



DW VOX

**Submersible
Stainless Steel
Vortex Pumps**



-SPECIFICATIONS	Page
Features & Applications	100
Typical Exploded View	101
Pump & Motor Specifications	102
Selection Chart	103
 -PERFORMANCE CURVES	
Performance Curves	200
 -CONSTRUCTIONS	
Constructions – Sectional View	300
Constructions – Mechanical Seal	301
 -DIMENSIONS	
Dimensions	400
Dimensions – With QDC (<i>Quick discharge connector</i>)	401
Dimensions – Packing and Weight	402
 -TECHNICAL DATA	
Technical Data and Installation	500



Submersible pump with vortex impeller, handling up to 50 mm solids. All stainless steel construction, with double mechanical seal in oil bath.

Specifications

- Submersible pump with vortex impeller
- Maximum solids handling 50 mm
- Maximum liquid temperature: 40°C
- Maximum submergence: 10m

Materials

- Pump casing: 304 Stainless Steel
- Impeller: 304 Stainless Steel
- Casing cover: 304 Stainless Steel
- Shaft : 303 Stainless Steel
- Seal Cover: 304 Stainless Steel
- Fasteners: 304 Stainless Steel
- Mechanical seal: Double mechanical seal in oil lubricated chamber, Silicon Carbide lower faces, Carbon/Ceramic upper faces.

Motor Data

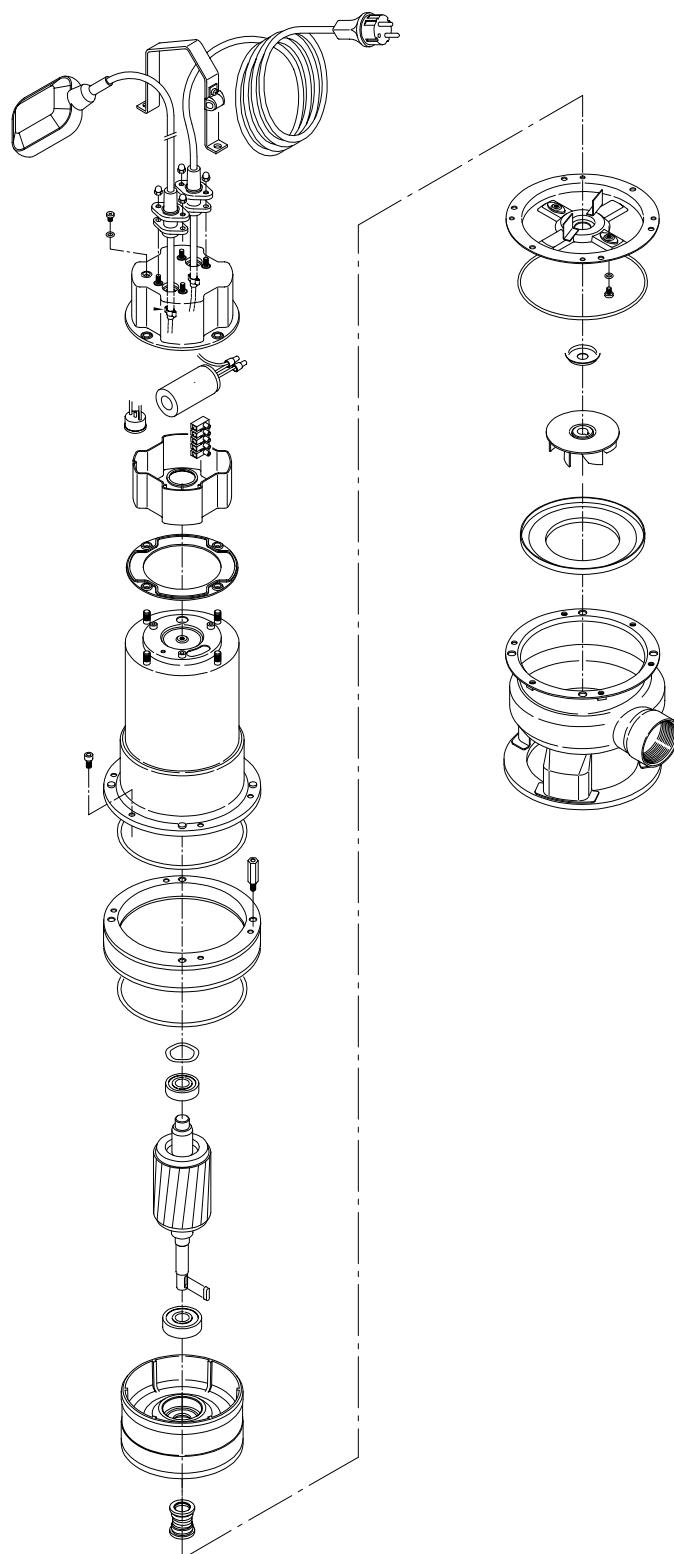
- Air filled, dry submersible, 2 pole motor
- Insulation class F
- IPX8 protection
- 50 Hz, 3 phase - 415 Volt, 1 phase - 240 Volt
- In built overload protection for 1 phase

