

VL IN-LINE SERIES



Index

VL Series Characteristics

VL Series Parts Description

VL Series Performance Curves and Tables

VL Series Pump Sections and List of Main Components

VL (IN LINE) Series Stainless Steel Close-Coupled Multistage Pump

Born as an evolution of the NAUTI series, the VL is a multifunctional pump, both for submersible and surface use.

APPLICATIONS

- Pressure boosting
- Water distribution
- Water supply from wells or first collecting tanks
- Rainwater collection
- Wash down unit
- Irrigation / Gardening / Sprinklers
- Fountains and water games
- Specific applications to cope problems of noise
- Specific applications to cope problems of space-saving

FEATURES

- Full stainless steel compact and solid structure
- Impellers and diffusers are made of stainless steel in order to achieve durability, superior efficiency and the highest performances
- Double mechanical seal separated by an oil chamber for maximum motor protection
*In compliance with FDA - Food, Drug Administration - and the annex to G.U. no. 104 of 20/04/73 for oils in contact with food stuffs
- Plug-in type power cable and level control (float) for easy replacement
- External capacitor easily accessible (single-phase only)
- Extremely silent pump thanks to the inside motor, cooled by the pumped liquid itself
- Pump fitted with flanged connections to allow for easy installation in narrow spaces or, more simply, in line with the pipeline

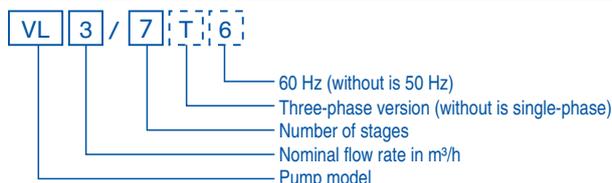
SPECIFICATIONS

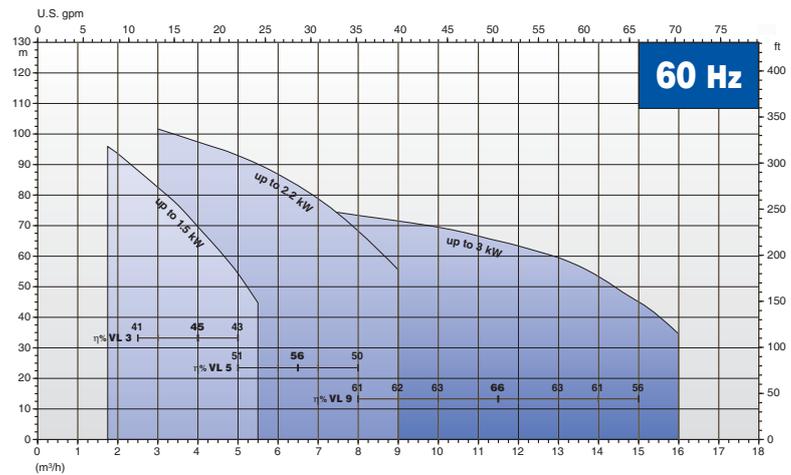
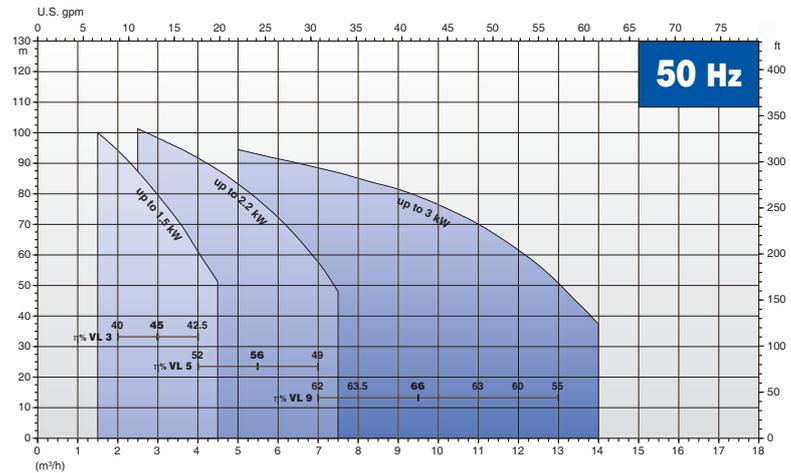
- Capacities up to 14 m³/h and heads up to 11 Bar
- Discharge outlet 1"¼ Rp
- Suction outlet 1"½ Rp
- Discharge and suction outlets prepared for quick connection with oval flanges
- Maximum working pressure: 15 Bar
- Maximum immersion depth: 20 m
- Liquid temperature range: from -5°C to +40°C
- Asynchronous motor, Class F insulation, IP68 protection
- Motor range: 0,55kW to 3kW
- Nominal voltages: Single-phase 220-240 V ±5%, 50 Hz; Three-phase 380-415 V ±5%, 50 Hz
- Maximum number of starts per hour: 20
- 1,5 m of power cable type H07RN F is supplied with the standard version
- Continuous operation either in vertical or horizontal position

AVAILABLE ON REQUEST

- Single-phase models equipped with level control (float)
- Control and protection panel for single-phase models
- Various voltages and frequencies
- Various power cable lengths
- Suction outlet 1"¼Rp
- Oval counterflanges to be welded
- Oval counterflanges screwed
- Stainless steel flanged connectors for the assembling of simple pressurization groups
- 2-pumps groups complete with collectors, pressure-switches panel, built-in check valves and ball valves

