

AK
Flow Pumps



**AVR Vertical Multistage
Centrifugal Pump, 50Hz**

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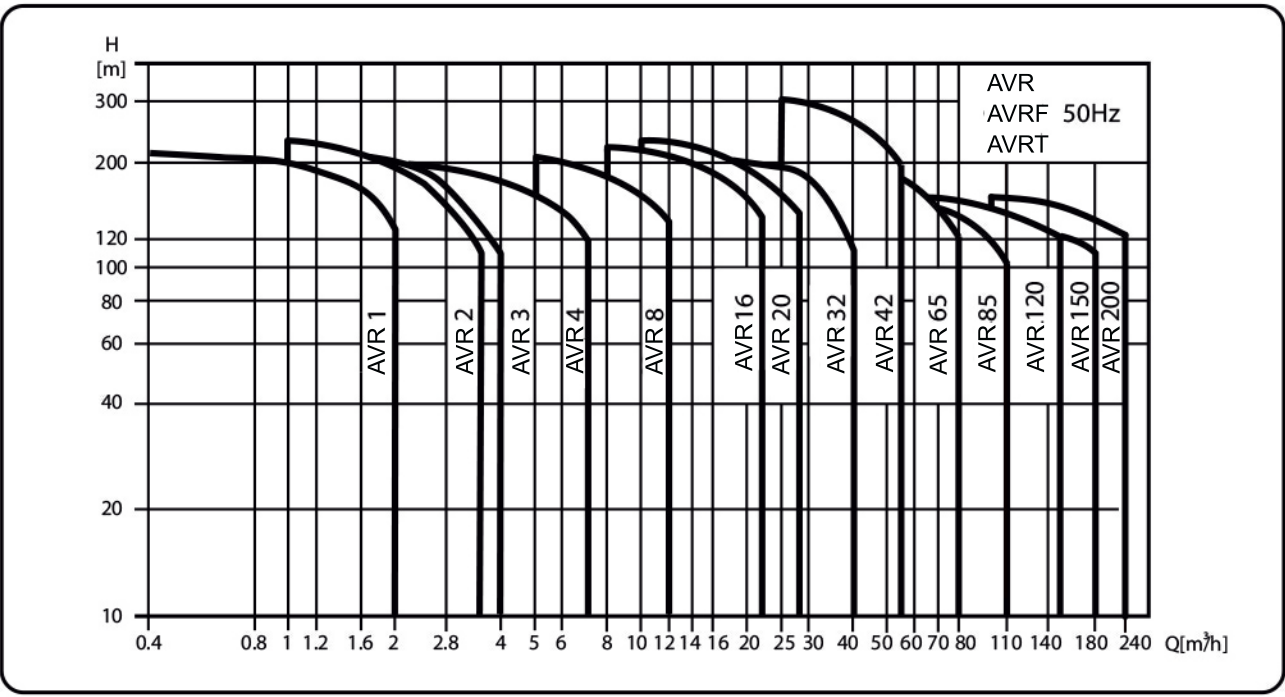
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Vertical Multistage Pumps -AK Series

AK FLOW high pressure pumps AVR, AVRF & AVRT with pumping pressure upto 280 meter and flow upto 120m³/h. All essential parts, such as shaft, impellers and intermediate chambers are made of fully stainless steel AISI 304 (W-Nr.1.43.01). On request the complete pump can be supplied in stainless steel or with higher grad stainless steel AISI 316 (W-Nr.1.44.01). Usually the pumps are equipped with mechanical seals tungsten carbide/carbon. Special seals are applied according to the pumping liquid. The pumps have got high efficiency.

Performance Scope

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Product range

Description	AVR1	AVR 2	AVR3	AVR4	AVR8	AVR16	AVR20	AVR32	AVR42	AVR65	AVR85	AVR120	AVR150	AVR200
Rated flow [m³/h]	1	2	3	4	8	16	20	32	42	65	85	120	150	200
Rated flow [l/s]	0.28	0.56	0.83	1.1	2.2	4.4	5.6	8.9	11.7	18	24	33	41.6	55.6
Flow range [m³/h]	0.4-2	1-3.5	1.2-4	1.5-8	5-12	8-22	10-28	16-40	25-55	30-80	50-110	60 ~ 150	80 ~ 180	100-240
Flow range [l/s]	0.11-0.56	0.28-0.97	0.33-1.1	0.42-2.2	1.4-3.3	2.2-6.1	2.8-7.8	4.4-11.1	6.9-15.3	8.3-22.2	13.8-30.5	16.7 ~ 41.7	22 ~ 50	27.8-66.7
Max. pressure [bar]	21	23	22	21	21	22	23	26	30	22	17	16	16	16
Motor power [kW]	0.37-2.2	0.37-3	0.37-3	0.37-4	0.75-7.5	2.2-15	1.1-18.5	1.5-30	3.0-45	4.0-45	5.5-45	11-75	11-75	8.5-110
Temperature range	-15 +120													
Max. efficiency [%]	44	46	54	59	64	66	69	76	78	80	81	74	73	79
Type														
AVR	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVRF/AVRT	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVR Pipe connection														
DIN Flange	DN25	DN25	DN25	DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125	DN150
Oval Flange	G1	G1	G1	G1 1/4	G1 1/2									
AVRF/AVRT Pipe connection														
DIN Flange	DN25	DN25	DN25	DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125	DN150
Cutting ferrule joint	•	•	•	•	•	•	•							
Pipe thread	•	•	•	•	•	•	•							

Pump

AVR,AVRF,AVRT is a kind of vertical non-self priming multistage centrifugal pump, which is driven by a standard electric motor. The motor output shaft directly connects with the pump shaft through a coupling.

The pressure-resistant cylinder and flow passage components are fixed between pump head and in-and outlet section with tie-bar bolts. The inlet and outlet are located at the pump bottom at the same plane.

This kind of pump can be equipped with an intelligent protector to effectively prevent it from dry-running, out-of-phase and overload.

Application

AVR,AVRF and AVRT pumps is a kind of multifunctional products. It can be used to convey various medium from tap water to industrial liquid at different temperature and with different flow rate and pressure.

AVR type is applicable to conveying non-corrosive liquid, while AVRT and AVRF is suitable for slightly corrosive liquid.

- Water supply: Water filter and transport in Waterworks, boosting of main pipeline, boosting in high-rise buildings.
- Industrial boosting: Process flow water system, cleaning system, high-pressure washing system, fire fighting system
- Industrial liquid conveying: Cooling and air-conditioning system, boiler water supply and condensing system, machine-associated purpose, acids and alkali
- Water treatment: Ultrafiltration system, reverse osmosis system, distillation system, separator, swimming pool
- Irrigation: Farmland irrigation, spray irrigation, dripping irrigation

Operation condition

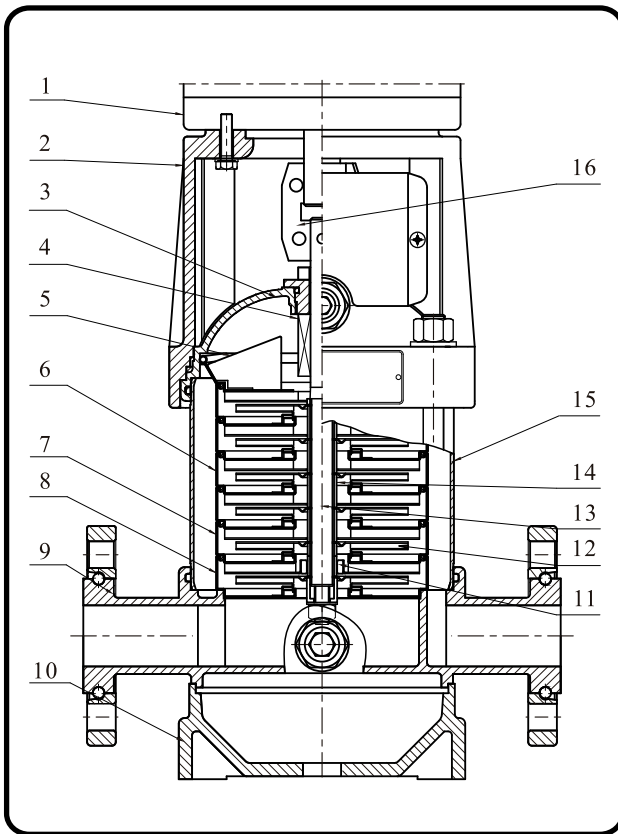
- Thin, clean, non-flammable and non-explosive liquid containing no solid granules and fibers.
- Liquid temperature:
Normal temperature type: $-15^{\circ}\text{C} \sim +70^{\circ}\text{C}$,
Hot water type: $+70^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Ambient temperature: up to $+52^{\circ}\text{C}$
- Altitude: up to 1000m

Electric motor

The pump is fitted with a totally enclosed , fan cooled squirrel-cage 2 pole motor.

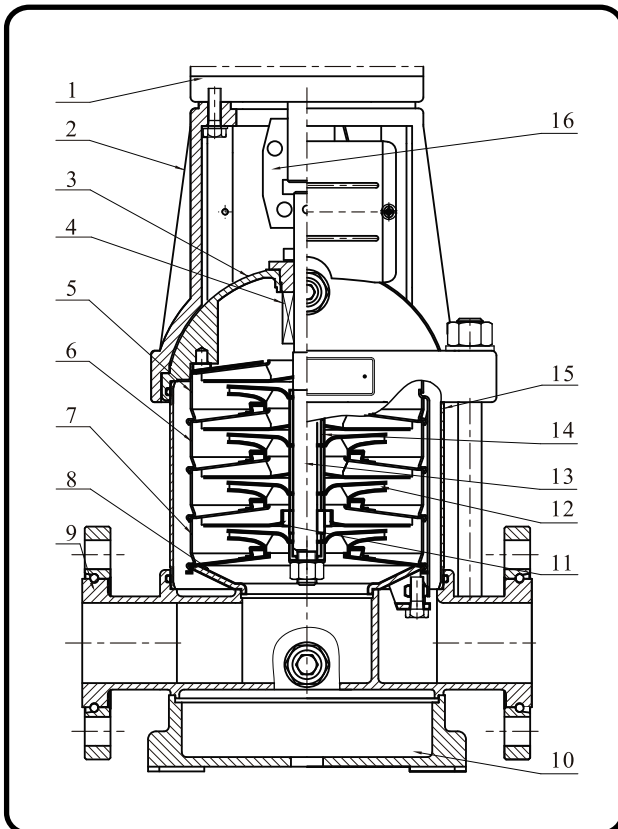
- Protection class: IP55
- Insulation class: F
- Standard voltage, 50Hz: 1x220-230/240V
3x200-220 / 346-380V
3x220-240 / 380-415V
3x380-415V

Section drawing AVR,AVRF,AVRT 1,2,3,4 and material list



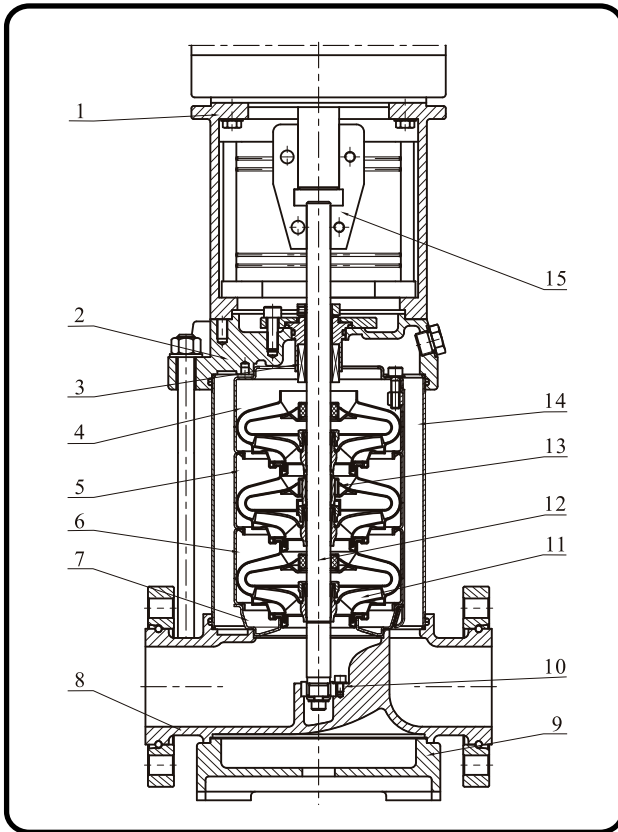
No.	Name	Material	AISI / ASTM
1	Electric motor		
2	Pump head	cast iron	ASTM25B
4	Mechanical seal		
5	Top diffuser	stainless steel	AISI 304
6	Diffuser	stainless steel	AISI 304
7	Support diffuser	stainless steel	AISI 304
8	Inducer	stainless steel	AISI 304
11	Bearing	tungsten carbide	
12	Impeller	stainless steel	AISI 304
13	Shaft	stainless steel	AISI 304 AISI 316L
14	Impeller sleeve	stainless steel	AISI 304
15	Cylinder	stainless steel	AISI 304
16	Coupling	carbon steel	
AVR			
9	Inlet and outlet chamber	cast iron	ASTM25B
AVRF			
3	Seal base	stainless steel	AISI 304
9	Inlet and outlet chamber	stainless steel	AISI 304
10	Base plate	cast iron	ASTM25B
AVRT			
3	Seal base	stainless steel	AISI 304
9	Inlet and outlet chamber	stainless steel	AISI 304
10	Base plate	cast iron	ASTM25B

Section drawing AVR,AVRF,AVRT 8, 16, 20 and material list



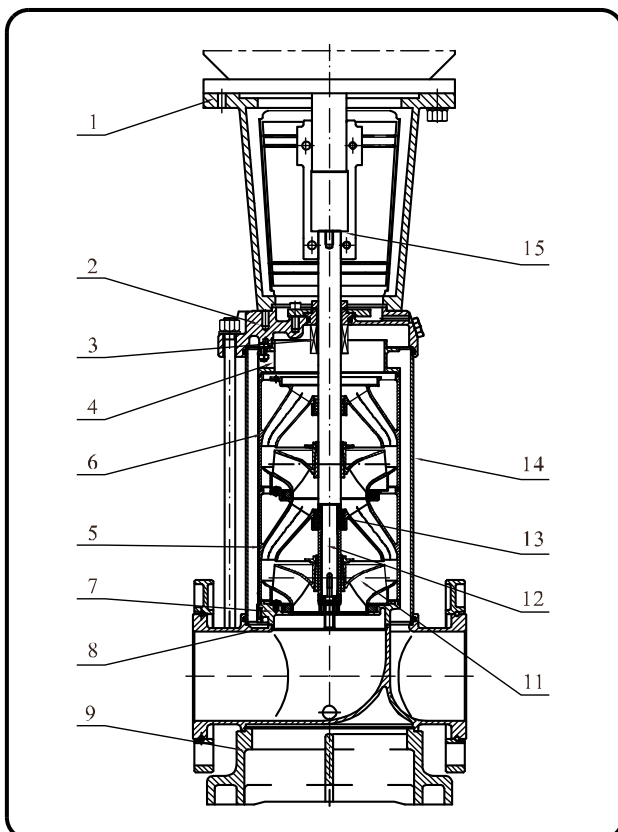
No.	Name	Material	AISI / ASTM
1	Electric motor		
2	Pump head	cast iron	ASTM25B
4	Mechanical seal		
5	Top diffuser	stainless steel	AISI 304
6	Diffuser	stainless steel	AISI 304
7	Support diffuser	stainless steel	AISI 304
8	Inducer	stainless steel	AISI 304
11	Bearing	tungsten carbide	
12	Impeller	stainless steel	AISI 304
13	Shaft	stainless steel	AISI 304 AISI 316L
14	Impeller sleeve	stainless steel	AISI 304
15	Cylinder	stainless steel	AISI 304
16	Coupling	carbon steel	
AVR			
9	Inlet and outlet chamber	cast iron	ASTM25B
AVRF			
3	Seal base	stainless steel	AISI 304
9	Inlet and outlet chamber	stainless steel	AISI 304
10	Base plate	cast iron	ASTM25B
AVRT			
3	Seal base	stainless steel	AISI 304
9	Inlet and outlet chamber	stainless steel	AISI 304
10	Base plate	cast iron	ASTM25B

