

ZW ZWF

50Hz
Non-clogging
Self-priming
Sewage Pump



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subject to amendments



Pumping Water Pumping Honor

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Introduction

ZW(F) series non-clogging self-priming sewage pump is a novel structure, developed on the basis of repeated research on similar technologies in China and abroad. The pump adopts an external mixing structure, and combines self-priming and non-clogging functions together through the unique design of pump body and impeller flow passage.

Compared with similar domestic products, ZW(F) series pump has excellent self-priming performance and strong sewage discharge capacity, with simple structure and beautiful appearance. It has unique oil chamber structure to ensure the reliable operation of mechanical seal. ZW(F) series pump has leading technical performance parameters, broad application market and great development prospects.

Application

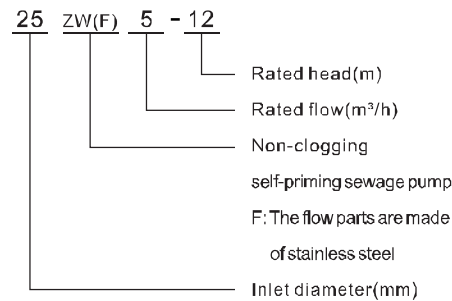
ZW(F) series non-clogging self-priming sewage pump can be used to transport liquids containing suspended particles and fiber impurities, mainly used in the following industries.

Environmental protection: municipal sewage, sewage treatment

Industry: Paper, textile, dyes

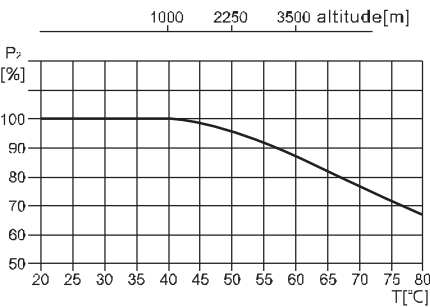
Agriculture: river pond farming, etc.

Model Definition



Maximum ambient temperature and altitude

When the pump is operating under ambient temperature higher than 40℃ or altitude higher than 1000 meters, the motor output power will be reduced due to the low air density and poor cooling effect. Output motor power P2 needs to be increased when pump running under the above condition.



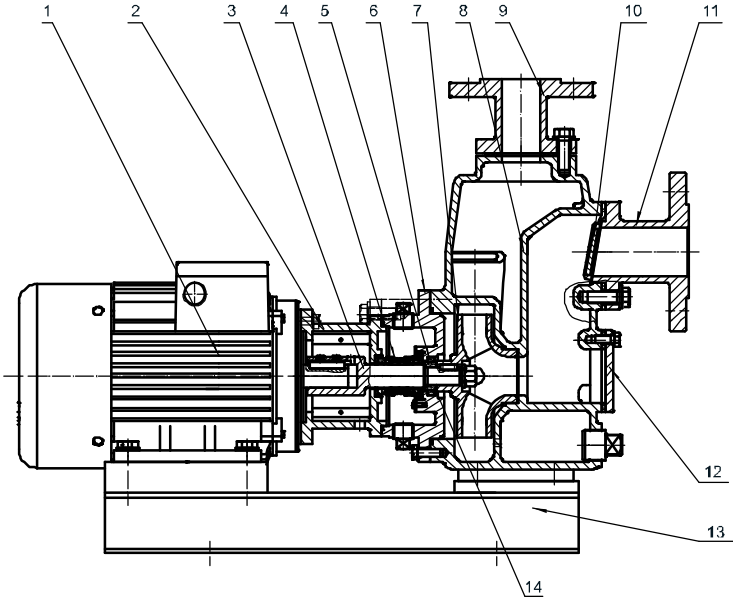
Operating condition

1. Ambient temperature: ≤40℃, Liquid temperature: ≤40℃
2. Liquid pH range: 5-9
3. Liquid density: ≤1.2×10³ kg/m³
4. Self-priming height: Should not exceed the self-priming height specified by the pump, the total length of the suction pipeline should not exceed 10 meters.
5. Passing capacity: The suspended particle diameter can not exceed 60% of the pump diameter, and fiber can not exceed 5 times bigger than the pump diameter.

Product Range

Model	ZW(F)																							
Features																								
Rated flow [m³/h]	5		10		15		20		25		30		40		65		100		150		200		300	
Flow range [m³/h]	3-10		7-13		10-20		14-26		18-32		21-39		28-62		45-65		70-120		120-180		160-220		240-360	
Max. pressure [bar]	3		3		2		2		4		2		3		3		4		4		4		3	
Max. self-priming height [m]	5		5		5		5		5		5		5		5		4.5		4		4		4	
Highest efficiency [%]	35		42		46		42		53		57		60		65		65		60		65		65	
DIN flange	DN25	DN32	DN32	DN40	DN50	DN40	DN50	DN40	DN50	DN65	DN65	DN65	DN80	DN80	DN100	DN150	DN200	DN200						
Flange pressure level	PN10																							

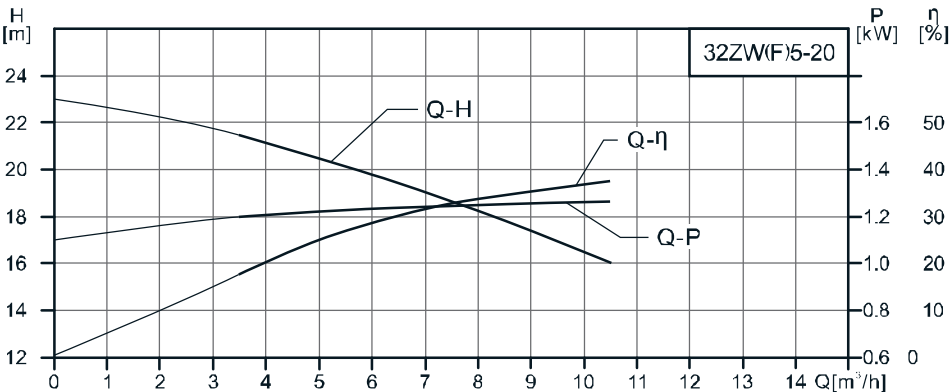
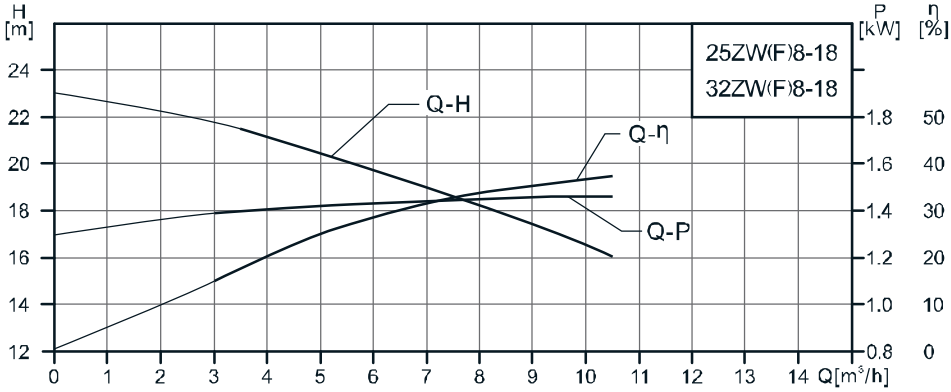
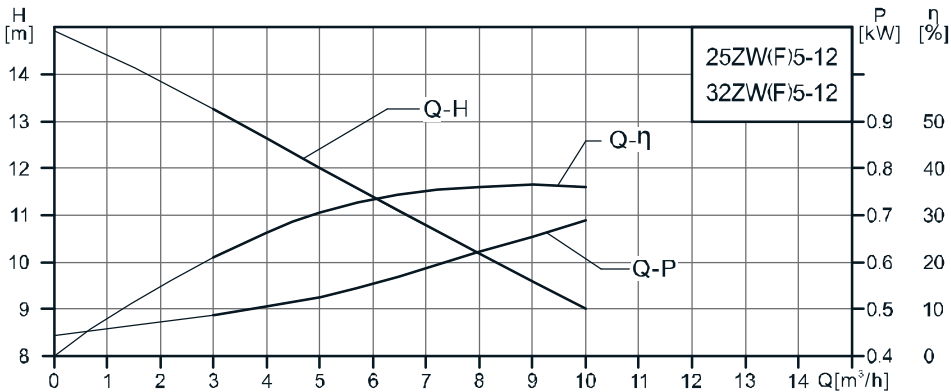
Sectional Drawing



