12	445	531	239	210	260	216	140	89	132	12	265	230j6	300	15	4	12	24	-	-	-	-	-
132M	386	80	10	41	33	M12	483	569	256	210	260	216	178	89	132	12	265	230j6	300	15	4	12	24	-	-	-	-	-
160M	426	110	12	45	37	M16	606	724	323	254	320	254	210	108	160	15	300	250j6	350	19	5	13	32	-	-	-	-	-
160L	426	110	12	45	37	M16	649	785	355	254	320	254	254	108	160	15	300	250j6	350	19	5	13	32	-	-	-	-	-

Dimensions of foot mounted motors as per IS: 1231-1974, Flange & face mounted motors as per IS: 2223-1983. All dimensions are in mm.





## NOMENCLATURE

How to read the model code : VIT4A80-10

Letter	What it means
V	V-Guard
I	Industrial motor
T	Three Phase
2/4/6/8	2-2880RPM; 4-1440RPM; 6-960 RPM 8-740RPM
A/B/C/D/E	A-Foot Mount (B3); B-Flange Mount; C-Face Mount (B14); D-Foot cum flange (B35); E-Foot cum face (B34)
Frame size	63,71,80,90S,90L,100L,112M,132S,132M,160M,160L,200L
Power output	Q-0.25hp; H-0.5hp; TF-0.75 hp10-1hp;15-1.5hp;75-7.5hp;100-10hp;250-25hp

## THREE PHASE AC SQUIRREL CAGE INDUCTION MOTORS

Voltage	: 415 Volts ±10%, 3Ø A.C	Frequency	: 50Hz ± 5%
Combined Variation	: ±10%	Ambient temperature	: 45°C
Insulation	: Class 'F'	Winding temperature rise	: Designed to operate within class 'B' limit
Duty	: Continuous (S1)	Protection class	: IP 55
Altitude	: Up to 1000 meters above MSL	Service Factor	: 1.15

## PERFORMANCE CHARACTERISTICS OF ENERGY EFFICIENT INDUCTION MOTOR

2 Pole 3000 RPM									
Output		Model*	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency [%]
HP	kW								
0.50	0.37	VIT2A71-H	71	2750	1.2	0.13	1.7	6.5	72.2
0.75	0.55	VIT2A71-TF	71	2760	1.6	0.19	1.7	6.5	74.8
1.0	0.75	VIT2A80-10	80	2780	2.0	0.26	1.7	6.5	77.4
1.5	1.1	VIT2A80-15	80	2790	2.8	0.38	1.7	6.5	79.6
2.0	1.5	VIT2A90S-20	90S	2800	3.7	0.52	1.7	6.5	81.3
3.0	2.2	VIT2A90L-30	90L	2810	5.0	0.76	1.7	7.0	83.2
5.0	3.7	VIT2A100L-50	100L	2820	8.0	1.28	1.6	7.0	85.5
7.5	5.5	VIT2A132S-75	132S	2830	11.0	1.89	1.6	7.0	87.0
10.0	7.5	VIT2A132S-100	132S	2840	15.0	2.57	1.6	7.0	88.1
15.0	11.0	VIT2A160M-150	160M	2860	21.5	3.74	1.6	7.0	89.4
20.0	15.0	VIT2A160M-200	160M	2870	29.0	5.09	1.6	7.0	90.3
25.0	18.5	VIT2A160L-250	160L	2880	35.0	6.25	1.6	7.0	90.9
4 Pole 1500 RPM									
Output		Model*	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency [%]
HP	kW								
0.50	0.37	VIT4A71-H	71	1330	1.4	0.27	1.7	6.0	70.1
0.75	0.55	VIT4A80-TF	80	1340	1.7	0.40	1.7	6.0	75.1
1.0	0.75	VIT4A80-10	80	1360	2.2	0.54	1.7	6.0	79.6
1.5	1.1	VIT4A90S-15	90S	1370	2.9	0.78	1.7	6.0	81.4
2.0	1.5	VIT4A90L-20	90L	1380	3.8	1.06	1.7	6.0	82.8
3.00	2.20	VIT4A100L-30	100L	1390	5.1	1.54	1.7	7.0	84.3
5.0	3.7	VIT4A112M-50	112M	1410	8.1	2.55	1.6	7.0	86.3
7.5	5.5	VIT4A132S-75	132S	1420	11.4	3.77	1.6	7.0	87.7
10.0	7.5	VIT4A132M-100	132M	1430	15.4	5.11	1.6	7.0	88.7
15.0	11.0	VIT4A160M-150	160M	1440	22.0	7.44	1.6	7.0	89.8
20.0	15.0	VIT4A160L-200	160L	1440	30.0	10.14	1.6	7.0	90.6
25.0	18.5	VIT4A180M-250	180M	1440	36.0	12.51	1.6	7.0	91.2
6 Pole 1000 RPM									
Output		Model*	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency [%]
HP	kW								
0.50	0.37	VIT6A80-H	80	870	1.4	0.41	1.6	6.0	69.0
0.75	0.55	VIT6A80-TF	80	870	1.9	0.62	1.6	6.0	72.9
1.0	0.75	VIT6A90S-10	90S	890	2.3	0.82	1.6	6.0	75.9
1.5	1.1	VIT6A90L-15	90L	900	3.2	1.19	1.6	6.0	78.1
2.0	1.5	VIT6A100L-20	100L	900	4.0	1.62	1.6	6.0	79.8
3.0	2.2	VIT6A112M-30	112M	910	5.5	2.35	1.5	7.0	81.8
5.0	3.7	VIT6A132S-50	132S	920	8.8	3.91	1.5	7.0	84.3
7.5	5.5	VIT6A132M-75	132M	920	12.7	5.82	1.5	7.0	86.0
10.0	7.5	VIT6A160M-100	160M	930	16.7	7.85	1.5	7.0	87.2
15.0	11.0	VIT6A160L-150	160L	935	23.0	11.45	1.4	7.0	88.7
20.0	15.0	VIT6A180L-200	180L	940	30.5	15.53	1.4	7.0	89.7
25.0	18.5	VIT6A200L-250	200L	940	37.5	19.16	1.4	7.0	90.4

