MICRA HS

HIGH SPEED 3" SUBMERSIBLE PUMPS





ACTIVE DRIVER
PAG. 15

CE

DOMESTIC WATER SUPPLY

Applications
Electric borehole pumps for 3" wells or larger.
These units have a very extensive range of applications for lifting and distribution in domestic and industrial water systems, filling of pressure vessels and tanks, pressure booster and irrigation systems.
MICRA HS is composed by a three-phase submersible pumps and driven by a sigle phase inverter (ACTIVE DRIVER).

Pump construction features
Multi-stage centrifugal type. Directly coupled pump and motor with rigid coupling. Impellers and thrust rings in Noryl and diffusers in self-lubricating polyacetal. Pump liner, shaft with coupling, filter and cable cover in stainless steel.
Base support and head in brass with check valve incorporated in head.

Motor construction characteristics
Submersible asynchronous two-pole motor made entirely of AISI 304 stainless steel with brass supports. Squirrel cage rotor in copper mounted on Kingsbury thrust block. Cooling of the thrust bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned stator in an airtight casing made of AISI 304L stainless steel.

THE ACTIVE DRIVER 2.2 is pre-setted for the functioning at 110 Hz frequency
Power supply tolerance: 230 V Single phase +10%/ 20%
Max. Frequency: 110 Hz (6300 rpm)
Max. motor phase current: 10.5 Amp rms
Absolute minimum voltage: 184 V
Absolute maximum Voltage: 264 V
Pump voltage: 230 V three-phase
Operating range: from 1 to 5.5 m^3/h with head of up to 90 m.
Pumped liquid: clean, free of solid or abrasive contaminants, non-viscous, non-aggressive, chemically neutral, close to the properties of water.
Liquid temperature range: from 0°C to +35°C
Maximum permissible sand quantity: 30g/m^3
Installation: in 3" boreholes or larger, tanks and cisterns, vertical position. In the event of horizontal installation ensure a minimum load is applied to the thrust bearing assembly.
Motor power cable: 1.4 m
Available with a 30 m shielded cable
The package contain Submersibe pumps. active driver and power cable.

ACCESSORIES
PAG. 603

TECHNICAL DATA

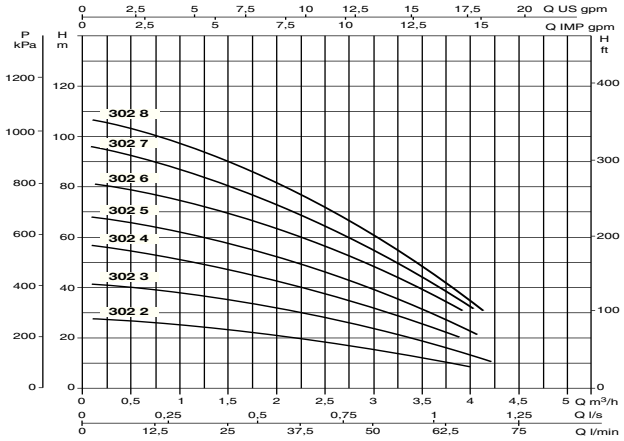
MODEL	CODE	ELECTRICAL DATA VOLTAGE 50 Hz	ELECTRICAL DATA P1 MAX kW	Q m^3/h	HYDRAULIC DATA (n ≃ 6300 1/min) 1	1.5	2	2.5	3	3.5	4	4.5	5	5,5	CABLE LENGTH m
				l/min	17	25	33	42	50	58	67	75	84	92	
MICRA HS 302 - 2	60141518	1x230 V ~	1	H (m)	24	21	19	16	13	10	6				1,4
MICRA HS 302 - 3	60141519	1x230 V ~	1.1		35	31	29	25	20	15	10				1,4
MICRA HS 302 - 4	60141520	1x230 V ~	1.2		45	42	40	32	28	20	12				1,4
MICRA HS 302 - 5	60141521	1x230 V ~	1.5		62	57	52	45	39	30	20				1,4
MICRA HS 302 - 6	60141522	1x230 V ~	1.6		70	65	60	50	40	30	20				1,4
MICRA HS 302 - 7	60141524	1x230 V ~	1.8		80	75	68	55	47	35	22				1,4
MICRA HS 302 - 8	60141525	1x230 V ~	2		90	82	79	63	55	40	23				1,4
MICRA HS 303 - 2	60141526	1x230 V ~	1.1		30	27	26	24	22	20	16	13			1,4
MICRA HS 303 - 3	60141527	1x230 V ~	1.3		45	42	40	36	33	30	25	20			1,4
MICRA HS 303 - 4	60141528	1x230 V ~	1.6		60	57	54	50	47	41	37	30			1,4
MICRA HS 303 - 5	60141529	1x230 V ~	1.9		72	70	65	61	56	50	44	36			1,4
MICRA HS 303 - 6	60141530	1x230 V ~	2.2		85	81	77	71	65	58	50	40			1,4
MICRA HS 304 - 3	60141531	1x230 V ~	1.8		48	45	43	41	39	37	33	30	28	25	1,4
MICRA HS 304 - 4	60141533	1x230 V ~	2.1		65	63	61	58	55	51	47	42	38	32	1,4