PUMP IDENTIFICATION CODE





PART DESCRIPTION	MATERIAL	
Outer case	Stainless steel	DIN-EN 1.4301 (AISI 304)
Suction head	Stainless steel	DIN-EN 1.4301 (AISI 304)
Motor housing	Stainless steel	DIN-EN 1.4301 (AISI 304)
Covers/flanges motor casing	Stainless steel	DIN-EN 1.4301 (AISI 304)
Pump shaft	Stainless steel	DIN-EN 1.4301 (AISI 304)
Diffuser/s	Stainless steel	DIN-EN 1.4301 (AISI 304)
Impeller/s	Stainless steel	DIN-EN 1.4301 (AISI 304)
Screws and washers	Stainless steel	DIN-EN 1.4301 (AISI 304)
Discharge head	Stainless steel	DIN-EN 1.4301 (AISI 304)
Upper mechanical seal	Ceramic/Carbon/NBR	
Lower mechanical seal	Silicon Carbide/Carbon/NBR	

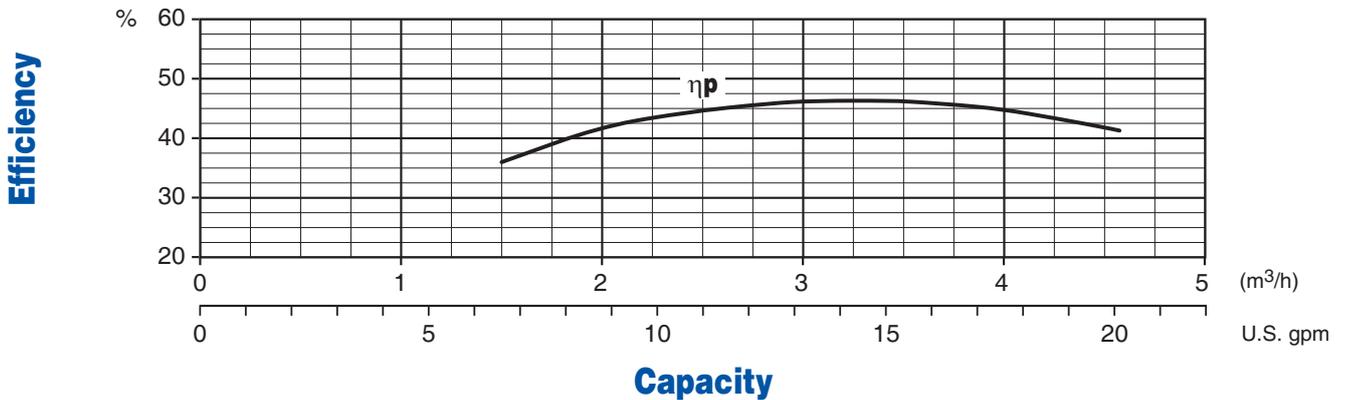
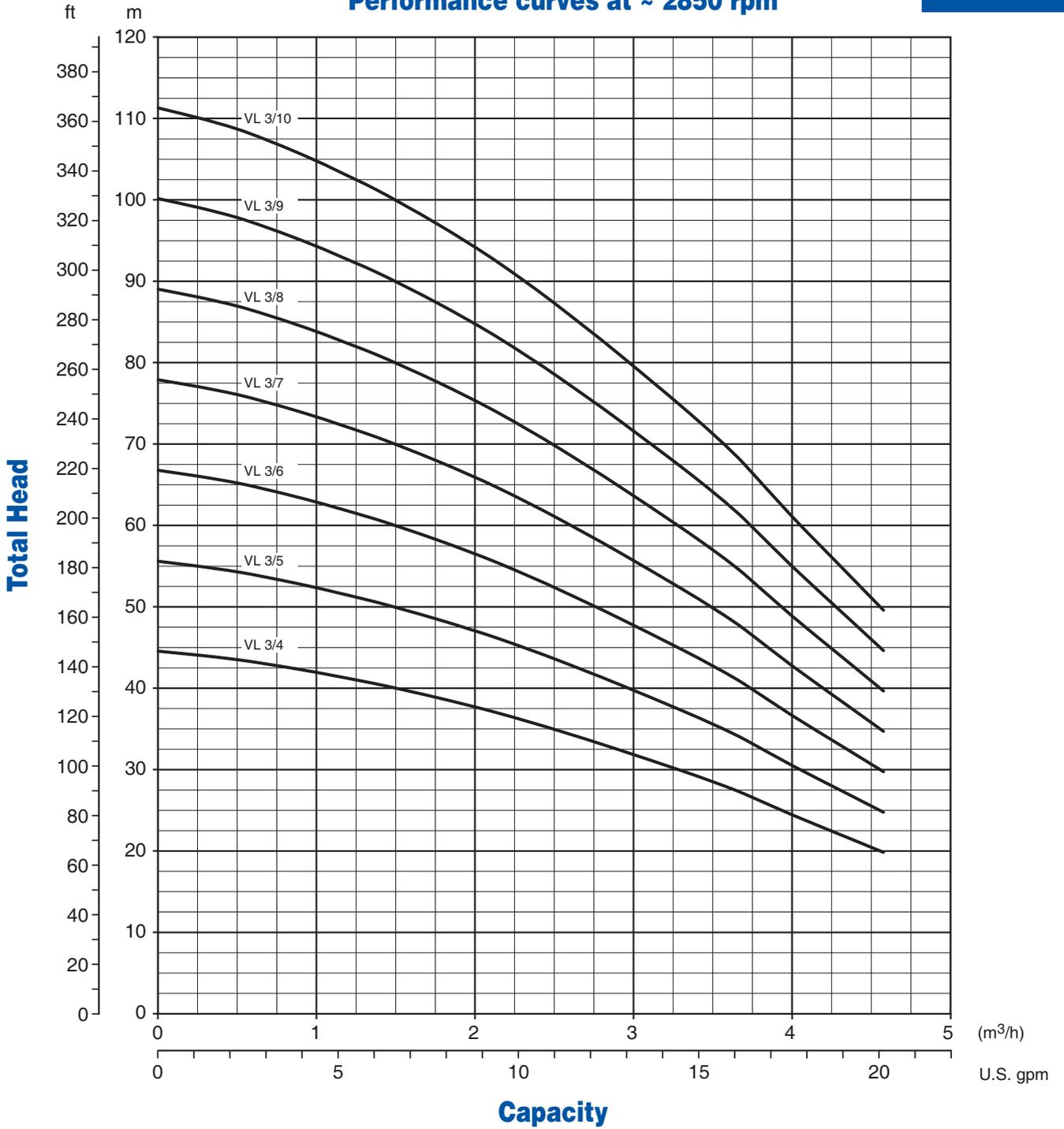
VL Series Performance Curves and Tables