All performance figures are subjected to IS: 12615 – 2011, IS: 325 – 1996 & IEC 60034 – 1

\* Corresponding Flange & Face Mount models are available with same features

FL Speed : Minimum Speed at Rated Output

FL Torque : Maximum Torque at Rated Output

IB / I : Maximum Breakaway Current in terms of Full load Current

FL Current : Maximum Current at Rated Output

TB / T : Minimum Breakaway Torque in terms of Full load Torque





Single Phase Squirrel Cage

Endura Series



PRODUCT RANGE

Output range	: 0.25 to 3HP (0.18 kW to 2.2kW)
Frame size	: 63 to 112M
Phase	: Single
No. of pole	: 4
Enclosure material	: Cast Iron frame
Type of enclosure	: Totally Enclosed Fan Cooled (TEFC) Drip proof (DP)
Mounting Type	: Foot (B3), Flange (B5), Face (B14) and combinations

SALIENT FEATURES

- Standard designs as per IS, NEMA standards
- Super Enamel coated Copper winding wire
- Single phase motors are fitted with T.O.P.
- Customized motor design capability
- Low maintenance cost

STANDARDS & REFERENCES

V-Guard “ENDURA” Series motors conform to the following Indian & International standards

Title	Indian Standards	International Standards
Single phase induction motors	: IS : 996 – 2009	
Method of determining losses & efficiency	: IS : 7572 – 1974	
Dimensions & Output for electric machines	: IS : 1231 – 1974	IEC 60072 - 1
	(Foot mounted motors)	
	IS : 2223 – 1983	
	(Flange mounted motors)	

NOMENCLATURE

How to read the model code : VIS4A90-HDG

Letter	What it means
V	V-Guard
I	Industrial motor
S	Single Phase
4	1440RPM
A/B/C/D/E	A-Foot Mount (B3); B-Flange Mount (B5); C-Face Mount (B14); D-Foot cum flange (B35); E-Foot cum face (B34)
Frame size	63,71,80,90S,90L,100L,112M
Power output	Q-0.25hp; H-0.5hp;TF-0.75;10-1hp;15-1.5hp;20-2hp; 30-3hp
R, S & D	R-CSR S- CSIR & D -CSCR
G & X	G-Grinder segments code & X-Heavy duty application



SINGLE PHASE AC SQUIRREL CAGE INDUCTION MOTORS

Voltage	: 220 Volts ±10%, 1Ø A.C	Frequency	: 50Hz ± 5%
Combined Variation	: ±10%	Ambient temperature	: 45°C
Insulation	: Class 'B'/'F'	Protection class	: IP 44
Duty	: Continuous (S1)	Direction	: Bi-directional