Section drawing AVR,AVRF ,AVRT 32, 42, 65, 85 and material list



No.	Name	Material	AISI / ASTM
1	Bracket	cast iron	ASTM25B
2	Pump head	cast iron	ASTM25B
3	Mechanical seal		
4	Top diffuser	stainless steel	AISI 304
5	Diffuser	stainless steel	AISI 304
6	Support diffuser	stainless steel	AISI 304
7	Inducer	stainless steel	AISI 304
8	Inlet and outlet chamber	cast iron	ASTM25B
9	Base plate	cast iron	ASTM25B
10	Bottom bearing	tungsten carbide	
11	Impeller	stainless steel	AISI 304
12	Shaft	stainless steel	
13	Intermediate bearing	tungsten carbide	
14	Cylinder	stainless steel	AISI 304
15	Coupling	carbon steel	
	Rubber parts	NBR	
VMCAVR			
	part no. 2, 8	cast iron	ASTM25B
AVRF			
	part no. 2, 8	stainless steel	AISI 304
AVRT			
	part no. 2, 8	stainless steel	AISI 304

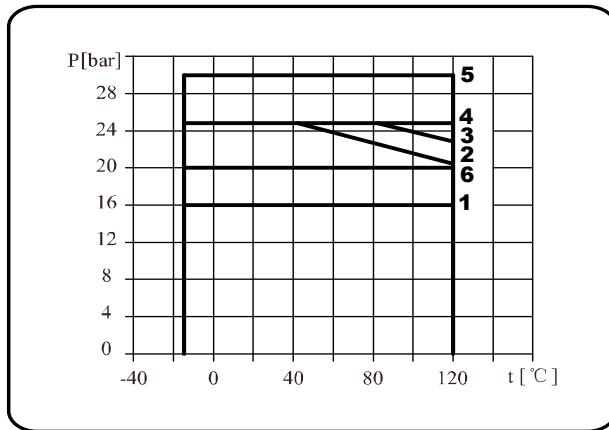
Section drawing AVR,AVRF,AVRT 120, 150, 200 and material list



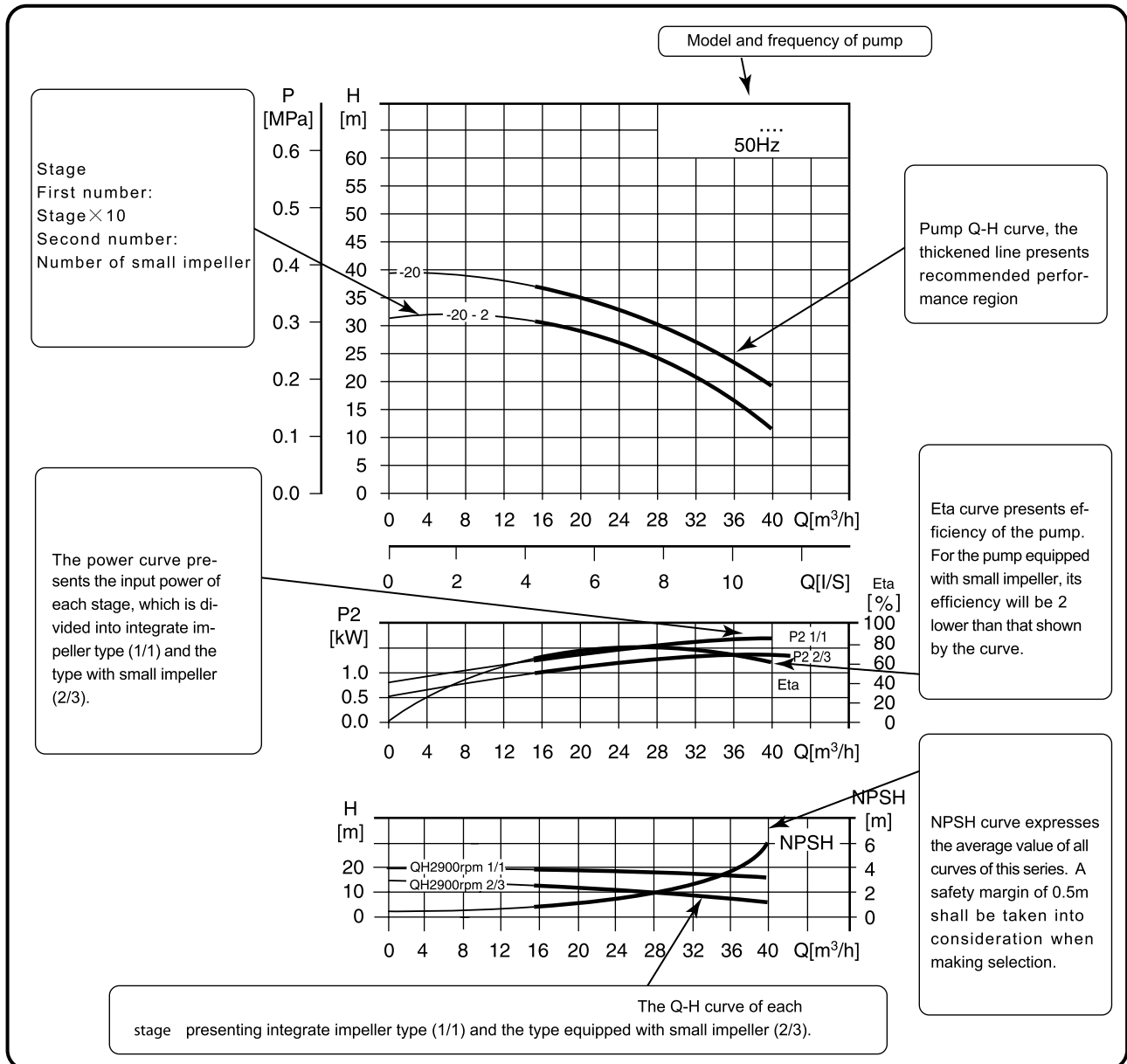
No.	Name	Material	AISI / ASTM
1	Bracket	cast iron	ASTM25B
2	Pump head	cast iron	ASTM 80-55-06
3	Mechanical seal		
4	Discharge	stainless steel	AISI 304
5	Support diffuser	stainless steel	AISI 304
6	Diffuser	stainless steel	AISI 304
7	Inducer	stainless steel	AISI 304
8	Inlet and outlet chamber	cast iron	ASTM 80-55-06
9	Base plate	cast iron	ASTM 80-55-06
11	Impeller	stainless steel	AISI 304
12	Shaft	stainless steel	AISI 304
13	Bearing	tungsten carbide	
14	Cylinder	stainless steel	AISI 304
15	Coupling	carbon steel	
	Rubber parts	NBR	
AVRNBR			
	part no. 2, 8	cast iron	ASTM 80-55-06
AVRF			
	part no. 2, 8	stainless steel	AISI 304
AVRT			

Limitation of pressure and temperature

The following figure shows the limitation of pressure and temperature, which shall be kept within the region as shown in the figure.



Performance Curves



Conditions for the performance curves:

1. All the performance curves are based on the measured values of a motor 3x380V ~ 415V at a constant speed of 2900 rpm.
2. Curve tolerance in conformity with ISO9906, appendix A.
3. Measurement is done with 20 °C air-free water, kinematic viscosity of 1mm² /sec.
4. The operation of pump shall refer to the performance region indicated by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

Minimum inlet pressure NPSH

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction stroke can be calculated with following formula:

$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

P_b = atmosphere pressure [bar] (can be set as 1bar)

In a closed system, P_b means system pressure [bar]

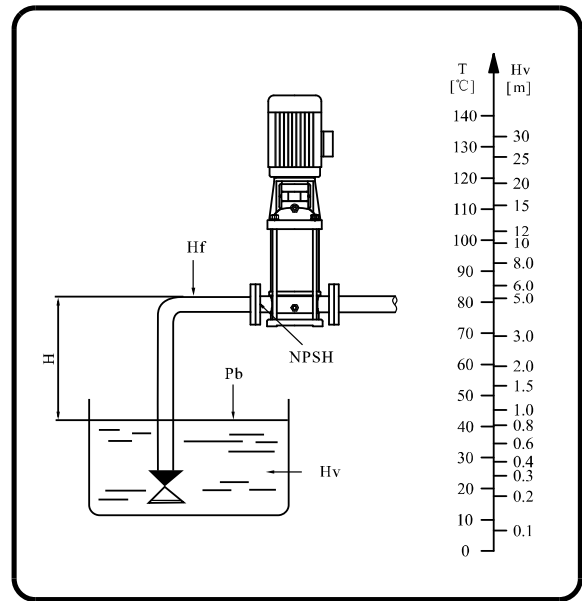
NPSH= Net positive suction head [m], It can be read out from the point of possible max. flow rate shown on NPSH curve

H_f = Pipeline loss at the inlet [m]

H_v = Steam pressure [m]

H_s = Safety margin Minimum 0.5m delivery head

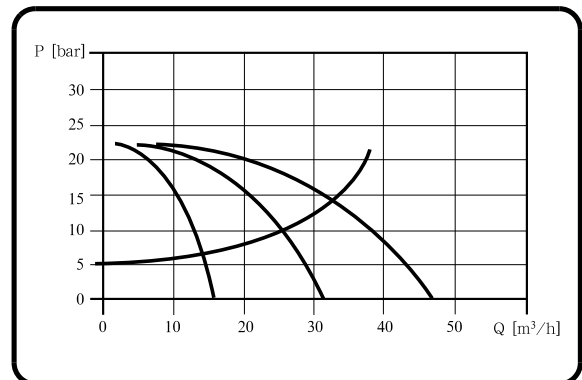
If the calculated result H is positive, the pump may run under the max. suction stroke H . In case the calculated result H is negative, a delivery head of min. inlet pressure is necessary.



Check and ensure that the pump is not at cavitation state.

Operation in parallel

- Connecting several pumps in a parallel running mode will benefit the reliability of the system compared to a single pump system.
- Applicable to different working states required by a variable flow system.
- Increasing the availability of water supply if a pump fails: only a part of the system flow is effected.

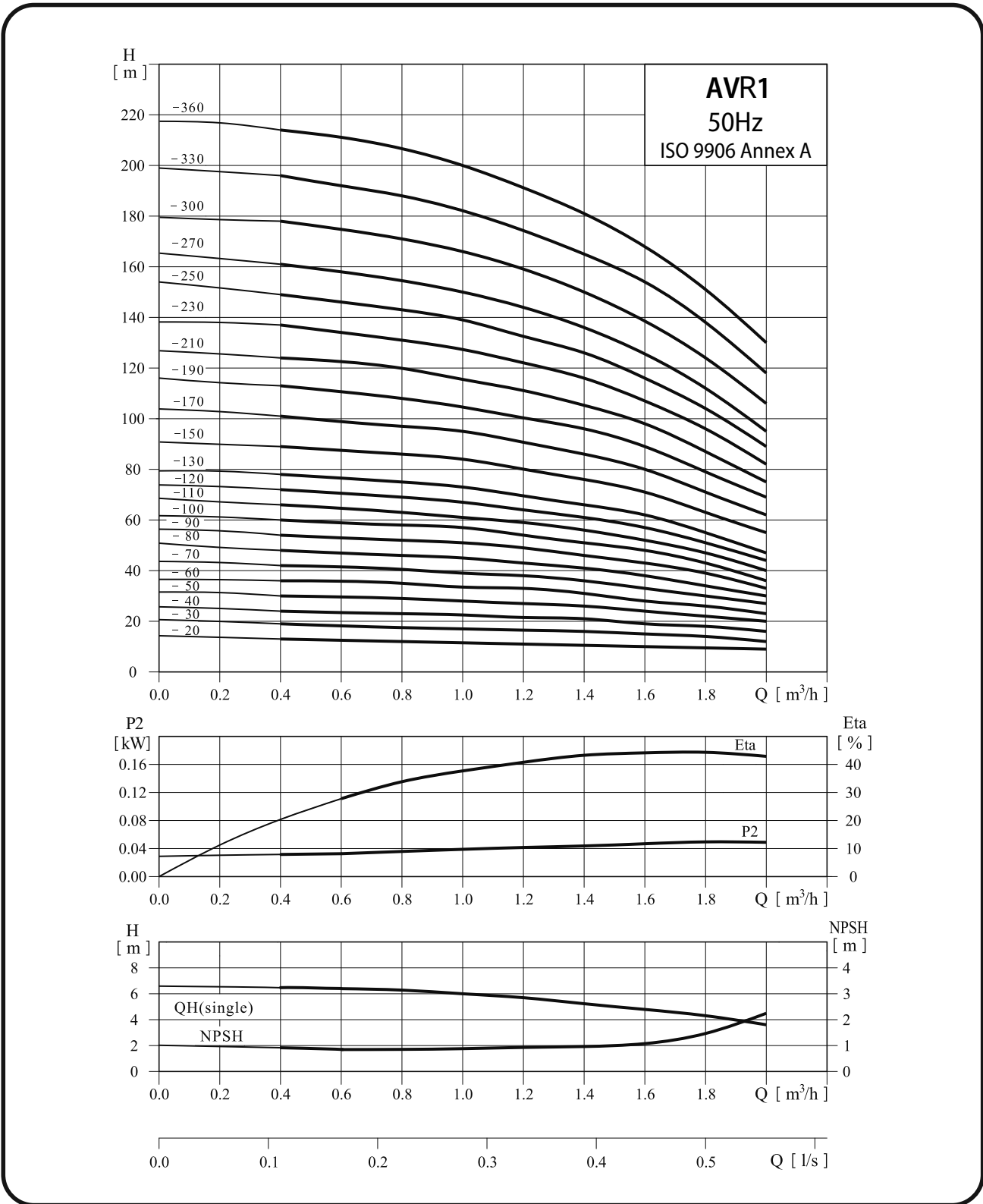


Two pumps or more can be connected in parallel running if necessary.

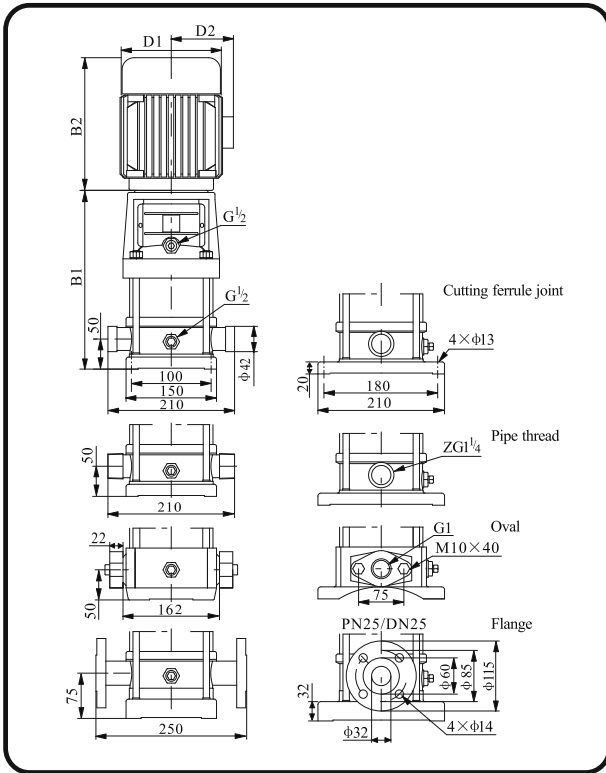
AVR1 /AVRF1 / AVRT1

Performance Curves

The performance curve applies to the AVR,AVRF and AVRTversion of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR 1-208	210	468	148	117	20	
AVR 1-306	210	486	148	117	20	
AVR 1-494	210	504	148	117	21	
AVR 1-502	210	522	148	117	21	
AVR 1-690	210	540	148	117	22	
AVR 1-798	210	558	148	117	23	
AVR 1-806	210	576	148	117	24	
AVR 1-904	210	594	148	117	25	
AVR 14090	210	612	148	17	26	
AVR 14100	210	630	148	17	26	
AVR 14120	245	693	170	42	29	
AVR 14130	245	711	170	42	30	
AVR 15050	245	747	170	42	31	
AVR 15380	245	783	170	42	33	
AVR 15720	245	819	170	42	34	
AVR 16210	245	855	170	42	35	
AVR 16480	245	891	170	42	36	
AVR 16850	290	982	190	55	42	
AVR 17230	290	1018	190	55	43	
AVR 17800	290	1072	190	55	45	
AVR 18380	290	1126	190	55	49	
AVR 18960	290	1180	190	55	51	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8
AVR1-20	0.313	12.5	12	11.5	11	10.5	10	9.5		
AVR1-30	0.319	18	17.5	17	16.5	16	15	14		
AVR1-40	0.324	23.5	23	22.5	21.5	21	19	18		
AVR1-50	0.330	29.6	29	28	27	26	24	22		
AVR1-60	0.336	35.5	35	33.5	33	31	28	26		
AVR1-70	0.342	41	40.5	39	38	36	33	30		
AVR1-80	0.548	47	46	45	43	41	38	34		
AVR1-90	0.554	53	52	51	49	46	43	39		
AVR1-100	0.65	59	58	57	54	51	48	43		
AVR1-110	0.65	65	63	61	59	56	52	47		
AVR1-120	0.75	71	69	67	64	61	57	51		
AVR1-130	0.75	77	75	73	69	66	62	55		
AVR1-150	0.85	88	86	84	79	76	71	63		
AVR1-170	1.101	99	97	95	89	85	80	71		
AVR1-190	1.113	110	108	106	99	95	89	79		
AVR1-210	1.124	122	120	117	110	106	98	87		
AVR1-230	1.137	133	131	128	121	116	107	95		
AVR1-250	1.549	145	143	139	131	126	116	104		
AVR1-270	1.561	157	155	150	141	136	125	112		
AVR1-300	1.578	175	171	166	157	150	139	124		
AVR1-330	2.496	192	188	183	173	165	154	137		
AVR1-360	2.214	210	205	200	190	181	169	151		

AVR 1-250 ~ 1-360 sub-connection of pipeline without oval flange.