VL 3 50Hz

VL 5 50Hz

VL 9 50Hz

Performance curves at ~ 2850 rpm



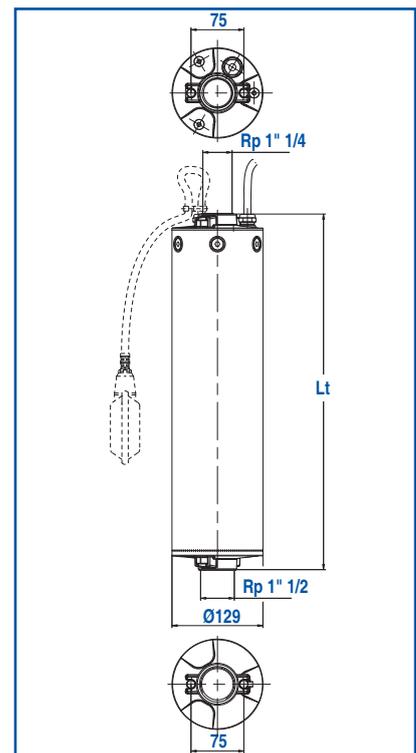
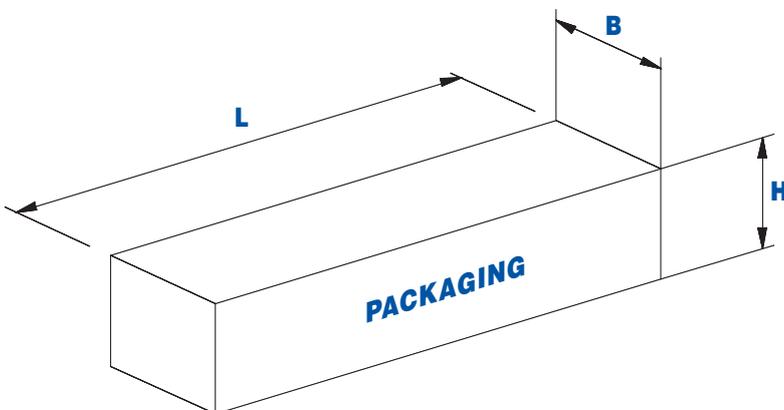
Performance table at ~ 2850 rpm

PUMP MODEL		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	CAPACITOR		RATED CURRENT	
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		µF	V	Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz
VL 3/4	-	4	0.55	0.75	0.85	20	450	4.5	-
VL 3/5	-	5	0.75	1	1	20	450	4.8	-
VL 3/6	-	6	0.75	1	1.2	20	450	5.6	-
VL 3/7	-	7	0.9	1.2	1.35	30	450	6.6	-
VL 3/8	VL 3/8T	8	1.1	1.5	1.55	30	450	7.2	2.7
VL 3/9	VL 3/9T	9	1.5	2	1.8	35	450	9	3
VL 3/10	VL 3/10T	10	1.5	2	2	35	450	9.7	3.3

