

***KOFLow***

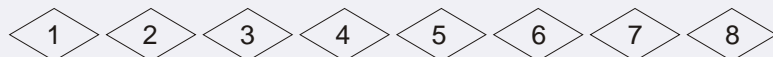
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# GATE VALVE SERIES

**01-31P**

## FIGURE NUMBER SYSTEM

### Steel Gate Valve Figure Number System



1	Size	xxin; xx, mm					
2	Operation type	1-Bare Stem	2-Chain-Wheel Operated	4-Spur Gear Operated	5-Cone Gear Operated	9-Electric Operated	Manual Operated (omit)
3	Valve Type	Z- Gate Valve					
4	Pressure	0-PN1.0	1-PN1.6 CLASS150	2-PN2.5	3-CLASS300	4-PN4.0 CLASS400	6-PN6.4 CLASS600
		9-CLASS900	10-PN10.0	15-CLASS1500	16-PN16.0	20-PN20.0	25-CLASS2500
5	Connection Ends	RF-Raised Face	FF-Flat Face	MFM-Male and Female Face	TG-Tongue and Groove Face	RJ-Ring Joint	BW-Buttweld
6	Structure Type	0-Flexible Wedge	1-Solid Wedge	2-Solid Double Wedge	3-Parellel Single Disc 3T-Adjust Type 3L-Adiversion Hole Type		4-Parellel Double Disc
7	Basic Material	C-WCB	C5-C5	C6-WC6	C9-WC9	BL-LCB	CL-LCC
		8-CF8	8M-CF8M	3-CF3	3M-CF3M	ML-MONEL	
8	Material of Seat face or Liner	H-Cr13 Cr13 S.S		E-18-8 18-8 S.S		R-Mo2Ti Mo2Ti S.S	
		D- Nitriding Steel		M- Monel Alloy		Y- Stellite	

#### Note:

- 1、 Use "W" to express seat sealing surface material which is processed directly by valve body.
- 2、 When the materials of sealing surface are different, use low hardness material symbol to express.
- 3、 Special requirements not shown ,should be indicated in the purchase order
- 4、 The models listed in the sample book have no reference to pressure、 sizes and valve material symbols, they are to be decided by users.

#### For example:

10 " -5Z1RF0CH

Gate valve, 10 " ANSI CLASS150, Raised Face Ends, Flexible wedge, Body&Bonnet&Wedge Cast Steel WCB, Seat sealing face material 13Cr Cone Gear operated

80-Z2RF08W

Gate valve, DN80 PN25, Raised Face Ends, Flexible wedge, Body&Bonnet& Wedge Stainless Steel CF8, Seat sealing face Body machined, Handwheel operated