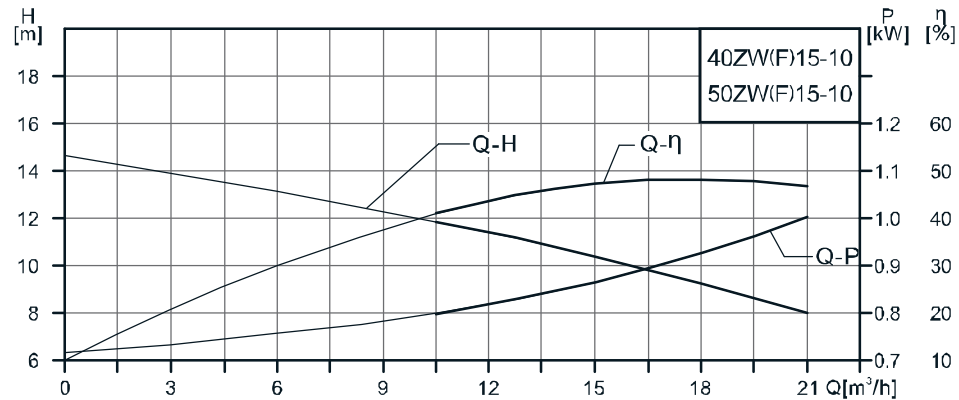
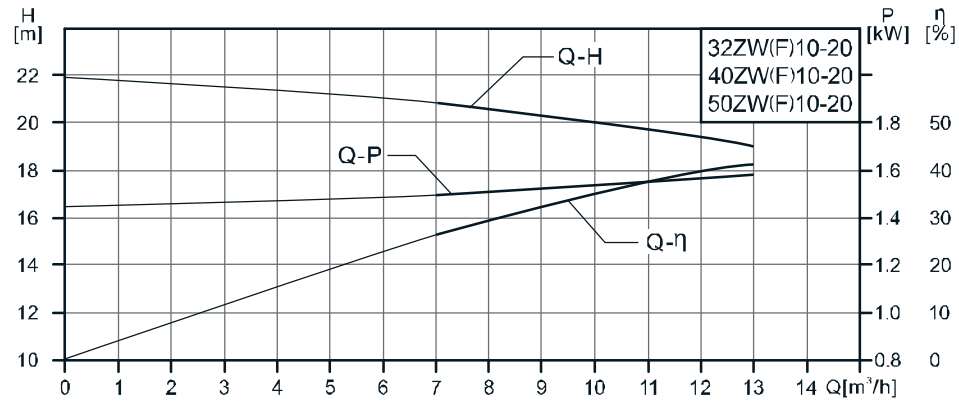
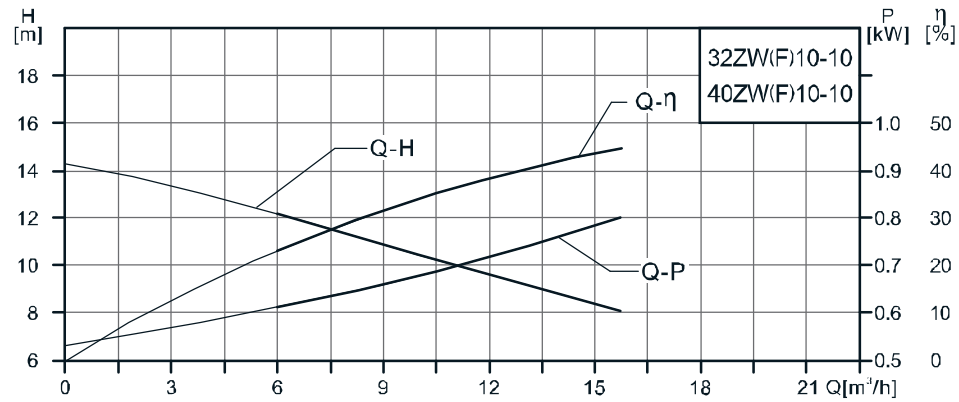
Material List

Pos.	Designation	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Shaft	Stainless steel	
4	Double-end mechanical seal(< 15kW)	SIC/SIC+SIC/SIC/F	
	Double-end mechanical seal(> 15kW)	C/SIC+SIC/SIC/F	
5	Skeleton oil seal(< 5.5kW)		
	Sliding bearing/Shaft sleeve(≥5.5kW)	YG8/YG6	
6	Pump cover	Cast iron	ASTM25B
7	Impeller	Cast iron	ASTM25B
8	Pump body(Inlet diameter<DN100)	Cast iron	ASTM25B
	Pump body(Inlet diameter≥DN100)	Ductile iron	
9	Outlet flange	Cast iron	ASTM25B
10	Inlet valve	NBR+Q235A	
11	Inlet flange	Cast iron	ASTM25B
12	Drain cover	Cast iron	ASTM25B
13	Base plate	Q235A	

