

GLOBAL PUMP SOLUTION DOOCH

50Hz



• XRL



• XQ-XRL



• NSQ-XRL

VERTICAL MULTISTAGE PUMP

XR(L) SERIES

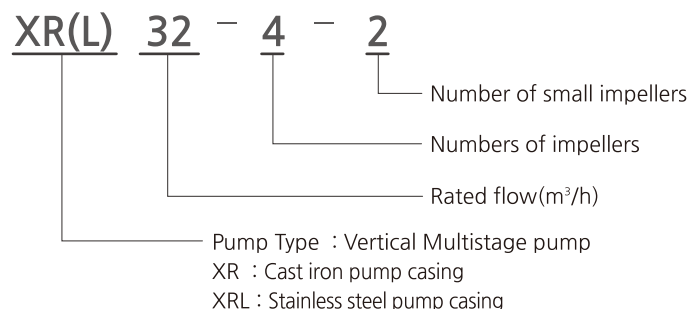
Feature

XR, XRL pumps are vertical non-self priming multistage centrifugal pump of in-line design, 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 the pump head and the pump casing by means of staybolts. The pump casing has suction and discharge ports on the same level (in-line).

All pumps are equipped with a cartridge mechanical seal for easy maintenance.

XR, XRL pumps are available in various sizes and various numbers of stage to provide the flow and pressure required. The pumps are available with DOOCH variable frequency drive (NQ/XQ/NSQ Drive).

Definition of Model



Motor

Full-enclosed fan cooled two-pole standard motor

Protection class : IP55

Insulation class : F

Standard voltage : 50Hz : 1×220-230 / 240V

3×200-220 / 346-380V

3×220-240 / 380-415V

3×380-415V



Pumping Liquid

- Pumped liquids :
Thin, clean, non-flammable and non-explosive liquid containing no solid granules and fibers.
- Liquid temperature : Normal temperature : -15℃~+70℃
Hot water type : +70℃~+120℃
- Ambient temperature : up to +40℃
- Altitude : up to 1000m

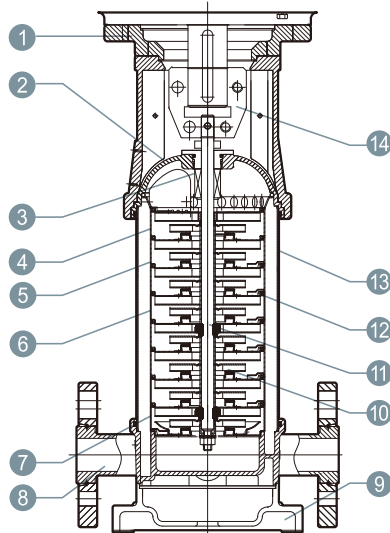
Application

The pumps are suitable for liquid transfer in

- Water supply systems
- Washing systems
- Cooling and air conditioning systems
- Water treatment systems
- Fire fighting systems
- Industrial plants
- Boiler feed systems

Sectional Drawing

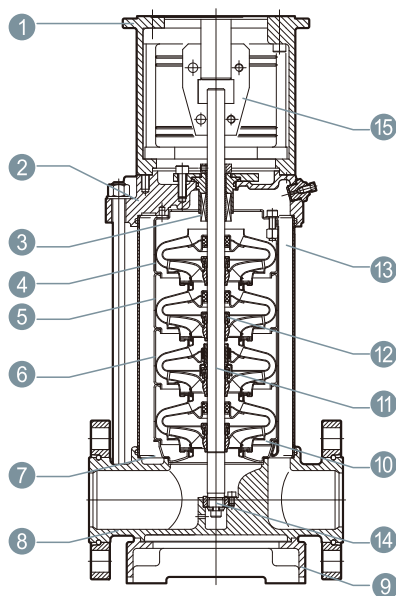
XRL1, 3, 5, 10, 15, 20



NO.	PARTS	MATERIAL	EN/DIN	AISI/ASTM
1	Motor bracket	Cast iron	EN-GJL-200	ASTM25B
2	Pump Head	Stainless steel	1,4301	AISI304
3	Mechanical seal	Cartridge type		
4	Top diffuser	Stainless steel	1,4301	AISI304
5	Diffuser	Stainless steel	1,4301	AISI304
6	Support diffuser	Stainless steel	1,4301	AISI304
7	Inducer	Stainless steel	1,4301	AISI304
8	Pump casing	Stainless steel	1,4301	AISI304
9	Base	Cast iron	EN-GJL-200	ASTM25B
10	Impeller	Stainless steel	1,4301	AISI304
11	Shaft	Stainless steel	1,4301/1,4401	AISI304
12	Impeller sleeve	Stainless steel	1,4301	AISI304
13	Cylinder	Stainless steel	1,4301	AISI304
14	Coupling	Carbon steel		
	Rubber part	NBR or FKM		

* AISI316(Optional)

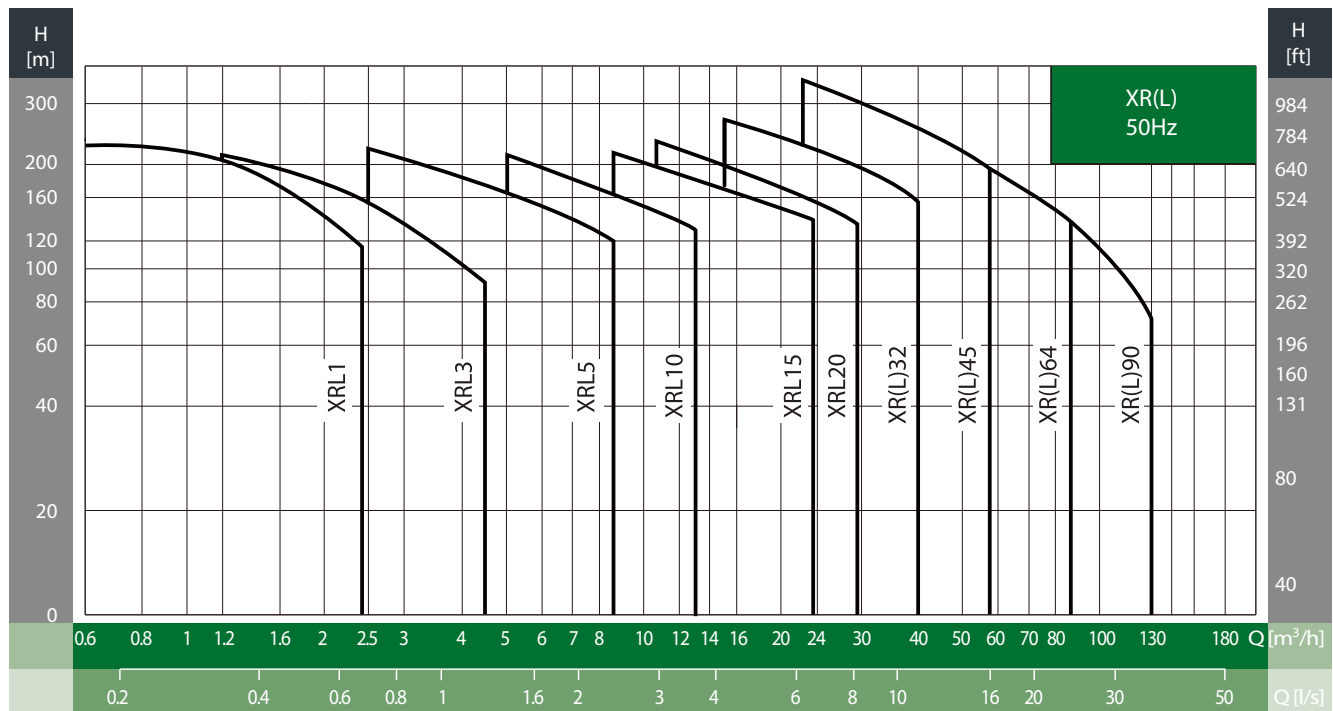
XR(L)32, 45, 64, 90



NO.	PARTS	MATERIAL	EN/DIN	AISI/ASTM
1	Motor bracket	Cast iron	EN-GJL-200	ASTM25B
3	Mechanical seal	Cartridge type		
4	Top diffuser	Stainless steel	1,4301	AISI304
5	Support diffuser	Stainless steel	1,4301	AISI304
6	Diffuser	Stainless steel	1,4301	AISI304
7	Inducer	Stainless steel	1,4301	AISI304
9	Base	Cast iron	EN-GJL-200	ASTM25B
10	Impeller	Stainless steel	1,4301	AISI304
11	Shaft	Stainless steel	1,4301/1,4301/1,4401	AISI304
12	Intermediate Bearing	Tungsten carbide		
13	Cylinder	Stainless steel	1,4301	AISI304
14	Bottom Bearing	Tungsten carbide		
15	Coupling	Carbon steel		
	Rubber part	NBR		
XR				
2	Pump Head	Cast iron	EN-GJL-200	ASTM25B
8	Pump casing	Cast iron	EN-GJL-200	ASTM25B
XRL				
2	Pump Head	Stainless steel	1,4301	AISI304
8	Pump casing	Stainless steel	1,4301	AISI304

* AISI316(Optional)

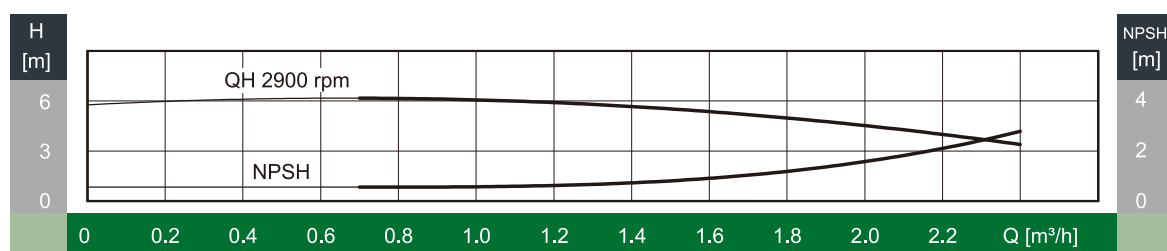
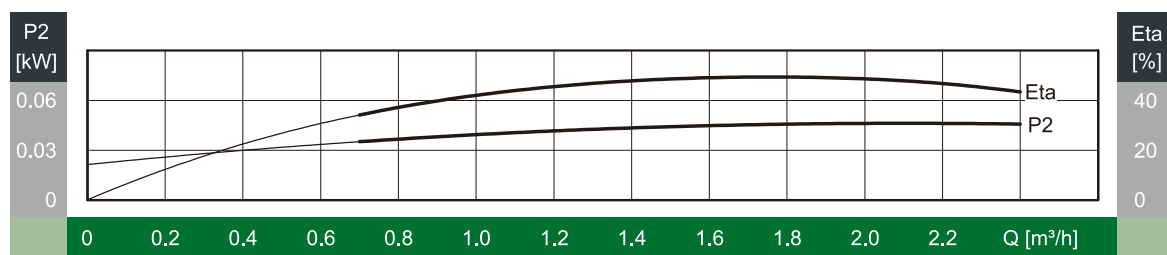
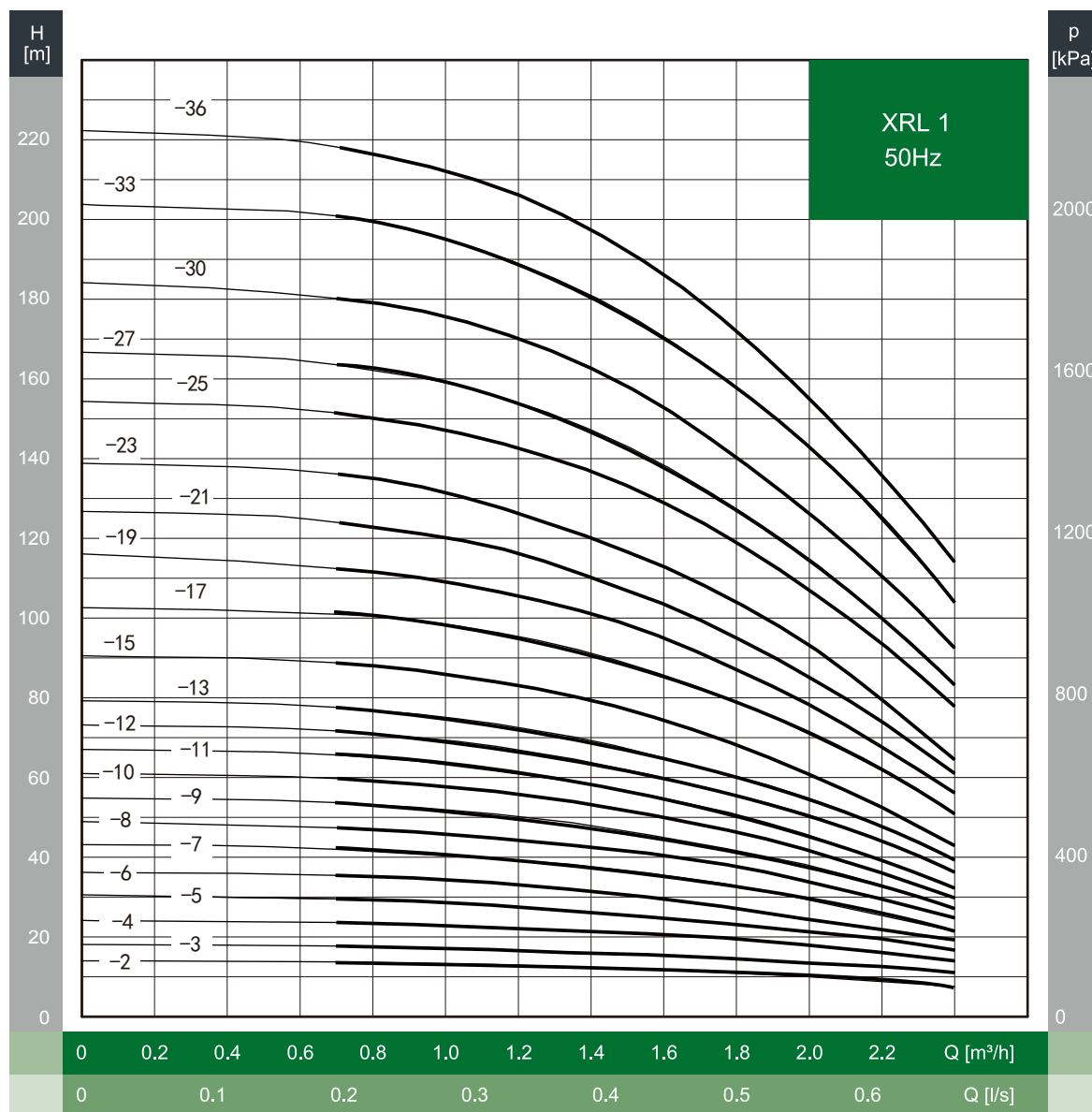
Performance Range