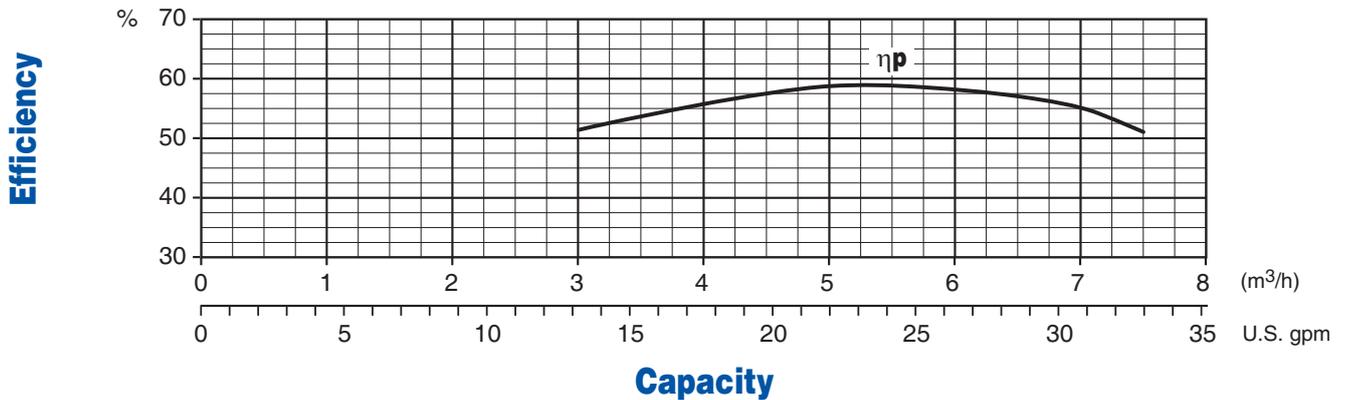
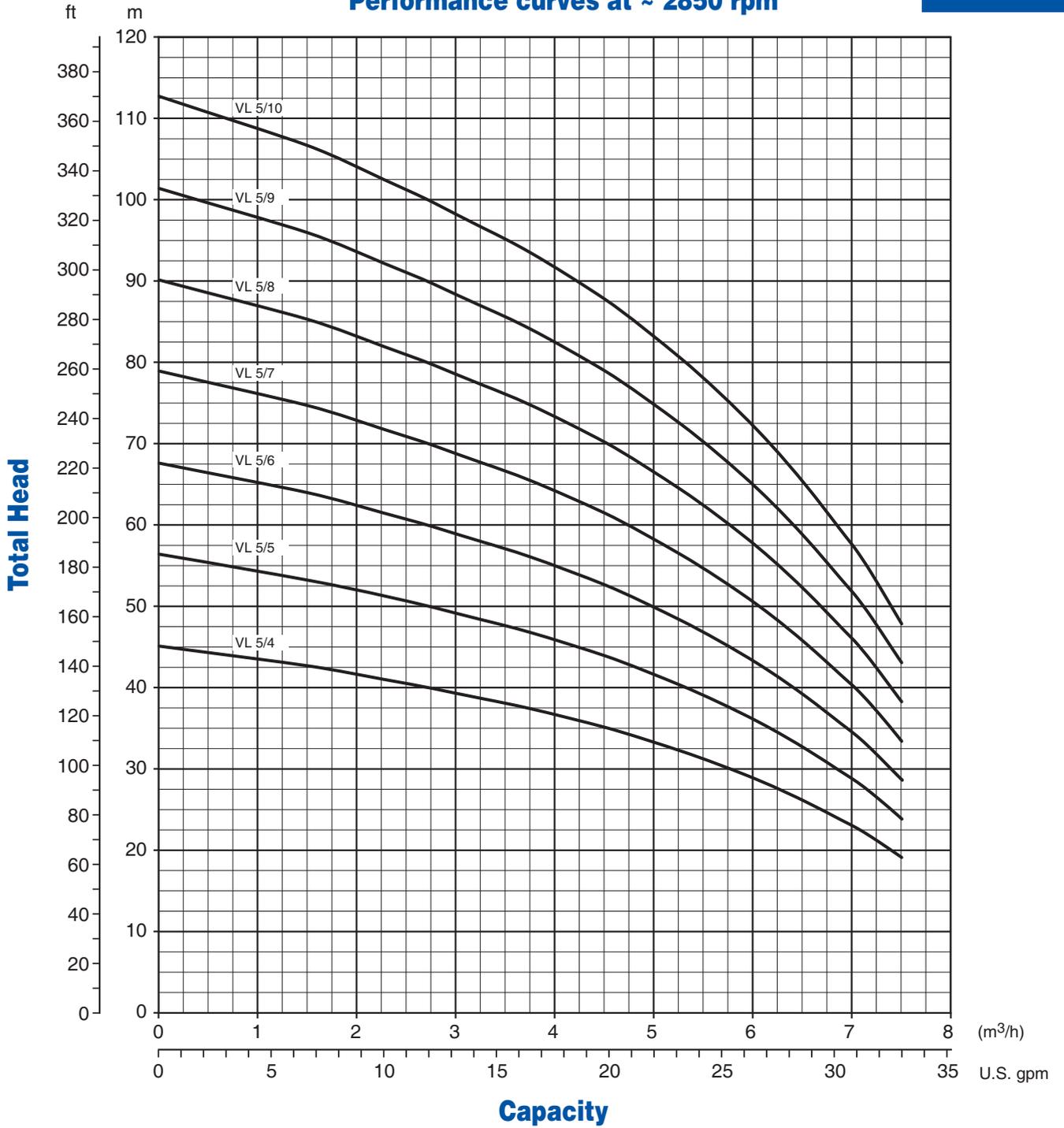
- Single-phase motors: 220-240 V ± 5 % / 50 Hz. Thermal protection built into the motor up to 1,1 kW. Thermal protection provided into the starter panel from 1,5 kW and above.
- Three-phase motors: 380-415 V ± 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

Dimensions and weights

PUMP MODEL			PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	Lt mm	L mm	B mm	H mm	Weight kg	
						Single-phase	Three-phase
VL 3/4	-	464	720	230	175	14.0	-
VL 3/5	-	488	720	230	175	16.0	-
VL 3/6	-	512	720	230	175	16.5	-
VL 3/7	-	536	720	230	175	18.0	-
VL 3/8	VL 3/8T	560	720	230	175	18.5	17.5
VL 3/9	VL 3/9T	634	800	230	195	21.5	19.5
VL 3/10	VL 3/10T	658	800	230	195	22.0	20.0