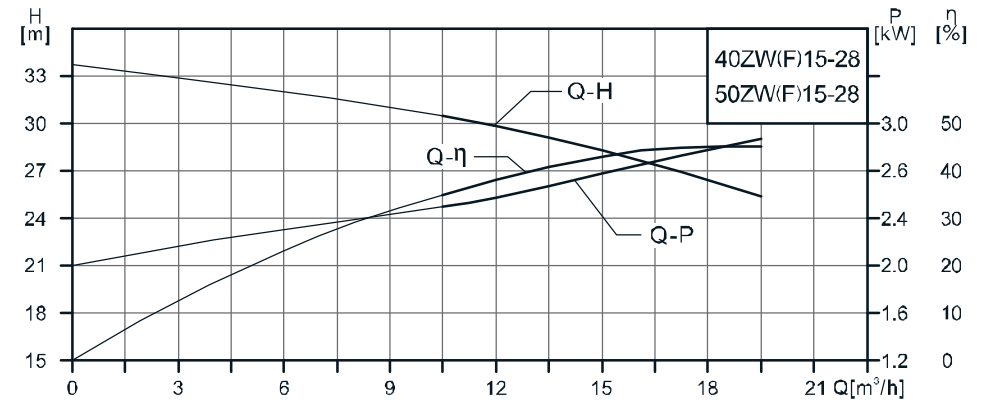
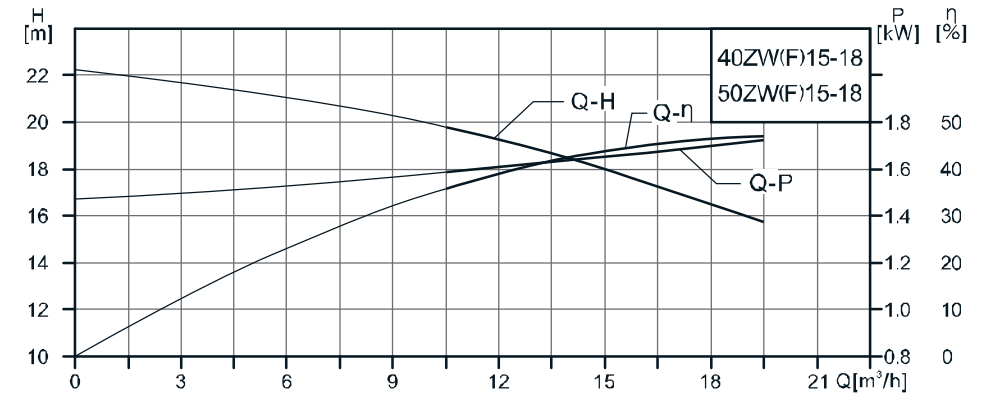
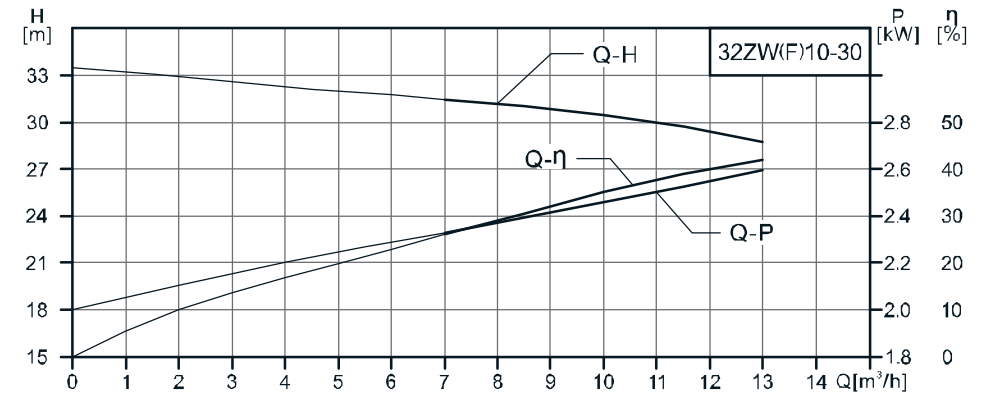
Performance curve



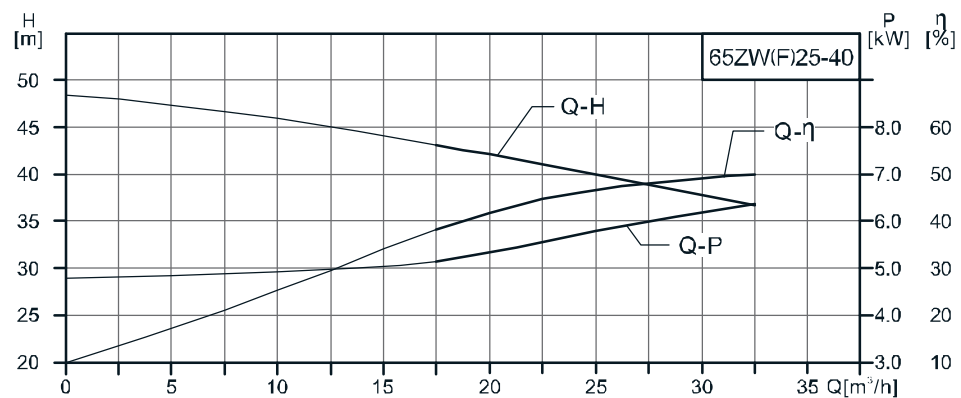
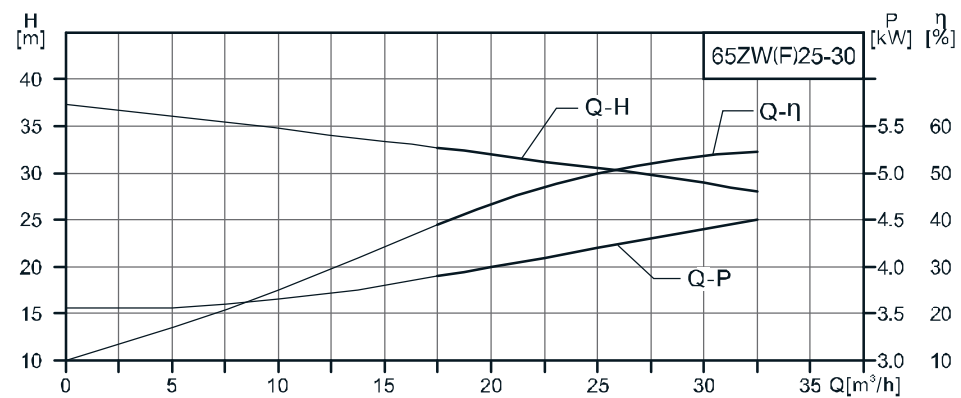
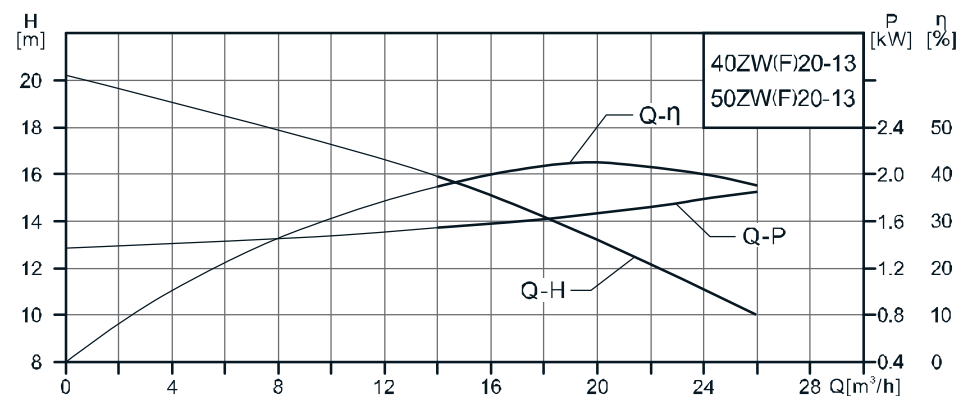
Performance curve