PERFORMANCE CHARACTERISTICS OF SINGLE PHASE AC SQUIRREL CAGE INDUCTION MOTORS

4 Pole 1500 RPM													
Sl. No.	Output		Foot mount Model	Enclosure	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency (%)	Cap. Run (mfd)	Cap. Start (mfd)
	HP	kW											
1	0.25	0.18	VIS4A71-QR	TEFC	71	1380	3	0.13	1.5	6.5		10	---
2	0.25	0.18	VIS4A90S-QSG*	DP	90S	1420	2.4	0.12	1.5	6.5	58	---	40/60
3	0.5	0.37	VIS4A80-HD	TEFC	80	1420	3	0.25	1.5	6.5	65	20	60/80
4	0.5	0.37	VIS4A90S-HDG*	DP	90S	1440	2.7	0.25	1.5	6.5	69	15	60/80
5	1	0.75	VIS4A80-10R	TEFC	80	1380	6	0.53	1.5	6.5	62	30	---
6	1	0.75	VIS4A90L-10D	TEFC	90L	1410	5	0.52	1.5	6.5	71	25	90
7	1	0.75	VIS4A100L-10D	TEFC	100L	1440	5	0.51	1.5	6.5	75	20	90
8	1.5	1.1	VIS4A100L-15D	TEFC	100L	1440	7	0.74	1.5	6.5	78	25	90
9	2	1.5	VIS4A100L-20D	TEFC	100L	1440	10	1.01	1.5	6.5	78	36	90
10	2	1.5	VIS4A112M-20D	TEFC	112M	1440	10	1.01	1.5	6.5	73	36	200/250
11	2	1.5	VIS4A112M-20DX	TEFC	112M	1450	12	1.01	1.5	6.5	74	25	200/250
12	3	2.2	VIS4A112M-30D	TEFC	112M	1450	15	1.48	1.5	6.5	75	45	200/250

All performance figures are subjected to IS: 996-2009  
\* IP not applicable  
FL Speed : Minimum Speed at Rated Output  
FL Torque : Maximum Torque at Rated Output  
IB / I : Maximum Breakaway Current in terms of Full load Current  
FL Current : Maximum Current at Rated Output  
TB / T : Minimum Breakaway Torque in terms of Full load Torque





## Single Phase Commercial Motors

### Delite Series



#### PRODUCT RANGE

Output range	: 0.25 to 3HP (0.18 kW to 2.2kW)
Frame size	: B48, B56 & 100S
Phase	: Single
No. of pole	: 4
Enclosure material	: MS Frame
Type of enclosure	: Totally Enclosed Fan Cooled (TEFC) Drip Proof Fan Cooled (DPFC), Drip Proof (DP)
Mounting Type	: Foot (B3), Flange (B5)



#### SALIENT FEATURES

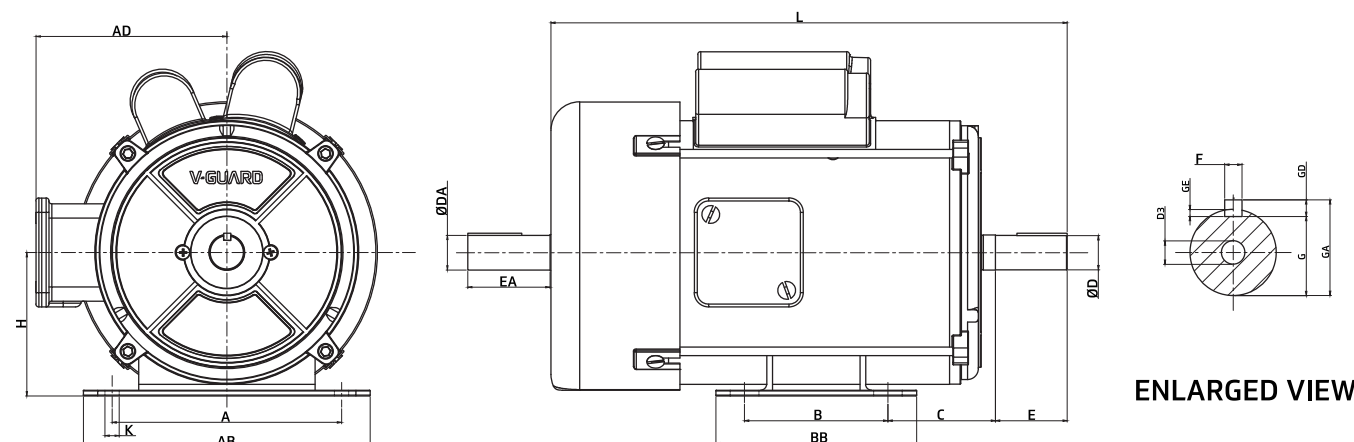
- Power packed performance
- Powder coated enclosure