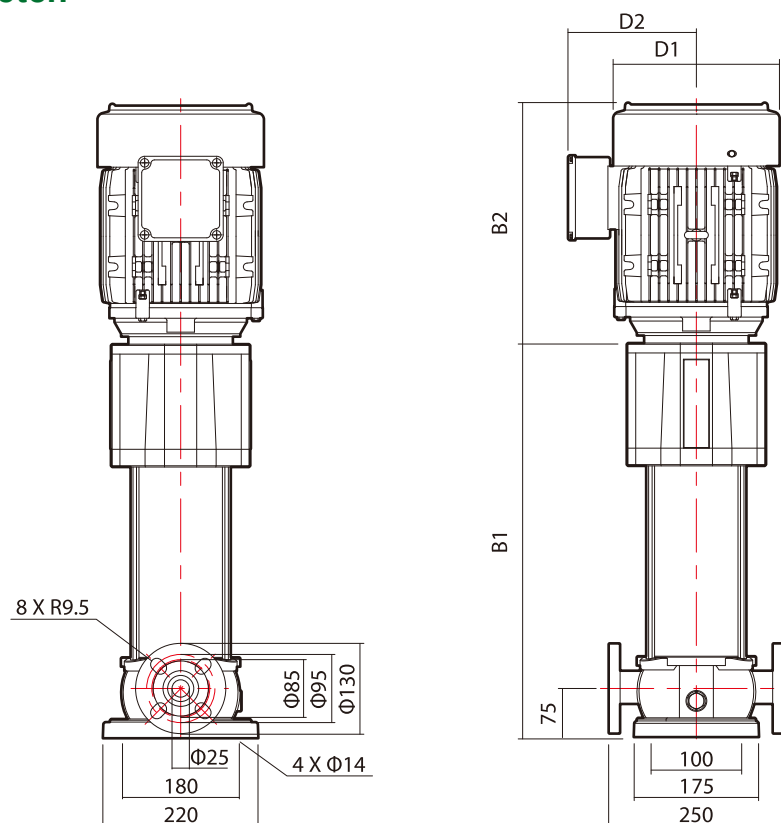
Specification

DESCRIPTION	XRL1	XRL3	XRL5	XRL10	XRL15	XRL20	XR(L)32	XR(L)45	XR(L)64	XR(L)90
Rated flow [m³/h]	1	3	5	10	15	20	32	45	64	90
Flow range [m³/h]	0.7-2.4	1.2-4.5	2.5-8.5	5-13	8.5-23.5	10.5-29	15-40	22-58	30-85	45-130
Max. pressure [bar]	22	23	24	22	23	25	27	33	22	18
Motor power [kW]	0.37-2.2	0.37-3	0.37-5.5	0.75-7.5	1.1-15	1.1-18.5	1.5-30	3-45	4-45	5.5-45
Liquid Temperature[°C]	-15~+120°C									
Pump Type	Vertical Multistage Centrifugal Pump									
XR							●	●	●	●
XRL	●	●	●	●	●	●	●	●	●	●
DIN Flange	DN25 /DN32	DN25 /DN32	DN25 /DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100
Internal Pressure	PN25	PN25	PN25	PN16-25	PN16-25	PN16-25	PN25-40	PN16-25	PN16	PN16

Performance Curve



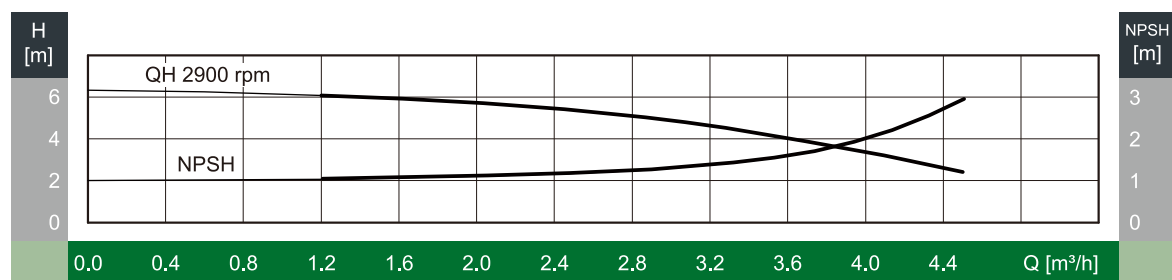
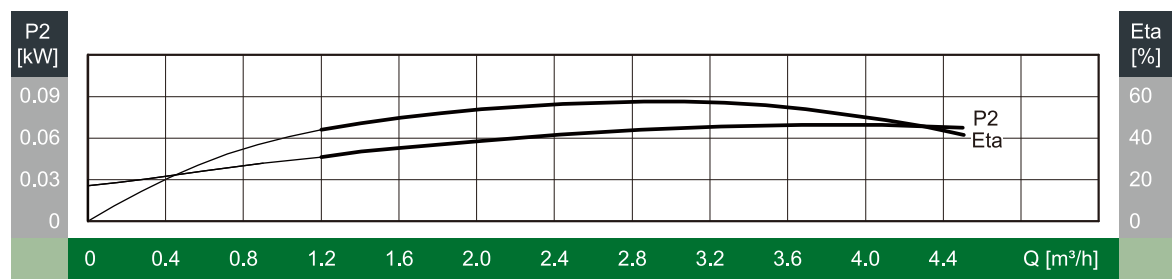
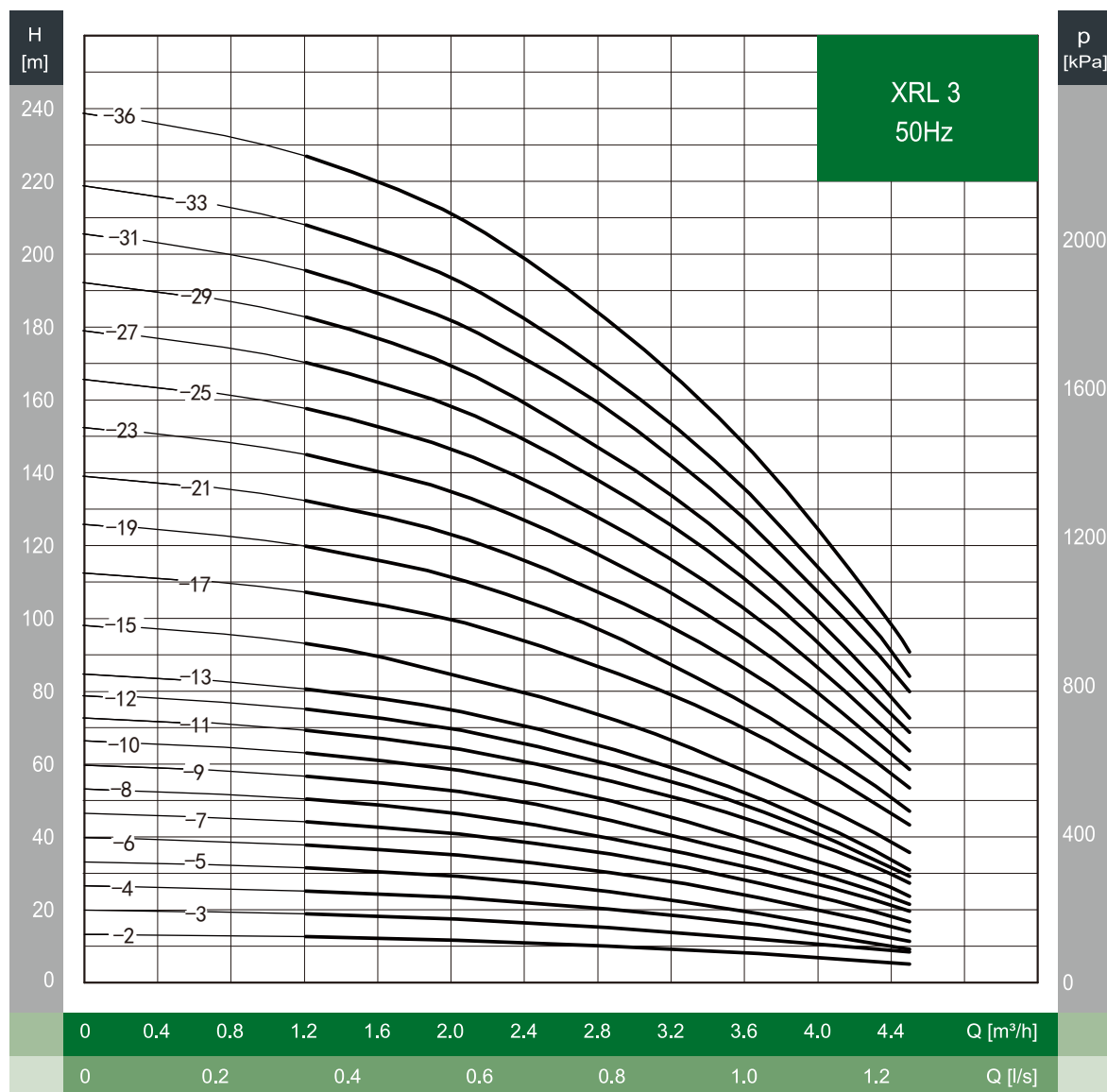
Installation Sketch



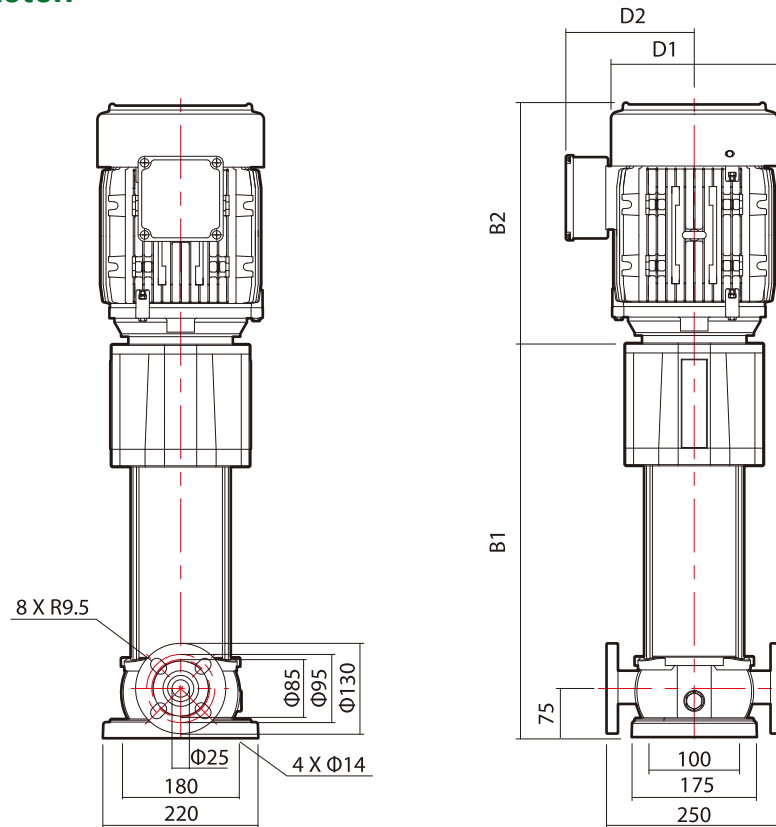
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XRL1-2	0.37	0.5	348.5	215	563.5	138	127	20
XRL1-3	0.37	0.5	366.5	215	581.5	138	127	21
XRL1-4	0.37	0.5	384.5	215	599.5	138	127	21
XRL1-5	0.37	0.5	402.5	215	617.5	138	127	21
XRL1-6	0.37	0.5	420.5	215	635.5	138	127	22
XRL1-7	0.37	0.5	438.5	215	653.5	138	127	22
XRL1-8	0.55	0.75	456.5	215	671.5	138	127	23
XRL1-9	0.55	0.75	474.5	215	689.5	138	127	24
XRL1-10	0.55	0.75	492.5	215	707.5	138	127	24
XRL1-11	0.55	0.75	510.5	215	725.5	138	127	24
XRL1-12	0.75	1	528.5	237	765.5	174	139	27
XRL1-13	0.75	1	546.5	237	783.5	174	139	28
XRL1-15	0.75	1	582.5	237	819.5	174	139	28
XRL1-17	1.1	1.5	618.5	237	855.5	174	139	31
XRL1-19	1.1	1.5	654.5	237	891.5	174	139	32
XRL1-21	1.1	1.5	690.5	237	927.5	174	139	33
XRL1-23	1.1	1.5	726.5	237	963.5	174	139	34
XRL1-25	1.5	2	762.5	268	1030.5	196	153	41
XRL1-27	1.5	2	798.5	268	1066.5	196	153	42
XRL1-30	1.5	2	852.5	268	1120.5	196	153	43
XRL1-33	2.2	3	906.5	268	1174.5	196	153	45
XRL1-36	2.2	3	960.5	268	1228.5	196	153	46