Cable

- 10 m of cable (without plug)

Range

- 50 mm discharge
- 0.55 to 1.5 kW motors
- Single phase (upto 1.1kW), automatic or manual versions
- Three phase, manual version only



SPECIFICATION

50Hz

V11

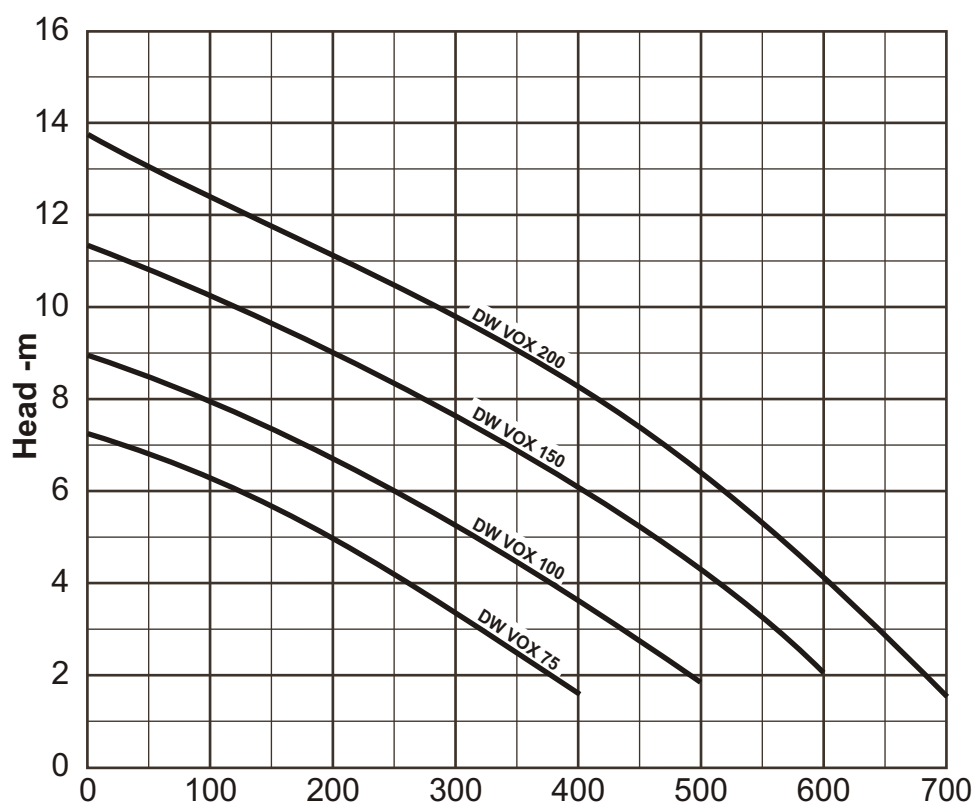
PUMP			
Liquid Handled	Type of liquid	Dirty water	
	Max temperature [°C]	40	
	Max solids size [mm]	50 spherical	
Maximum immersion [m]		10	
Construction	Impeller	Vortex	
	Shaft seal type	Double mechanical seal	
	Bearing	Sealed ball bearing	
Pipe Connection	Suction-Flange [mm]	50 Open	
	Discharge-Flange	G 2 UNI ISO 228	
Material	Casing	AISI 304	
	Impeller	AISI 304	
	Casing cover	AISI 304	
	Shaft seal	Pump side : SiC/SiC/NBR Motor side : Carbon/Ceramic/NBR	
	Seal cover	AISI 304	
	Shaft	AISI 303 (wet extension)	
	Lubricating liquid	White mineral oil: Esso Marcol 152 (385 cc)	
Applicable standard of test		ISO 9906 - Annex A	