#### NOMENCLATURE

How to read the model code : VIS4A100SE1-20DW

Letter	What it means
V	V-Guard
I	Industrial motor
S	Single Phase
4	1440RPM
A/B/C/D/E	A-Foot Mount (B3); B-Flange Mount; C-Face Mount (B14); D-Foot cum flange (B35); E-Foot cum face (B34)
Frame size	B48,B56,100S,
E1	E1-Commercial segment code
Power output	Q-0.25hp; H-0.5hp;TF-0.75;10-1hp;15-1.5hp;20-2hp; 30-3hp
R, S & D	R-CSR S- CSIR & D -CSCR
W	W-Wood star series code

#### MOUNTING & OVERALL DIMENSIONS



ENLARGED VIEW

FRAME SIZE	A	AB	B	BB	C	K	D,DA	E,EA	F	G	GA	GD	GE	H
B48	125	160	75	105	98	20*10	16	40	5	13.5	21	2.5	2.5	80
B56	130	172	75	105	98	20*10	16	48	5	13.5	21	2.5	2.5	90S
100S	160	200	112	140	65	17.5x12	24(j6)	50	8	20	27	4	3	100





#### SINGLE PHASE COMMERCIAL AC SQUIRREL CAGE INDUCTION MOTORS

Voltage	: 220 Volts $\pm 10\%$ , 1 $\emptyset$ A.C	Frequency	: 50Hz $\pm 5\%$
Combined Variation	: $\pm 10\%$	Ambient temperature	: 45°C
Insulation	: Class 'B'/'F'	Direction	: Bi-directional
Duty	: Continuous (S1)		