Performance curves at ~ 2850 rpm



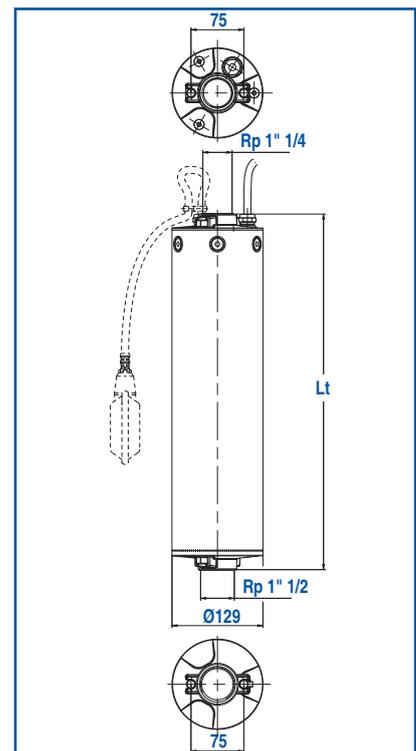
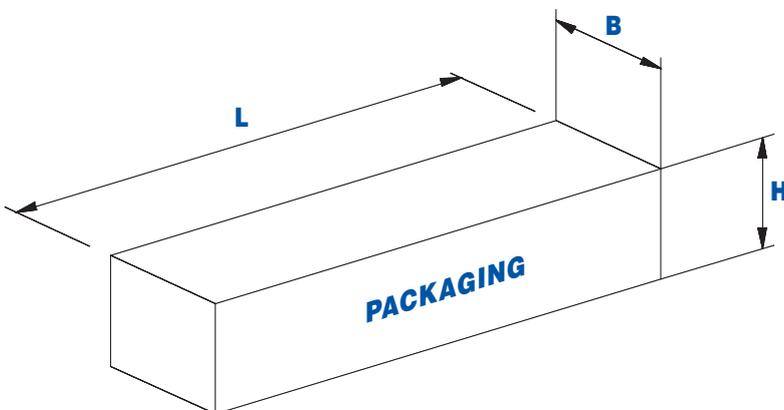
Performance table at ~ 2850 rpm

PUMP MODEL		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	CAPACITOR		RATED CURRENT	
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		kW	µF	V	Single-phase 220-240V 50Hz
VL 5/4	-	4	0.75	1	1.15	20	450	5.4	-
VL 5/5	-	5	0.9	1.2	1.4	30	450	6.5	-
VL 5/6	VL 5/6T	6	1.1	1.5	1.65	30	450	7.6	2.8
VL 5/7	VL 5/7T	7	1.5	2	1.95	35	450	9.5	3.3
VL 5/8	VL 5/8T	8	1.5	2	2.2	35	450	10.5	3.5
VL 5/9	VL 5/9T	9	2.2	3	2.4	45	450	11.7	4.8
VL 5/10	VL 5/10T	10	2.2	3	2.65	45	450	12.7	5.1