MODEL	CODE	ELECTRICAL DATA VOLTAGE 50 Hz	ELECTRICAL DATA P1 MAX kW	Q m^3/h	HYDRAULIC DATA (n ≃ 6300 1/min) 1	1.5	2	2.5	3	3.5	4	4.5	5	5,5	CABLE LENGTH * m
				l/min	17	25	33	42	50	58	67	75	84	92	
MICRA HS 302-2 +L30	60141534	1x230 V ~	1	H (m)	24	21	19	16	13	10	6				30
MICRA HS 302-3 +L30	60141535	1x230 V ~	1.1		35	31	29	25	20	15	10				30
MICRA HS 302-4 +L30	60141536	1x230 V ~	1.2		45	42	40	32	28	20	12				30
MICRA HS 302-5 +L30	60141537	1x230 V ~	1.5		62	57	52	45	39	30	20				30
MICRA HS 302-6 +L30	60141538	1x230 V ~	1.6		70	65	60	50	40	30	20				30
MICRA HS 302-7 +L30	60141539	1x230 V ~	1.8		80	75	68	55	47	35	22				30
MICRA HS 302-8 +L30	60141540	1x230 V ~	2		90	82	79	63	55	40	23				30
MICRA HS 303-2 +L30	60141541	1x230 V ~	1.1		30	27	26	24	22	20	16	13			30
MICRA HS 303-3 +L30	60141542	1x230 V ~	1.3		45	42	40	36	33	30	25	20			30
MICRA HS 303-4 +L30	60141543	1x230 V ~	1.6		60	57	54	50	47	41	37	30			30
MICRA HS 303-5 +L30	60141544	1x230 V ~	1.9		72	70	65	61	56	50	44	36			30
MICRA HS 303-6 +L30	60141545	1x230 V ~	2.2		85	81	77	71	65	58	50	40			30
MICRA HS 304-3 +L30	60141546	1x230 V ~	1.8		48	45	43	41	39	37	33	30	28	25	30
MICRA HS 304-4 +L30	60141547	1x230 V ~	2.1		65	63	61	58	55	51	47	42	38	32	30