## GB WEDGED GATE VALVE

### Design characteristics of GB Wedged Gate Valve

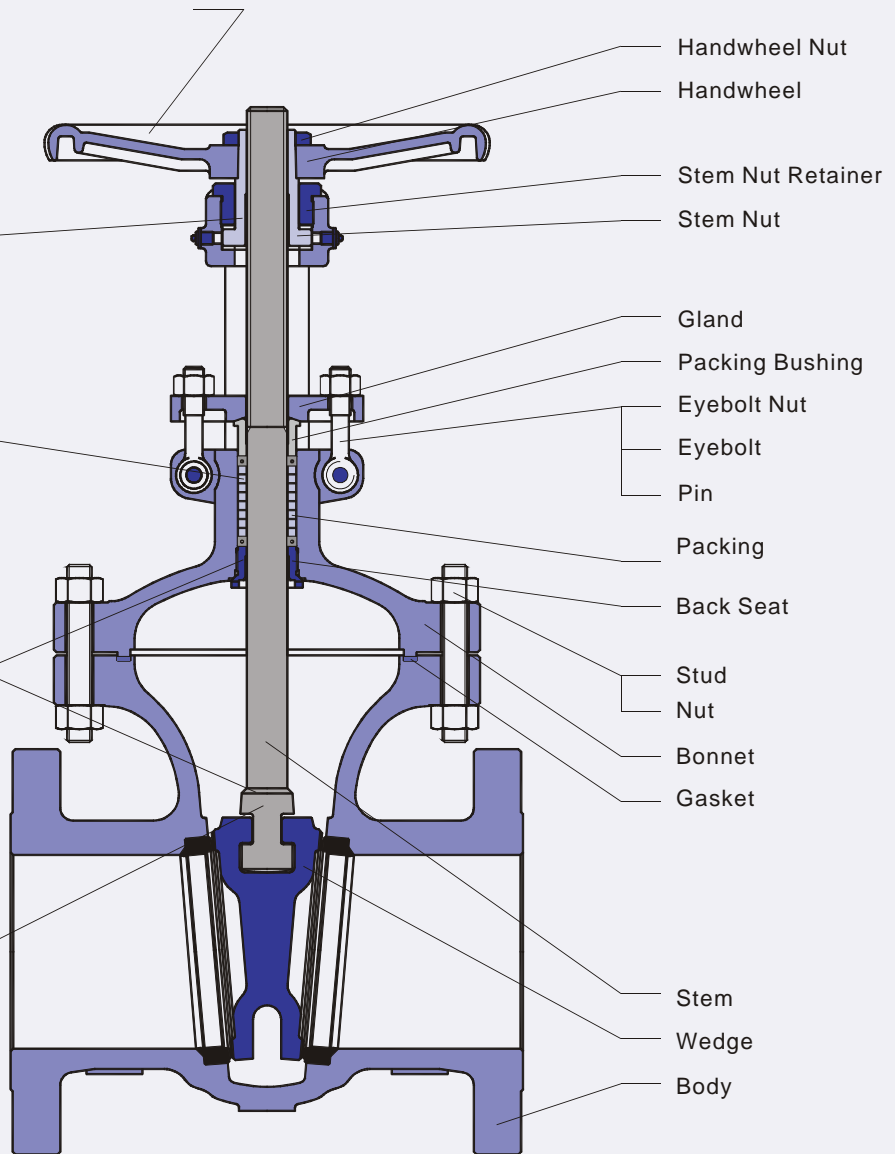
Drive unit is made to user's requests. If not specified, handwheel drive will be used.

Top-mounted stem nut can prevent stem disc from falling off when valve is at 'open' position and handwheel is taken off.

Packing uses flexible graphite for dependable sealing performance. If requested by users, packing spacer ring and greasing mechanism can be available.

Back seal design to ensure dependable packing and sealing when valve is fully opened. (Replacement of packing under pressure is not recommended).

Lift stem, with stem and disc connected by T-slot, and stem T head integrally forged to ensure sufficient strength of joint.



#### Remark:

- 1、 Type of end connection referred to Appendix I
- 2、 Type of disc structure referred to Appendix II
- 3、 Type of body and seat connection referred to Appendix III
- 4、 Type of body and bonnet connection referred to Appendix IV
- 5、 Stem packing structure referred to Appendix V
- 6、 Valve operation referred to Appendix VI

## GB WEDGED GATE VALVE

### Materials list for GB Cast steel Wedged Gate Valve

No.	Part Name	Carbon Steel	Stainless Steel	Alloy Steel	Low Temperature Steel
1	Body	WCB	CF8	WC6	LCB
2	Wedge	WCB	CF8	WC6	LCB
3	Stem	1Cr13	0Cr18Ni9(304)	25Cr2Mo1VA(F22)	0Cr18Ni9(304)
4	Gasket	Graphite+SS304			
5	Bonnet	WCB	CF8	WC6	LCB
6	Nut	35#	0Cr18Ni9(304)	35CrMoA	0Cr18Ni9(304)
7	Stud	35CrMoA	0Cr18Ni9(304)	25Cr2MoV	0Cr18Ni9(304)
8	Back Seat	1Cr13	0Cr18Ni9(304)	0Cr18Ni9(F304)	0Cr18Ni9(F304)
9	Packing	Graphite			Graphite/PTFE
10	Pin	35#	0Cr18Ni9(304)	1Cr13	0Cr18Ni9(F304)
11	Eyebolt	35CrMoA	0Cr18Ni9(304)	35	0Cr18Ni9(F304)
12	Eyebolt Nut	35#	0Cr18Ni9(304)	35CrMoA	0Cr18Ni9(304)
13	Packing Bushing	1Cr13	0Cr18Ni9(304)	1Cr13	0Cr18Ni9(304)
14	Gland	WCB	CF8	WCB	LCB
15	Stem nut	ZCuAl10Fe3	ZCuAl10Fe3	ZCuAl10Fe3	ZCuAl10Fe3
16	Stem Nut Retainer	35	0Cr18Ni9(304)	35	0Cr18Ni9(304)
17	Handwheel	QT400-17	QT400-17	QT400-17	QT400-17
18	Handwheel Nut	35#	0Cr18Ni9(304)	35	0Cr18Ni9(F304)