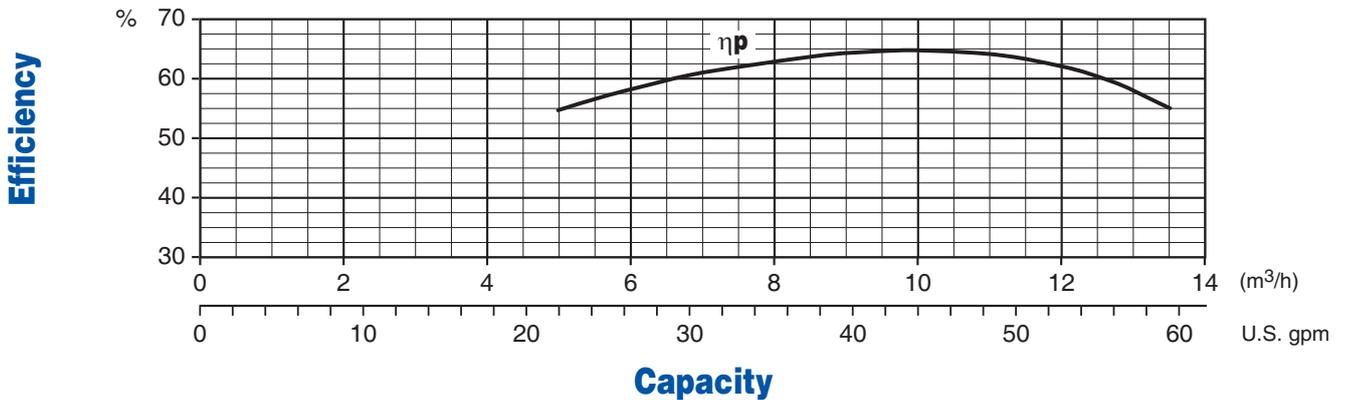
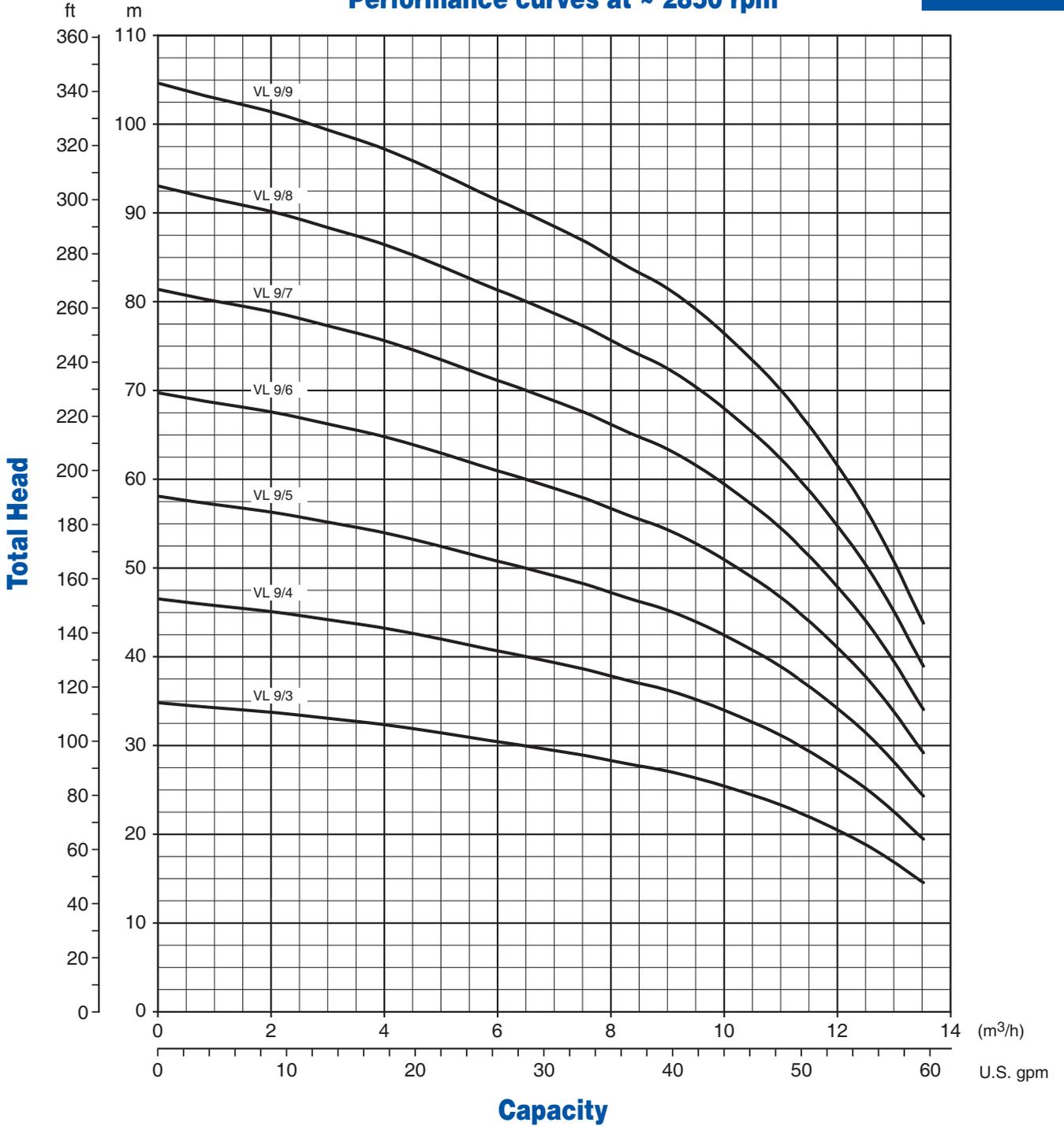
- Single-phase motors: 220-240 V ± 5 % / 50 Hz. Thermal protection built into the motor up to 1,1 kW. Thermal protection provided into the starter panel from 1,5 kW and above.
- Three-phase motors: 380-415 V ± 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

Dimensions and weights

PUMP MODEL			PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	Lt mm	L mm	B mm	H mm	Weight kg	
						Single-phase	Three-phase
VL 5/4	-	464	720	230	175	15.5	-
VL 5/5	-	488	720	230	175	17.0	-
VL 5/6	VL 5/6T	512	720	230	175	17.5	16.5
VL 5/7	VL 5/7T	586	800	230	195	20.5	18.5
VL 5/8	VL 5/8T	610	800	230	195	21.0	19.0
VL 5/9	VL 5/9T	634	800	230	195	23.0	21.5
VL 5/10	VL 5/10T	658	800	230	195	23.5	22.0