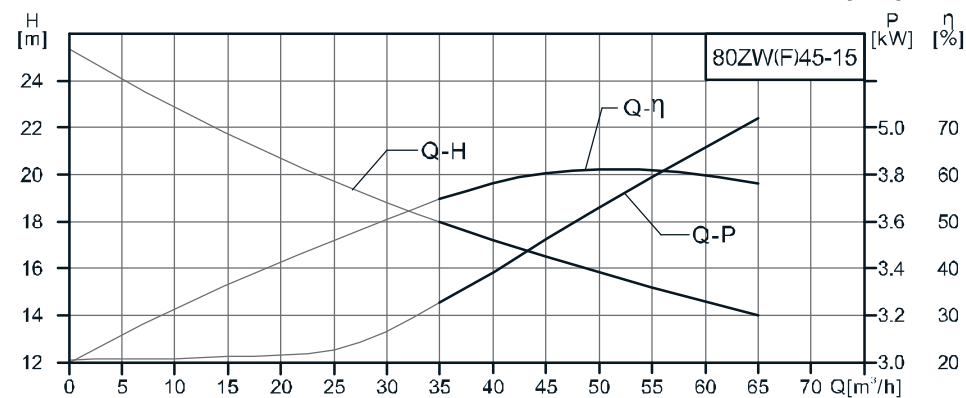
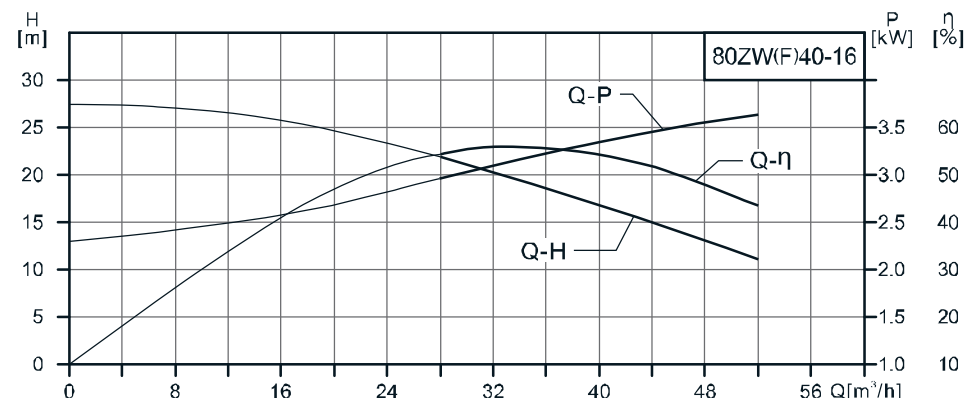
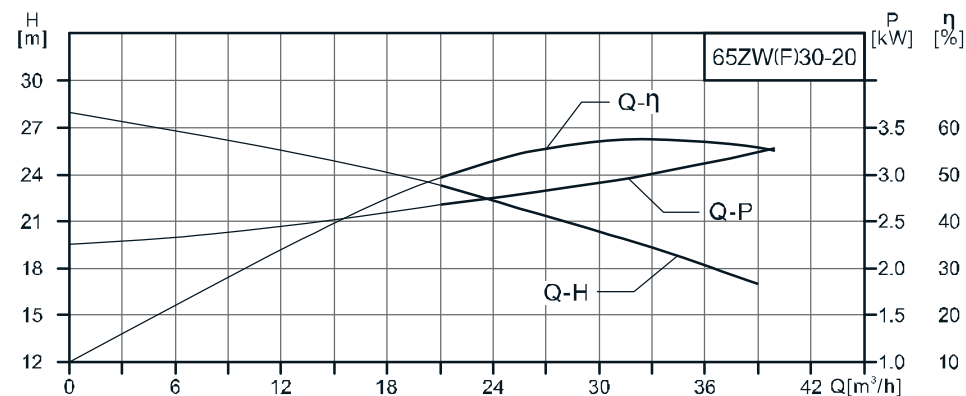
Performance curve



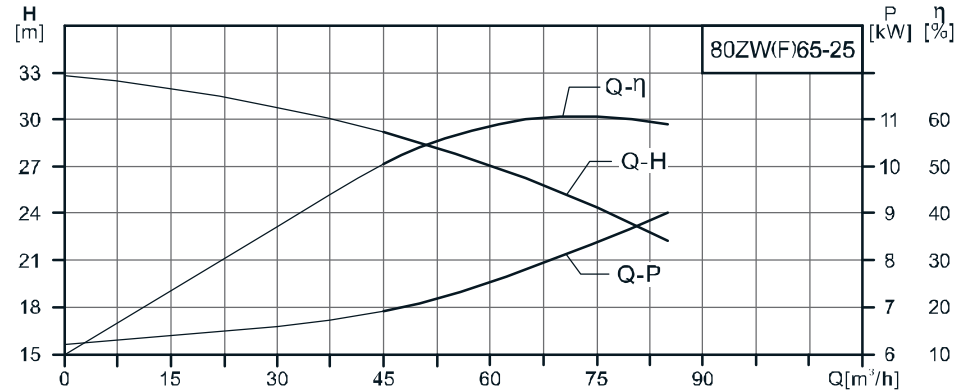
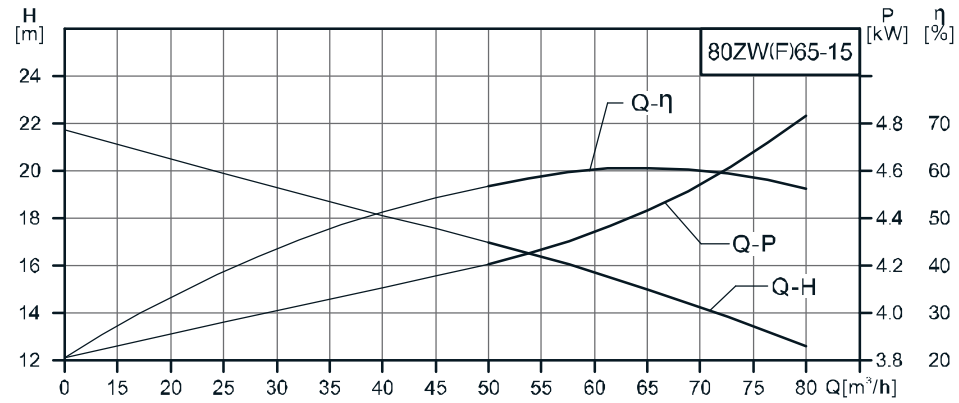
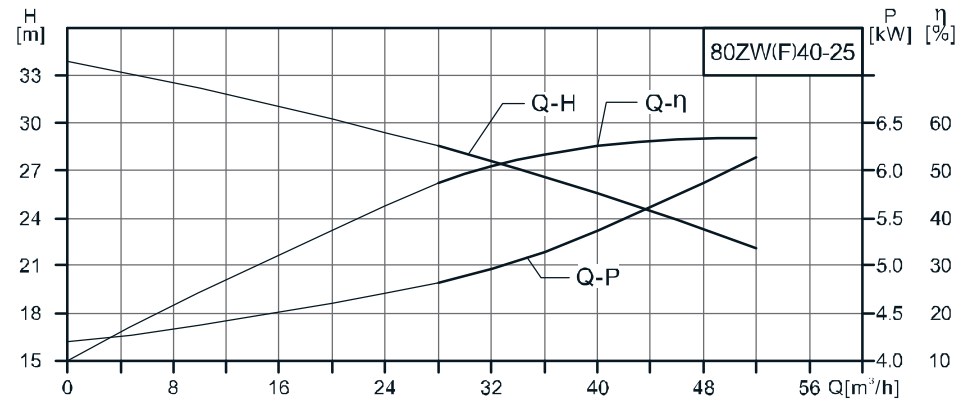
Performance curve