Performance Curve



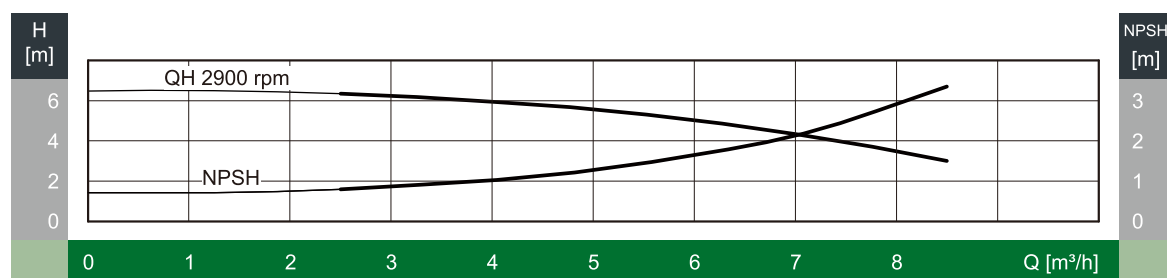
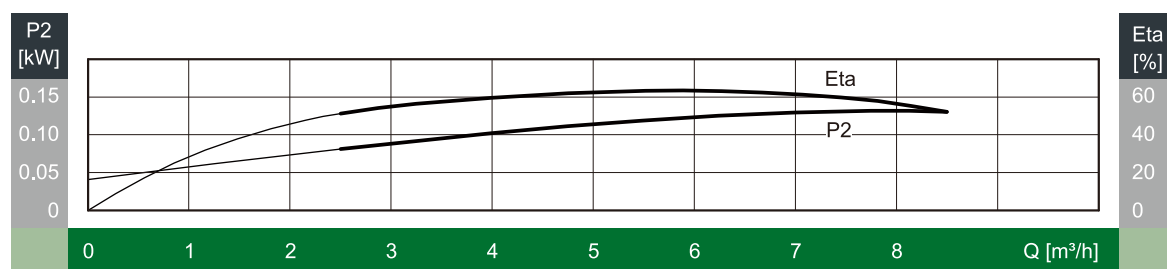
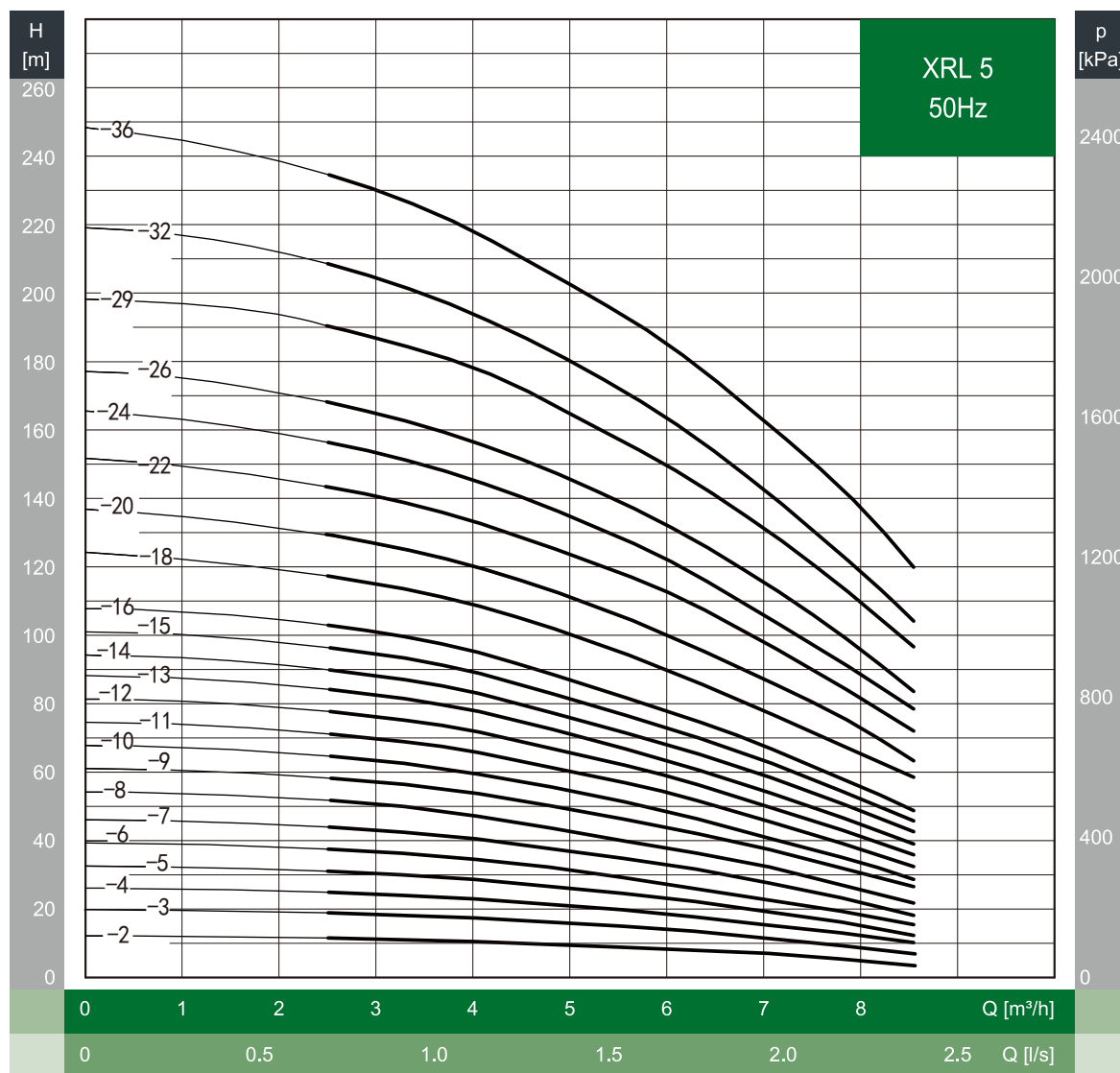
Installation Sketch



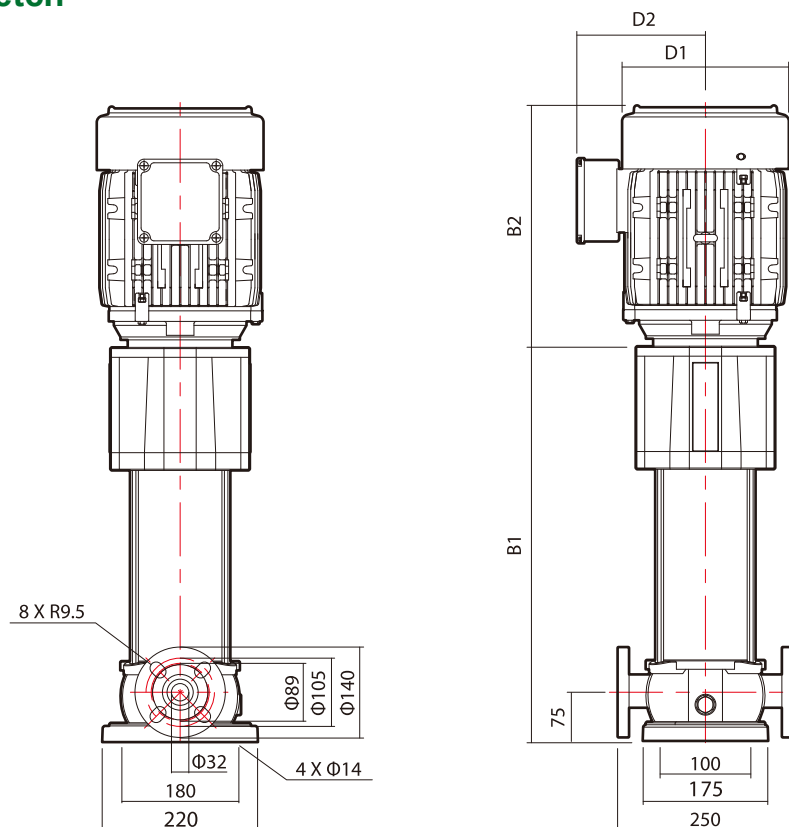
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XRL3-2	0.37	0.5	348.5	215	563.5	138	127	20
XRL3-3	0.37	0.5	366.5	215	581.5	138	127	21
XRL3-4	0.37	0.5	384.5	215	599.5	138	127	21
XRL3-5	0.37	0.5	402.5	215	617.5	138	127	21
XRL3-6	0.55	0.75	420.5	215	635.5	138	127	23
XRL3-7	0.55	0.75	438.5	215	653.5	138	127	23
XRL3-8	0.75	1	456.5	237	693.5	174	139	26
XRL3-9	0.75	1	474.5	237	711.5	174	139	26
XRL3-10	0.75	1	492.5	237	729.5	174	139	26
XRL3-11	1.1	1.5	510.5	237	747.5	174	139	29
XRL3-12	1.1	1.5	528.5	237	765.5	174	139	29
XRL3-13	1.1	1.5	546.5	237	783.5	174	139	30
XRL3-15	1.1	1.5	582.5	237	819.5	174	139	31
XRL3-17	1.5	2	618.5	268	886.5	196	153	38
XRL3-19	1.5	2	654.5	268	922.5	196	153	39
XRL3-21	2.2	3	690.5	268	958.5	196	153	40
XRL3-23	2.2	3	726.5	268	994.5	196	153	41
XRL3-25	2.2	3	762.5	268	1030.5	196	153	42
XRL3-27	2.2	3	798.5	268	1066.5	196	153	42
XRL3-29	2.2	3	834.5	268	1102.5	196	153	43
XRL3-31	3	4	870.5	312	1182.5	223	172	48
XRL3-33	3	4	906.5	312	1218.5	223	172	49
XRL3-36	3	4	960.5	312	1272.5	223	172	50