**Remark:**

- Select different materials for different working temperature and media
- Commonly-used trim materials and service temperature referred to Appendix VII

### GB Cast steel Wedged Gate Valve Product Line

Pressure	Operated type	Size (mm)																						
		15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
PN1.6	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN2.5	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN4.0	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN6.4	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN10.0	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN16.0	Manual Operated	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PN20.0	Manual Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Electric Operated					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

For sizes and classes not shown, please contact our Sales Department

## GB WEDGED GATE VALVE

### Torque Table

The torque values listed in the following table have not been measured in practice but only serve as reference for selecting the actuator. The medium characteristics, internal parts and valve opening frequency remain to be taken into account as extra factors.

Size(DN)	Pressure(MPa)							N.m
	PN1.6	PN2.5	PN4.0	PN6.4	PN10.0	PN16.0	PN20.0	
40	28	30	33	38	48	66	-	
50	30	33	37	48	60	107	134	
65	60	68	76	103	135	203	250	
80	77	86	107	132	180	230	284	
100	92	107	139	181	257	278	300	
125	119	145	166	237	364	440	480	
150	139	175	189	312	491	636	768	
200	220	213	284	457	735	1181	1312	
250	324	327	448	735	1313	1569	2414	
300	444	460	563	1179	1976	2493	-	
350	616	651	887	1261	2237	-	-	
400	885	947	1138	1754	3235	-	-	
450	1123	1213	1350	1950	5617	-	-	
500	1403	1526	1913	2416	-	-	-	
600	2023	2325	3053	4317	-	-	-	
700	3035	3327	4602	-	-	-	-	
800	4373	4573	6344	-	-	-	-	
900	5821	6085	-	-	-	-	-	
1000	7957	8580	-	-	-	-	-	

### Flow Coefficient Table

The flow coefficient of a valve is an index for measuring its flow capacity. The larger its flow coefficient value is, the smaller pressure loss it will have when the fluid flows through it. The following is the flow coefficient table for GB wedge gate valve (Cv stands for the US gallonage of +60F (+16°C) water per minute flowing through the valve with a pressure drop of 1 lb./inch<sup>2</sup> (0.006894757MPa).

#### Cv

Size	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
Cv	747	1275	2100	3061	5635	8356	13130	16900	22280	28850	35770	52000	74750	102240	130765	174350

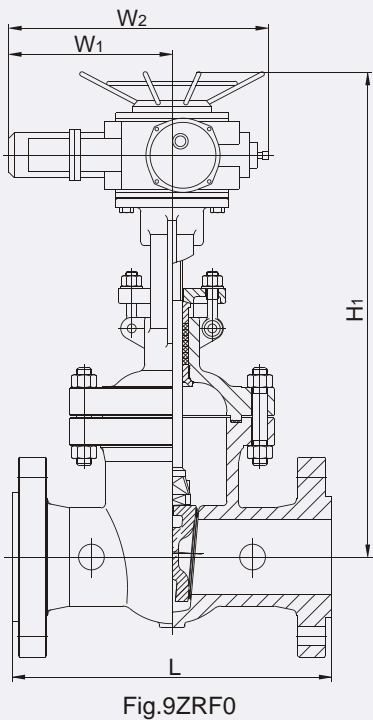
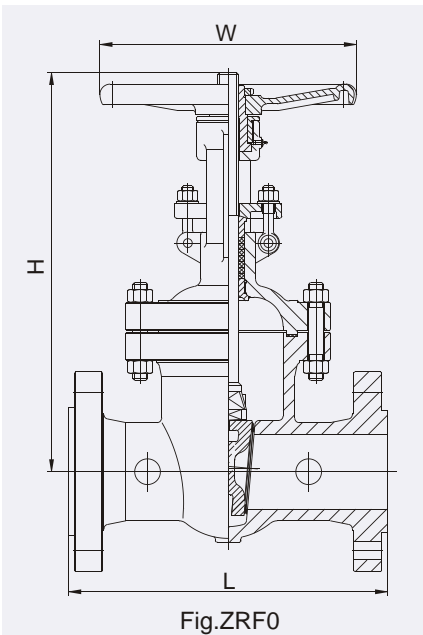
### Technical Specification