MOTOR			
Type		Submersible dry type	
		Single Phase	Three Phase
No. of Poles		2	
Rotation speed [min ⁻¹]		≈2800	
Insulation Class		F	
Protection degree		IP X8	
Power rating	[kW]	0.55 ÷ 1.1	0.55 ÷ 1.5
	[HP]	0.75 ÷ 1.5	0.75 ÷ 2.0
Frequency [Hz]		50	
Voltage [V]		230 ±10%	400 ±10%
Capacitor		Built in	-
Over load protection		Built in	Provided by the user
Float switch		Optional	-
Float switch cable	material	H07RN-F	-
	size	3G1	-
Power cable	length [m]	10	
	material	H07RN-F	FG50K
	size	3G1 (up to 0.55 kW) 3G1.5 (from 0.75 to 1.1 kW)	4G1.5 + 2x0.5
Dimensions of cable entry		Cable Gland	

SELECTION CHART

50Hz

V11



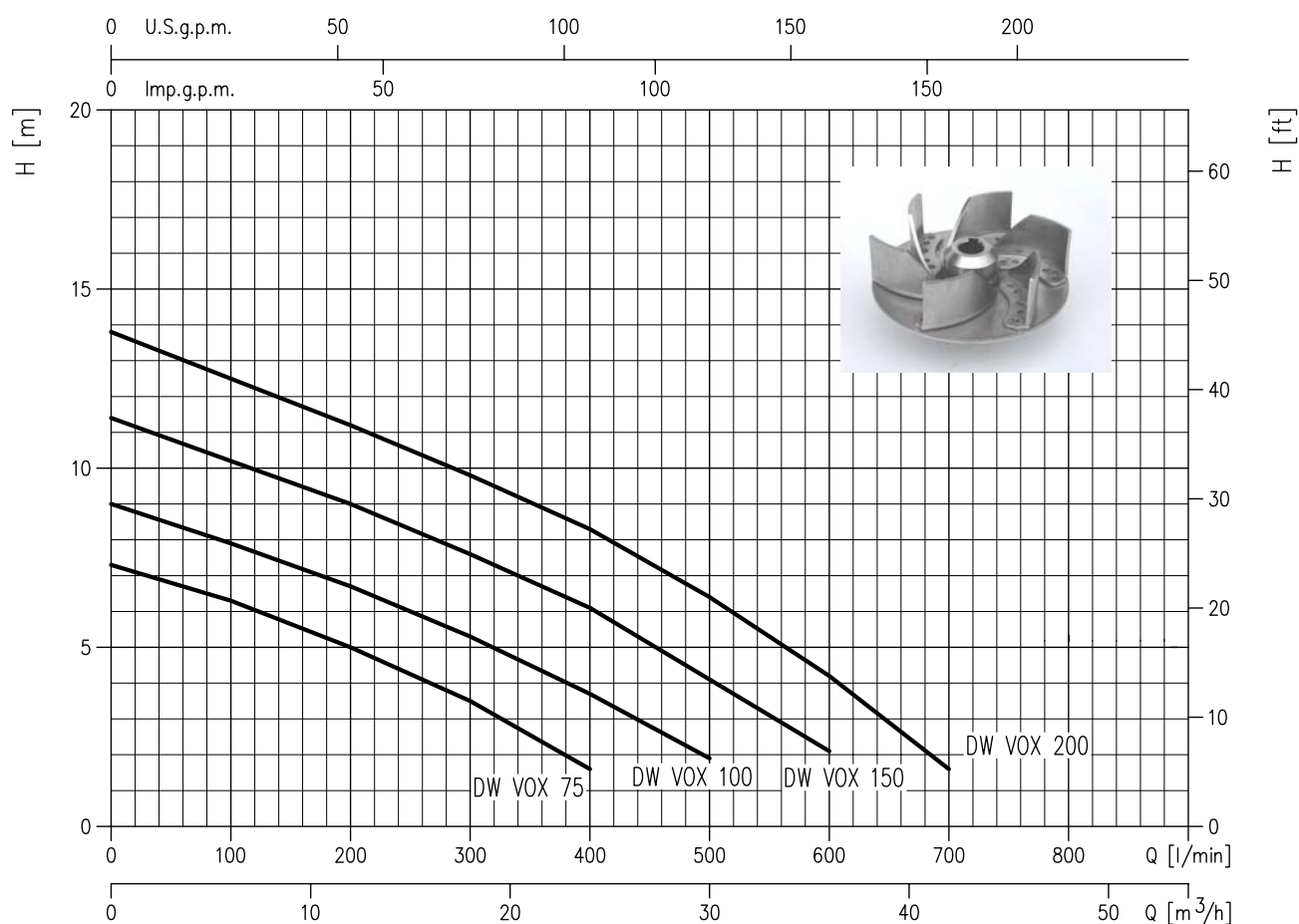
Capacity - lpm

Pump type	kW	HP	Q=Capacity										
			[l/min]	0	100	200	300	400	500	600	700	800	900
			[m³/h]	0	6	12	18	24	30	36	42	48	54
			H=Total manometric head in meters										
DW VOX 75	0.55	0.75	7.3	6.3	5.0	3.5	1.6	-	-	-	-	-	
DW VOX 100	0.75	1	9.0	7.9	6.7	5.3	3.7	1.9	-	-	-	-	
DW VOX 150	1.1	1.5	11.4	10.2	9.0	7.6	6.1	4.1	2.1	-	-	-	
DW VOX 200	1.5	2	13.8	12.5	11.2	9.8	8.3	6.4	4.2	1.6	-	-	