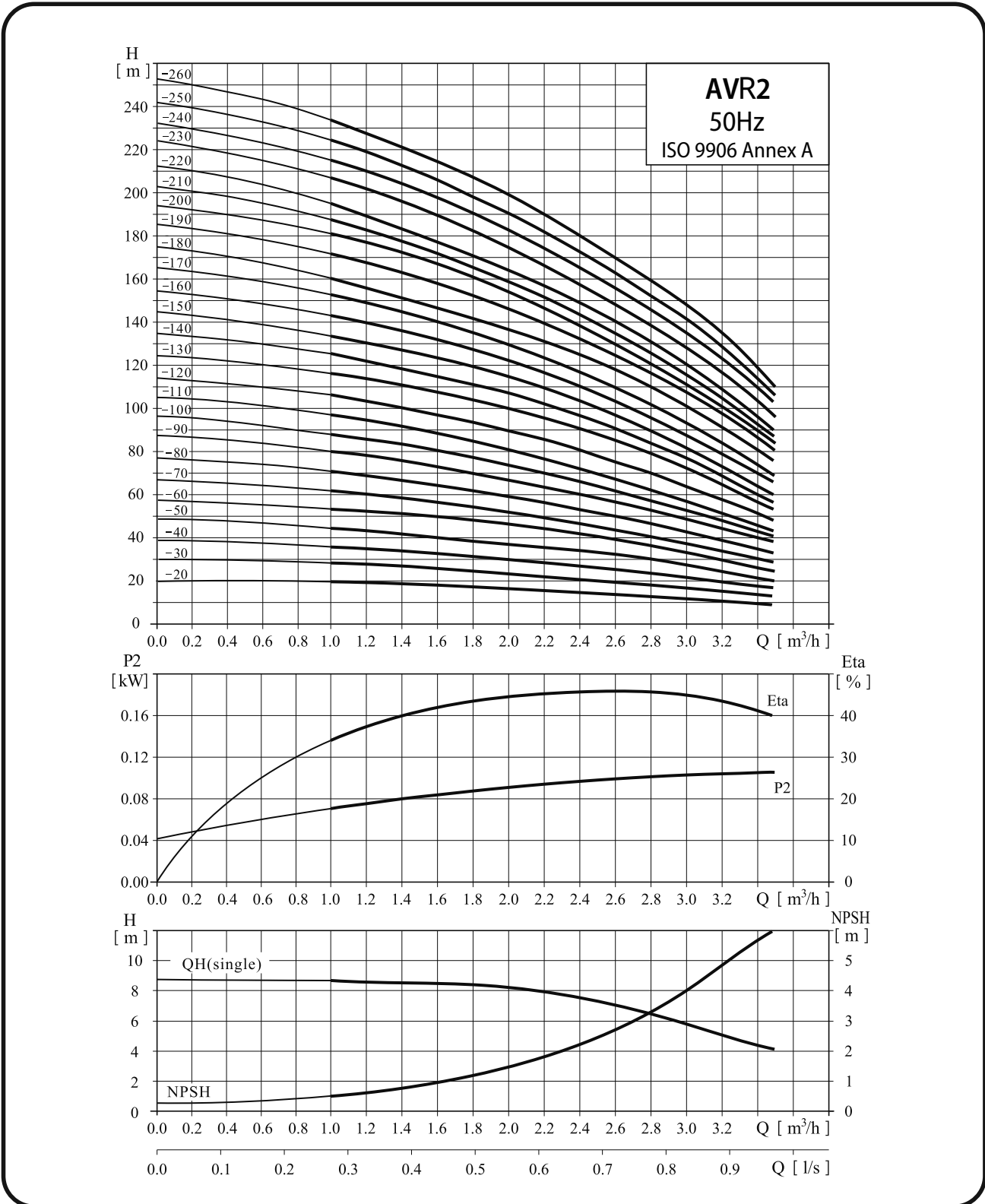
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR 1-20	0.37	0.98-0.88	0.81	70
AVR 1-30	0.37	0.98-0.89	0.81	70
AVR 1-40	0.37	0.98-0.90	0.81	70
AVR 1-50	0.37	0.98-0.91	0.81	70
AVR 1-60	0.37	0.98-0.92	0.81	70
AVR 1-70	0.37	0.98-0.93	0.81	70
AVR 1-80	0.55	1.3-1.2	0.82	73
AVR 1-90	0.55	1.3-1.3	0.82	73
AVR 1-100	0.55	1.3-1.4	0.82	73
AVR 1-110	0.55	1.3-1.5	0.82	73
AVR 1-120	0.55	1.7-1.5	0.83	75
AVR 1-130	0.55	1.7-1.6	0.83	75
AVR 1-150	0.55	1.7-1.8	0.83	75
AVR 1-170	0.55	2.6-2.5	0.84	77
AVR 1-190	0.55	2.6-2.7	0.84	77
AVR 1-210	0.55	3.3-3	0.84	77
AVR 1-230	0.55	3.3-5	0.84	77
AVR 1-250	0.55	3.3-4	0.84	79
AVR 1-270	0.55	4-3.6	0.84	79
AVR 1-300	0.55	4-3.9	0.84	79
AVR 1-330	0.55	4.9-4.7	0.85	81
AVR 1-360	0.55	4.9-4.10	0.85	81

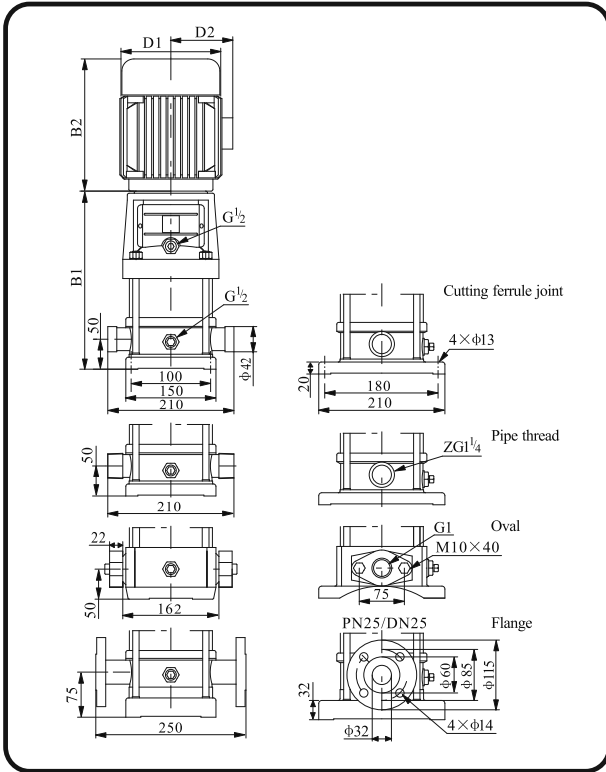
AVR2 / AVRF2 / AVRT2

Performance Curves

The performance curve applies to the AVR,AVRF and AVRTversion of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR2-298	210	468	148	117	20	
AVR2-396	210	486	148	117	20	
AVR2-494	210	504	148	117	22	
AVR2-592	210	522	148	117	23	
AVR2-690	245	585	170	142	26	
AVR2-798	245	603	170	142	26	
AVR2-994	245	639	170	142	28	
AVR24310	245	675	170	142	29	
AVR24720	290	766	190	155	35	
AVR25150	290	802	190	155	36	
AVR25680	290	856	190	155	41	
AVR26320	290	928	190	155	42	
AVR27260	315	1035	197	165	52	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	1.0	1.2	1.6	2.0	2.4	2.8	3.2
AVR2-297	18	17	16	15	13	10	10		
AVR2-397	27	26	24	22	20	18	15		
AVR2-495	36	35	33	30	26	24	20		
AVR2-595	45	43	40	37	33	30	24		
AVR2-695	53	52	50	45	40	36	30		
AVR2-795	63	61	57	52	47	41	35		
AVR2-999	80	78	73	67	61	54	45		
AVR2-1110	98	95	89	82	73	64	54		
AVR2-1330	116	114	106	98	89	78	65		
AVR2-1550	134	130	123	112	100	90	73		
AVR2-1880	161	157	148	136	121	108	91		
AVR2-2220	197	192	180	165	148	130	110		
AVR2-2660	232	228	214	198	179	158	130		

AVR 2-180 ~ 2-260 sub-connection of pipeline without oval flange.

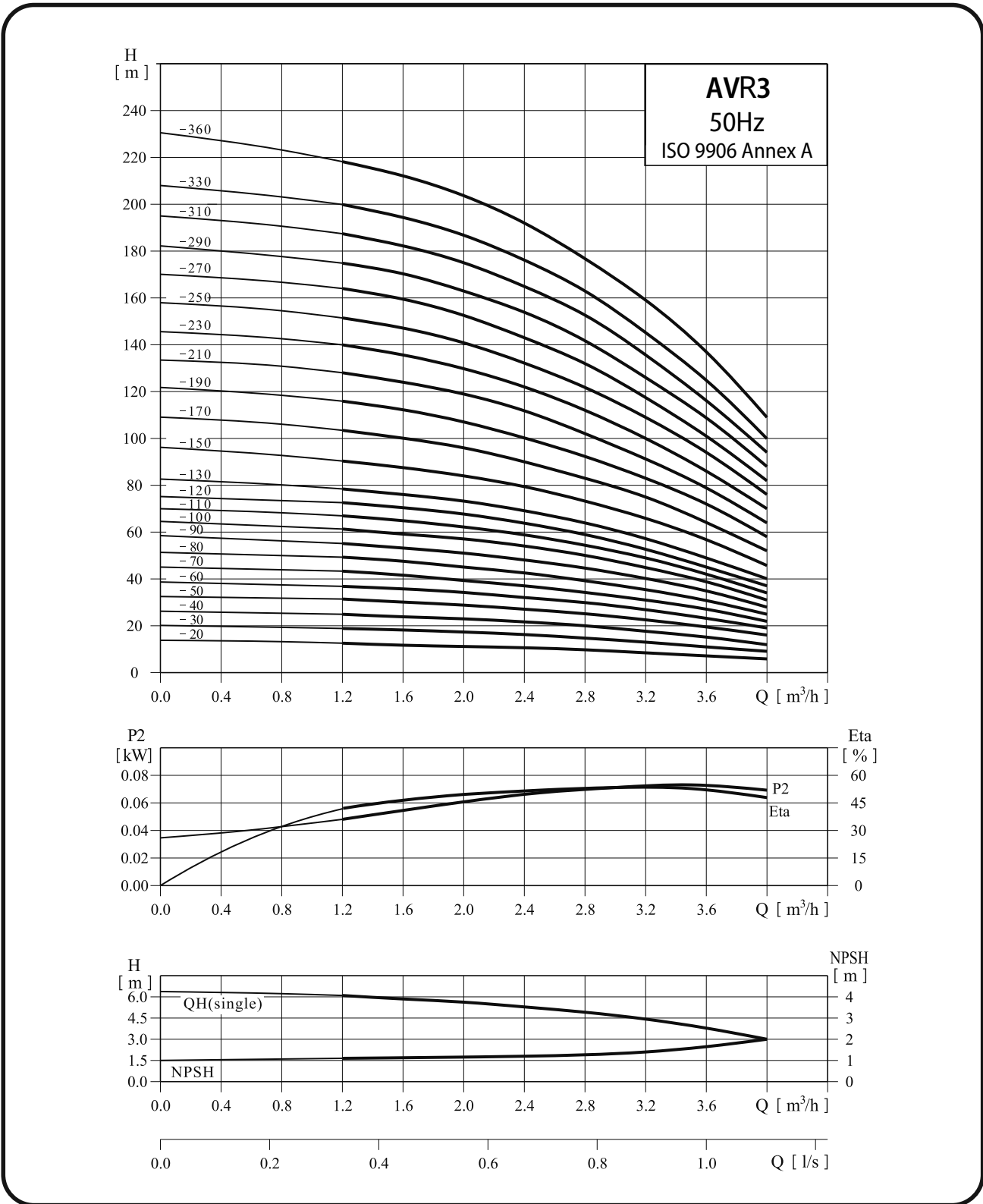
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η (%)
AVR2-297	0.98-0.88	0.81	70	
AVR2-397	0.98-0.88	0.81	70	
AVR2-495	1.3-1.2	0.82	73	
AVR2-595	1.3-1.2	0.82	73	
AVR2-695	1.7-1.5	0.83	75	
AVR2-795	1.7-1.5	0.83	75	
AVR2-999	2.6-2.4	0.84	77	
AVR2-1110	3.3-3	0.84	77	
AVR2-1330	3.3-3	0.84	79	
AVR2-1550	4-3.3	0.84	79	
AVR2-1880	4.9-4.5	0.85	81	
AVR2-2220	5.7-5.3	0.85	81	
AVR2-2660	6.1-5.5	0.87	83	

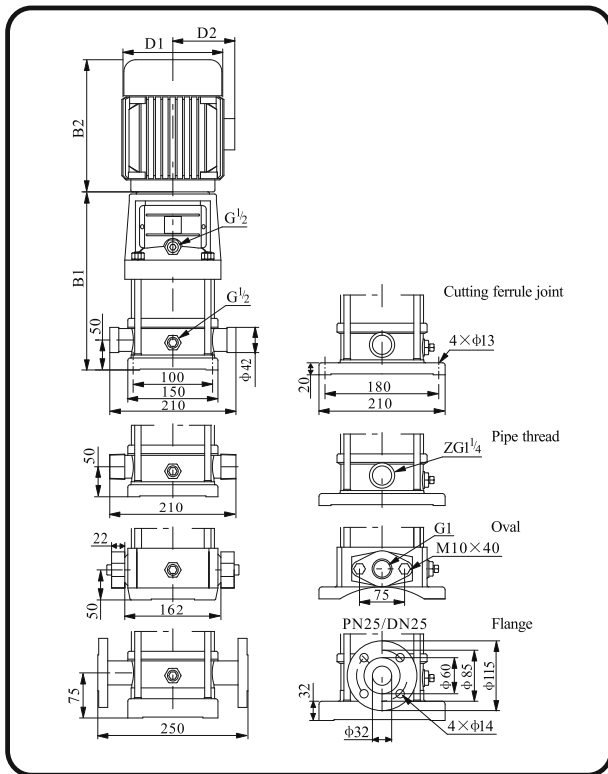
AVR3 / AVRF3 / AVRT3

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR3-20	258	210	468	148	117	20
AVR3-30	276	210	486	148	117	20
AVR3-40	294	210	504	148	117	21
AVR3-50	312	210	522	148	117	21
AVR3-60	330	210	540	148	117	23
AVR3-70	348	210	558	148	117	24
AVR3-80	376	245	621	170	142	27
AVR3-90	394	245	639	170	142	28
AVR3-100	412	245	657	170	142	28
AVR3-110	430	245	675	170	142	29
AVR3-120	448	245	693	170	142	30
AVR3-130	466	245	711	170	142	31
AVR3-150	502	245	747	170	142	32
AVR3-170	548	290	838	190	155	38
AVR3-190	584	290	874	190	155	39
AVR3-210	620	290	910	190	155	42
AVR3-230	656	290	946	190	155	43
AVR3-250	692	290	982	190	155	44
AVR3-270	728	290	1018	190	155	45
AVR3-290	764	290	1054	190	155	46
AVR3-310	810	315	1125	197	165	54
AVR3-330	846	315	1161	197	165	55
AVR3-360	900	315	1215	197	165	57

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]						
			1.2	1.6	2.0	2.4	2.8	3.2	3.6
AVR3-20	0.37		12.5	11.5	11	10.5	10	8	7
AVR3-30	0.37		19	18.5	17.5	16.5	15	13	11
AVR3-40	0.37		25	24	23	21.5	20	18	15
AVR3-50	0.37		31	30	29	27	25	22	19
AVR3-60	0.55		36	35	34	32	30	27	23
AVR3-70	0.55		43	41	39	37	34	31	27
AVR3-80	0.75		49	47	45	43	39	35	31
AVR3-90	0.75		55	53	51	48	45	40	35
AVR3-100	0.75		61	59	57	54	50	45	39
AVR3-110	1.1		67	64	61	58	54	49	42
AVR3-120	1.1		73	70	67	63	58	52	45
AVR3-130	1.1		78	76	73	69	64	57	49
AVR3-150	1.1		90	88	84	79	73	66	57
AVR3-170	1.5		103	100	96	90	83	75	64
AVR3-190	1.5		115	112	107	100	92	83	72
AVR3-210	2.2		128	124	119	112	102	91	79
AVR3-230	2.2		140	135	130	122	112	100	86
AVR3-250	2.2		151	147	141	131	122	109	94
AVR3-270	2.2		164	159	152	143	132	117	101
AVR3-290	2.2		175	170	163	153	142	126	109
AVR3-310	3.0		187	182	175	165	153	135	116
AVR3-330	3.0		199	194	187	176	163	145	125
AVR3-360	3.0		218	212	204	192	178	159	137

AVR 3-250 ~ 3-360 sub-connection of pipeline without oval flange.