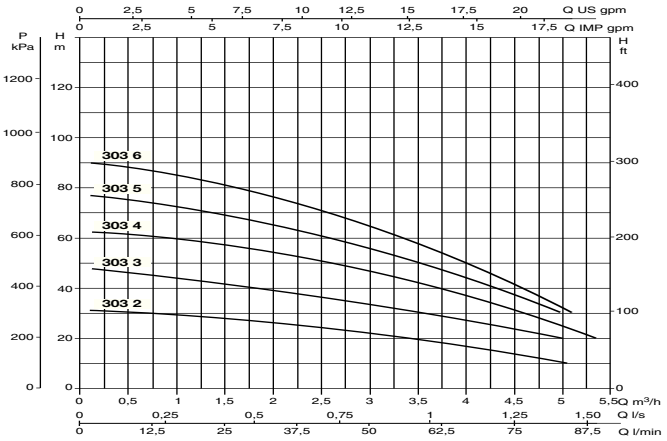
* Shielded cable

DAB PUMPS reserves the right to make modifications without notice

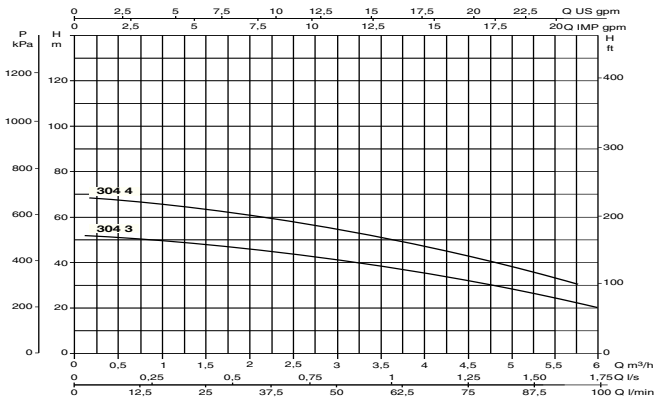
MICRA HS 302



MICRA HS 303

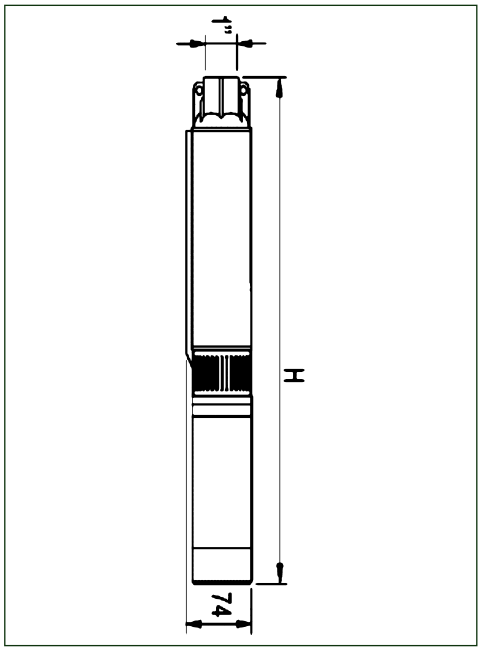


MICRA HS 304

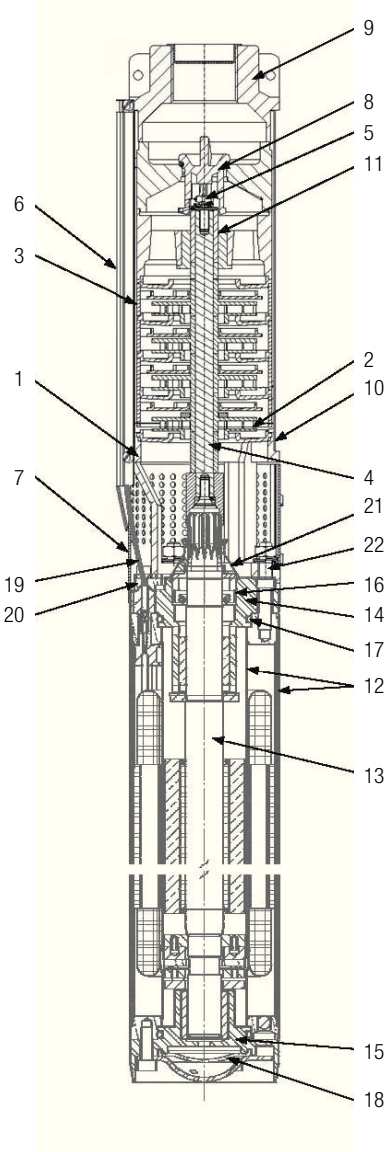


*Performances measured at maximum frequency of 110 Hz

DIMENSIONS AND WEIGHTS



MODEL	Ø	H	DNM G	PACKAGING DIMENSIONS (mm)		
				L/A	L/B	H
MICRA HS 302-2	74	580	1"	320	1300	275
MICRA HS 302-3	74	605	1"	320	1300	275
MICRA HS 302-4	74	630	1"	320	1300	275
MICRA HS 302-5	74	655	1"	320	1300	275
MICRA HS 302-6	74	680	1"	320	1300	275
MICRA HS 302-7	74	705	1"	320	1300	275
MICRA HS 302-8	74	730	1"	320	1300	275
MICRA HS 303-2	74	580	1"	320	1300	275
MICRA HS 303-3	74	605	1"	320	1300	275
MICRA HS 303-4	74	630	1"	320	1300	275
MICRA HS 303-5	74	655	1"	320	1300	275
MICRA HS 303-6	74	680	1"	320	1300	275
MICRA HS 304-3	74	605	1"	320	1300	275
MICRA HS 304-4	74	630	1"	320	1300	275