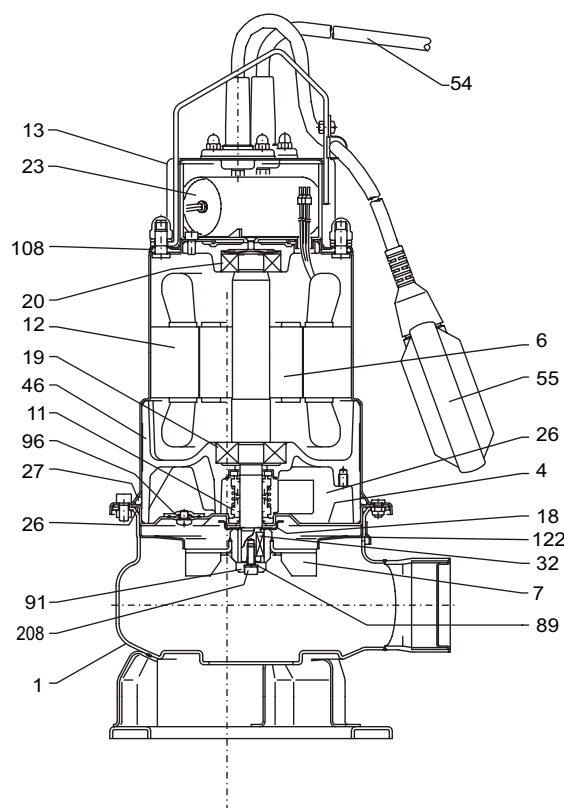
Model Code

DW VOX 100 M A
 DW VOX 150 M
 DW VOX 200 (blank)
 "Size" 75 = 0.55 kW
 100 = 0.75 kW
 150 = 1.1 kW
 200 = 1.5 kW

DW VOX 75 (0.55 kW) - Impeller diameter = 88
 DW VOX 100 (0.75 kW) - Impeller diameter = 88
 DW VOX 150 (1.1 kW) - Impeller diameter = 95
 DW VOX 200 (1.5 kW) - Impeller diameter = 103



Test standard: ISO 9906 – Annex A



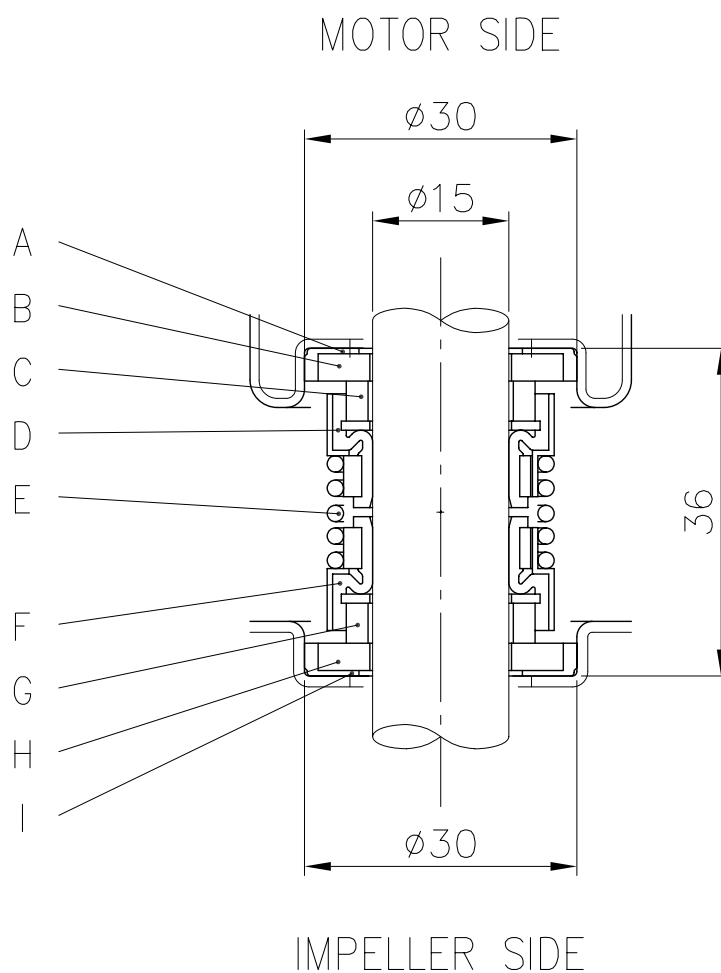
No.	PART NAME	MATERIAL	QTY
1	Casing	AISI 304 Stainless Steel	1
4	Casing cover	AISI 304 Stainless Steel	1
6	Shaft with rotor #	AISI 304 Stainless Steel	1
7	Impeller	AISI 304 Stainless Steel	1
11	Mechanical seal	SiC/SiC-Car/Cer/NBR	1
12	Motor frame with stator		1
13	Motor cover	AISI 304 Stainless Steel	1
18	Mechanical seal protection	AISI 304 Stainless Steel	1
19	Lower side ball bearing		1
20	Upper side ball bearing		1
23	Capacitor (1)		1
26	O' ring	NBR Rubber	1
27	O' ring	NBR Rubber	1
32	Impeller Key	AISI 304 Stainless Steel	1
46	Bearing housing	G20 Cast Iron	1
54	Power cable		1
55	Float switch (2)		1
89	Washer (Spring)	AISI 304 Stainless Steel	1
91	Impeller Washer	AISI 304 Stainless Steel	1
96	O' ring	NBR Rubber	3
108	Cover gasket	NBR Rubber	1
122	Impeller protection ring (3)	AISI 304 Stainless Steel	1
208	Impeller Screw	AISI 304 Stainless Steel	1
260	Lubricating liquid	White mineral oil	385 cc