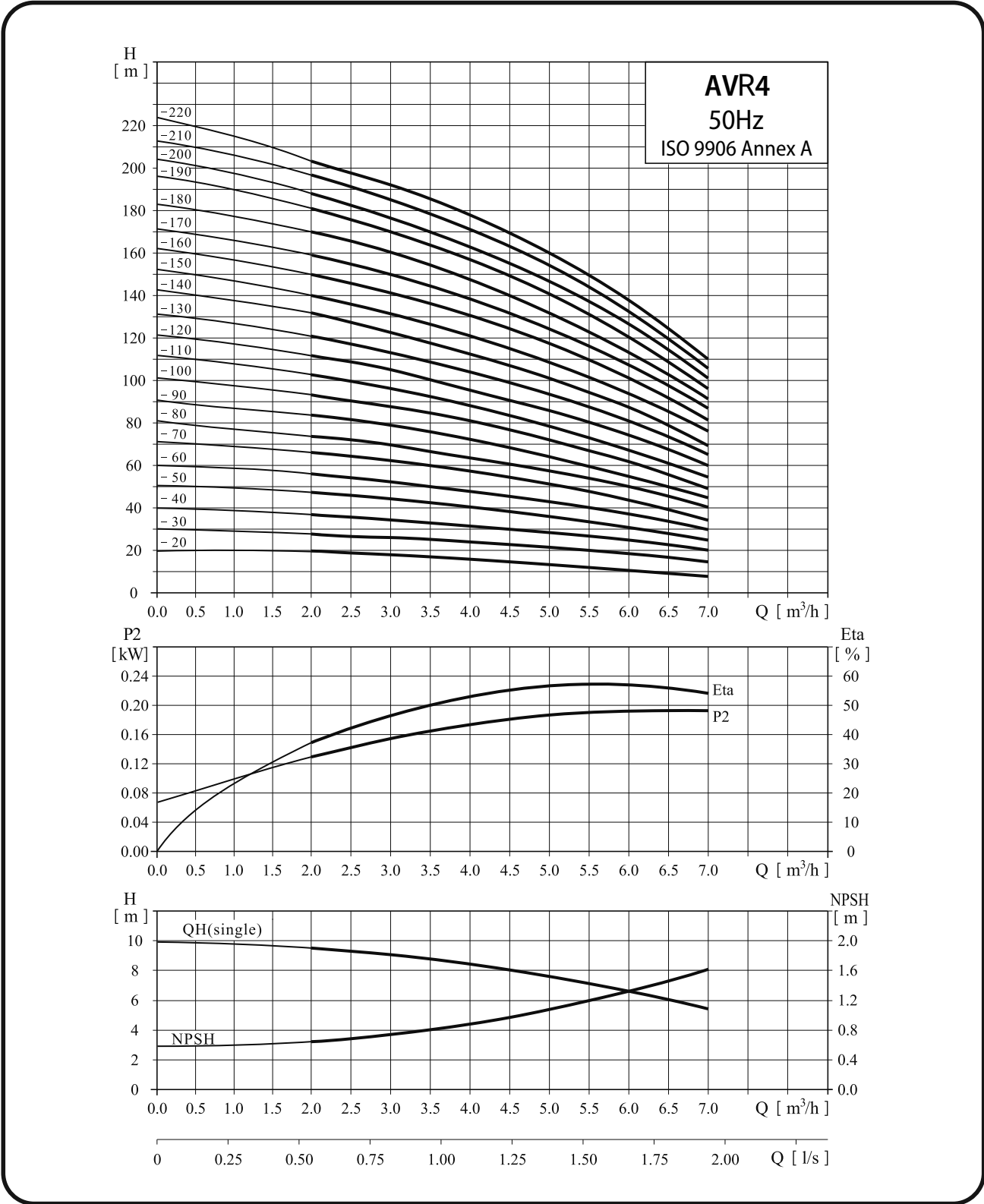
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR3-20	0.37	0.98-0.88	0.81	70
AVR3-30	0.37	0.98-0.88	0.81	70
AVR3-40	0.37	0.98-0.88	0.81	70
AVR3-50	0.37	0.98-0.88	0.81	70
AVR3-60	0.55	1.3-1.2	0.82	73
AVR3-70	0.55	1.3-1.2	0.82	73
AVR3-80	0.75	1.7-1.5	0.83	75
AVR3-90	0.75	1.7-1.5	0.83	75
AVR3-100	0.75	1.7-1.5	0.83	75
AVR3-110	1.1	2.6-2.4	0.84	77
AVR3-120	1.1	2.6-2.4	0.84	77
AVR3-130	1.1	2.6-2.4	0.84	77
AVR3-150	1.1	3.3-3	0.84	77
AVR3-170	1.5	3.3-3	0.84	79
AVR3-190	1.5	4-3.6	0.84	79
AVR3-210	2.2	4.9-4.5	0.85	81
AVR3-230	2.2	4.9-4.5	0.85	81
AVR3-250	2.2	4.9-4.5	0.85	81
AVR3-270	2.2	5.7-5.3	0.85	81
AVR3-290	2.2	5.7-5.3	0.85	81
AVR3-310	3.0	6.1-5.5	0.87	83
AVR3-330	3.0	6.1-5.5	0.87	83
AVR3-360	3.0	6.1-5.5	0.87	83

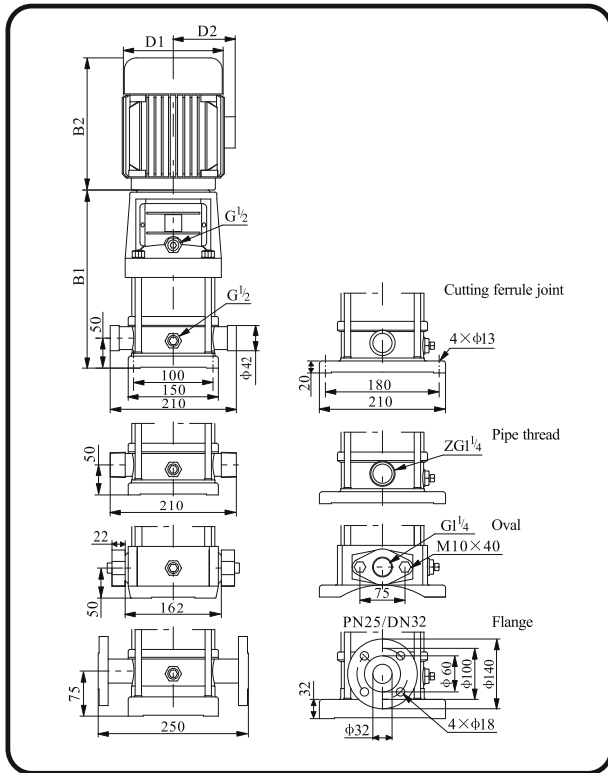
AVR4 / AVRF4 / AVRT4

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR4-206	210	486	148	117	21	
AVR4-303	210	513	148	117	22	
AVR4-440	245	585	170	142	25	
AVR4-507	245	612	170	142	27	
AVR4-604	245	639	170	142	27	
AVR4-791	290	721	190	155	33	
AVR4-898	290	748	190	155	33	
AVR4-120	290	802	190	155	37	
AVR4-160	290	856	190	155	38	
AVR4-240	315	945	197	165	46	
AVR4-340	315	999	197	165	48	
AVR4-490	335	1100	230	188	57	
AVR4-620	335	1181	230	188	59	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]					
			1.5	2.0	3.0	4.0	5.0	6.0
AVR4-20	0.37	18	17	15	13	10		
AVR4-30	0.55	27	26	24	20	18		
AVR4-40	0.75	36	34	32	27	24		
AVR4-50	1.147	45	43	40	34	31		
AVR4-60	1.156	54	52	48	41	37		
AVR4-70	1.566	63	61	56	48	43		
AVR4-80	1.574	72	70	64	55	50		
AVR4-100	2.96	90	87	81	71	62		
AVR4-120	2.714	108	104	95	85	75		
AVR4-140	3.036	126	122	112	101	89		
AVR4-160	3.052	144	140	129	115	101		
AVR4-190	4.083	171	168	153	137	122		
AVR4-220	4.211	200	192	178	160	138		

AVR 4-190 ~ 4-220 sub-connection of pipeline without oval flange.

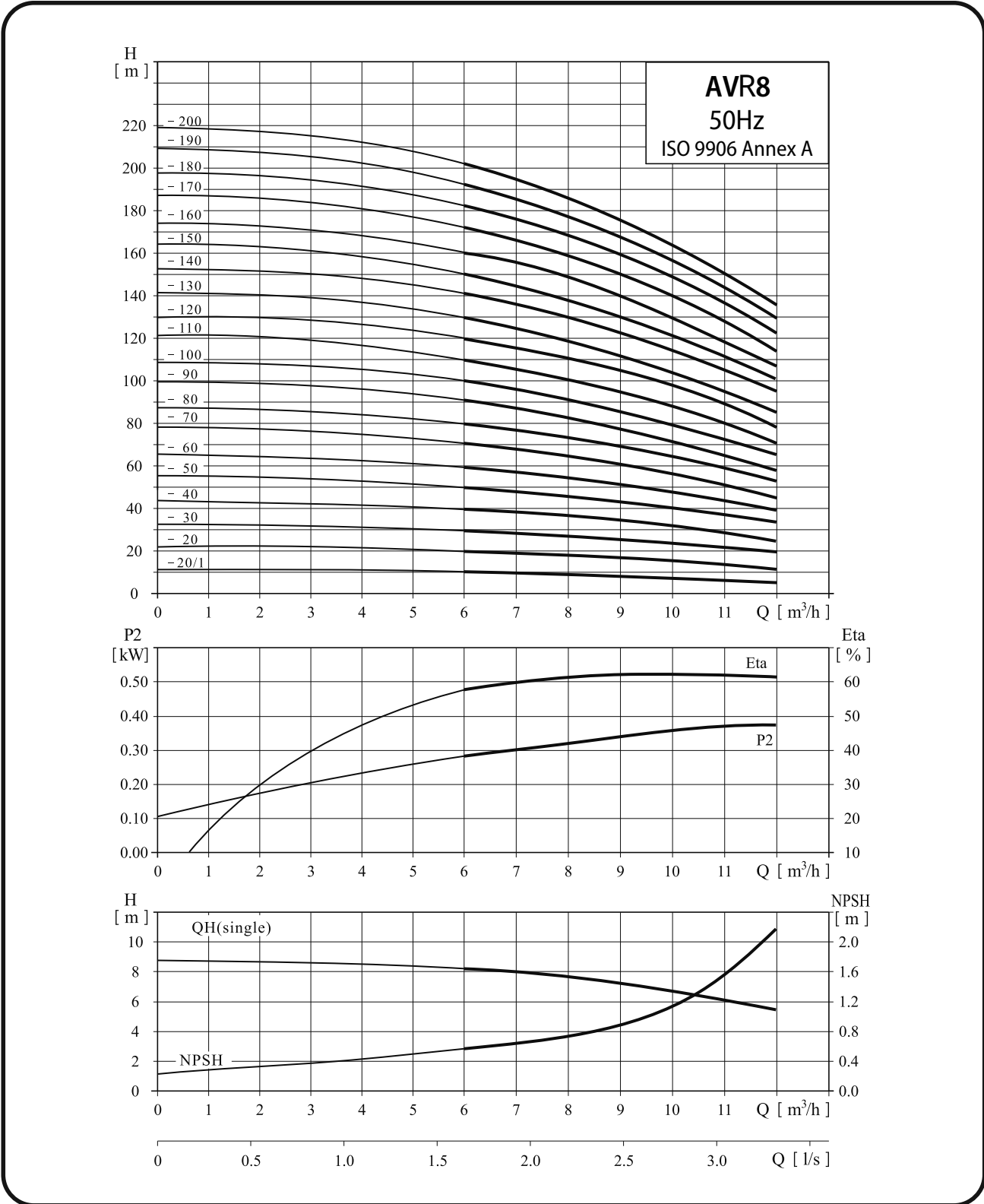
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR4-20	0.37	0.88	0.81	70
AVR4-30	0.55	1.3-1.2	0.82	73
AVR4-40	0.75	1.7-1.5	0.83	75
AVR4-50	1.1	2.6-2.4	0.84	77
AVR4-60	1.1	2.6-2.4	0.84	77
AVR4-70	1.5	3.3-3	0.84	79
AVR4-80	1.5	3.3-3	0.84	79
AVR4-100	2.96	4.9-4.5	0.85	81
AVR4-120	2.714	5.7-5.3	0.85	81
AVR4-140	3.036	6.1-5.5	0.87	83
AVR4-160	3.052	6.1-5.5	0.87	83
AVR4-190	4.083	8-7.2	0.88	85
AVR4-220	4.211	9-8.1	0.88	85

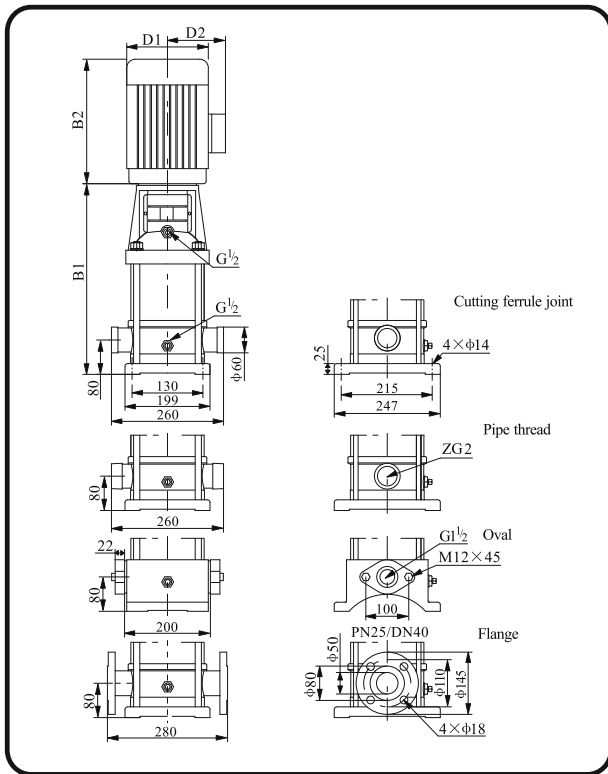
AVR8 / AVRF8 / AVRT8

Performance Curves

The performance curve applies to the AVR,AVRF and AVRTversion of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR 8-20-1	347	245	592	170	142	
AVR 8-20	245	592	170	142	32	
AVR 8-30	245	622	170	142	34	
AVR 8-40	290	707	190	155	40	
AVR 8-50	290	737	190	155	44	
AVR 8-60	290	767	190	155	45	
AVR 8-80	315	862	197	165	53	
AVR 8-100	335	942	230	188	64	
AVR 8-120	335	1002	230	188	66	
AVR 8-140	430	1177	260	208	81	
AVR 8-160	430	1237	260	208	84	
AVR 8-180	430	1297	260	208	93	
AVR 8-200	430	1357	260	208	94	

Remark: The provider data in the tables and sketches apply to the AVR, AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	5	6	7	8	9	10	11
AVR 8-20/1	0.75	9.5	9	8.5	8	7			
AVR 8-20		19.5	19	18	17	15	14		
AVR 8-30		29.5	28.5	27	25	24	21		
AVR 8-40		39.5	38	36	34	32	28		
AVR 8-50		49.5	48	45	42	40	36		
AVR 8-60		59.5	57	54	51	48	43		
AVR 8-80		79.5	77	73	69	65	58		
AVR 8-100		99.5	97	92	87	81	73		
AVR 8-120		119.5	116	111	104	92	87		
AVR 8-140		139.5	136	130	122	113	102		
AVR 8-160		159.5	156	148	139	130	118		
AVR 8-180		179.5	175	167	157	146	134		
AVR 8-200		199.5	195	186	175	163	150		

AVR 8-140 ~ 8-200 sub-connection of pipeline without oval flange.