Performance Curve



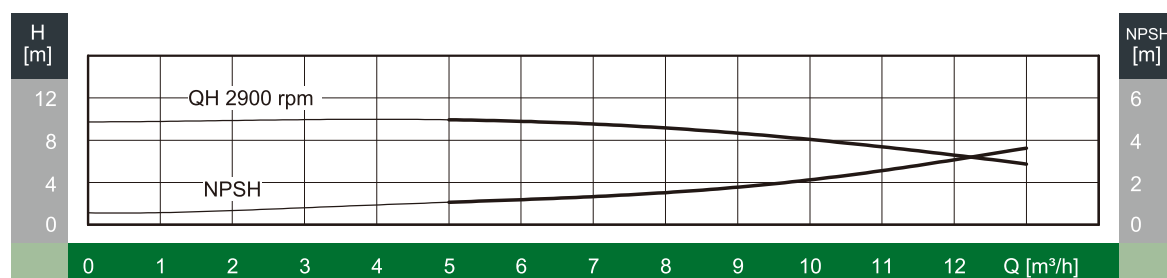
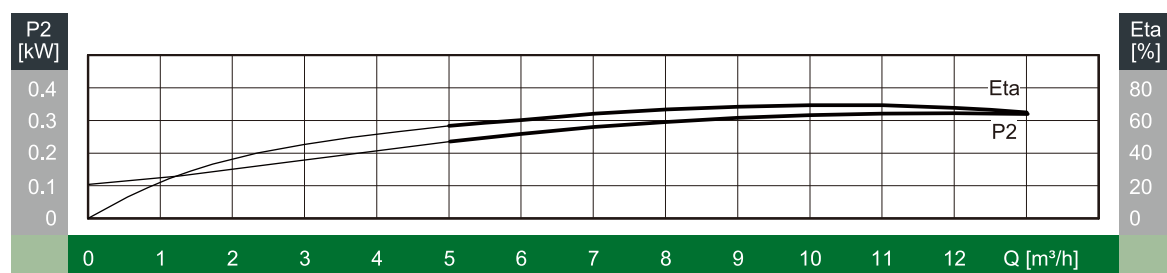
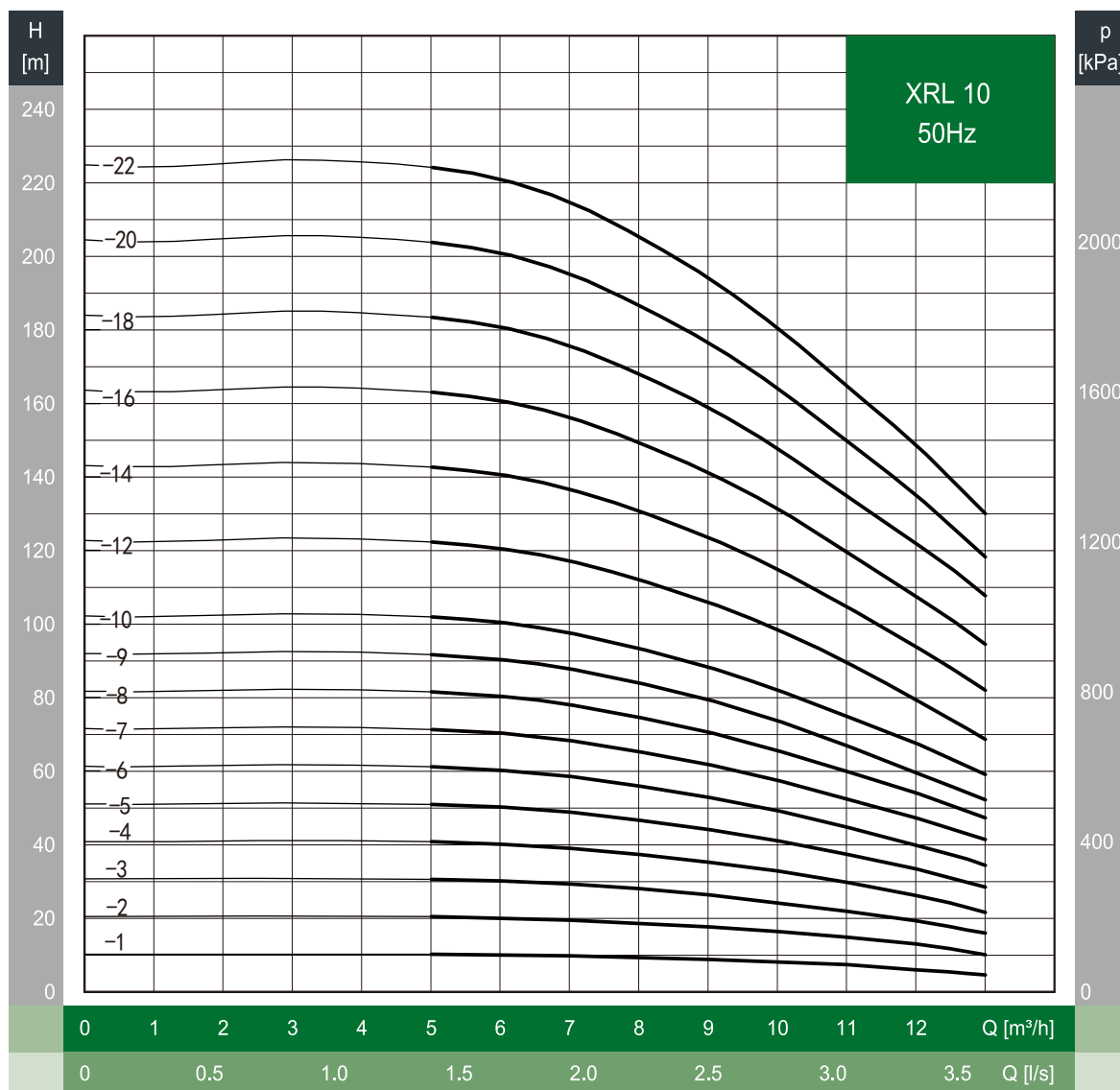
Installation Sketch



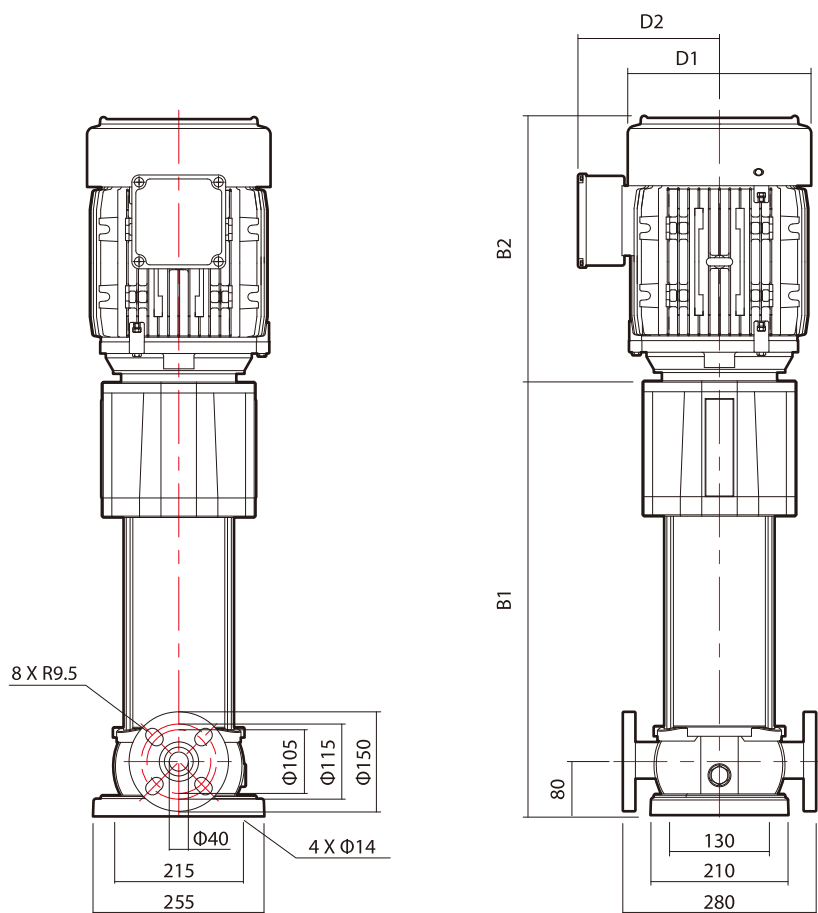
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XRL5-2	0.37	0.5	366.5	215	581.5	138	127	21
XRL5-3	0.55	0.75	393.5	215	608.5	138	127	22
XRL5-4	0.55	0.75	420.5	215	635.5	138	127	22
XRL5-5	0.75	1	447.5	237	684.5	174	139	25
XRL5-6	1.1	1.5	474.5	237	711.5	174	139	28
XRL5-7	1.1	1.5	501.5	237	738.5	174	139	28
XRL5-8	1.1	1.5	528.5	237	765.5	174	139	29
XRL5-9	1.5	2	555.5	268	823.5	196	153	36
XRL5-10	1.5	2	582.5	268	850.5	196	153	37
XRL5-11	2.2	3	609.5	268	877.5	196	153	38
XRL5-12	2.2	3	636.5	268	904.5	196	153	38
XRL5-13	2.2	3	663.5	268	931.5	196	153	39
XRL5-14	2.2	3	690.5	268	958.5	196	153	40
XRL5-15	2.2	3	717.5	268	985.5	196	153	40
XRL5-16	2.2	3	744.5	268	1012.5	196	153	41
XRL5-18	3	4	798.5	312	1110.5	223	172	46
XRL5-20	3	4	852.5	312	1164.5	223	172	47
XRL5-22	4	5.5	906.5	312	1218.5	223	172	59
XRL5-24	4	5.5	960.5	312	1272.5	223	172	61
XRL5-26	4	5.5	1014.5	312	1326.5	223	172	62
XRL5-29	4	5.5	1095.5	312	1407.5	223	172	64
XRL5-32	5.5	7.5	1204.5	379	1583.5	275	200	79
XRL5-36	5.5	7.5	1312.5	379	1691.5	275	200	81

Performance Curve



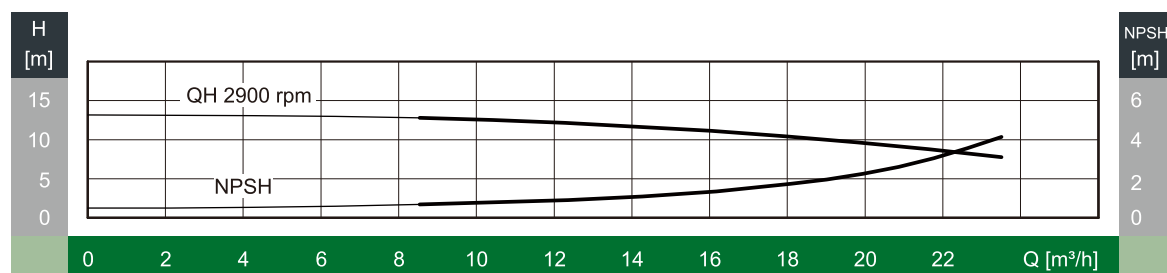
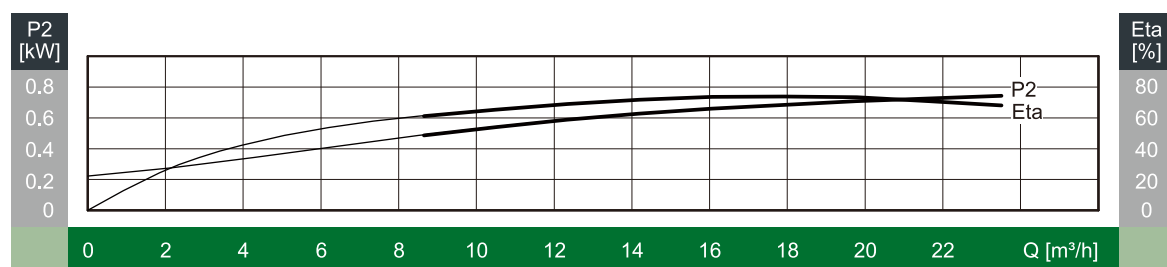
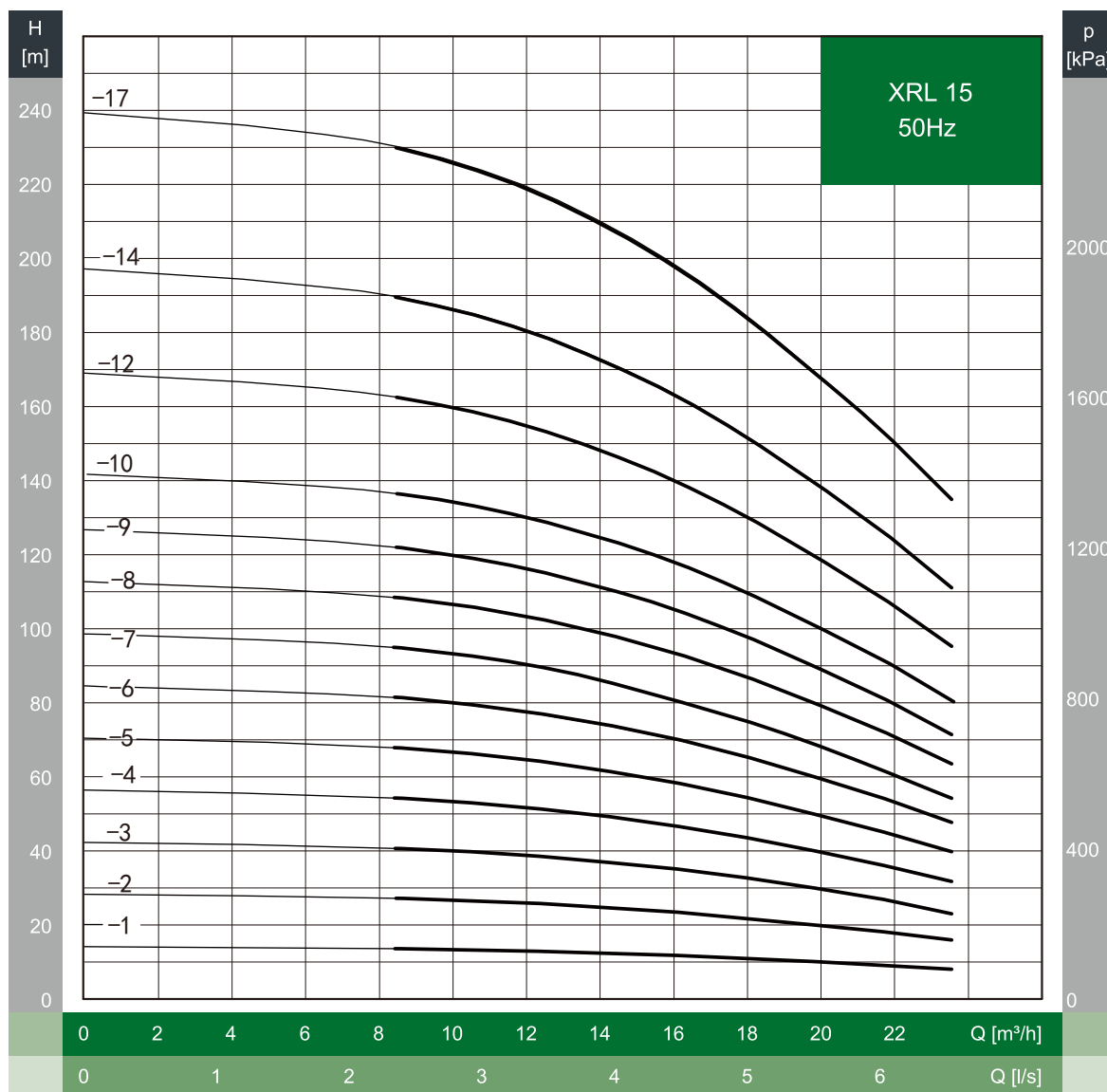
Installation Sketch