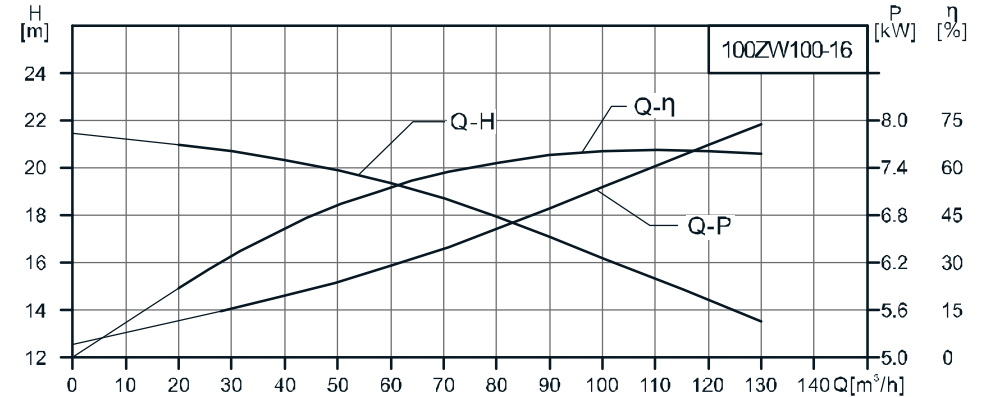
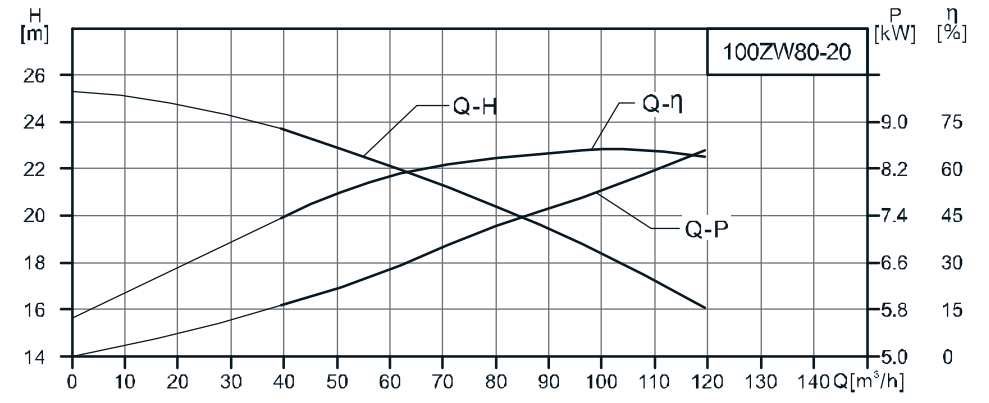
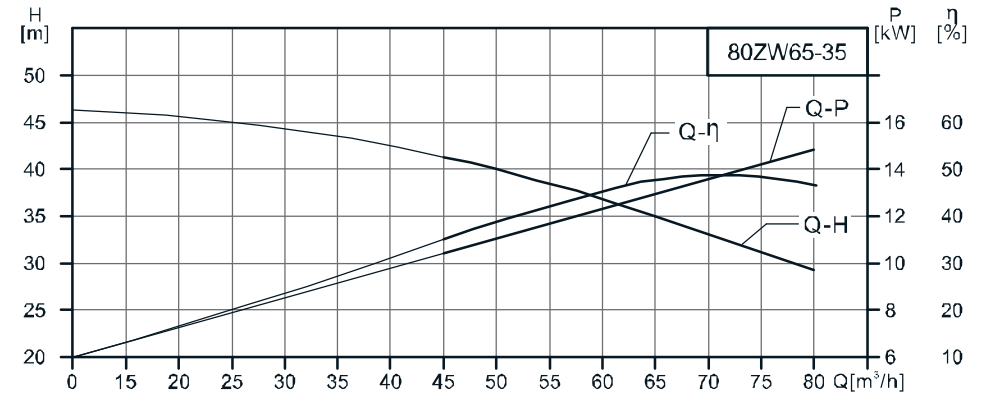
Performance curve



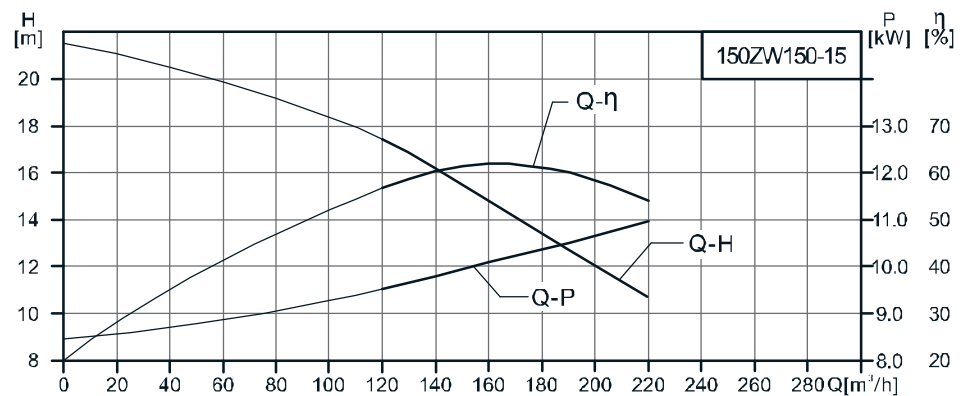
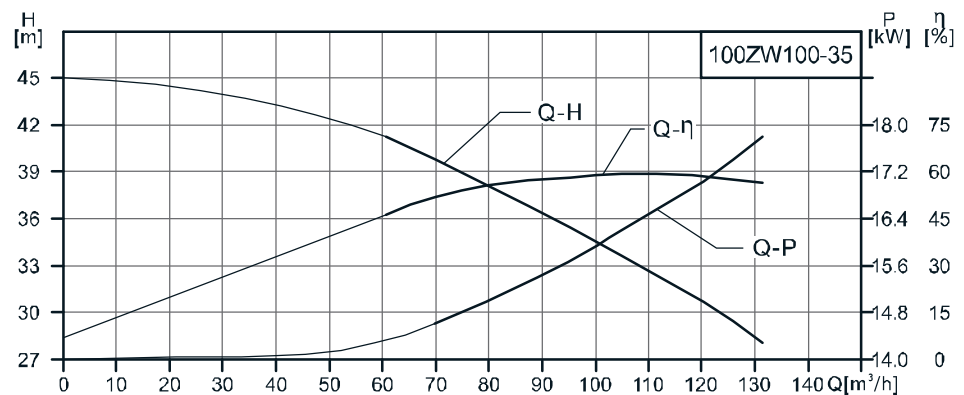
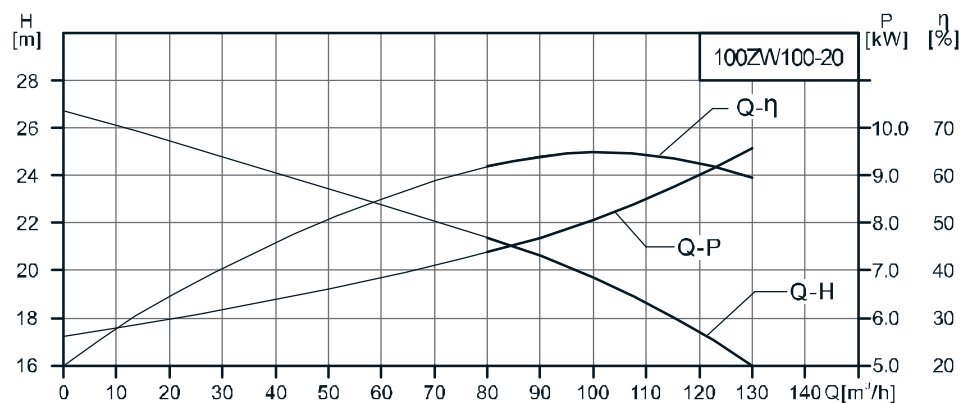
Performance curve