refers to pump side of shaft material

1 - only for single phase versions

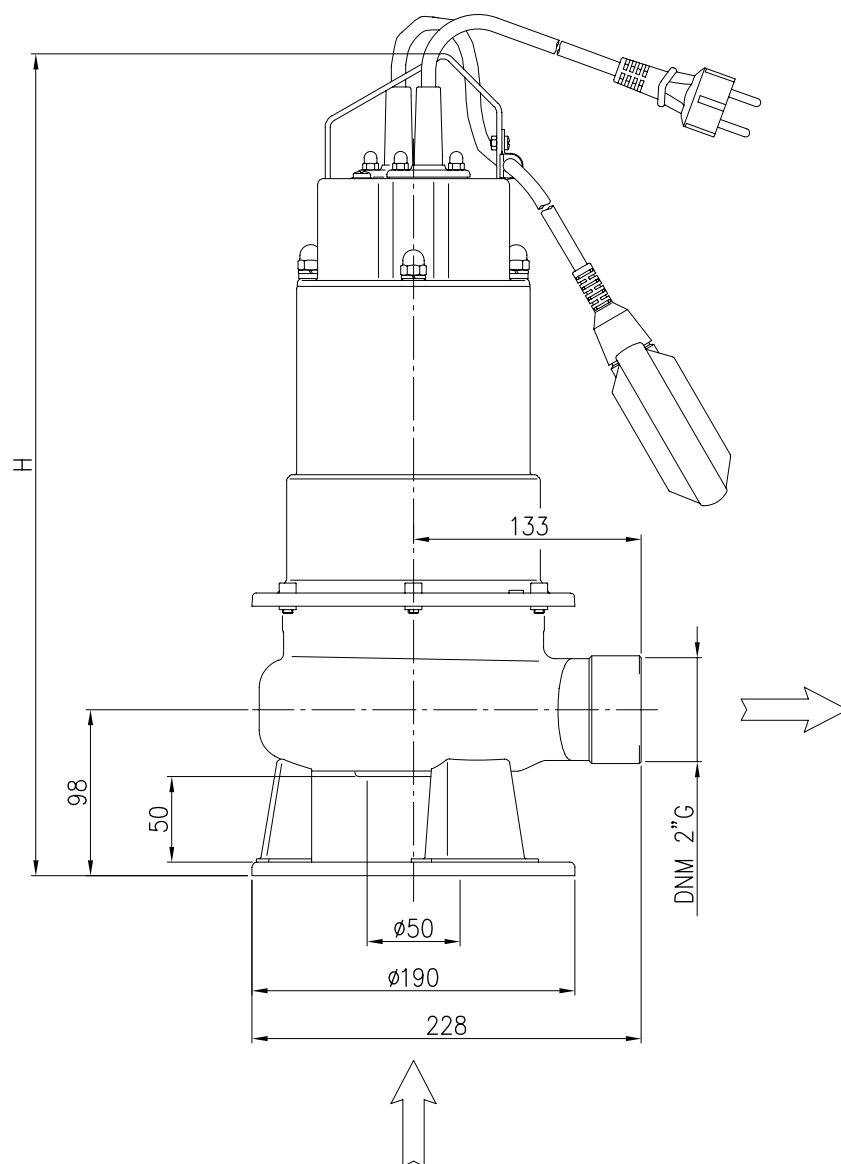
2 - only for automatic single phase versions