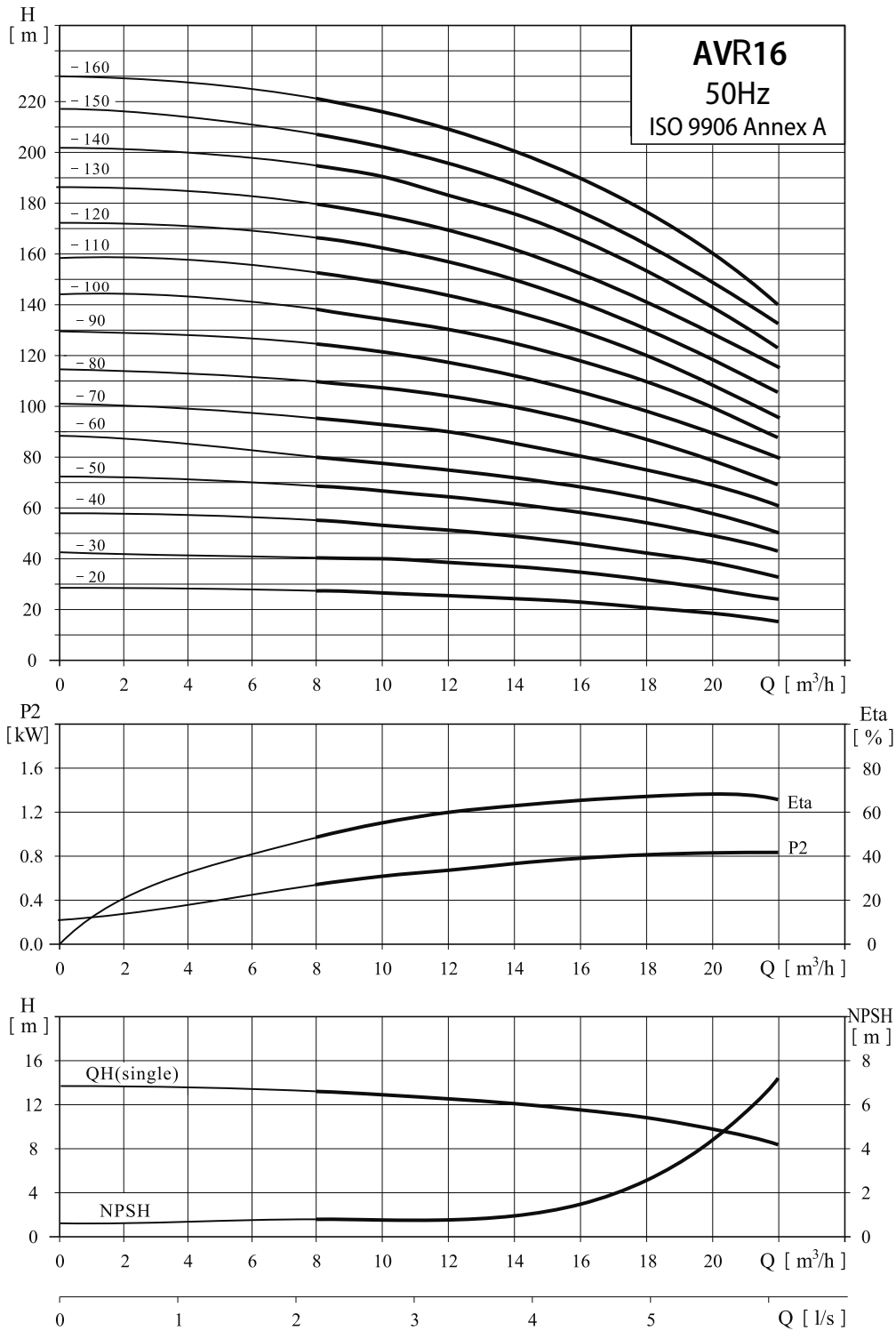
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR 8-20	0.75	1.7-1.5	0.83	75
AVR 8-20	0.75	1.7-1.5	0.83	75
AVR 8-30	1.1	2.6-2.4	0.84	77
AVR 8-40	1.5	3.3-3	0.84	79
AVR 8-50	2.2	4.9-4.5	0.85	81
AVR 8-60	2.2	4.9-4.5	0.85	81
AVR 8-80	3.0	6.1-5.5	0.87	83
AVR 8-100	4.0	8-7.2	0.88	85
AVR 8-120	4.0	9-8.1	0.88	85
AVR 8-140	4.0	10.8-9.7	0.88	86
AVR 8-160	4.0	10.8-9.7	0.88	86
AVR 8-180	4.0	14.9-13.8	0.88	87
AVR 8-200	4.0	14.9-13.8	0.88	87

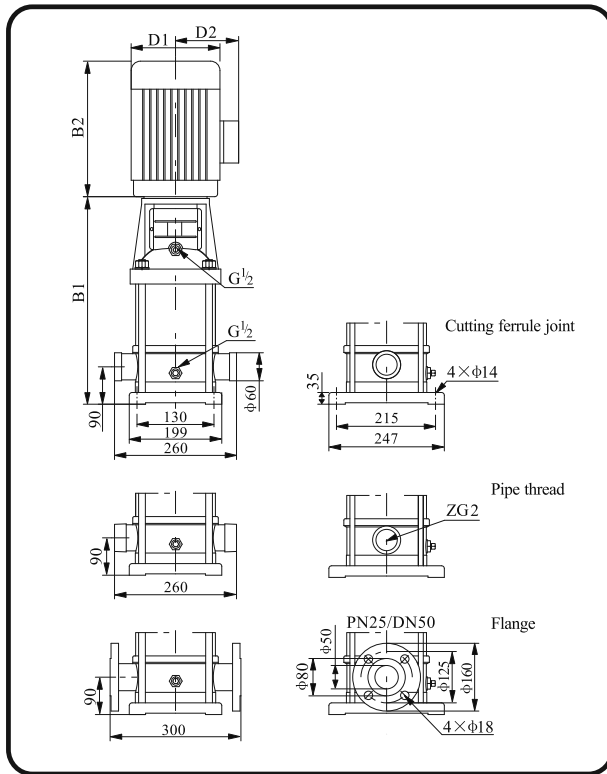
AVR16 / AVRF16 / AVRT16

Performance Curves

The performance curve applies to the AVR,AVRF and AVRTversion of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR 15-20	290	687	190	55	42	
AVR 15-30	315	767	197	65	50	
AVR 15-40	335	832	230	88	59	
AVR 15-50	430	992	260	208	76	
AVR 15-60	430	1037	260	208	77	
AVR 15-70	430	1082	260	208	84	
AVR 15-80	430	1127	260	208	86	
AVR 16-100	875	490	1365	330	255	
AVR 16-120	965	490	1455	330	255	
AVR 16-140	1055	490	1545	330	255	
AVR 16-160	1145	490	1635	330	255	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	8	10	12	14	16	18	20
AVR 15-20	27	26	25	24	22	21	19		
AVR 15-30	41	40	38	37	34	32	29		
AVR 15-40	54	53	52	49	46	43	38		
AVR 15-50	68	67	65	62	58	54	48		
AVR 15-60	82	80	78	74	70	64	58		
AVR 15-70	96	95	91	87	82	76	68		
AVR 15-80	110	108	104	99	94	86	77		
AVR 16-100	1138	136	131	125	118	109	97		
AVR 16-120	1166	162	157	150	141	130	115		
AVR 16-140	1194	190	184	175	166	152	136		
AVR 16-160	1222	217	210	200	189	174	155		

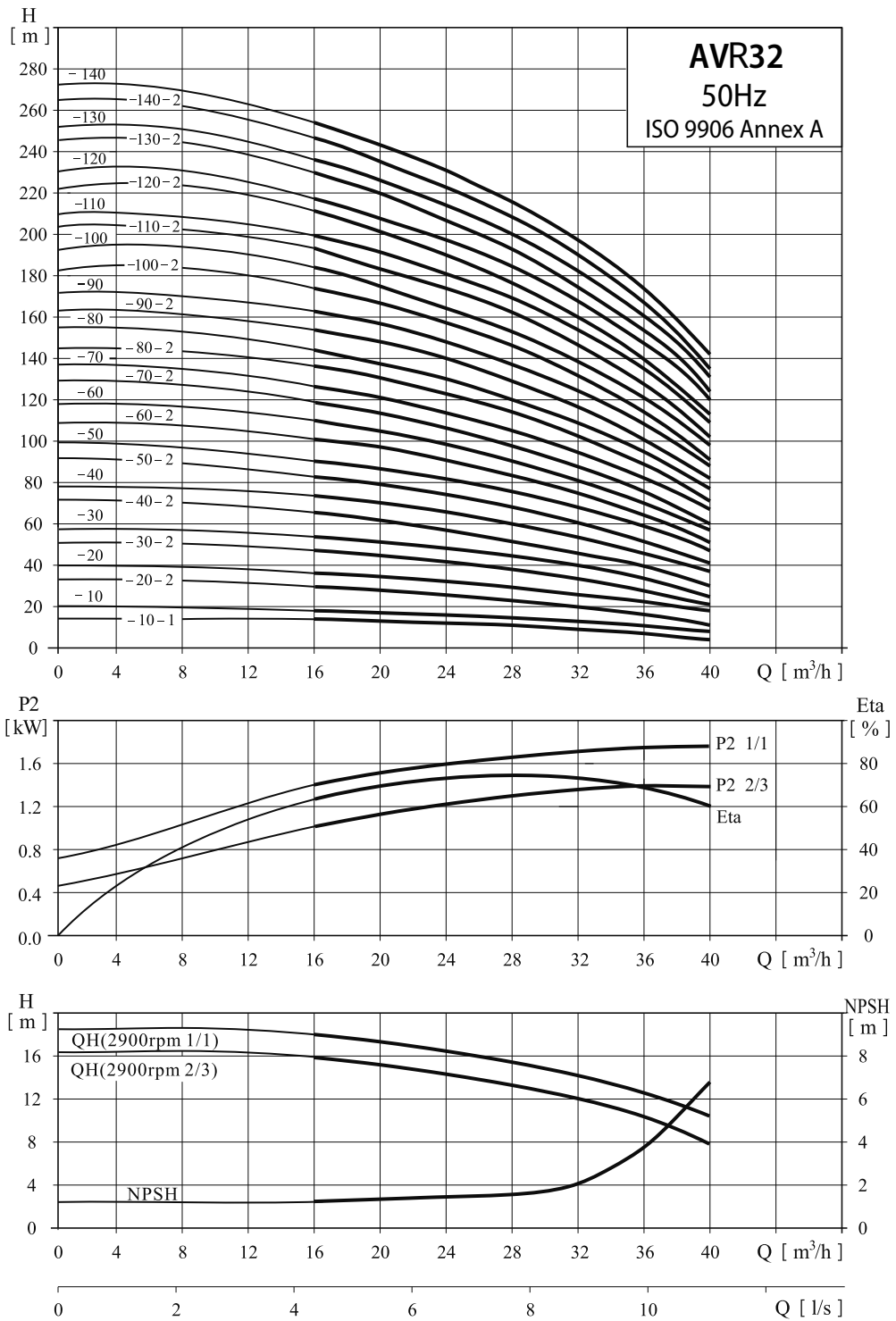
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR 16-20	4.9-4.5	0.85	81	
AVR 16-30	6.1-5.5	0.87	83	
AVR 16-40	8-7.2	0.88	85	
AVR 16-50	10.8-9.7	0.88	86	
AVR 16-60	10.8-9.7	0.88	86	
AVR 16-70	14.9-13.8	0.88	87	
AVR 16-80	14.9-13.8	0.88	87	
AVR 16-100	20.9-18.8	0.89	88	
AVR 16-120	20.9-18.8	0.89	88	
AVR 16-140	27.9-25.1	0.89	89	
AVR 16-160	27.9-25.1	0.89	89	

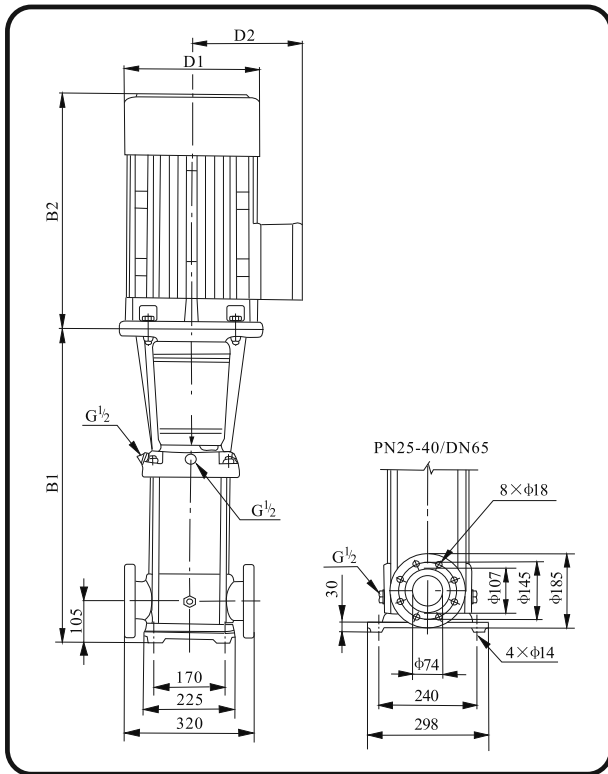
AVR32 / AVRF32 / AVRT32

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR32-10-1	505	290	795	190	155	64
AVR32-10						68
AVR32-20-2	575	315	890	197	165	77
AVR32-20		335	910	230	180	85
AVR32-30-2	645	430	1075	260	208	100
AVR32-30						
AVR32-40-2	715	430	1145	260	208	109
AVR32-40						
AVR32-50-2	890	490	1380	330	255	181
AVR32-50						
AVR32-60-2	960	490	1450	330	255	185
AVR32-60						
AVR32-70-2	1030	490	1520	330	255	199
AVR32-70						
AVR32-80-2	1100	490	1590	330	255	203
AVR32-80						
AVR32-90-2	1170	550	1720	330	255	222
AVR32-90						
AVR32-100-2	1240	550	1790	330	255	227
AVR32-100						
AVR32-110-2	1310	590	1900	360	285	272
AVR32-110						
AVR32-120-2	1380	590	1970	360	285	276
AVR32-120						
AVR32-130-2	1450	660	2110	400	310	337
AVR32-130						
AVR32-140-2	1520	660	2180	400	310	341
AVR32-140						