#### PERFORMANCE CHARACTERISTICS OF SINGLE PHASE COMMERCIAL AC SQUIRREL CAGE INDUCTION MOTORS

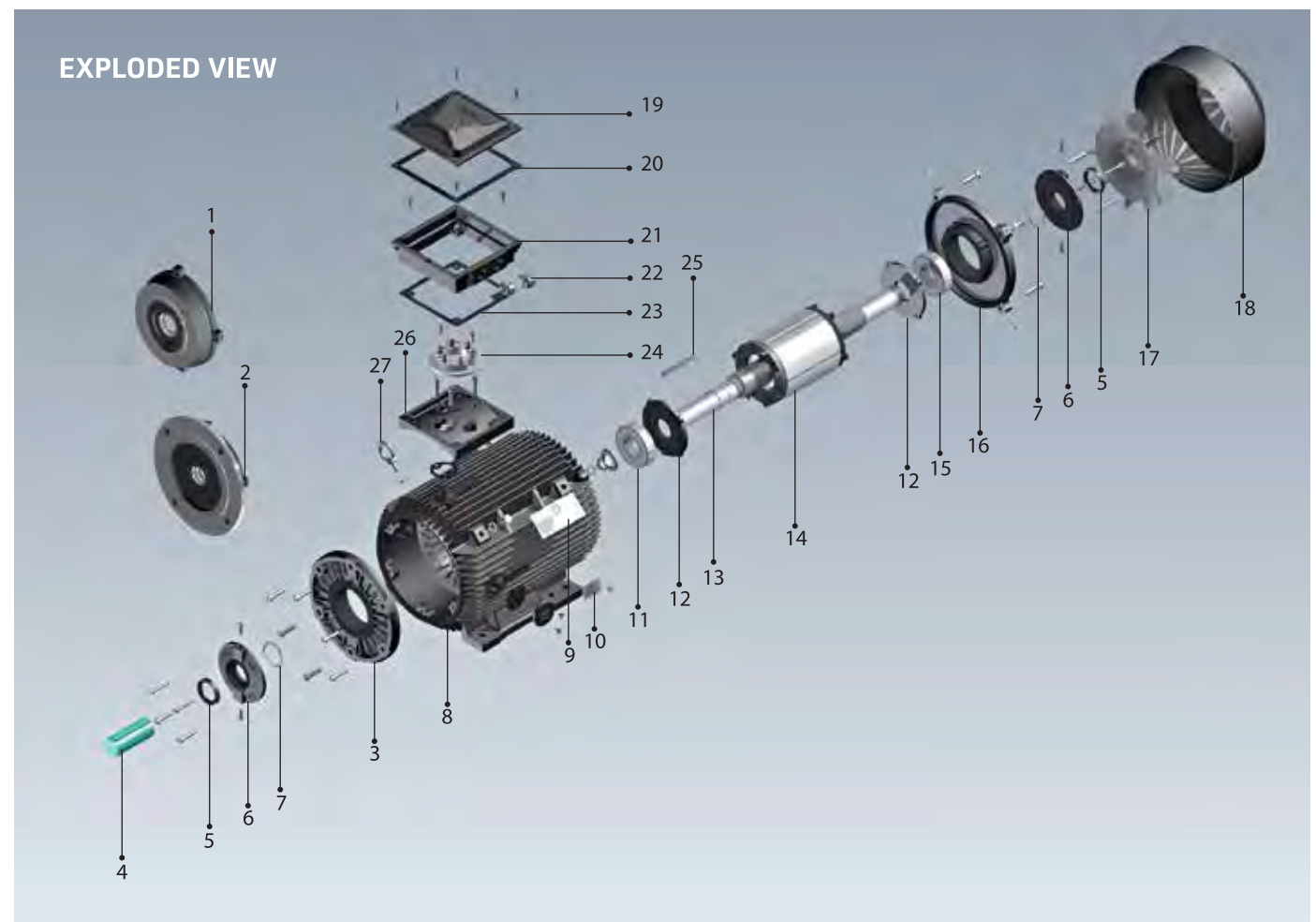
4 Pole 1500 RPM													
Sl. No.	Output		Foot mount Model	Enclosure	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency (%)	Cap. Run	Cap. Start
	HP	kW											
1	0.25	0.18	VIS4AB48E1-QS	DP	B48	1380	3	0.13	1.5	6.5	65	---	40/60
2	0.5	0.37	VIS4AB56E1-HS	DP	B56	1400	3.5	0.26	1.5	6.5	70	---	60/80
3	1	0.75	VIS4AB56E1-10S	DPFC	B56	1380	7.3	0.53	1.5	6.5	69	---	80/100
4	1	0.75	VIS4AB56E1-10D	TEFC	B56	1410	6	0.52	1.5	6.5	74	10	80/100
5	1.5	1.1	VIS4A100SE1-15D	TEFC	100S	1440	8	0.74	1.5	6.5	80	10	200/250
6	2	1.5	VIS4A100SE1-20D	TEFC	100S	1440	10	1.01	1.5	6.5	81	20	200/250
7	2	1.5	VIS4A100SE1-20DW	TEFC	100S	1440	10	1.01	1.5	6.5	81	20	200/250
8	3	2.2	VIS4A100SE1-30D	TEFC	100S	1440	16	1.49	1.5	6.5	76	30	280/300
9	3	2.2	VIS4A100SE1-30DW	TEFC	100S	1440	16	1.49	1.5	6.5	76	30	280/300

All performance values are at full load conditions.

FL Speed : Minimum Speed at Rated Output  
FL Torque : Maximum Torque at Rated Output  
IB / I : Maximum Breakaway Current in terms of Full load Current

FL Current : Maximum Current at Rated Output  
TB / T : Minimum Breakaway Torque in terms of Full load Torque

Note: As improvements are made in design from time to time, specifications and performance are subjected to change without prior information. For latest details, you may get in touch with our Branches or Service Centres.  
All pictures shown are for illustration purpose only. Actual product may vary.



#### LIST OF MOTOR SPARES

- |                              |                             |                         |
|------------------------------|-----------------------------|-------------------------|
| 1. Face cover (B14)          | 11. Drive end bearing       | 21. Terminal box middle |
| 2. Flange cover (B5)         | 12. Bearing cover inside    | 22. Cable gland         |
| 3. Foot drive end cover (B3) | 13. Shaft                   | 23. Terminal box gasket |
| 4. Shaft protection          | 14. Rotor                   | 24. Terminal connector  |
| 5. Oil seal                  | 15. Non-drive end bearing   | 25. Key                 |
| 6. Bearing cover outside     | 16. Back cover              | 26. Terminal box bottom |
| 7. Wave washer               | 17. Cooling fan             | 27. Eye bolt            |
| 8. Motor body                | 18. Fan cover               |                         |
| 9. Nameplate                 | 19. Terminal box top        |                         |
| 10. Earth plate              | 20. Terminal box gasket lid |                         |

Notes : .....

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