Design Standard	GB/T 12234							
Pressure-Temperature Rating	GB/T 12224							
Face-Face	GB/T 12221、GB/T 15188.1							
Flange Ends	GB/T 9113、JB/T 79							
Buttwelding Ends	GB/T 12224							
Inspection & Test	JB/T 9092、GB/T 13927							
Test Pressure	Norminal Pressure	PN1.6	PN2.5	PN4.0	PN6.4	PN10.0	PN16.0	PN20.0
	Shell Test	2.4	3.75	6.0	9.6	15.0	24.0	30.0
	High Pressure Seal Test	1.76	2.75	4.4	7.04	11.0	17.6	22.0
	Low Pressure Seal Test	0.6	0.6	0.6	0.6	0.6	0.6	0.6

**GB WEDGED GATE VALVE**

PRESSURE: PN1.6~2.5

Main Dimensions & Weight



Pressure:PN1.6~6.4

- Bolted bonnet
- < DN50 solid wedge gate
- ≥ DN50 flexible wedge gate
- DN150 and above : two pieces yoke
- PN ≥ 40, MFM Flange Ends

Pressure	Size	Dimensions						Operator	Weight (kg)	
		L	H	W	H <sub>1</sub>	W <sub>1</sub>	W <sub>2</sub>		Manual Operated	Electric
PN1.6	15	130	170	120	-	-	-	-	5	-
	20	150	190	140	-	-	-	-	6.5	-
	25	160	205	160	-	-	-	-	9	-
	32	180	270	180	-	-	-	-	12	-
	40	200	310	200	630	371	590	DZW5A	26.5	87.5
	50	250	358	240	678	371	590	DZW10A	29	90
	65	265	373	240	693	371	590	DZW10A	33	96
	80	280	435	280	755	371	590	DZW15A	46	108
	100	300	500	320	820	371	590	DZW20A	63	126
	125	325	614	360	934	371	590	DZW20A	108	173
	150	350	674	360	994	371	590	DZW20A	134	199
	200	400	818	400	1138	371	590	DZW30A	192	254
	250	450	969	450	1409	371	590	DZW30A	273	310
	300	500	1145	560	1588	515	810	DZW45A	379	391
	350	550	1280	640	1755	540	830	DZW90A	590	729
	400	600	1450	640	1902	540	830	DZW120A	849	992
	450	650	1563	720	2141	540	830	DZW120A	907	1168
	500	700	1676	720	2276	565	870	DZW180A	958	1222
	600	800	1810	800	2474	565	870	DZW250A	1112	1376
	700	900	-	-	3046	770	1170	DZW350A	-	-
800	1000	-	-	3250	770	1170	DZW500A	-	-	
900	1100	-	-	3509	794	1060	DZW800A	-	-	
1000	1200	-	-	3873	794	1060	DZW1000A	-	-	
PN2.5	15	130	170	120	-	-	-	-	5.5	-
	20	150	190	140	-	-	-	-	7	-
	25	160	205	160	-	-	-	-	11	-
	32	180	270	180	-	-	-	-	14	-
	40	200	310	200	630	371	590	DZW5A	20	91
	50	250	358	240	678	371	590	DZW10A	34	95
	65	265	373	240	693	371	590	DZW10A	36	99
	80	280	435	280	755	371	590	DZW15A	50	113
	100	300	500	320	820	371	590	DZW20A	69	132
	125	325	614	360	934	371	590	DZW20A	116	181
	150	350	674	360	994	371	590	DZW20A	141	206
	200	400	818	400	1138	371	590	DZW30A	192	257
	250	450	969	450	1409	515	810	DZW45A	207	317
	300	500	1145	560	1588	515	810	DZW60A	400	412
	350	550	1280	640	1750	540	830	DZW90A	631	750
	400	600	1450	640	1902	540	830	DZW120A	900	1042
	450	650	1563	720	2141	565	870	DZW180A	1013	1274
	500	700	1676	720	2276	565	870	DZW180A	1166	1420
	600	800	1810	800	2474	565	870	DZW250A	1258	1522
	700	900	-	-	3046	770	1170	DZW350A	-	-
800	1000	-	-	3250	770	1170	DZW500A	-	-	
900	1100	-	-	3509	794	1060	DZW800A	-	-	
1000	1200	-	-	3873	794	1060	DZW1000A	-	-	