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]					
			16	20	24	28	32	36
AVR32-10-1	1.5	H [m]	14	13	12	11	9	7
AVR32-10	2.2		18	17	15	14	13	11
AVR32-20-2	3.0		29	28	26	23	20	16
AVR32-20	4.0		36	34	32	29	27	23
AVR32-30-2	5.5		47	44	41	38	33	28
AVR32-30	5.5		54	51	48	44	40	35
AVR32-40-2	7.5		65	62	58	53	46	40
AVR32-40	7.5		72	69	65	59	53	47
AVR32-50-2	11		83	79	74	68	60	52
AVR32-50	11		90	86	81	74	67	59
AVR32-60-2	11		101	97	90	83	74	65
AVR32-60	11		108	104	97	90	81	72
AVR32-70-2	15		119	114	107	98	88	78
AVR32-70	15		126	121	113	105	95	85
AVR32-80-2	15		136	131	123	114	102	90
AVR32-80	15		144	138	130	120	109	97
AVR32-90-2	18.5		154	148	140	129	117	102
AVR32-90	18.5		162	156	147	136	124	109
AVR32-100-2	18.5		175	166	157	146	131	115
AVR32-100	18.5		182	173	164	152	138	122
AVR32-110-2	22		193	184	173	164	146	128
AVR32-110	22		200	191	180	168	153	135
AVR32-120-2	22		211	201	189	178	160	140
AVR32-120	22		218	208	196	184	167	147
AVR32-130-2	30		230	218	206	193	174	153
AVR32-130	30		237	225	213	200	181	160
AVR32-140-2	30		247	235	222	210	189	165
AVR32-140	30		255	242	229	216	196	172

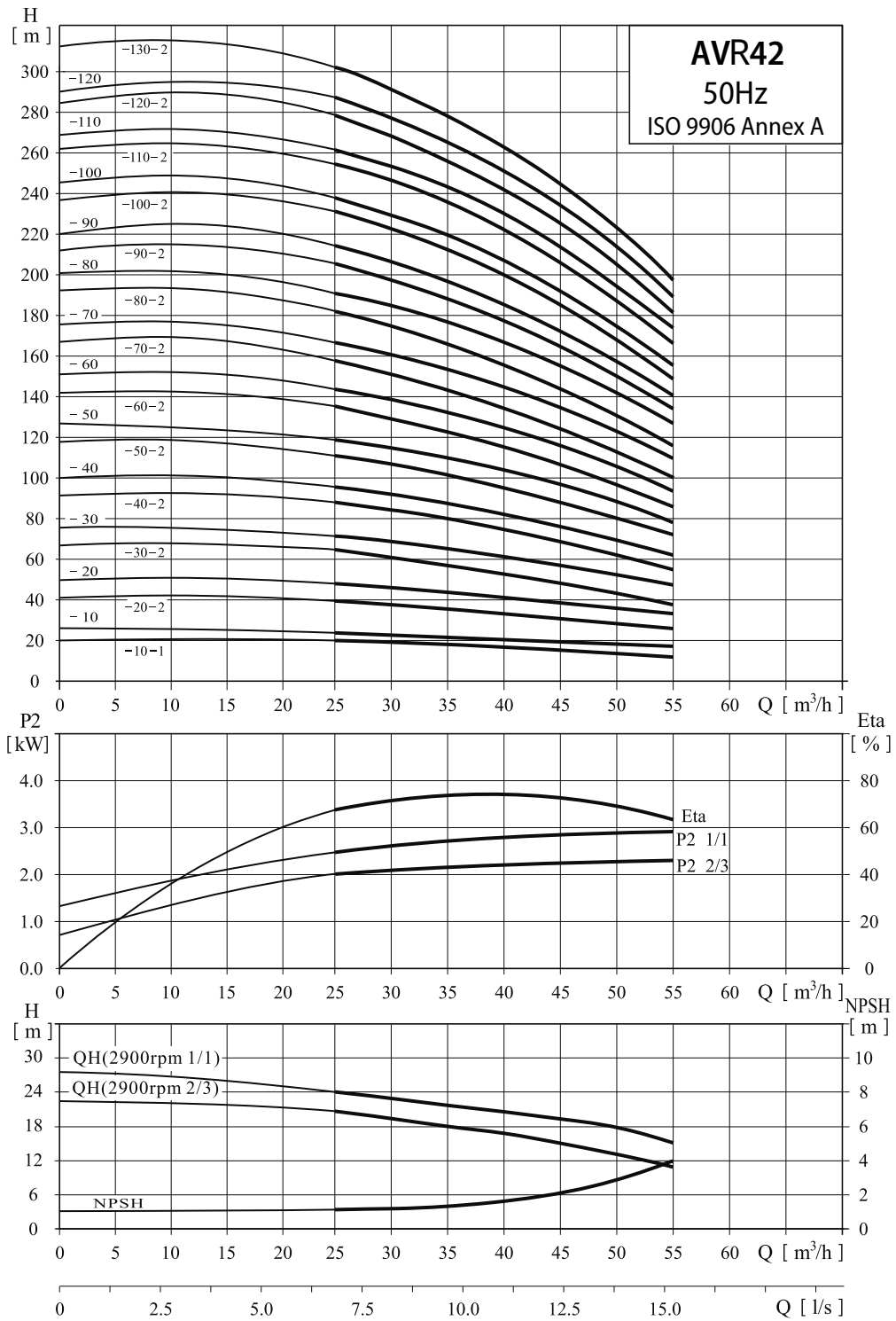
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR32-10-1	1.5	3.3-3	0.84	79
AVR32-10	2.2	4.9-4.5	0.85	81
AVR32-20-2	3.0	6.1-5.5	0.87	83
AVR32-20	4.0	8-7.2	0.88	85
AVR32-30-2	5.5	10.8-9.7	0.88	86
AVR32-30	5.5	10.8-9.7	0.88	86
AVR32-40-2	7.5	14.9-13.8	0.88	87
AVR32-40	7.5	14.9-13.8	0.88	87
AVR32-50-2	11	20.9-18.8	0.89	88
AVR32-50	11	20.9-18.8	0.89	88
AVR32-60-2	11	20.9-18.8	0.89	88
AVR32-60	11	20.9-18.8	0.89	88
AVR32-70-2	15	27.9-25.1	0.89	89
AVR32-70	15	27.9-25.1	0.89	89
AVR32-80-2	15	27.9-25.1	0.89	89
AVR32-80	15	27.9-25.1	0.89	89
AVR32-90-2	18.5	33.9-30.5	0.9	90
AVR32-90	18.5	33.9-30.5	0.9	90
AVR32-100-2	18.5	33.9-30.5	0.9	90
AVR32-100	18.5	33.9-30.5	0.9	90
AVR32-110-2	22	41.5-37.4	0.9	90
AVR32-110	22	41.5-37.4	0.9	90
AVR32-120-2	22	41.5-37.4	0.9	90
AVR32-120	22	41.5-37.4	0.9	90
AVR32-130-2	30	56.5-51.7	0.9	91.2
AVR32-130	30	56.5-51.7	0.9	91.2
AVR32-140-2	30	56.5-51.7	0.9	91.2
AVR32-140	30	56.5-51.7	0.9	91.2

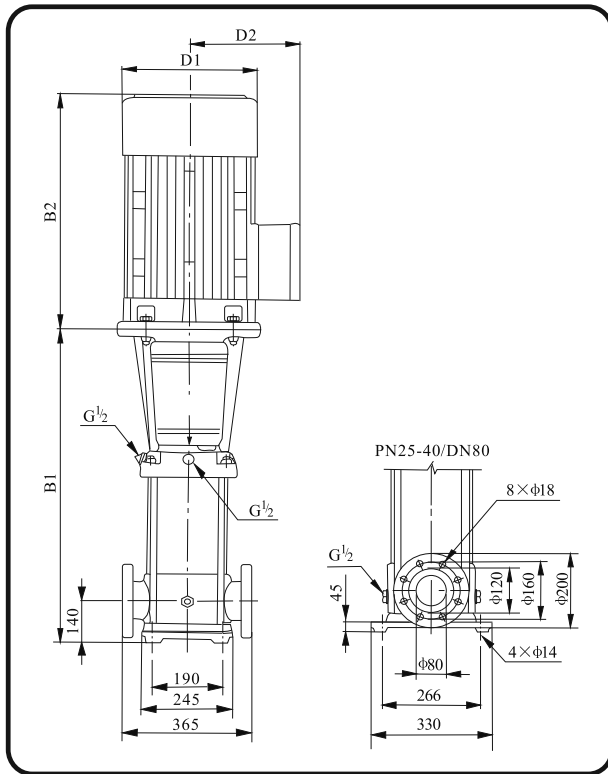
AVR42 / AVRF42 / AVRT42

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR42-10-1	561	315	876	197	165	83
AVR42-10		335	896	230	188	90
AVR42-20-2	641	430	1071	260	208	105
AVR42-20						110
AVR42-30-2	826	490	1316	330	255	183
AVR42-30						
AVR42-40-2	906	490	1396	330	255	197
AVR42-40						
AVR42-50-2	986	550	1536	330	255	221
AVR42-50						
AVR42-60-2	1066	590	1656	360	285	261
AVR42-60						
AVR42-70-2	1146	660	1806	400	310	320
AVR42-70						
AVR42-80-2	1226	660	1886	400	310	324
AVR42-80						
AVR42-90-2	1306	660	1966	400	310	328
AVR42-90						352
AVR42-100-2	1386	660	2046	400	310	355
AVR42-100						
AVR42-110-2	1466	700	2166	450	345	426
AVR42-110						
AVR42-120-2	1546	700	2246	450	345	432
AVR42-120						
AVR42-130-2	1626	700	2326	450	345	438

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]						
			25	30	35	40	45	50	
AVR42-10-1	3.0	H [m]	20	19	18	17	15	13	
AVR42-10	4.0		24	23	22	21	19	18	
AVR42-20-2	5.5		40	38	36	33	30	27	
AVR42-20	7.5		48	46	44	42	39	35	
AVR42-30-2	11		63	61	58	54	50	44	
AVR42-30	11		71	69	66	63	58	53	
AVR42-40-2	15		87	84	80	77	69	62	
AVR42-40	15		95	92	88	84	78	71	
AVR42-50-2	18.5		111	107	102	96	88	80	
AVR42-50	18.5		119	115	110	105	97	88	
AVR42-60-2	22		135	130	124	117	108	97	
AVR42-60	22		143	138	132	125	116	106	
AVR42-70-2	30		158	152	146	138	127	115	
AVR42-70	30		165	161	154	146	135	124	
AVR42-80-2	30		182	175	168	159	146	133	
AVR42-80	30		190	184	176	167	154	141	
AVR42-90-2	30		205	198	190	180	165	150	
AVR42-90	37		214	207	198	188	174	159	
AVR42-100-2	37		230	221	212	200	185	168	
AVR42-100	37		238	230	220	209	193	177	
AVR42-110-2	45	255	246	236	223	206	188		
AVR42-110	45	263	255	244	232	214	196		
AVR42-120-2	45	280	270	259	245	226	206		
AVR42-120	45	289	280	268	255	236	216		
AVR42-130-2	45	305	294	282	267	247	225		

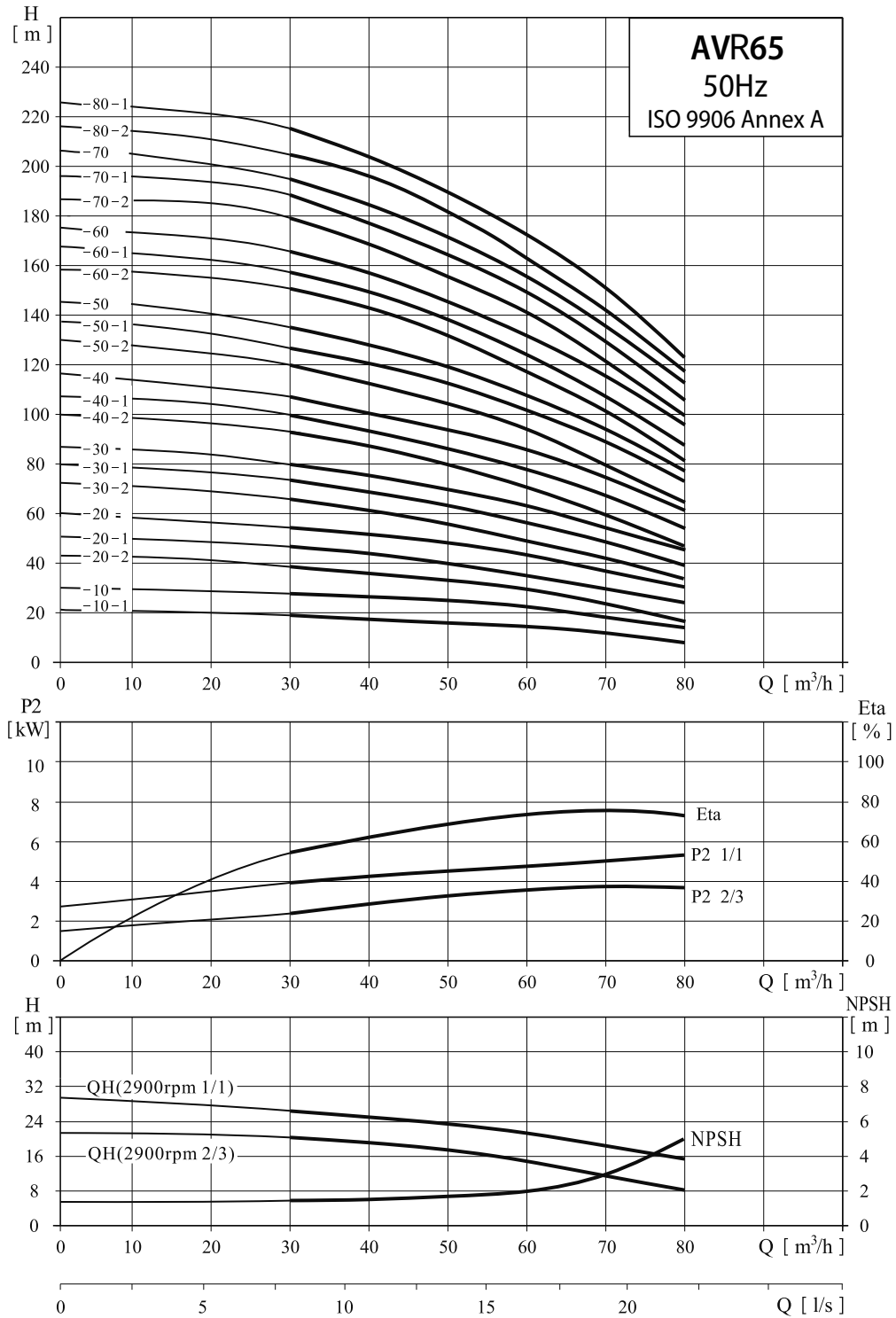
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR42-10-1	3.0	6.1-5.5	0.87	83
AVR42-10	4.0	8-7.2	0.88	85
AVR42-20-2	5.5	10.8-9.7	0.88	86
AVR42-20	7.5	14.9-13.9	0.88	87
AVR42-30-2	11	20.9-18.8	0.89	88
AVR42-30	11	20.9-18.8	0.89	88
AVR42-40-2	15	27.9-25.1	0.89	89
AVR42-40	15	27.9-25.1	0.89	89
AVR42-50-2	18.5	33.9-30.5	0.9	90
AVR42-50	18.5	33.9-30.5	0.9	90
AVR42-60-2	22	41.5-37.4	0.9	90
AVR42-60	22	41.5-37.4	0.9	90
AVR42-70-2	30	56.5-51.7	0.9	91.2
AVR42-70	30	56.5-51.7	0.9	91.2
AVR42-80-2	30	56.5-51.7	0.9	91.2
AVR42-80	30	56.5-51.7	0.9	91.2
AVR42-90-2	30	56.5-51.7	0.9	91.2
AVR42-90	37	68.8-63	0.9	92
AVR42-100-2	37	68.8-63	0.9	92
AVR42-100	37	68.8-63	0.9	92
AVR42-110-2	45	81-74.2	0.9	92.3
AVR42-110	45	81-74.2	0.9	92.3
AVR42-120-2	45	81-74.2	0.9	92.3
AVR42-120	45	81-74.2	0.9	92.3
AVR42-130-2	45	81-74.2	0.9	92.3

