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Vera™ Range VALCO BRAND SUBMERSIBLE MULTISTAGE BOREHOLE ELECTRIC PUMPS FOR DEEP WELLS for min. 3-inch COMPLETE WITH 2 POLE MOTORS TO NEMA STANDARD.

Pump and motor construction data
with limits of use and operating conditions

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Applications

Suitable to replace standard surface pumps, carrying the advantages of lesser space needed, less maintenance and complete absence of noise. For domestic drinking potable water, residential, commercial, industrial, agricultural, geothermal, civil applications, to pump and explore geothermal resources for fluids in spas, industry, agriculture and private, community and district heating and in all cases where it is requested to lift water out from below the ground from aquifers and to push it above with pressure: boreholes, bored wells, riverbanks, in-line pressure boosting, dewatering, sprinkler and drip irrigation systems, horticulture, greenhouses and gardening, air conditioning, water supply to offshore oil platforms, pressure boosting pumping / increasing water pressure, fire fighting, hydrant systems, deluge systems, fountains and water features, large rural irrigation schemes, turf watering installations and stock watering plants, washing and hobby uses, jet washing, station washing, dairy washdown, vegetable washing, dewatering of mines and excavations, level control (wellpoint) of groundwater waterbeds, sump drainage, artificial snow, solar power, monitor system, in-ground tank installation, underground water storage tanks installation, rainwater collection, etc.

Pumping of clean water in domestic applications from boreholes and wells, agricultural, industry, processing of drinking water distribution, water supply, firefighting, boosters, fountains, municipal water supply, mains and municipal boosting, sump drainage, dam drainage, mine water supply, river water extraction. Private, residential, commercial, industrial buildings, hospitals, airports, schools, nurseries, farms, etc.

Built-in check non-return valve to protect the pump against water hammer.

Types		HP	kW	m ³ /h l/m.	Q _e Performance at 2900 rpm												No of impellers	In (A) 1x230V	In (A) 3x400V	
1 PH 230V 50Hz	3 PH 400V 50Hz				0	0,3	0,6	0,9	1,2	1,5	1,8	2,4	2,7							
3000-P	3000-PT	0,5	0,33	49	46	42	39	36	32	28	15	7						15	3,8	2,4
3100-P	3100-PT	0,75	0,55	73	70	66	61	55	49	43	24	13						23	4,5	2,5
3200-P	3200-PT	1	0,75	97	92	86	80	73	65	57	33	17						30	5,9	2,9
-	3300-PT	1,5	1,1	135	128	119	112	103	90	75	47	28						45	-	3,6

• Reduction in speed will result in a fall of performance. • DO NOT RUN PUMP DRY! • Tolerances according to ISO 9906 Grade 3B.

OPERATING CONDITIONS (LIMITS OF USE)

Maximum depth of immersion m	100
Maximum temperature of pumped liquid °C	+35
Minimum speed of the liquid around the motor m/s	0,08
Maximum working pressure (max allowed pressure in the pump casing) kPa/bar	Max pressure of the pump
Density of pumped liquid with γ=water specific gravity kg/dm ³	1
Type of pumped liquid	Neutral clean water and fluid chemically and mechanically non-corrosive, non-aggressive, non-abrasive, non-explosive with hardness and grading of silt 40g/m ³
Presence of solids in suspension	No
Installation type	Submerged at least 1 m

CONSTRUCTION MATERIALS

Motor casing	Stainless steel DIN/EN 1.4301 (AISI 304)
Pump casing	Stainless steel DIN/EN 1.4301 (AISI 304)
Delivery / discharge head with built-in check non-return valve	Brass*
Coupling flange to NEMA standard	Brass*
Suction strainer	Stainless steel DIN/EN 1.4016 (AISI 430 2B)
Impeller/s	Noryl®
Diffuser/s (wear ring)	Technopolymer self lubricating
Shaft (pump side)	Stainless steel DIN/EN 1.4104 (AISI 430 F)
Mechanical seal	Carbon-graphite ceramic** with labyrinth seal with a sand slinger
Bolts and nuts in contact with the liquid	Stainless steel A2 class
Gaskets	NBR rubber

*Optional on demand in stainless steel

**Optional on demand in silicon carbide - silicon carbide

MOTOR

Asynchronous Electric motor rewindable in non-toxic liquid bath cooled by pumped liquid and coupling to NEMA standards

Number of poles	2
Insulation class	B
Degree of protection IP	68
Service	Continuous duty
Maximum tolerance (fluctuation) from the nominal voltage	± 10%
Starts per hour max	30

The overload motor protection must be provided by the user (we recommend the use of a control box)

Supplied as standard with 1,75 m electric cable

Types	DNm	Dimensions in mm					Weight in Kg		
		H	Hp	Hm	Dp	Dm	Mot.	Pump	Total
3000-P	G 1"	957	580	377	74	72	6,0	3,3	9,3
3100-P		1177	780	397			6,4	4,4	10,8
3200-P		1416	1000	416			6,8	5,6	12,4
3000-PT		957	580	377			6,0	3,3	9,3
3100-PT		1157	780	377			6,1	4,4	10,5
3200-PT		1397	1000	397			6,4	5,6	12,0
3300-PT		1796	1380	416			6,8	7,6	14,4

Not in scale