Dimension/ Weight

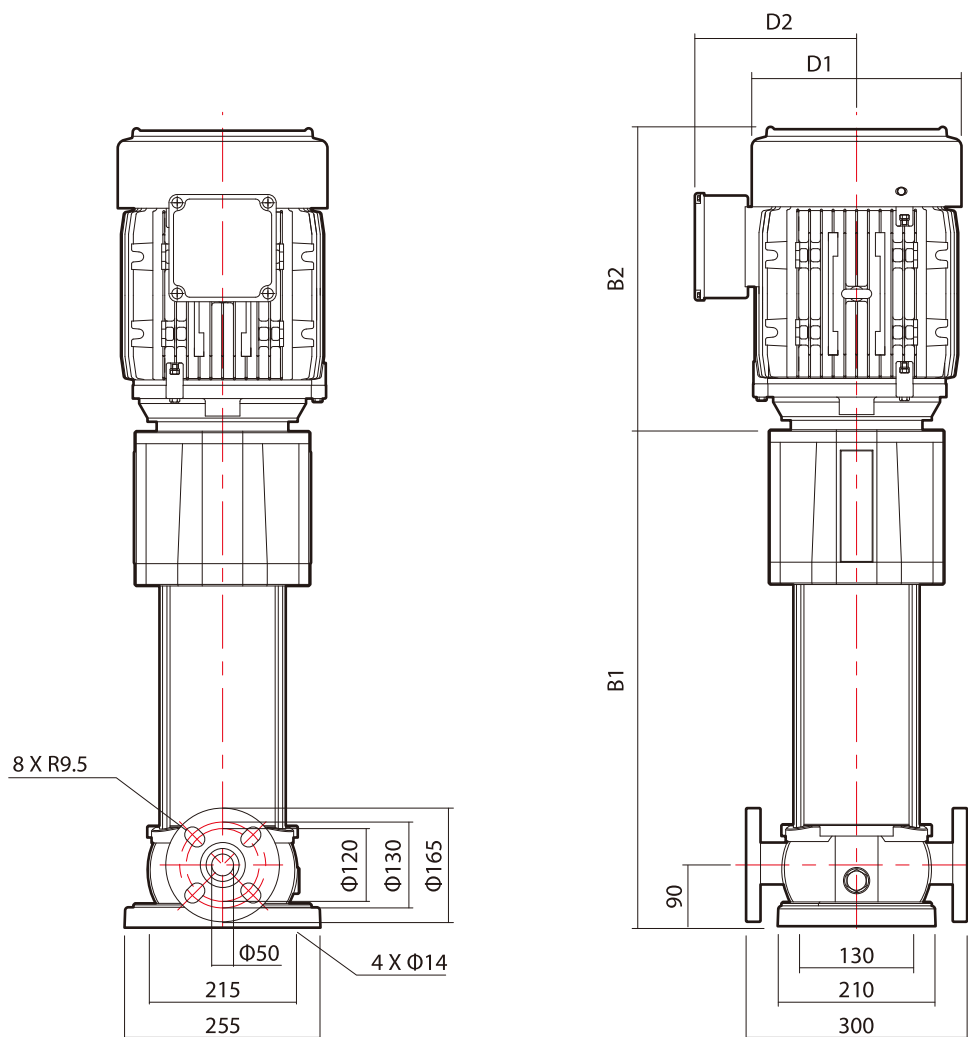
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	kW	HP	B1	B2	B1+B2	D1	D2	
XRL10-1	0.75	1	433	237	670	174	139	32
XRL10-2	0.75	1	433	237	670	174	139	34
XRL10-3	1.1	1.5	463	237	700	174	139	38
XRL10-4	1.5	2	493	268	761	196	153	46
XRL10-5	2.2	3	524	268	792	196	153	47
XRL10-6	2.2	3	554	268	822	196	153	48
XRL10-7	3	4	583	312	895	223	172	54
XRL10-8	3	4	613	312	925	223	172	55
XRL10-9	3	4	643	312	955	223	172	56
XRL10-10	4	5.5	673	312	985	223	172	68
XRL10-12	4	5.5	733	312	1045	223	172	70
XRL10-14	5.5	7.5	815	379	1194	275	200	93
XRL10-16	5.5	7.5	875	379	1254	275	200	95
XRL10-18	7.5	10	933	379	1312	275	200	99
XRL10-20	7.5	10	993	379	1372	275	200	101
XRL10-22	7.5	10	1053	379	1432	275	200	104

Performance Curve



STAINLESS STEEL VERTICAL MULTISTAGE PUMP

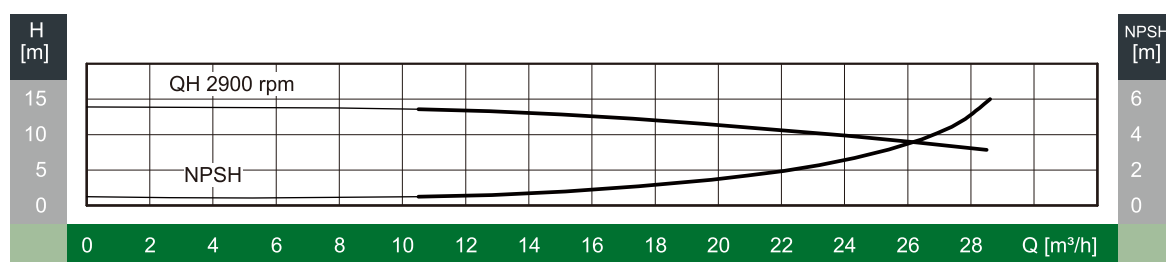
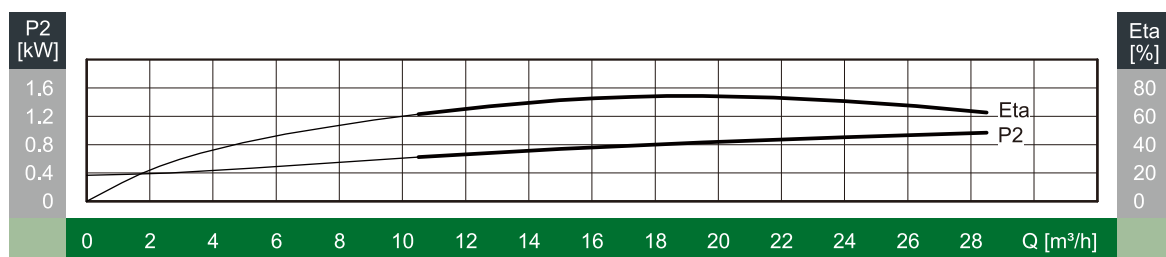
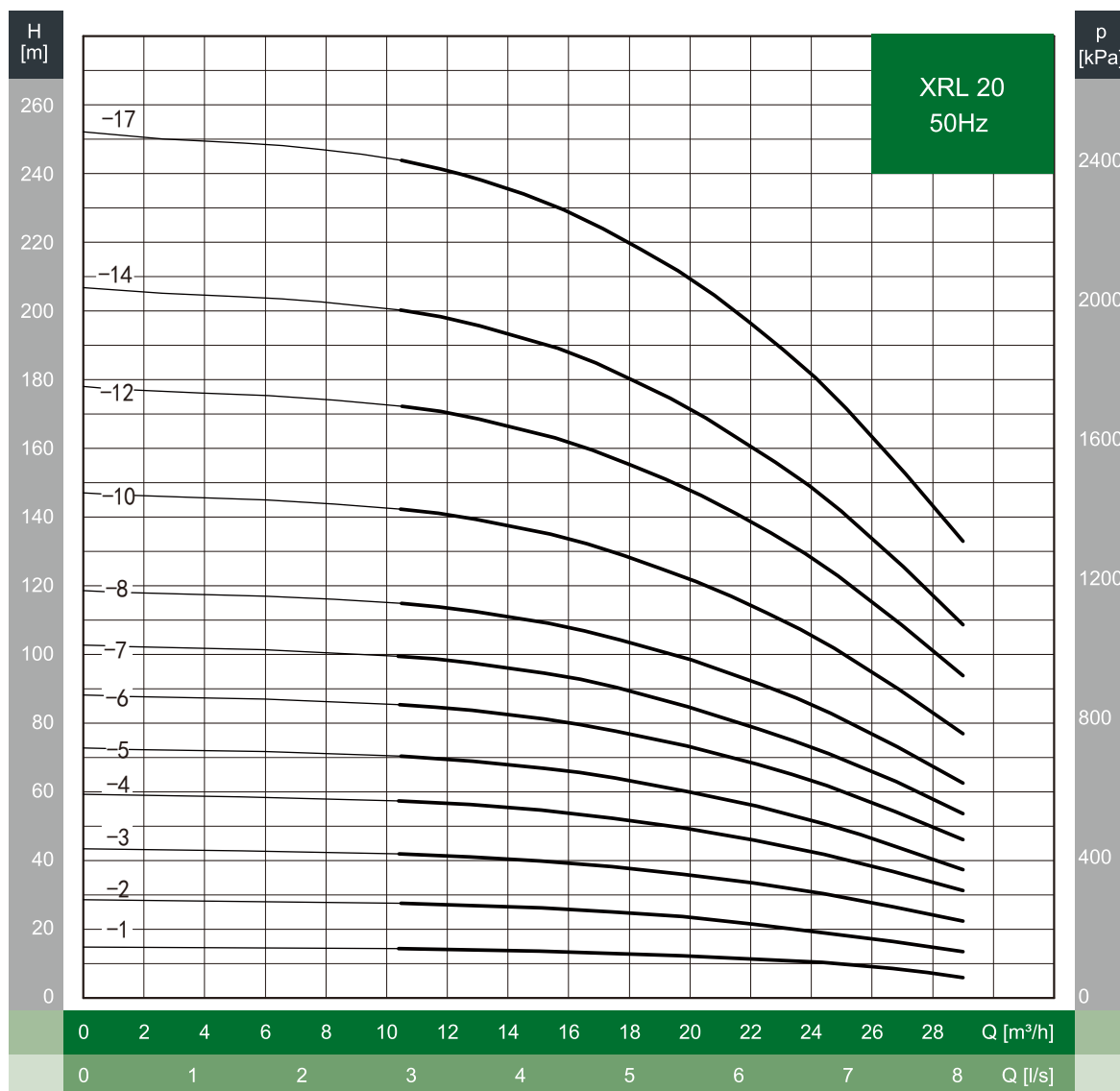
Installation Sketch



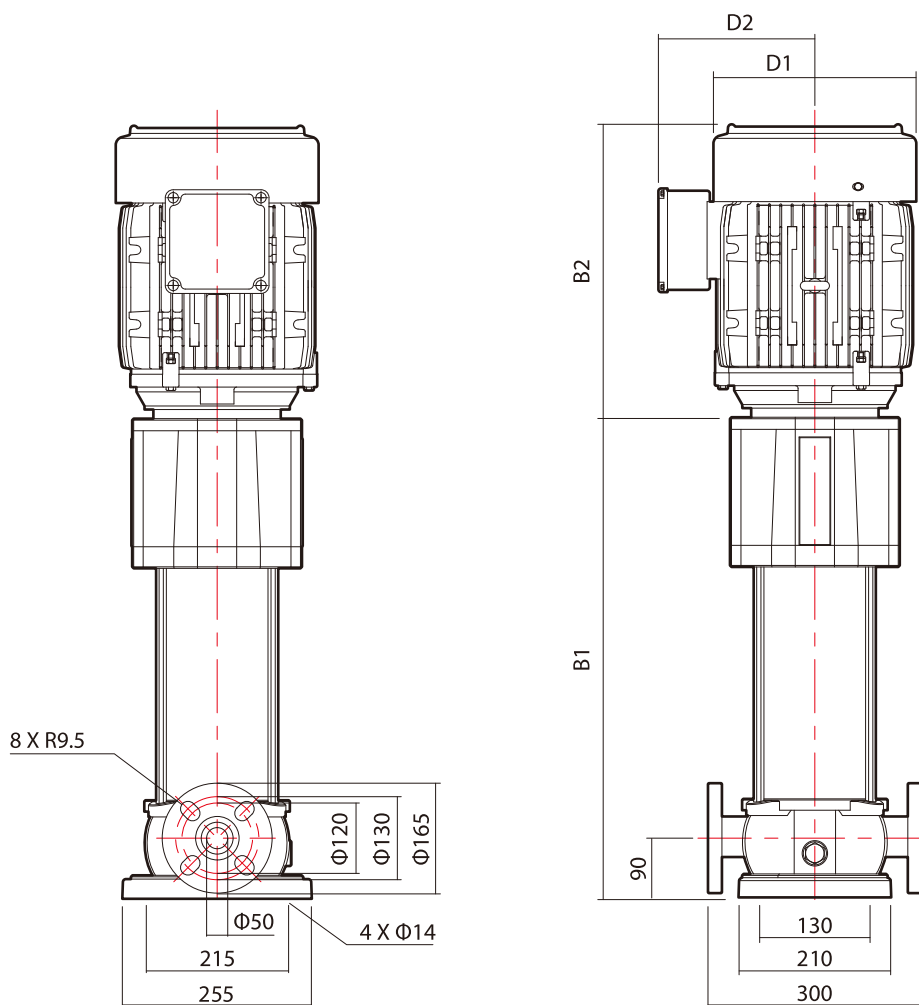
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XRL15-1	1.1	1.5	478	237	715	174	139	39
XRL15-2	2.2	3	478	268	746	196	153	47
XRL15-3	3	4	523	312	835	223	172	53
XRL15-4	4	5.5	568	312	880	223	172	65
XRL15-5	4	5.5	613	312	925	223	172	67
XRL15-6	5.5	7.5	678	379	1057	275	200	89
XRL15-7	5.5	7.5	723	379	1102	275	200	90
XRL15-8	7.5	10	768	379	1147	275	200	94
XRL15-9	7.5	10	813	379	1192	275	200	96
XRL15-10	11	15	888	486	1374	326	288	148
XRL15-12	11	15	978	486	1464	326	288	151
XRL15-14	11	15	1068	486	1554	326	288	154
XRL15-17	15	20	1203	486	1689	326	288	171