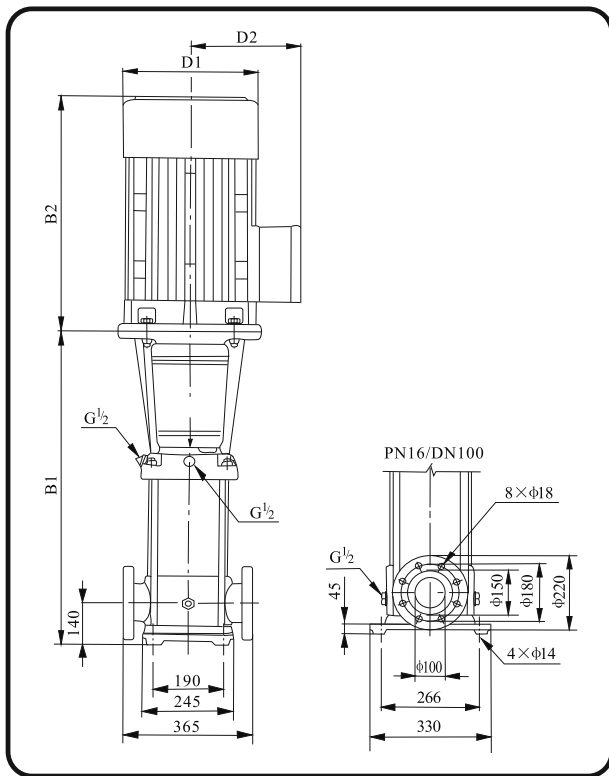
AVR65 / AVRF65 / AVRT65

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR65-10-1	561	335	896	230	188	
AVR65-10	430	991	260	208	105	
AVR65-20-2	644	430	1074	260	208	
AVR65-20-1	754	498	1244	330	255	
AVR65-20	490	1244	330	255	182	
AVR65-30-2	836	498	1326	330	255	
AVR65-30-1	836	498	1326	330	255	
AVR65-30	550	386	330	255	221	
AVR65-40-2	919	559	1469	330	255	
AVR65-40-1	919	559	1509	360	285	
AVR65-40	590	509	360	285	258	
AVR65-50-2	1001	660	1661	400	310	
AVR65-50-1	1001	660	1661	400	310	
AVR65-50	660	661	400	310	320	
AVR65-60-2	1084	660	1744	400	310	
AVR65-60-1	1084	660	1744	400	310	
AVR65-60	1084	660	1744	400	310	
AVR65-70-2	1166	660	1826	400	310	
AVR65-70-1	1166	660	1826	400	310	
AVR65-70	700	866	460	340	420	
AVR65-80-2	1248	700	1948	460	340	
AVR65-80-1	1248	700	1948	460	340	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	Flow rate						
			30	40	50	60	65	70	
AVR65-10-1	190	18	15	14	13	11			
AVR65-10	5.57	25	23	21	20	18			
AVR65-20-2	395	36	33	29	26	23			
AVR65-20-1	44	44	40	36	33	30			
AVR65-20	1153	51	47	43	40	37			
AVR65-30-2	66	62	56	50	46	41			
AVR65-30-1	75	69	63	57	53	48			
AVR65-30	180.5	76	70	64	60	55			
AVR65-40-2	918.57	80	71	66	60				
AVR65-40-1	100	94	87	78	73	67			
AVR65-40	207	101	94	85	80	74			
AVR65-50-2	101	114	105	95	88	80			
AVR65-50-1	108	121	112	102	95	87			
AVR65-50	3036	129	119	109	102	94			
AVR65-60-2	130	142	131	118	110	101			
AVR65-60-1	157	149	138	125	117	108			
AVR65-60	3764	156	145	132	124	115			
AVR65-70-2	179	169	156	141	132	121			
AVR65-70-1	186	176	163	148	139	128			
AVR65-70	4593	183	170	155	146	135			
AVR65-80-2	217	196	182	164	154	142			
AVR65-80-1	245	203	189	171	161	149			

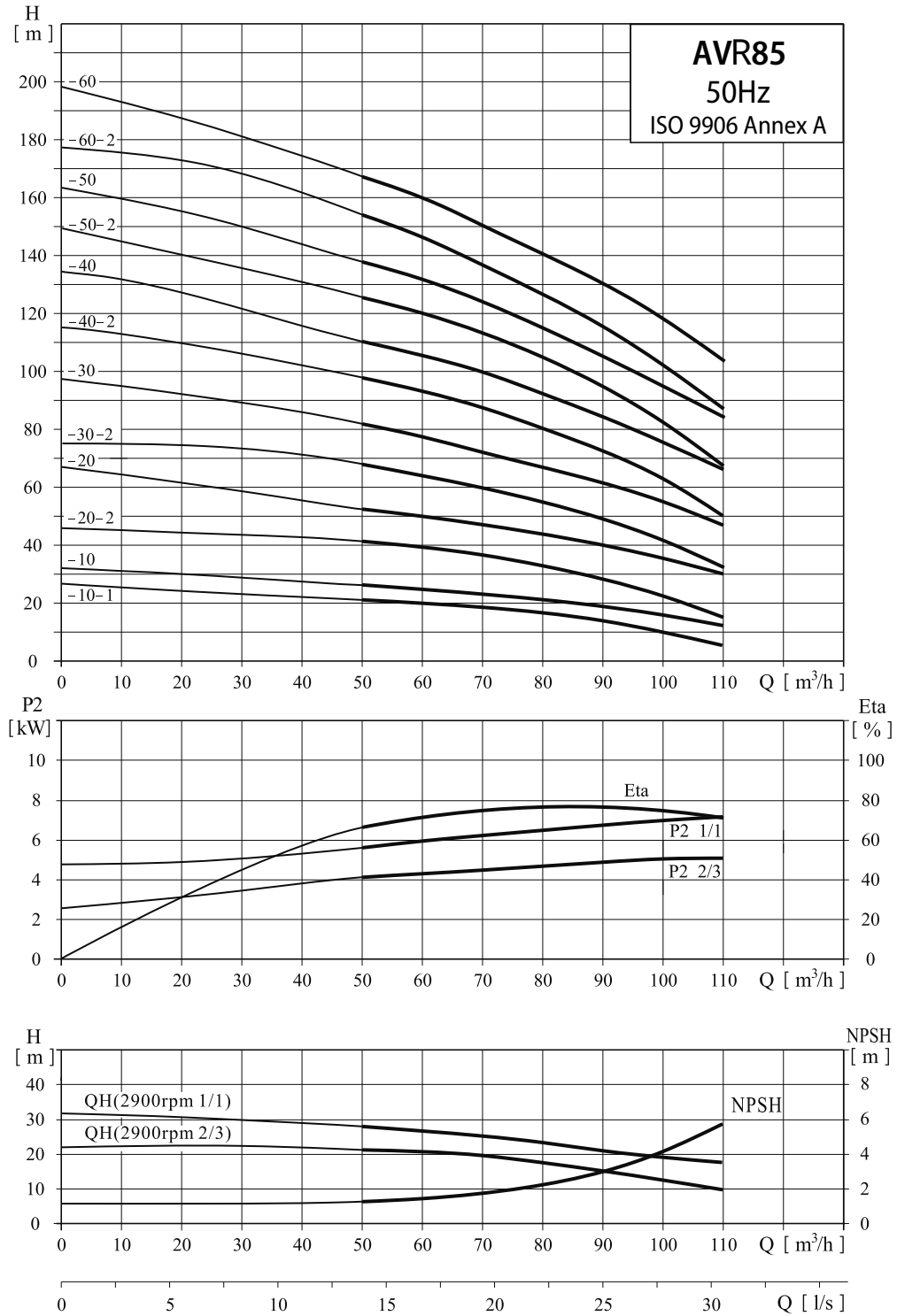
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR65-10-1	8-7.2	0.88	85	
AVR65-10	10.8-9.7	0.88	86	
AVR65-20-2	14.9-13.9	0.88	87	
AVR65-20-1	20.9-18.8	0.89	88	
AVR65-20	20.9-18.8	0.89	88	
AVR65-30-2	27.9-25.1	0.89	89	
AVR65-30-1	27.9-25.1	0.89	89	
AVR65-30	33.9-30.5	0.9	90	
AVR65-40-2	33.9-30.5	0.9	90	
AVR65-40-1	41.5-37.4	0.9	90	
AVR65-40	41.5-37.4	0.9	90	
AVR65-50-2	56.5-51.7	0.9	91.2	
AVR65-50-1	56.5-51.7	0.9	91.2	
AVR65-50	56.5-51.7	0.9	91.2	
AVR65-60-2	56.5-51.7	0.9	91.2	
AVR65-60-1	68.8-63	0.9	92	
AVR65-60	68.8-63	0.9	92	
AVR65-70-2	68.8-63	0.9	92	
AVR65-70-1	68.8-63	0.9	92	
AVR65-70	81-74.2	0.9	92.3	
AVR65-80-2	81-74.2	0.9	92.3	
AVR65-80-1	81-74.2	0.9	92.3	

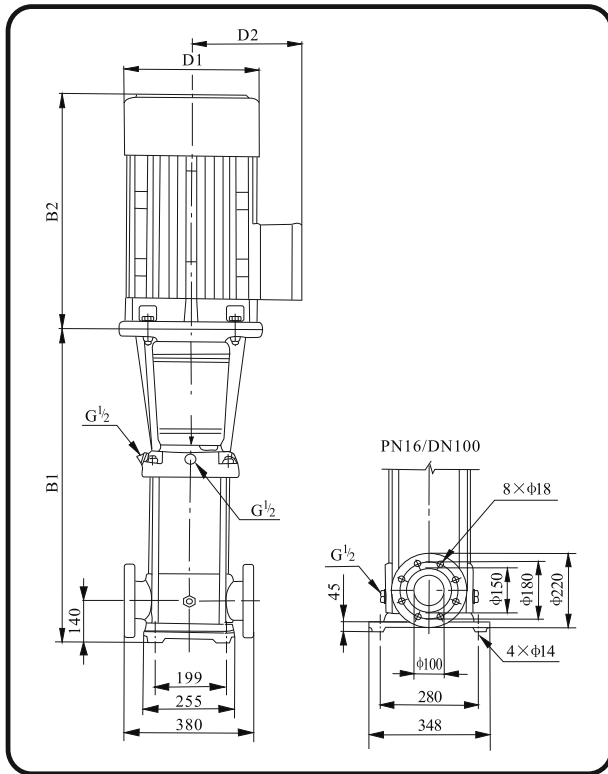
AVR85 / AVRF85 / AVRT85

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR 85-10-1	571	430	1001	260	208	
AVR 85-10	430	1001	260	208	110	
AVR 85-20-2	773	490	1263	330	255	
AVR 85-20	490	1263	330	255	192	
AVR 85-30-2	865	550	1415	330	255	
AVR 85-30	550	1415	360	285	252	
AVR 85-40-2	957	660	1617	400	310	
AVR 85-40	660	1617	400	310	312	
AVR 85-50-2	1049	660	1709	400	310	
AVR 85-50	660	1709	400	310	336	
AVR 85-60-2	1141	700	1841	460	340	
AVR 85-60	700	1841	460	340	407	

Remark: The provider data in the tables and sketches apply to the AVR,AVRF and AVRT version of the pump.

Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]						
			50	60	70	80	90	100	
AVR85-10-1	5.5	19	17	15	13	10			
AVR85-10	7.5	24	22	21	19	16			
AVR85-20-2	14.1	39	36	32	28	22			
AVR85-20	15.5	50	47	44	40	36			
AVR85-30-2	18.5	65	60	55	49	41			
AVR85-30	22.8	77	72	67	62	55			
AVR85-40-2	30.8	93	87	80	72	62			
AVR85-40	30.1	105	100	92	84	76			
AVR85-50-2	37.2	120	113	104	93	81			
AVR85-50	37.1	139	131	124	115	106	94		
AVR85-60-2	45.5	148	139	129	117	102			
AVR85-60	45.6	160	150	141	130	117			

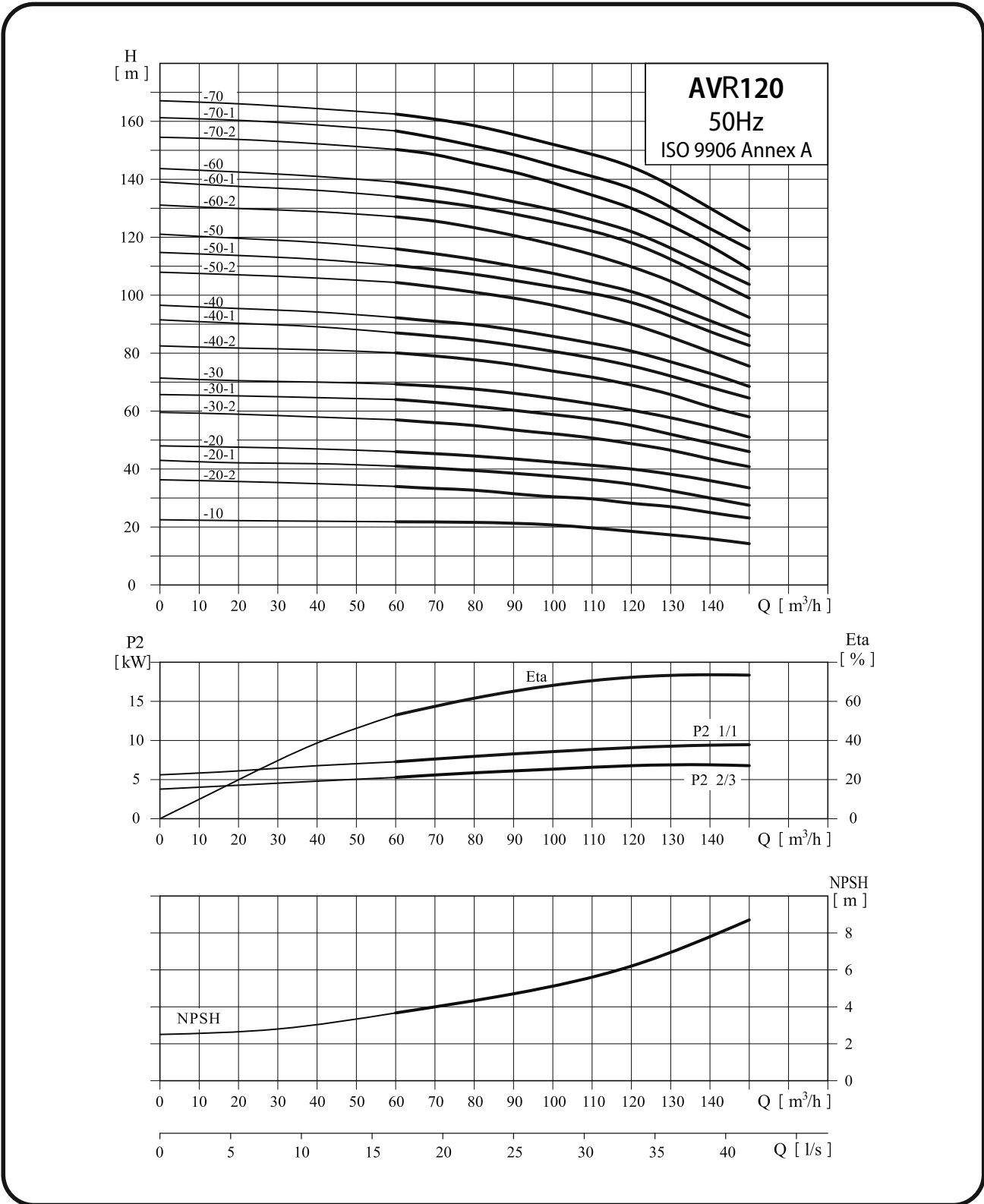
Electrical data 3x380-415V

Model	Motor [kW]	A	Cos Φ	η(%)
AVR 85-10-1	10.8-9.7	0.88	86	
AVR 85-10	14.9-13.9	0.88	87	
AVR 85-20-2	20.9-18.8	0.89	88	
AVR 85-20	27.9-25.1	0.89	89	
AVR 85-30-2	33.9-30.5	0.9	90	
AVR 85-30	41.5-37.4	0.9	90	
AVR 85-40-2	56.5-51.7	0.9	91.2	
AVR 85-40	56.5-51.7	0.9	91.2	
AVR 85-50-2	68.8-63	0.9	92	
AVR 85-50	68.8-63	0.9	92	
AVR 85-60-2	81-74.2	0.9	92.3	
AVR 85-60	81-74.2	0.9	92.3	