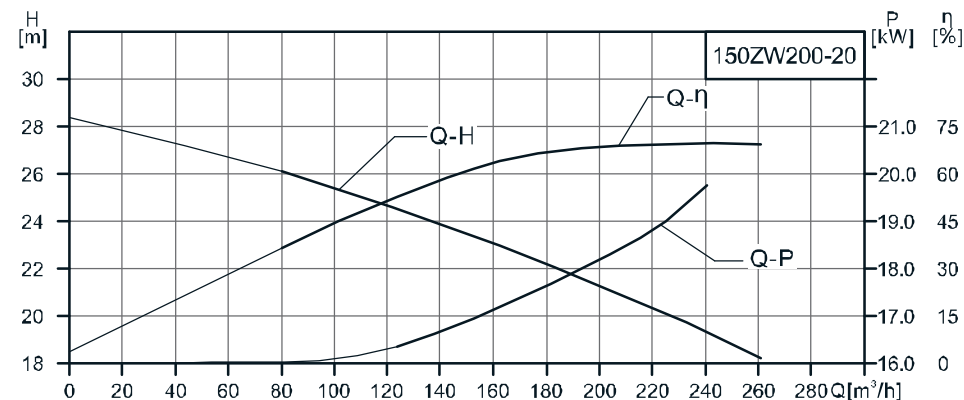
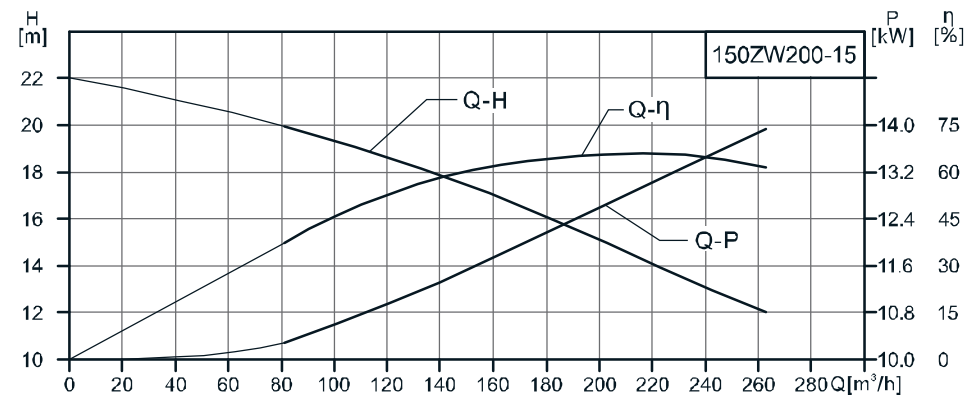
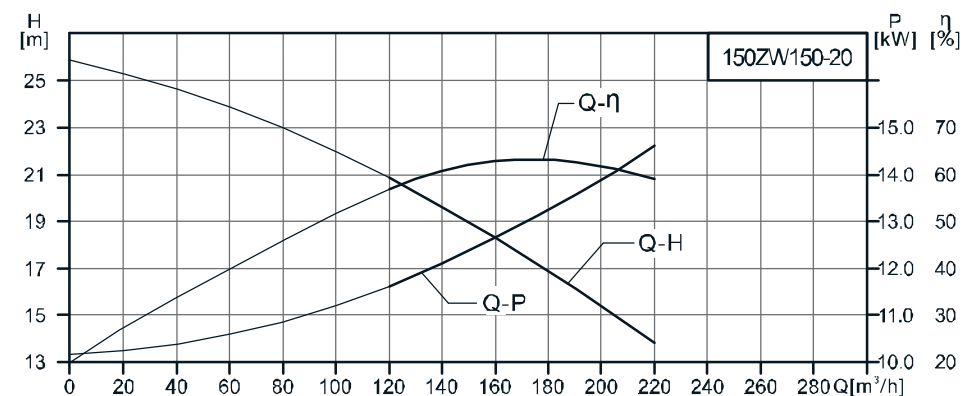
Performance curve