Performance Curve



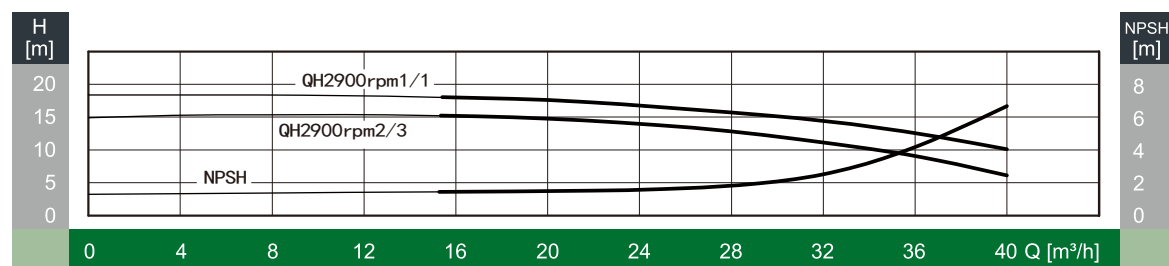
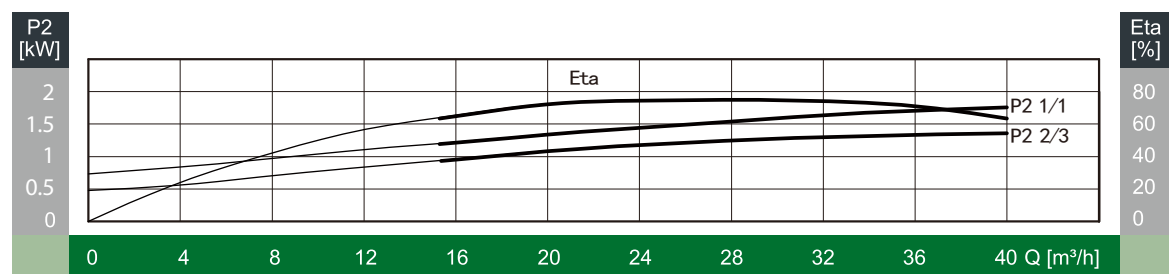
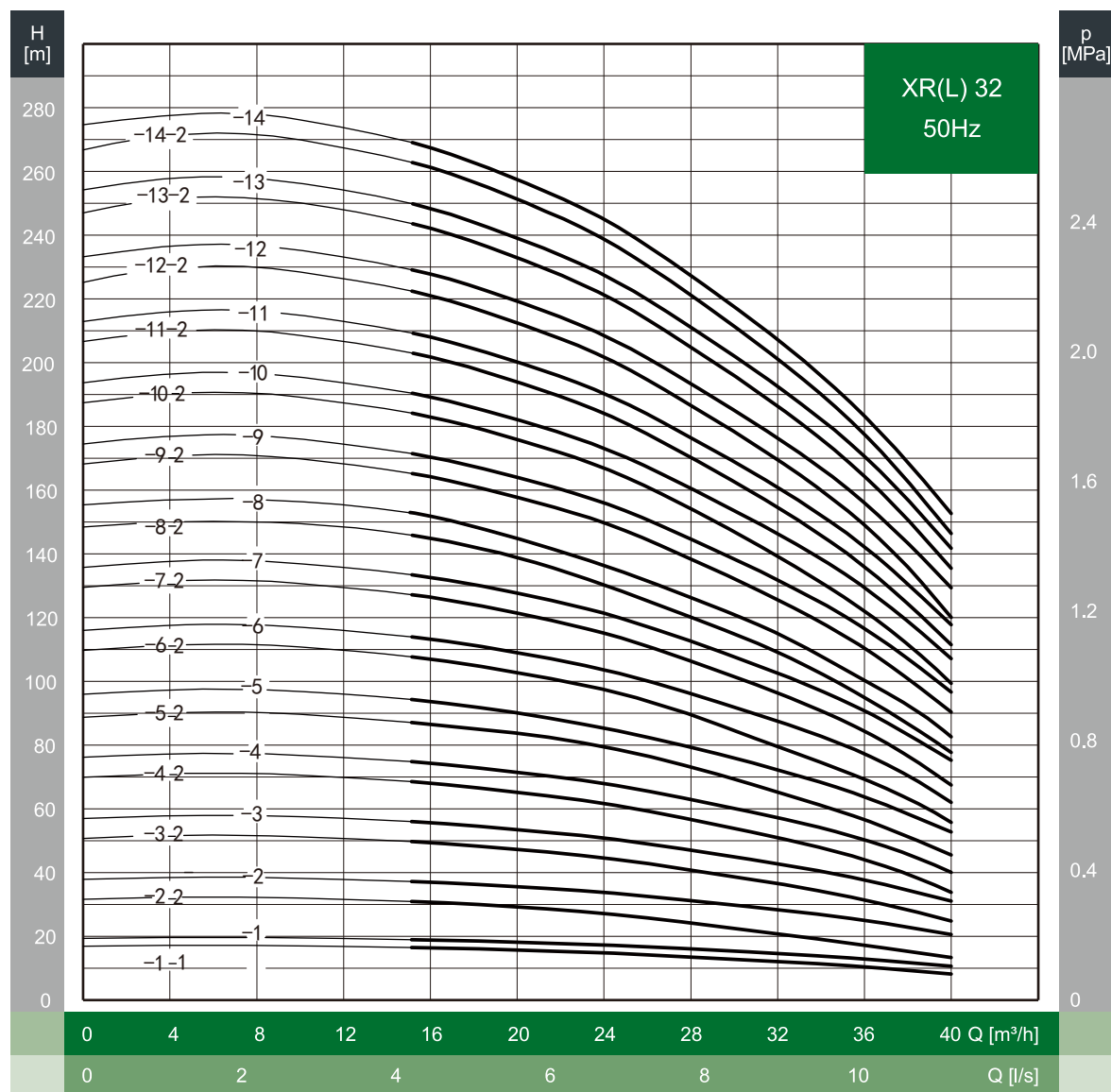
Installation Sketch



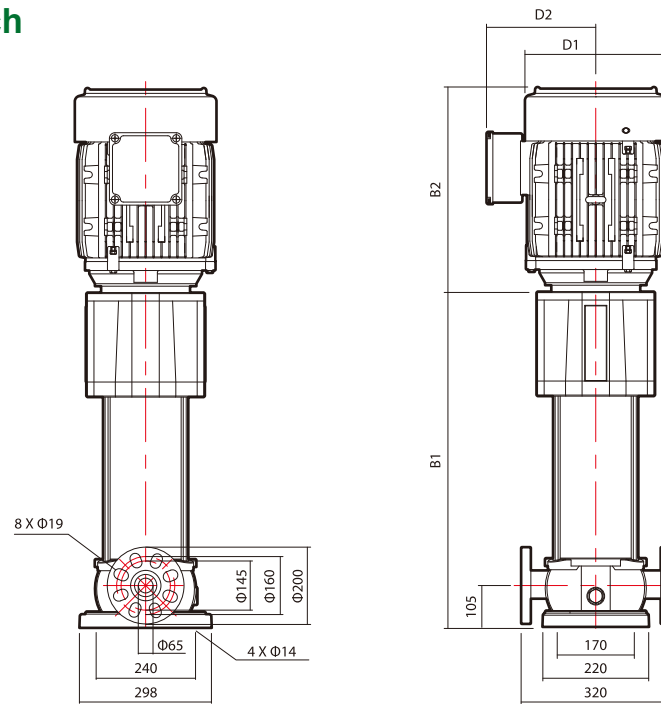
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XRL20-1	1.1	1.5	478	237	715	174	139	39
XRL20-2	2.2	3	478	268	746	196	153	47
XRL20-3	4	5.5	523	312	835	223	172	64
XRL20-4	5.5	7.5	588	379	967	275	200	86
XRL20-5	5.5	7.5	633	379	1012	275	200	87
XRL20-6	7.5	10	678	379	1057	275	200	111
XRL20-7	7.5	10	723	379	1102	275	200	112
XRL20-8	11	15	798	486	1284	326	288	144
XRL20-10	11	15	888	486	1374	326	288	148
XRL20-12	15	20	978	486	1464	326	288	163
XRL20-14	15	20	1068	486	1554	326	288	166
XRL20-17	18.5	25	1203	530	1733	326	288	184

Performance Curve



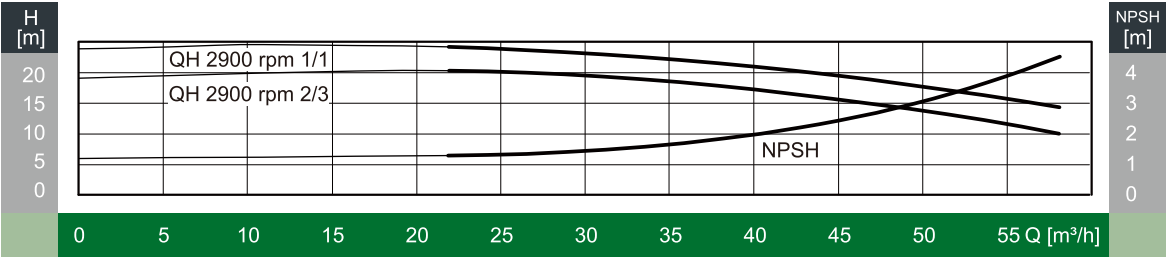
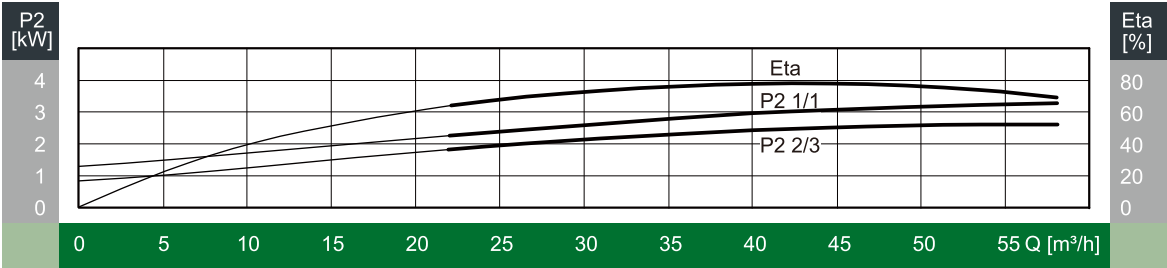
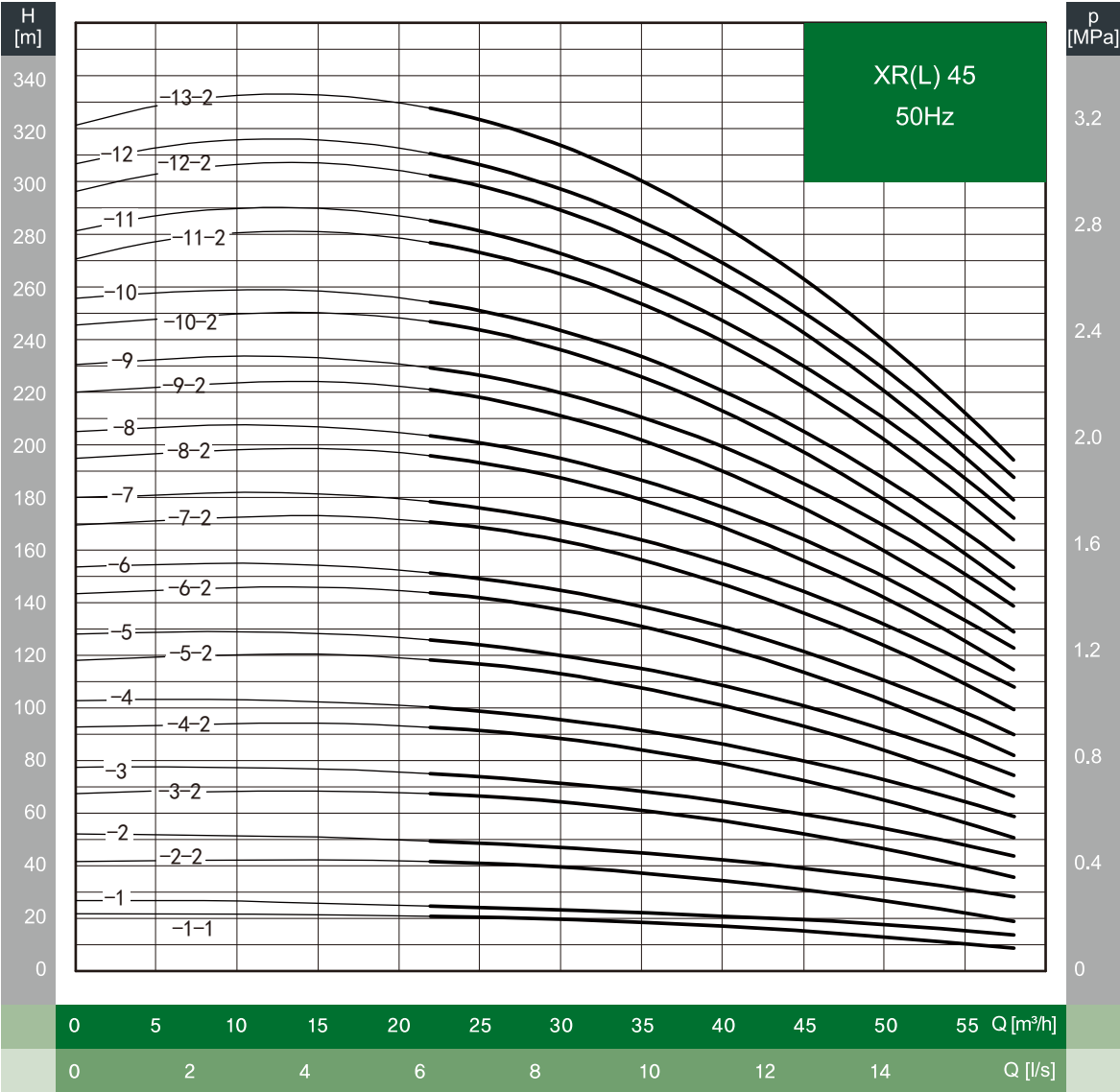
Installation Sketch