Performance curves at ~ 2850 rpm



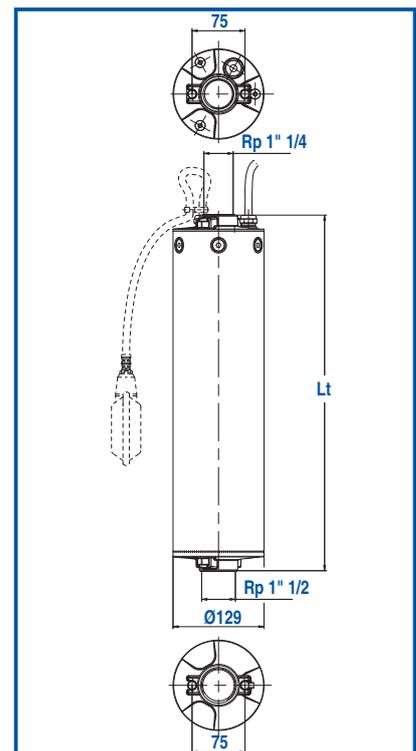
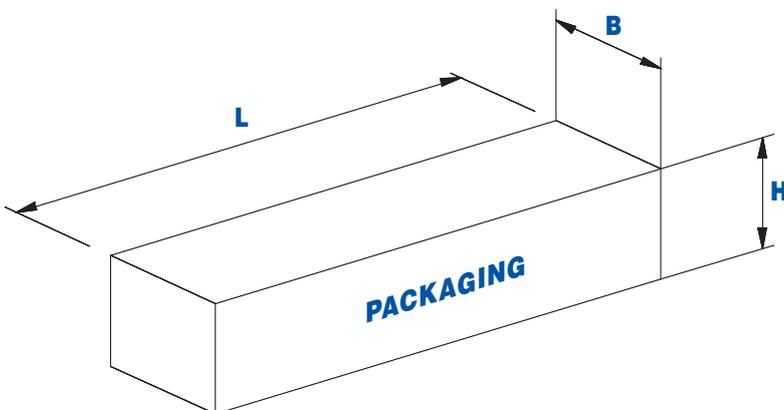
Performance table at ~ 2850 rpm

PUMP MODEL		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	CAPACITOR		RATED CURRENT	
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		kW	µF	V	Single-phase 220-240V 50Hz
VL 9/3	-	3	1.1	1.5	1.4	30	450	6.7	-
VL 9/4	VL 9/4T	4	1.5	2	1.9	35	450	9.5	3.2
VL 9/5	VL 9/5T	5	2.2	3	2.3	45	450	11.3	4.9
VL 9/6	VL 9/6T	6	2.2	3	2.7	45	450	12.8	5.2
-	VL 9/7T	7	3	4	3.0	-	-	-	6.2
-	VL 9/8T	8	3	4	3.4	-	-	-	6.7
-	VL 9/9T	9	3	4	3.8	-	-	-	7.3

- Single-phase motors: 220-240 V ± 5 % / 50 Hz. Thermal protection built into the motor up to 1,1 kW. Thermal protection provided into the starter panel from 1,5 kW and above.
- Three-phase motors: 380-415 V ± 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

Dimensions and weights

PUMP MODEL			PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	Lt mm	L mm	B mm	H mm	Weight kg	
						Single-phase	Three-phase
VL 9/3	-	488	720	230	175	16.5	-
VL 9/4	VL 9/4T	568	720	230	175	19.5	17.0
VL 9/5	VL 9/5T	598	800	230	195	21.5	20.0
VL 9/6	VL 9/6T	628	800	230	195	22.0	20.5
-	VL 9/7T	658	800	230	195	-	22.5
-	VL 9/8T	688	800	230	195	-	23.0
-	VL 9/9T	718	800	230	195	-	23.5



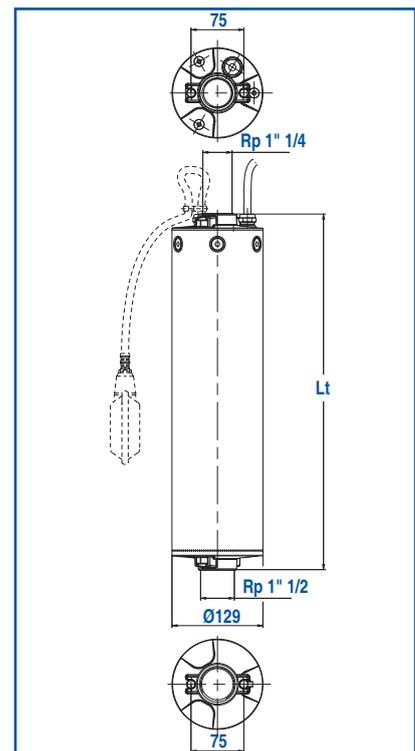
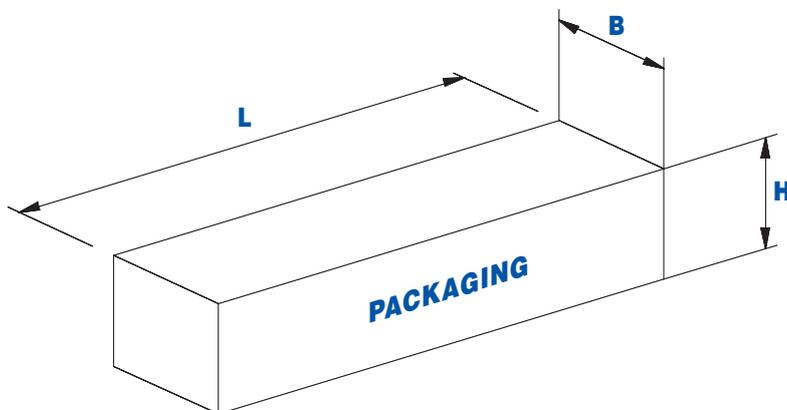
Performance table at ~ 3420 rpm

PUMP MODEL		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	CAPACITOR		RATED CURRENT		
Single-phase 220-230V 60Hz	Three-phase 220-230V or 380-400V 60Hz		kW	HP	kW	µF	V	Single-phase		Three-phase
								220-230V	220-230V	380-400V
VL 9/26	VL 9/2T6	2	1.1	1.5	1.7	25	450	8.0	6.1	3.5
VL 9/36	VL 9/3T6	3	1.5	2	2.5	35	450	11.3	8.0	4.6
-	VL 9/4T6	4	2.2	3	3.5	-	-	-	11.1	6.4
-	VL 9/5T6	5	3	4	4.2	-	-	-	13.2	7.6

- Single-phase motors: 220-230 V ± 5 % / 60 Hz. Thermal protection provided into the starter panel.
- Three-phase motors: 220-230 V or 380-400 V ± 5 % / 60 Hz. Thermal protection to be provided into the starter panel by the installer.