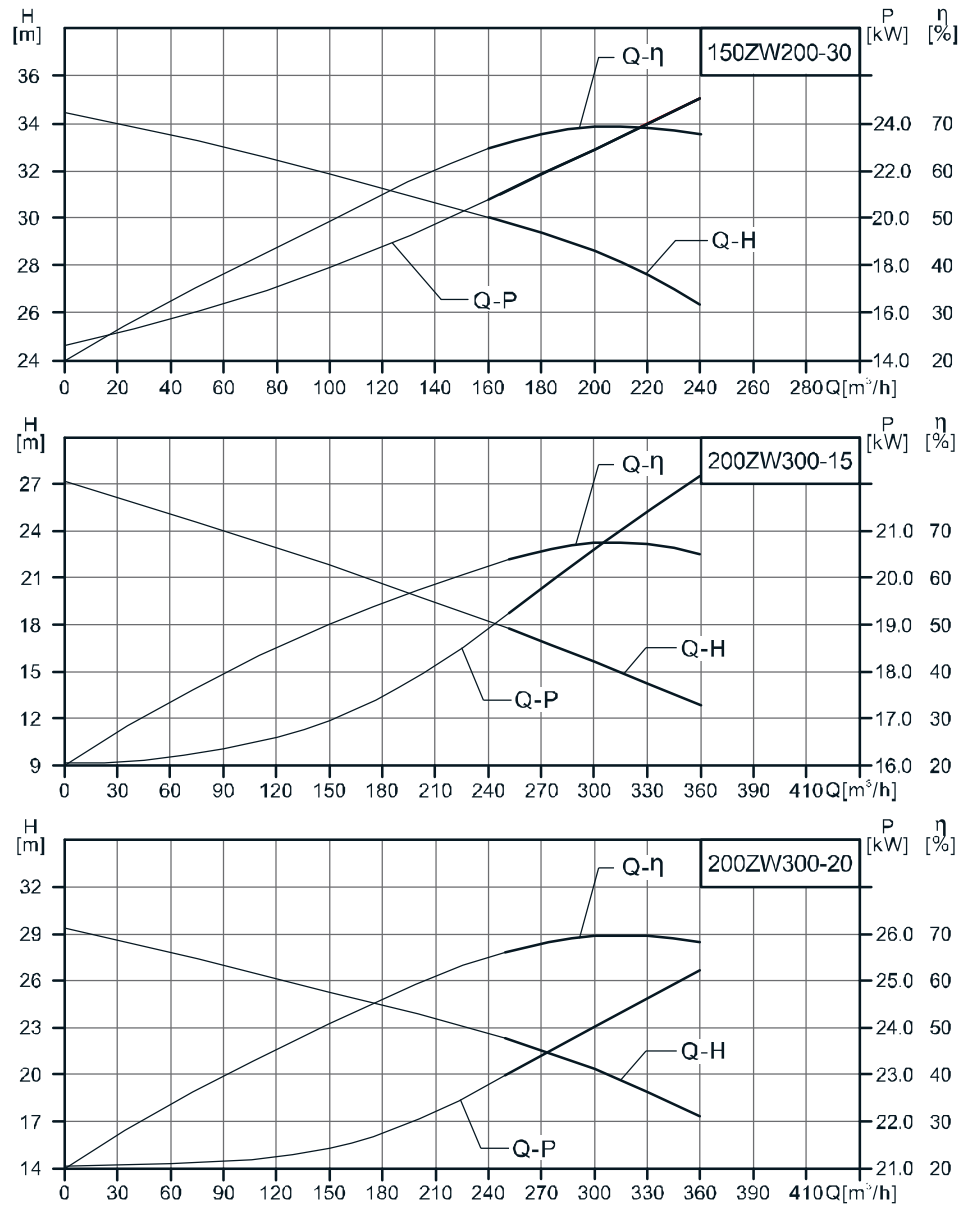
Performance curve



Performance curve



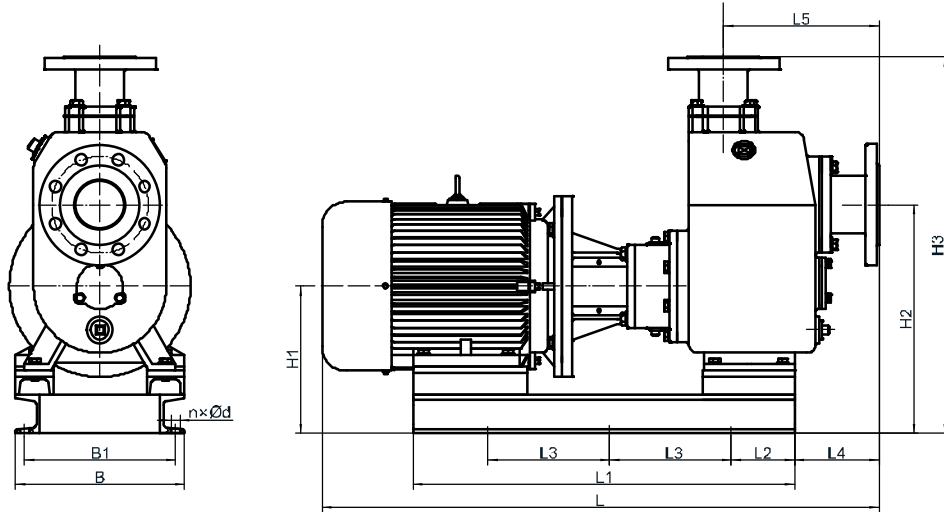
Performance curve



Technical data

Data	Inlet diameter (mm)	Outlet diameter (mm)	Flow (m³/h)	Head (m)	Power (kW)	Speed (r/min)	Pump efficiency (%)	Self-priming height (m)
Model								
25ZW(F)5-12	25	25	5	12	0.75	2900	30	5
25ZW(F)8-18	25	25	8	18	1.5	2900	36	5
32ZW(F)5-12	32	32	5	12	0.75	2900	30	5
32ZW(F)5-20	32	32	5	20	1.5	2900	25	5
32ZW(F)10-10	32	32	10	10	1.1	2900	43	5
32ZW(F)8-18	32	32	8	18	1.5	2900	36	5
32ZW(F)10-20	32	32	10	20	2.2	2900	30	5
32ZW(F)10-30	32	32	10	30	3	2900	35	5
40ZW(F)10-10	40	32	10	10	1.1	2900	43	5
40ZW(F)10-20	40	32	10	20	2.2	2900	35	5
40ZW(F)15-10	40	32	15	10	1.1	2900	46	5
40ZW(F)15-18	40	32	15	18	2.2	2900	44	5
40ZW(F)15-28	40	32	15	28	3	2900	43	5
40ZW(F)20-13	40	32	20	13	2.2	2900	42	5
50ZW(F)10-20	50	40	10	20	2.2	2900	32	5
50ZW(F)15-10	50	40	15	10	1.1	2900	46	5
50ZW(F)15-18	50	40	15	18	2.2	2900	44	5
50ZW(F)15-28	50	40	15	28	3	2900	43	5
50ZW(F)20-13	50	40	20	13	2.2	2900	42	5
50ZW(F)20-40	50	40	20	40	5.5	2900	45	5
65ZW(F)25-30	65	65	25	30	5.5	2900	50	5
65ZW(F)25-40	65	65	25	40	7.5	2900	53	5
65ZW(F)30-20	65	65	30	20	4	2900	57	5
65ZW(F)40-25	65	65	40	25	7.5	2900	56	5
80ZW(F)40-16	80	65	40	16	4	2900	57	5
80ZW(F)40-25	80	65	40	25	7.5	2900	60	5
80ZW(F)45-15	80	65	45	15	5.5	2900	60	5
80ZW(F)65-15	80	65	65	15	5.5	2900	60	5
80ZW(F)65-25	80	65	65	25	11	2900	65	5
80ZW65-35	80	65	65	35	15	2900	46	5
100ZW80-20	100	80	80	20	11	1480	60	4.5
100ZW100-16	100	80	100	16	7.5	1480	65	4.5
100ZW100-20	100	80	100	20	11	1480	62	4.5
100ZW100-30	100	80	100	30	15	1480	60	4.5
100ZW100-35	100	80	100	35	18.5	2900	60	4.5
150ZW150-15	150	125	150	15	11	1480	60	4.5
150ZW150-20	150	125	150	20	15	1480	60	4.5
150ZW200-15	150	150	200	15	15	1480	65	4.5
150ZW200-20	150	150	200	20	22	1480	65	4.5
150ZW200-30	150	150	200	30	30	1480	65	4.5
200ZW300-15	200	150	300	15	22	1480	62	4.5
200ZW300-20	200	150	300	20	30	1480	65	4.5