**Note:** the electric device listed is from YANGXIU. If requested, other electric devices or drive units may be available.

## GB WEDGED GATE VALVE

PRESSURE: PN4.0~6.4

### Main Dimensions & Weight

To be Continued

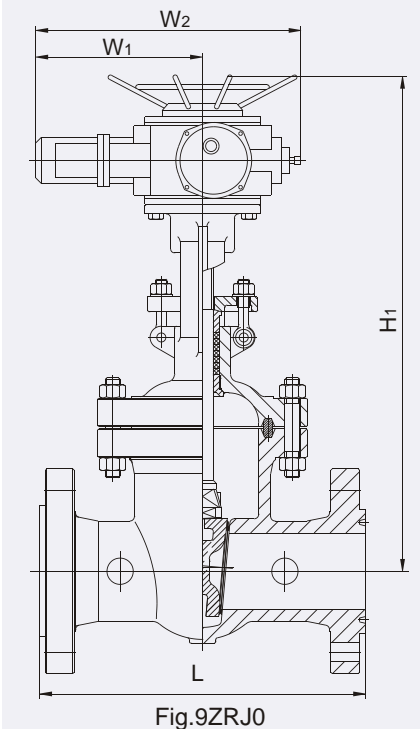
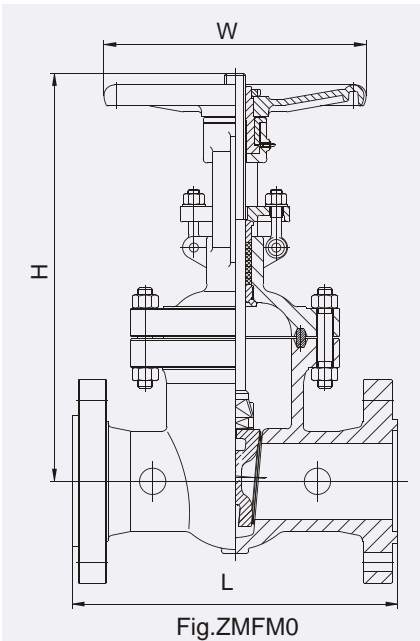
Pressure	Size	Dimensions						Operator	Weight (kg)	
		L	H	W	H <sub>1</sub>	W <sub>1</sub>	W <sub>2</sub>		Hand Operated	Electric
PN4.0	15	130	135	120	-	-	-	-	6	-
	20	150	190	140	-	-	-	-	8	-
	25	160	205	160	-	-	-	-	12	-
	32	180	270	180	-	-	-	-	15	-
	40	200	310	200	630	371	590	DZW5A	31	92
	50	250	371	280	691	371	590	DZW10A	34	95
	65	280	393	280	711	371	590	DZW10A	38	102
	80	310	455	320	775	371	590	DZW15A	51	115
	100	350	551	360	871	371	590	DZW20A	81	163
	125	400	634	400	948	371	590	DZW20A	128	190
	150	450	708	400	1028	371	590	DZW20A	155	219
	200	550	858	450	1325	371	590	DZW30A	265	373
	250	650	1015	560	1400	515	810	DZW45A	370	480
	300	750	1201	640	1653	515	810	DZW60A	550	686
	350	850	1308	640	1791	540	830	DZW90A	679	821
	400	950	1483	720	2092	540	830	DZW120A	953	1214
	500	1150	-	-	2465	565	870	DZW250A	-	2150
	600	1350	-	-	-	770	1170	DZW350A	-	-
700	1450	-	-	-	770	1170	DZW500A	-	-	
800	1650	-	-	-	794	1060	DZW800A	-	-	
PN6.4	15	170	140	100	-	-	-	-	7	-
	20	190	140	100	-	-	-	-	9	-
	25	210	215	180	-	-	-	-	12	-
	32	230	270	180	-	-	-	-	16	-
	40	240	345	200	665	371	590	DZW10A	32	93
	50	250	371	280	790	371	590	DZW10A	39	102
	65	280	393	280	840	371	590	DZW15A	43	106
	80	310	455	320	890	371	590	DZW20A	60	123
	100	350	551	360	1020	371	590	DZW20A	89	154
	125	400	638	400	1100	371	590	DZW30A	140	205
	150	450	718	450	1290	515	810	DZW45A	207	317
	200	550	873	560	1475	515	810	DZW60A	327	437
	250	650	1050	640	1500	540	830	DZW90A	467	606
	300	750	1215	640	1820	540	830	DZW120A	590	732
	350	850	-	-	2216	565	870	DZW180A	-	1110
	400	950	-	-	2838	565	870	DZW180A	-	1540
	500	1150	-	-	3320	565	870	DZW250A	-	-
	600	1350	-	-	3684	770	1170	DZW500A	-	-