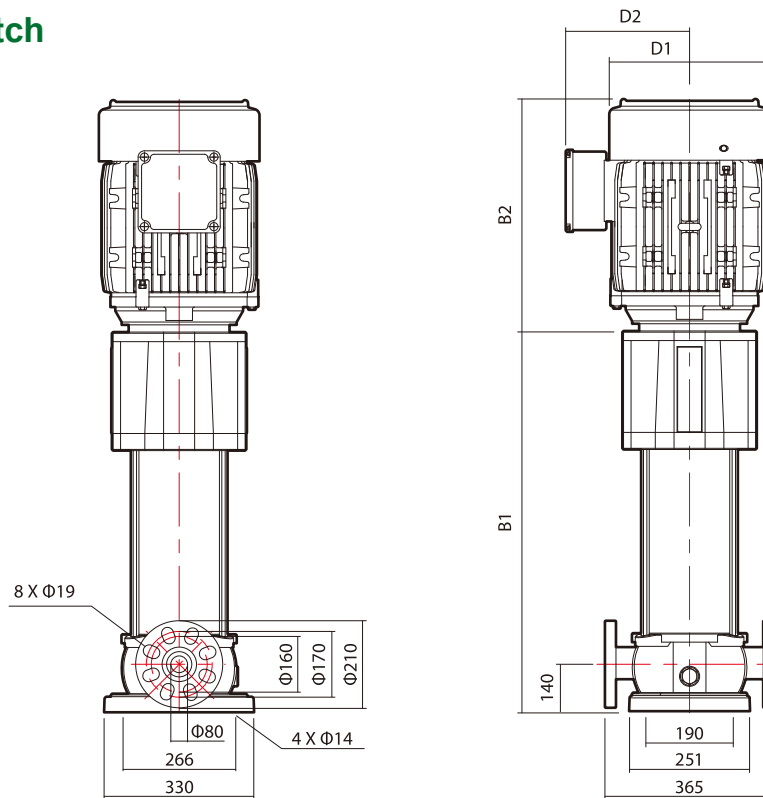
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XR(L)32-1-1	1.5	2	575	268	843	196	153	66
XR(L)32-1	2.2	3	575	268	843	196	153	66
XR(L)32-2-2	3	4	645	312	957	223	172	73
XR(L)32-2	4	5.5	645	312	957	223	172	84
XR(L)32-3-2	5.5	7.5	715	379	1094	275	200	99
XR(L)32-3	5.5	7.5	715	379	1094	275	200	99
XR(L)32-4-2	7.5	10	785	379	1164	275	200	104
XR(L)32-4	7.5	10	785	379	1164	275	200	104
XR(L)32-5-2	11	15	885	486	1371	326	288	161
XR(L)32-5	11	15	885	486	1371	326	288	161
XR(L)32-6-2	11	15	955	486	1441	326	288	164
XR(L)32-6	11	15	955	486	1441	326	288	164
XR(L)32-7-2	15	20	1025	486	1511	326	288	179
XR(L)32-7	15	20	1025	486	1511	326	288	179
XR(L)32-8-2	15	20	1095	486	1581	326	288	185
XR(L)32-8	15	20	1095	486	1581	326	288	185
XR(L)32-9-2	18.5	25	1165	530	1695	326	288	202
XR(L)32-9	18.5	25	1165	530	1695	326	288	202
XR(L)32-10-2	18.5	25	1235	530	1765	326	288	205
XR(L)32-10	18.5	25	1235	530	1765	326	288	205
XR(L)32-11-2	22	30	1305	549	1854	360	301	222
XR(L)32-11	22	30	1305	549	1854	360	301	222
XR(L)32-12-2	22	30	1375	549	1924	360	301	226
XR(L)32-12	22	30	1375	549	1924	360	301	226
XR(L)32-13-2	30	40	1445	587	2032	360	301	384
XR(L)32-13	30	40	1445	587	2032	360	301	384
XR(L)32-14-2	30	40	1515	587	2102	360	301	387
XR(L)32-14	30	40	1515	587	2102	360	301	387

Performance Curve



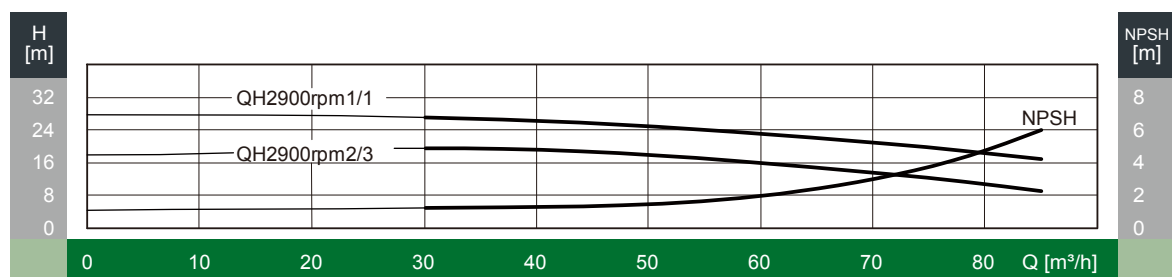
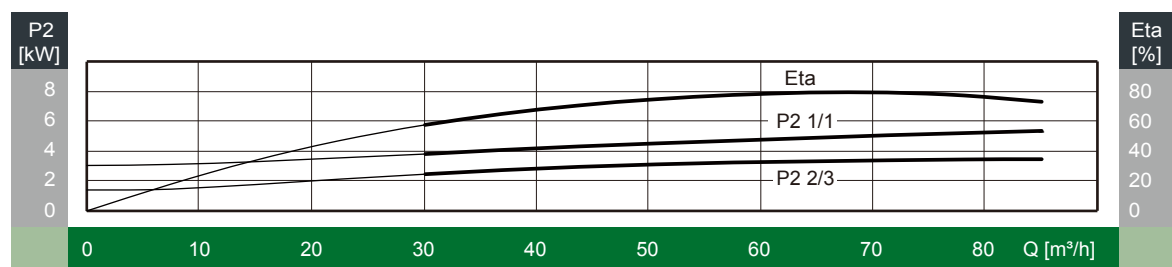
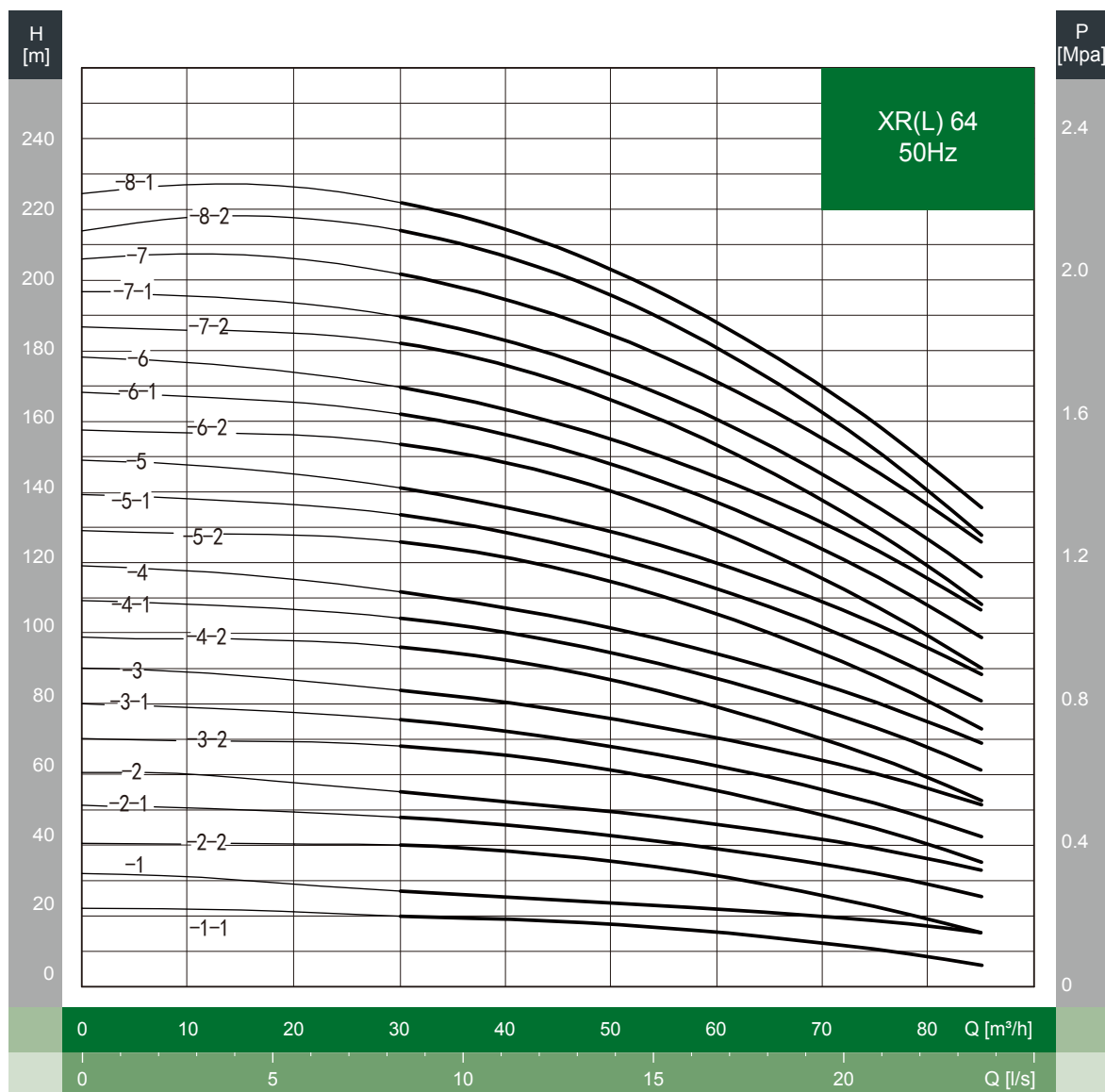
Installation Sketch