Installation dimension



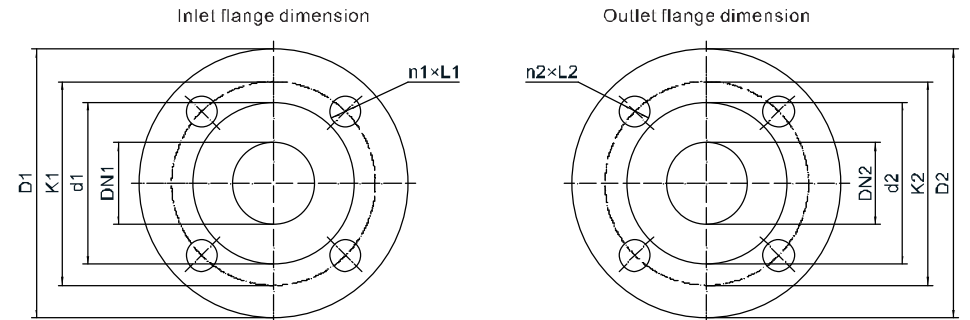
Dimensions and weights

Model	Dimension (mm)													Weight (kg)
	L	L1	L2	L3	L4	L5	H1	H2	H3	B	B1	n	d	
25ZW(F)5-12	640	432	70	300	110	170	190	310	470	175	140	4	14	65
25ZW(F)8-18	700	490	85	300	115	175	185	315	495	220	185	4	14	77
32ZW(F)5-12	640	432	70	300	110	170	190	310	470	175	140	4	14	67
32ZW(F)5-20	700	490	85	300	115	175	185	315	495	220	185	4	14	78
32ZW(F)8-18	700	490	85	300	115	175	185	315	495	220	185	4	14	78
32ZW(F)10-10	655	432	70	300	120	175	190	310	470	175	140	4	14	70
32ZW(F)10-20	700	490	85	300	115	175	185	315	495	220	185	4	14	81
32ZW(F)10-30	770	540	95	350	125	185	205	375	560	220	185	4	14	92
40ZW(F)10-10	655	432	70	300	120	175	190	310	470	175	140	4	14	73
40ZW(F)10-20	700	490	85	300	115	175	185	315	495	220	185	4	14	81
40ZW(F)15-10	645	432	70	300	114	167	190	310	170	175	140	4	14	75
40ZW(F)15-18	700	490	85	300	115	175	185	315	495	220	185	4	14	81
40ZW(F)15-28	770	540	95	350	125	185	205	375	560	220	185	4	14	94
40ZW(F)20-13	700	490	85	300	115	175	185	315	495	220	185	4	14	80
50ZW(F)10-20	700	490	85	300	115	175	185	315	495	220	185	4	14	82
50ZW(F)15-10	645	432	70	300	114	167	190	310	170	175	140	4	14	80
50ZW(F)15-18	700	490	85	300	115	175	185	315	495	220	185	4	14	82
50ZW(F)15-28	770	540	95	350	125	185	205	375	560	220	185	4	14	95
50ZW(F)20-13	700	490	85	300	115	175	185	315	495	220	185	4	14	82
50ZW(F)20-40	880	630	105	420	115	190	245	395	610	280	250	4	14	180
65ZW(F)25-30	900	630	105	420	120	195	245	405	630	280	250	4	14	170
65ZW(F)25-40	880	630	105	420	115	190	245	395	610	280	250	4	14	180
65ZW(F)30-20	815	580	80	420	125	200	225	385	600	235	205	4	14	142
65ZW(F)40-25	900	630	105	420	120	195	245	405	630	280	250	4	14	172
80ZW(F)40-16	815	580	80	420	125	200	225	385	600	235	205	4	14	142
80ZW(F)40-25	900	630	105	420	120	195	245	405	630	280	250	4	14	172

Dimensions and weights

型号	尺寸(mm)													重量 (kg)
	L	L1	L2	L3	L4	L5	H1	H2	H3	B	B1	n	d	
80ZW(F)45-15	920	632	105	422	140	257	243	378	623	280	250	4	14	220
80ZW(F)65-15	940	632	105	422	155	272	243	413	633	280	250	4	14	240
80ZW(F)65-25	1040	760	140	485	130	260	255	455	705	315	280	4	19	285
80ZW65-35	1020	745	140	485	133	266	255	400	655	315	280	4	19	350
100ZW80-20	1108	834	105	580	149	304	285	505	820	390	360	4	19	345
100ZW100-16	1040	763	115	521	160	345	295	515	870	390	360	4	19	325
100ZW100-20	1108	834	105	580	149	304	285	505	820	390	360	4	19	346
100ZW100-30	1185	915	180	580	130	317	315	555	900	400	360	4	19	370
100ZW100-35	1160	875	120	635	155	335	265	480	760	315	280	4	19	385
150ZW150-15	1200	865	135	580	193	386	320	563	943	360	330	4	19	380
150ZW150-20	1240	915	180	580	187	380	315	575	928	400	360	4	19	380
150ZW200-15	1270	968	150	700	175	400	345	595	1030	450	420	4	19	465
150ZW200-20	1334	1011	150	700	175	400	345	595	1030	450	420	4	19	530
150ZW200-30	1415	1040	150	370	172	393	365	715	1106	450	420	6	19	680
200ZW300-15	1375	1000	150	350	205	437	365	638	1095	450	420	6	19	640
200ZW300-20	1456	1040	150	370	213	445	365	640	1100	450	420	6	19	660

Inlet and outlet flange dimension



Model	Inlet flange dimension (mm)						Outlet flange dimension (mm)					
	DN1	d1	K1	D1	n1	L1	DN2	d2	K2	D2	n2	L2
25ZW(F)5-12	25	65	85	115	4	Ø14	25	65	85	115	4	Ø14
25ZW(F)8-18	25	65	85	115	4	Ø14	25	65	85	115	4	Ø14
32ZW(F)5-12	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
32ZW(F)5-20	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
32ZW(F)10-10	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
32ZW(F)8-18	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
32ZW(F)10-20	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
32ZW(F)10-30	32	76	100	140	4	Ø19	32	76	100	140	4	Ø19
40ZW(F)10-10	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19

Inlet and outlet flange dimension

Model	Inlet flange dimension (mm)						Outlet flange dimension (mm)					
	DN1	d1	K1	D1	n1	L1	DN2	d2	K2	D2	n2	L2
40ZW(F)10-20	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19
40ZW(F)15-10	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19
40ZW(F)15-18	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19
40ZW(F)15-28	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19
40ZW(F)20-13	40	84	110	150	4	Ø19	32	76	100	140	4	Ø19
50ZW(F)10-20	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
50ZW(F)15-10	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
50ZW(F)15-18	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
50ZW(F)15-28	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
50ZW(F)20-13	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
50ZW(F)20-40	50	99	125	165	4	Ø19	40	84	110	150	4	Ø19
65ZW(F)25-30	65	118	145	185	4	Ø19	65	118	145	185	4	Ø19
65ZW(F)25-40	65	118	145	185	4	Ø19	65	118	145	185	4	Ø19
65ZW(F)30-20	65	118	145	185	4	Ø19	65	118	145	185	4	Ø19
65ZW(F)40-25	65	118	145	185	4	Ø19	65	118	145	185	4	Ø19
80ZW(F)40-16	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
80ZW(F)40-25	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
80ZW(F)45-15	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
80ZW(F)65-15	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
80ZW(F)65-25	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
80ZW65-35	80	132	160	200	8	Ø19	65	118	145	185	4	Ø19
100ZW80-20	100	156	180	220	8	Ø19	80	132	160	200	8	Ø19
100ZW100-15	100	156	180	220	8	Ø19	80	132	160	200	8	Ø19
100ZW100-20	100	156	180	220	8	Ø19	80	132	160	200	8	Ø19
100ZW100-30	100	156	180	220	8	Ø19	80	132	160	200	8	Ø19
100ZW100-35	100	156	180	220	8	Ø19	80	132	160	200	8	Ø19
150ZW150-15	150	211	240	285	8	Ø23	125	182	210	250	8	Ø19
150ZW150-20	150	211	240	285	8	Ø23	125	182	210	250	8	Ø19
150ZW200-15	150	211	240	285	8	Ø23	150	211	240	285	8	Ø23
150ZW200-20	150	211	240	285	8	Ø23	150	211	240	285	8	Ø23
150ZW200-30	150	211	240	285	8	Ø23	150	211	240	285	8	Ø23
200ZW300-15	200	258	295	340	8	Ø23	150	211	240	285	8	Ø23
200ZW300-20	200	258	295	340	8	Ø23	150	211	240	285	8	Ø23