**Note:** the electric device listed is from YANGXIU. If requested, other electric devices or drive units may be available.

**GB WEDGED GATE VALVE**

PRESSURE: PN10.0~20.0

**Main Dimensions & Weight**



- Bolted bonnet or Sealed bonnet
- < DN50 solid wedge gate
- ≥ DN50 flexible wedge gate
- DN150 and above : two pieces yoke

Pressure	Size	Dimensions						Operator	Weight (kg)	
									Hand Operated	Electric
PN10.0	15	170	140	200	-	-	-	-	6	-
	20	190	140	200	-	-	-	-	11	-
	25	210	310	280	-	-	-	-	13	-
	32	230	320	320	-	-	-	-	20	-
	40	240	360	320	680	371	590	DZW10A	30	113
	50	250	371	360	810	371	590	DZW15A	50	123
	65	280	393	400	860	371	590	DZW20A	70	133
	80	310	455	400	892	371	590	DZW20A	100	165
	100	350	551	400	1013	371	590	DZW30A	110	220
	125	400	638	560	1184	515	810	DZW45A	186	292
	150	450	718	560	1250	515	810	DZW60A	250	389
	200	550	873	560	1250	540	830	DZW90A	360	502
	250	650	1050	640	1650	565	870	DZW180A	485	790
	300	750	1215	640	1800	565	870	DZW250A	633	910
	PN16.0	15	170	230	200	-	-	-	-	7
20		190	260	200	-	-	-	-	10	-
25		210	280	280	-	-	-	-	14	-
32		230	312	320	-	-	-	-	21	-
40		260	350	320	670	371	590	DZW15A	26	118
50		300	512	360	832	371	590	DZW20A	73	136
65		340	560	360	880	371	590	DZW20A	110	175
80		390	585	400	905	371	590	DZW30A	141	206
100		450	631	450	1071	371	590	DZW30A	185	295
125		525	723	560	1163	515	810	DZW60A	320	432
150		600	820	640	1170	540	830	DZW90A	462	601
200		750	990	720	1440	540	830	DZW120A	711	853
250		-	-	-	-	565	870	DZW180A	-	-
300		-	-	-	-	565	870	DZW250A	-	-
PN20.0		50	350	493	360	813	371	590	DZW20A	68
	65	410	535	400	855	371	590	DZW30A	90	154
	80	470	576	400	1016	515	810	DZW45A	125	233
	100	550	659	560	1099	515	810	DZW45A	235	348
	125	650	710	560	1160	515	810	DZW60A	-	-
	150	750	790	600	1240	540	830	DZW90A	-	-
	200	832	-	-	-	565	870	DZW180A	-	-
250	991	-	-	-	565	870	DZW250A	-	-	

**Note:** the electric device listed is from YANGXIU. If requested, other electric devices or drive units may be available.