AVR120 / AVRF120 / AVRT120

Performance Curves

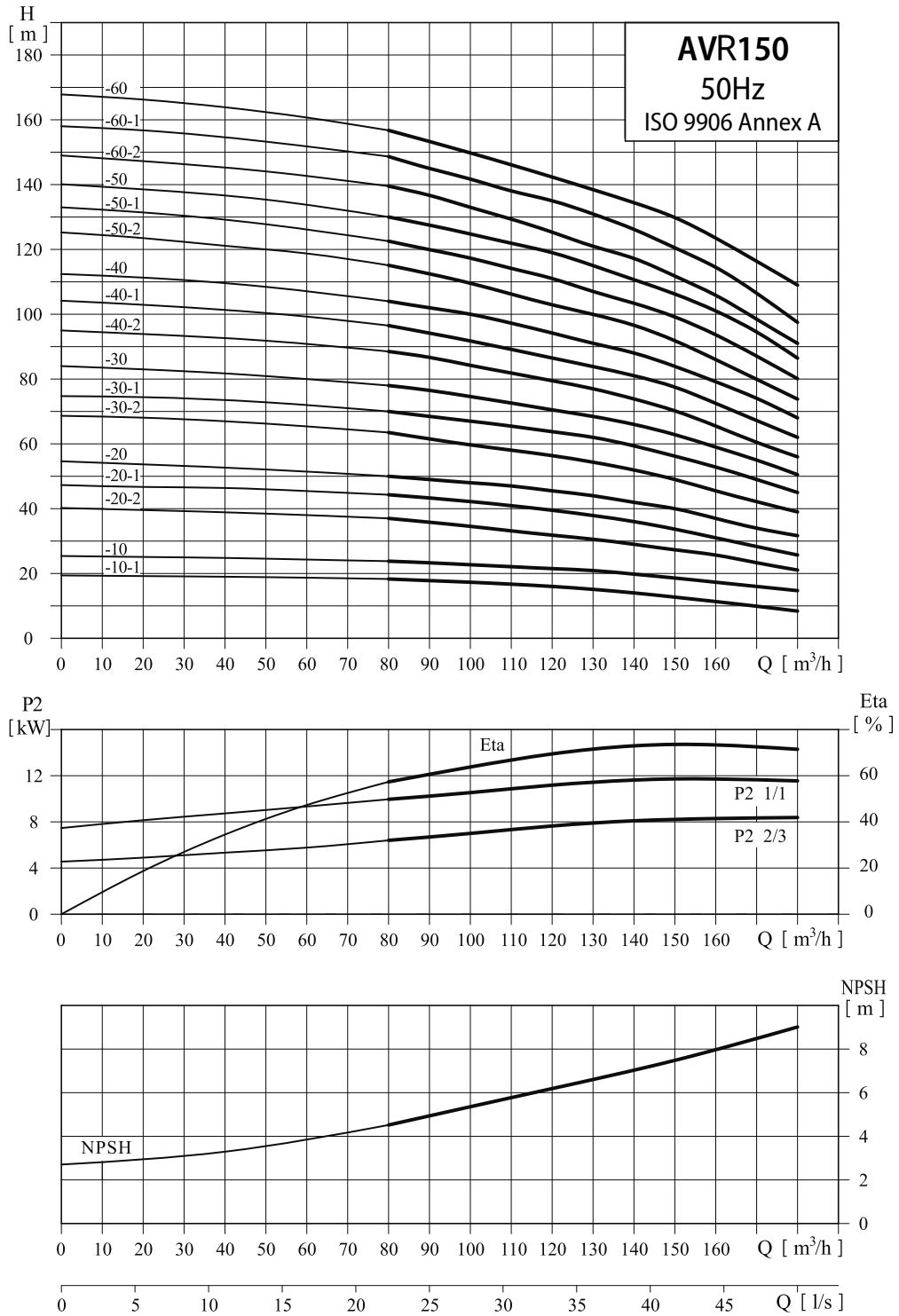
The performance curve applies to the AVR,AVRF and AVRT version of the pump.



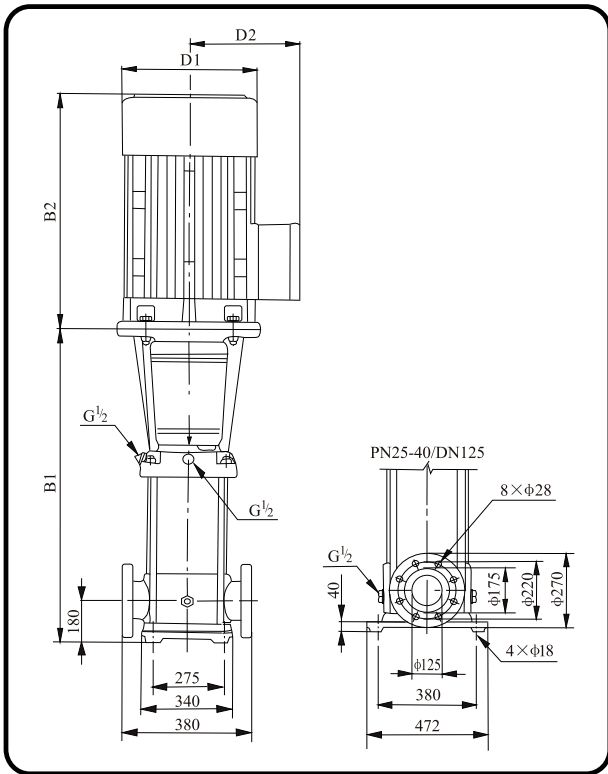
AVR150 / AVRF150 / AVRT150

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size [mm]					Weight [kg]
	B1	B2	B1+B2	D1	D2	
AVR 150-10-1	840	490	1330	330	255	
AVR 150-10	840	490	1330	330	235	
AVR 150-20-2	1000	550	1550	330	255	
AVR 150-20-1	1000	590	1590	360	285	
AVR 150-30	1000	660	1660	400	310	
AVR 150-30-2	1160	660	1820	400	310	
AVR 150-30-1	1160	660	1820	400	310	
AVR 150-40	1320	660	1820	400	310	
AVR 150-40-2	1320	700	2020	460	340	
AVR 150-40-1	1320	700	2020	460	340	
AVR 150-50	1510	770	2120	540	370	
AVR 150-50-2	1510	770	2280	540	370	
AVR 150-50-1	1510	845	2355	580	410	
AVR 150-60	1510	845	2355	580	410	
AVR 150-60-2	1670	785	2515	580	410	
AVR 150-60-1	1670	785	2515	580	410	
AVR 150-70	1670	845	2515	580	410	

Remark: The provider data in the tables and sketches apply to the AVR, AVRF and AVRT version of the pump.

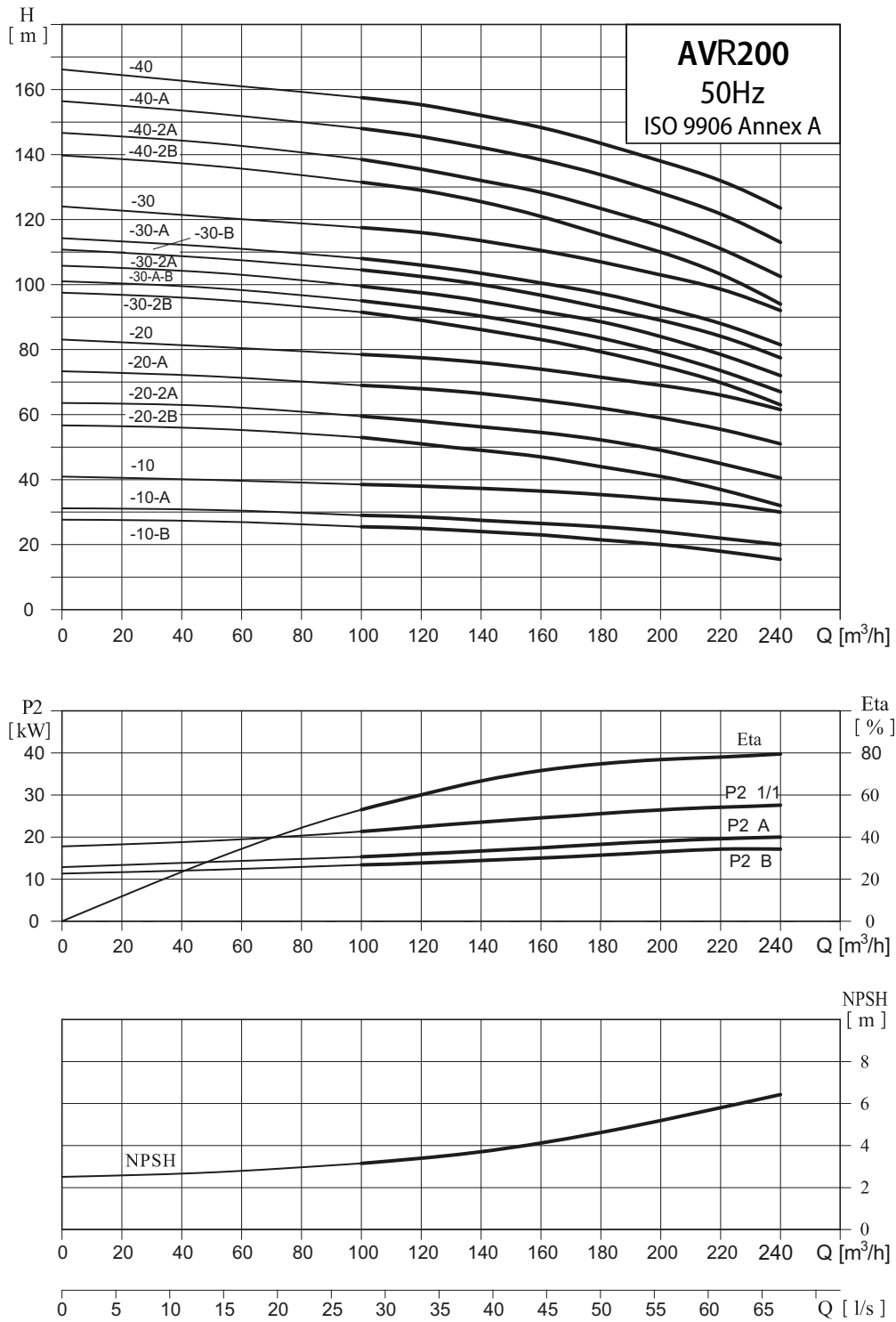
Performance table

Model	Motor [kW]	Q [m ³ /h]	H [m]									
			80	90	100	110	120	130	140	150	160	170
AVR 150-10-1	10	18.3	17.8	17.3	17	16	15	14	12.5	11	10	
AVR 150-10	10	24	23	22.5	22	21.5	20.5	20	18.5	17	16	
AVR 150-20-2	20	37	35.5	34	33	32	31	29	27.5	26	23	
AVR 150-20-1	20	44.3	43	42	40	39	38.5	37.5	35	33	30	
AVR 150-30	30	50	49	48	47	45.5	44	42	40	37	34	
AVR 150-30-2	30	63.5	61	59	57.5	56	54.5	53	49	45.5	42	
AVR 150-30-1	30	70	68	67	65	63	62	60	56	53	49	
AVR 150-30	30	78	76.5	75	73	70.5	68	66	63	59	55	
AVR 150-40-2	40	89	87	84	84.5	79	77	74.5	70.5	65.5	60	
AVR 150-40-1	40	96.5	94	91.5	89	86.5	84	81.5	77	72.5	67	
AVR 150-40	40	104	102	100	97	95	91	88	84	79.5	74	
AVR 150-50-2	50	115.5	112	109	106	102.5	100	97	92	86	79	
AVR 150-50-1	50	122.5	119.5	117	113.5	111.5	107.5	104.5	99	93.5	87	
AVR 150-50	50	130	127.5	125	121	119	115	111.5	106.5	101	94.5	
AVR 150-60-2	60	140	137	133	130	126	121	118	112	106	98	
AVR 150-60-1	60	148.5	145	141.7	137.5	135	131	127	120.5	114.5	106.5	
AVR 150-60	60	157	153	149	145	142	139.5	137	130	123.5	116	

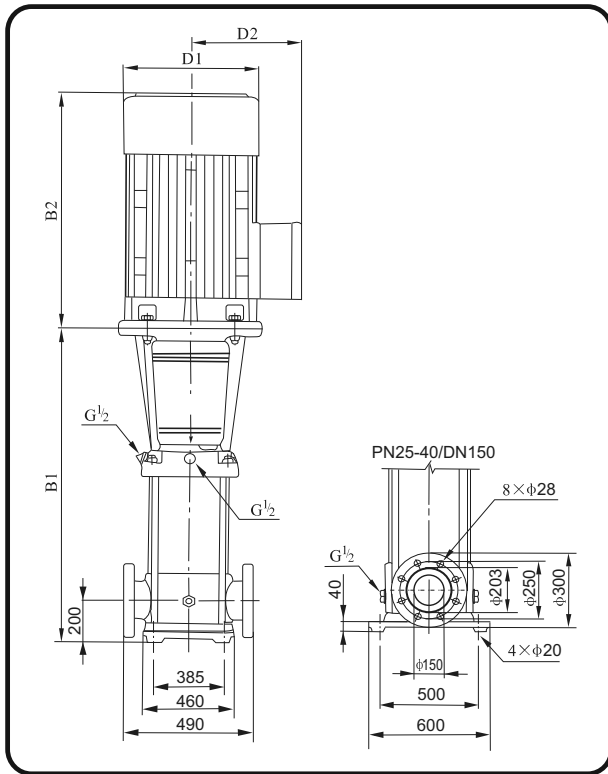
AVR200 / AVRF200 / AVRT200

Performance Curves

The performance curve applies to the AVR,AVRF and AVRT version of the pump.



Dimensional sketch



Dimensions and Weight

Model	Size (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
AVR200-10-B	550	1457	330	235	311	
AVR200-10-A	590	1497	360	285	347	
AVR200-107	660	567	400	310	403	
AVR200-20-2B	860	1761	400	310	447	
AVR200-20-2A	900	1801	460	340	504	
AVR200-20-A	770	1901	540	370	595	
AVR200-20-B	770	901	540	370	595	
AVR200-30-2B	845	2170	580	410	748	
AVR200-30-A-B	1325	748	845	2170	580	410
AVR200-30-2A	845	2170	580	410	748	
AVR200-30-B	845	2170	580	410	748	
AVR200-30-A	845	2170	580	410	748	
AVR200-30	895	2220	580	410	817	
AVR200-40-2B	895	2414	580	410	830	
AVR200-40-2A	1140	2659	645	550	1180	
AVR200-40-A	1140	2659	645	550	1180	
AVR200-40-B	1140	2659	645	550	1180	

Performance table

Model	Motor P2 [kW]	Q m3/h	H (m)							
			100	120	140	160	180	200	220	240
AVR200-10-B	30	H (m)	25.5	25	24	23	21.5	20	18	15.5
AVR200-10-A			29	28.5	27.5	26.5	25.5	24	22	20
AVR200-10			38.5	38	37.5	36.5	35	34	32.5	30
AVR200-20-2B	55		53	51	49	47	44	41	37	32
AVR200-20-2A			59.5	58	56	54	52.5	49	44.5	40.5
AVR200-20-A			69	68	66	64	62	59	55.5	51
AVR200-20	90		78.5	77.5	76	74	71.5	69	66	61.5
AVR200-30-2B			91.5	89	86.5	83.5	79	75	70	63
AVR200-30-A-B			95	93	90	87	83.5	79	73.5	67
AVR200-30-2A	110		99.5	97.5	94.5	91.5	89	84	78.5	72
AVR200-30-B			104.5	102.5	100	97	93	89	84.5	77.5
AVR200-30-A			108	106	103	100.5	97.5	93	88	81.5
AVR200-30	110	117.5	116	113.5	110.5	107	103	99	92	
AVR200-40-2B		131.5	129	125.5	121	115.5	110	103.5	94	
CDL200-40-2A		138.5	136	132	128	124	118	111	102.5	
CDL200-40-A	110	148	145.5	142.5	138	134	128	122	113	
CDL200-40		158	155.5	152.5	148	143.5	138	132.5	123.5	