3 - for sizes DW Vox 75 & 100 only



REF	PART NAME	MATERIAL
A	Rubber cup	NBR
B	Seat	Ceramic
C	Seal face	Carbon
D	Bellow	NBR
E	Spring	AISI 304
F	Bellow	NBR
G	Seal face	Silicon carbide
H	Seat	Silicon carbide
I	Rubber cup	NBR

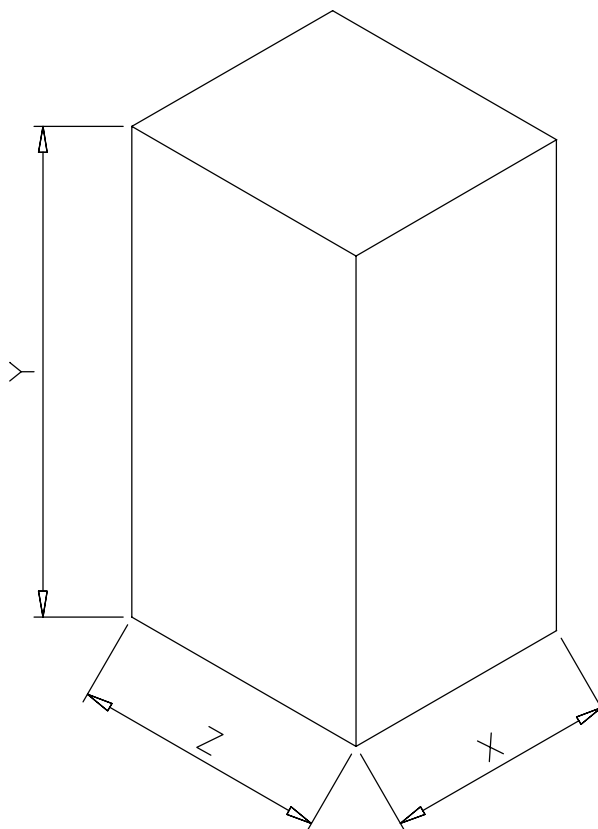
DW VOX



Pump type	H [mm]	
	1~	3~
DW VOX 75	485	485
DW VOX 100	515	485
DW VOX 150	515	515
DW VOX 200	-	515

50 Hz

[illegible]



Type pumps		PACKING [mm]			WEIGHT [kg]	
		Z	X	Y	1~	3~
DW VOX	75	290	260	550	16	14.5
	100				18	16
	150				20	18
	200				-	20

DW VOX											
Type pumps		Power		Capacitor		Input Power		Full load current		Locked rotor current	
Single Phase	Three Phase			Single Phase		Single	Three	Single	Three	Single	Three
230 V	400 V	[kW]	[HP]	[μF]	Vc [V]	Phase	Phase	Phase	Phase	Phase	Phase
50 Hz	50 Hz										
75 M	75	0.55	0.75	20	450	0.88	0.80	3.9	1.4	17	8.5
100 M	100	0.75	1	25	450	1.25	1.18	5.8	2.1	26	14.2
150 M	150	1.1	1.5	31.5	450	1.58	1.57	7.3	2.8	35	24.2
-	200	1.5	2	-	-	-	1.92	-	3.3	-	30

DW VOX			
Type pumps		Ball Bearing	
Single Phase	Three Phase	Pump side	Cover side
230 V	400 V		
50 Hz	50 Hz		
75 M	75	6303 ZZ	6203 ZZ
100 M	100	6303 ZZ	6203 ZZ
150 M	150	6303 ZZ	6203 ZZ
-	200	6303 ZZ	6203 ZZ