Dimensions and weights

PUMP MODEL			PACKAGING				
Single-phase 220-230V 60Hz	Three-phase 220-230V or 380-400V 60Hz	Lt mm	L mm	B mm	H mm	Weight kg	
						Single-phase	Three-phase
VL 9/26	VL 9/2T6	458	800	230	175	14.5	13.5
VL 9/36	VL 9/3T6	488	720	230	175	17.5	15.5
-	VL 9/4T6	568	720	230	175	-	18.5
-	VL 9/5T6	598	720	230	195	-	20.0



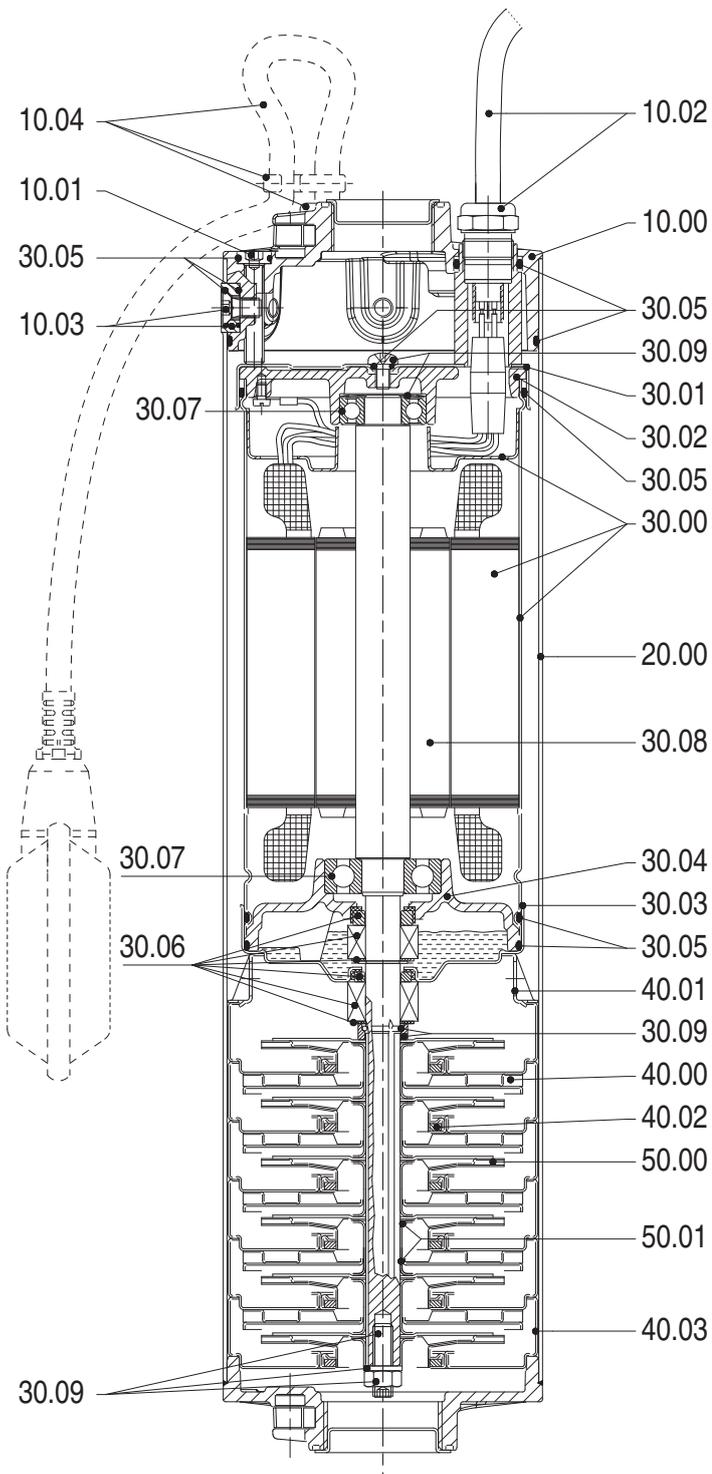
VL Series Pump Section and List of Main Components

VL 3

VL 5

VL 9

VL 3 VL 5 VL 9



Ref. N.	Description
10 00	Discharge head
10 01	Screws for pre-loading assembly (3 pcs)
10 02	Power cable assembly
10 03	Screws and inserts (6 pcs)
10 04	Level control assembly
20 00	Outer case with suction head
30 00	Motor housing and stator
30 01	Upper motor cover
30 02	Upper bearing housing
30 03	Lower motor cover
30 04	Lower bearing cover

Ref. N.	Description
30 05	Kit O-Rings (20 pcs)
30 06	Kit mechanical seals (2 pcs)
30 07	Kit ball bearings (2 pcs)
30 08	Rotor and pump shaft
30 09	Kit screws, nut and washers
40 00	Stage housing and diffuser
40 01	Spacer
40 02	Floating neck ring assembly
40 03	Initial stage housing
50 00	Impeller
50 01	Impeller spacers (2 pcs)