N.	PART	MATERIALS
	PUMP	
1	BASE SUPPORT	BRASS OT58
2	IMPELLER	NORYL GFN2
3	DIFFUSER	POLYACETAL
4	SHAFT WITH COUPLING	AISI 430F
5	IMPELLERS LOCKING NUT	AISI 304
6	CABLE SHEATH	AISI 430
7	STRAINER	AISI 430
8	VALVE	POLYACETAL
9	DISCHARGE SECTION	BRASS OT58
10	PUMP LINER	AISI 304
11	BUSHES	AISI 316L
	MOTORS	
12	INTERNAL SLEEVE AND OUTER CASING	AISI 304
13	SHAFT	AISI 431
14	UPPER SUPPORT	BRASS OT58
15	LOWER SUPPORT	BRASS OT58
16	LIP SEAL	NBR
17	GASKETS	NBR
18	BELLOW SEAL	EPDM
19	CABLE	EPDM
20	CONNECTOR PLUG	AISI 304
21	SAND GUARD	NBR
22	THREADED FASTENERS	AISI 304

in contact with the liquid

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ACTIVE SHIELD

Electronic input/output filter to be connected to an Active Driver. Can be used in installations where emissions and electromagnetic compatibility problems might arise. For references see pag. 16

MODEL	CODE	MAX CURRENT MOTOR A	TO BE USED WITH:
ACTIVE SHIELD	60163007	14	Active Driver M/M Active Driver M/T



NEW

OPTIONAL VERSION MICRA HS WITH ADAC

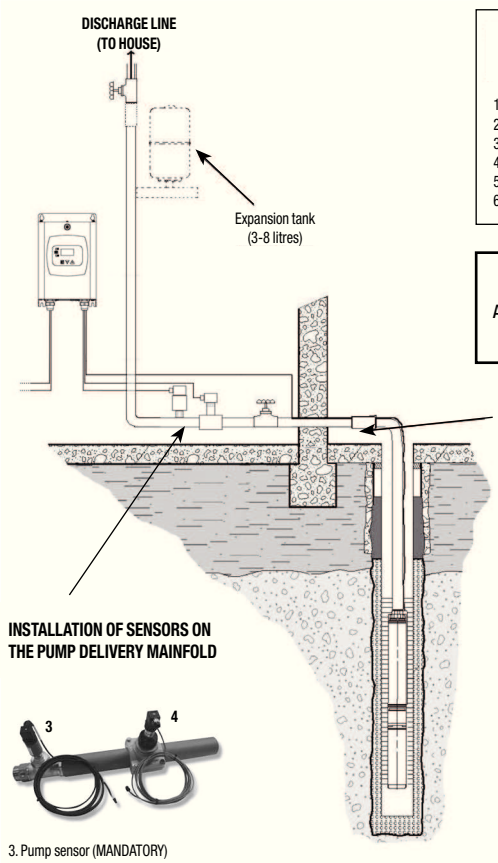
ADAC
PAG. 11



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EXAMPLE OF INSTALLATION



NECESSARY COMPONENTS FOR SYSTEM INSTALLATION

1. Submersible pump
2. Inverter ADAC
3. Pressure sensor (NECESSARY)
4. Flow sensor (OPTIONAL)
5. Non-returne valve
6. Expansion vessel

ATTENTION

ADAC must be set for functioning at 110 hz maximum frequency

SUGGESTION

In some plants, we recommend the installation of a filter upline of the sensor so as to prevent damage to the sensor.

3. Pump sensor (MANDATORY)
4. Flow sensor (OPTIONAL)

PUMPS MODEL	CODE (inverter not included)	PUMPS VOLTAGE 50 Hz	INVERTER MODEL	CODE	ADAC VOLTAGE 50 Hz	PRESSURE SENSOR MODEL **REQUIRED**	CODE
MICRA HS 302-4	60151499	Three-phase 3x230 V~	**ADAC M/T 2.2**	60145524	Single-phase 1x230 V~	**PRESS. SENSOR 25 BAR COMPL. WITH CABLE (4 MT.)**	88002533
MICRA HS 302-6	60146564	Three-phase 3x230 V~					
MICRA HS 302-8	60146565	Three-phase 3x230 V~					
MICRA HS 303-5	60151195	Three-phase 3x230 V~					
MICRA HS 304-4	60152301	Three-phase 3x230 V~					

Optional accessories for ADAC installation pag. 19