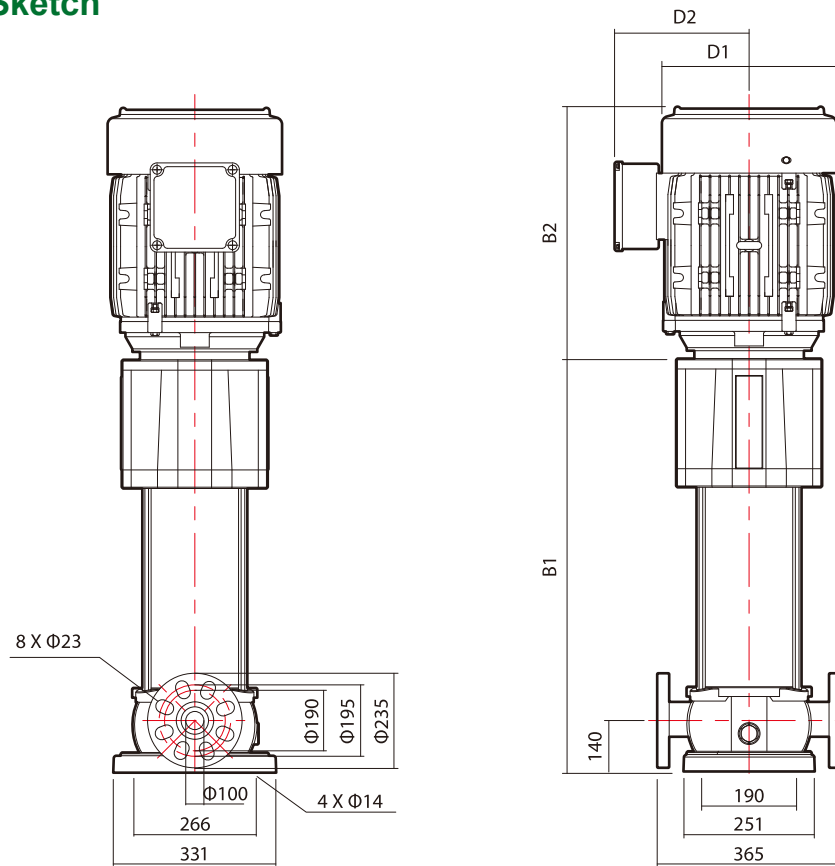
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XR(L)45-1-1	3	4	629	312	941	223	172	78
XR(L)45-1	4	5.5	629	312	941	223	172	89
XR(L)45-2-2	5.5	7.5	709	379	1088	275	200	104
XR(L)45-2	7.5	10	709	379	1088	275	200	106
XR(L)45-3-2	11	15	819	486	1305	326	288	165
XR(L)45-3	11	15	819	486	1305	326	288	165
XR(L)45-4-2	15	20	899	486	1385	326	288	180
XR(L)45-4	15	20	899	486	1385	326	288	180
XR(L)45-5-2	18.5	25	979	530	1509	326	288	197
XR(L)45-5	18.5	25	979	530	1509	326	288	197
XR(L)45-6-2	22	30	1059	549	1608	360	301	218
XR(L)45-6	22	30	1059	549	1608	360	301	218
XR(L)45-7-2	30	40	1139	587	1726	360	301	324
XR(L)45-7	30	40	1139	587	1726	360	301	324
XR(L)45-8-2	30	40	1219	587	1806	360	301	328
XR(L)45-8	30	40	1219	587	1806	360	301	328
XR(L)45-9-2	30	40	1299	587	1886	360	301	333
XR(L)45-9	37	50	1299	656	1955	398	362	363
XR(L)45-10-2	37	50	1379	656	2035	398	362	367
XR(L)45-10	37	50	1379	656	2035	398	362	367
XR(L)45-11-2	45	60	1459	706	2165	398	362	450
XR(L)45-11	45	60	1459	706	2165	398	362	450
XR(L)45-12-2	45	60	1539	706	2245	398	362	455
XR(L)45-12	45	60	1539	706	2245	398	362	455
XR(L)45-13-2	45	60	1619	706	2325	398	362	459

Performance Curve



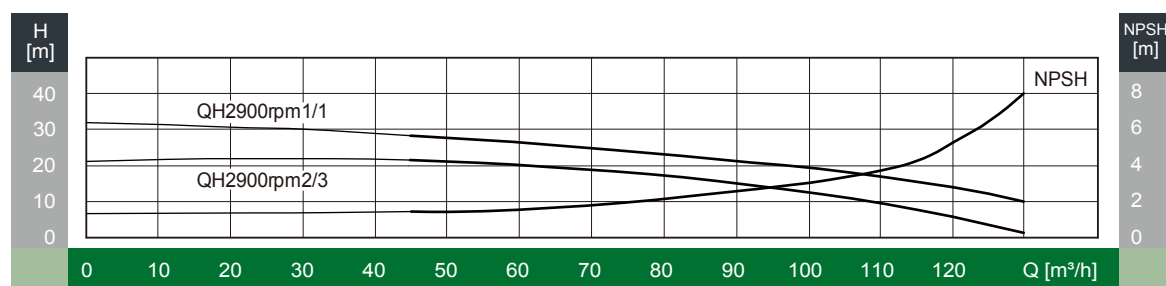
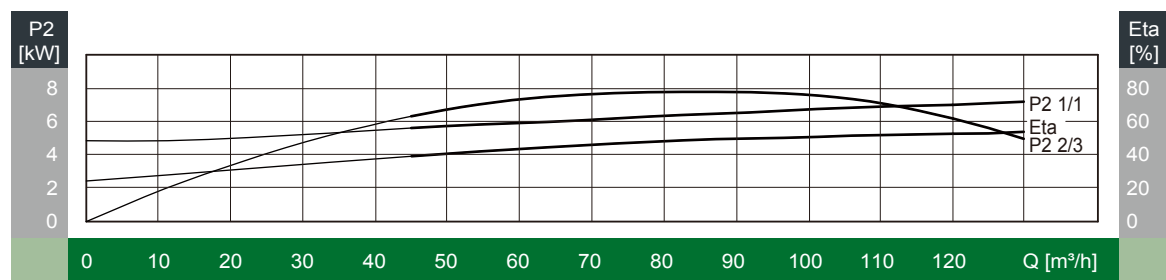
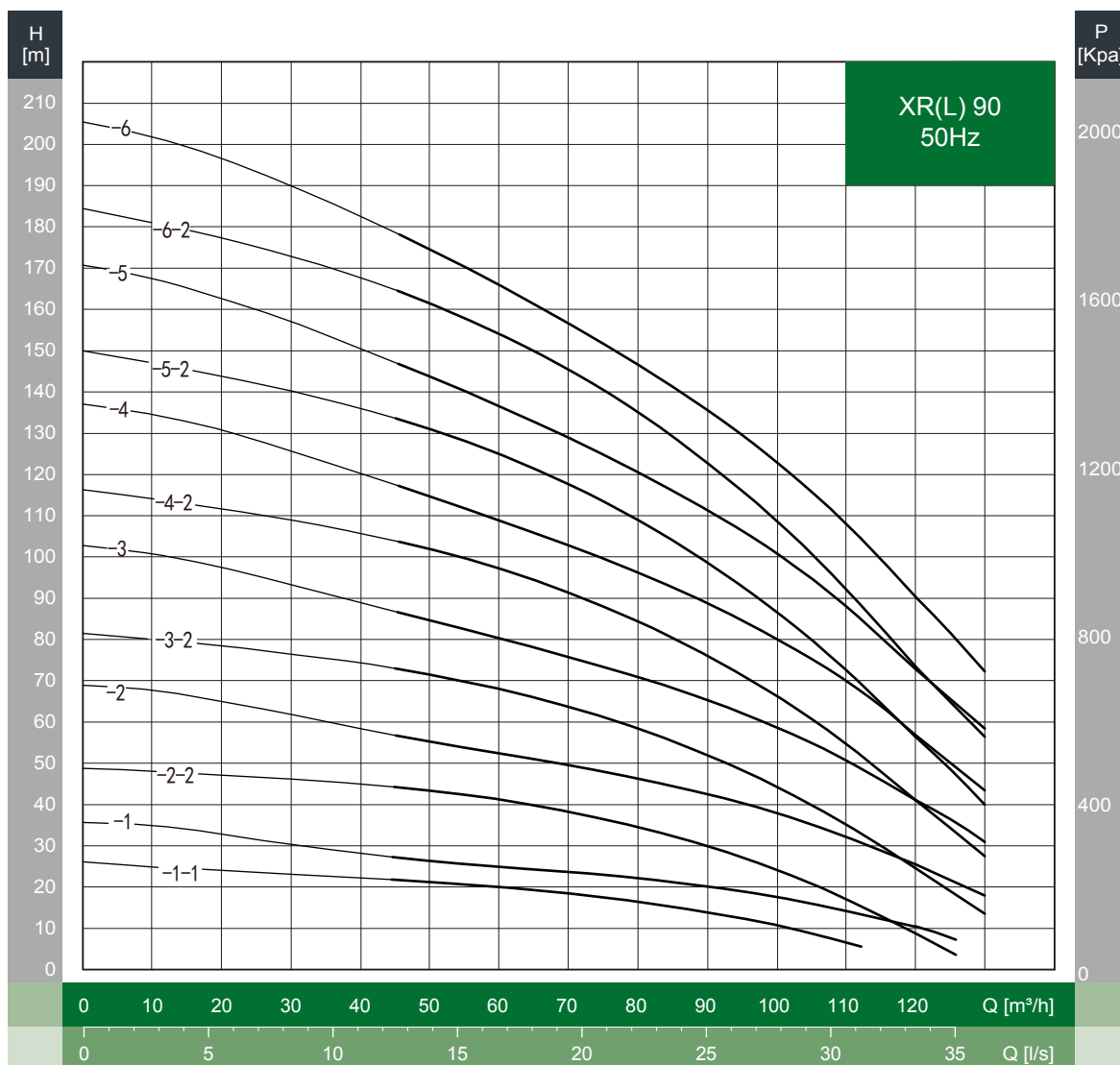
Installation Sketch



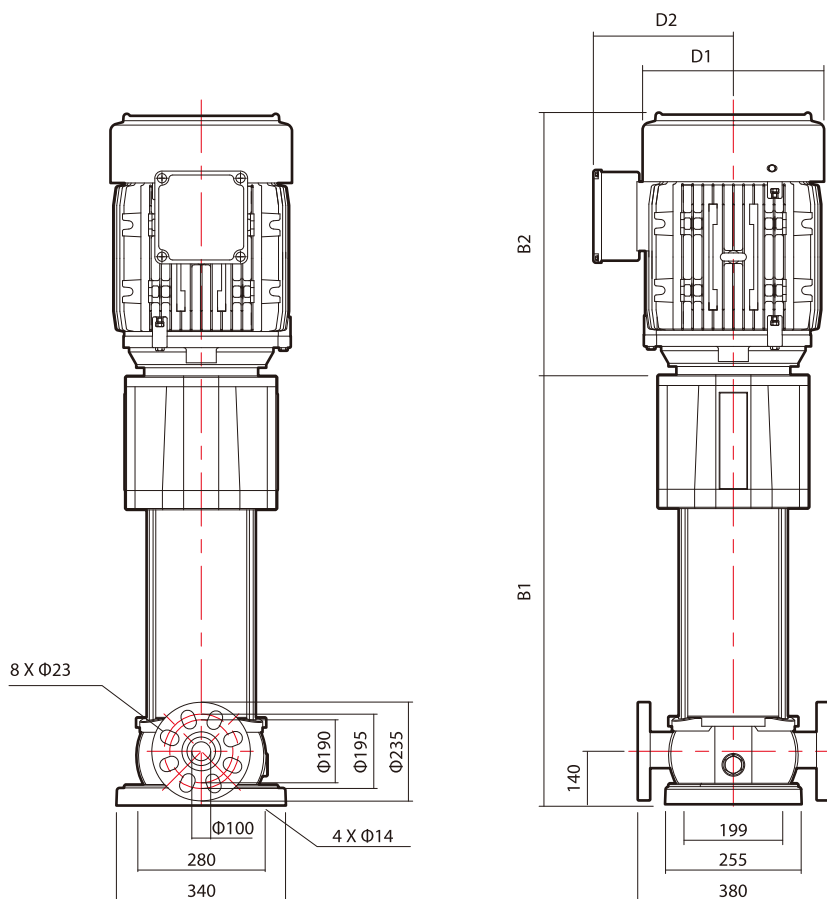
Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XR(L)64-1-1	4	5.5	631	312	943	223	172	91
XR(L)64-1	5.5	7.5	631	379	1010	275	200	102
XR(L)64-2-2	7.5	10	714	379	1093	275	200	109
XR(L)64-2-1	11	15	744	486	1230	326	288	163
XR(L)64-2	11	15	744	486	1230	326	288	163
XR(L)64-3-2	15	20	826	486	1312	326	288	180
XR(L)64-3-1	15	20	826	486	1312	326	288	180
XR(L)64-3	18.5	25	826	530	1356	326	288	193
XR(L)64-4-2	18.5	25	909	530	1439	326	288	197
XR(L)64-4-1	22	30	909	549	1458	360	301	211
XR(L)64-4	22	30	909	549	1458	360	301	211
XR(L)64-5-2	30	40	991	587	1578	360	301	318
XR(L)64-5-1	30	40	991	587	1578	360	301	318
XR(L)64-5	30	40	991	587	1578	360	301	318
XR(L)64-6-2	30	40	1074	587	1661	360	301	325
XR(L)64-6-1	37	50	1074	656	1730	398	362	355
XR(L)64-6	37	50	1074	656	1730	398	362	355
XR(L)64-7-2	37	50	1156	656	1812	398	362	359
XR(L)64-7-1	37	50	1156	656	1812	398	362	359
XR(L)64-7	45	60	1156	706	1862	398	362	439
XR(L)64-8-2	45	60	1239	706	1945	398	362	443
XR(L)64-8-1	45	60	1239	706	1945	398	362	443

Performance Curve



Installation Sketch



Dimension/ Weight

MODEL	POWER		DIMENSION (UNIT: mm)					WEIGHT (kg)
	kW	HP	B1	B2	B1+B2	D1	D2	
XR(L)90-1-1	5.5	7.5	641	379	1020	275	200	109
XR(L)90-1	7.5	10	641	379	1020	275	200	111
XR(L)90-2-2	11	15	763	486	1249	326	288	170
XR(L)90-2	15	20	763	486	1249	326	288	182
XR(L)90-3-2	18.5	25	855	530	1385	326	288	200
XR(L)90-3	22	30	855	549	1404	360	301	214
XR(L)90-4-2	30	40	947	587	1534	360	301	321
XR(L)90-4	30	40	947	587	1534	360	301	321
XR(L)90-5-2	37	50	1039	656	1695	398	362	359
XR(L)90-5	37	50	1039	656	1695	398	362	359
XR(L)90-6-2	45	60	1131	706	1837	398	362	443
XR(L)90-6	45	60	1131	706	1837	398	362	443

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