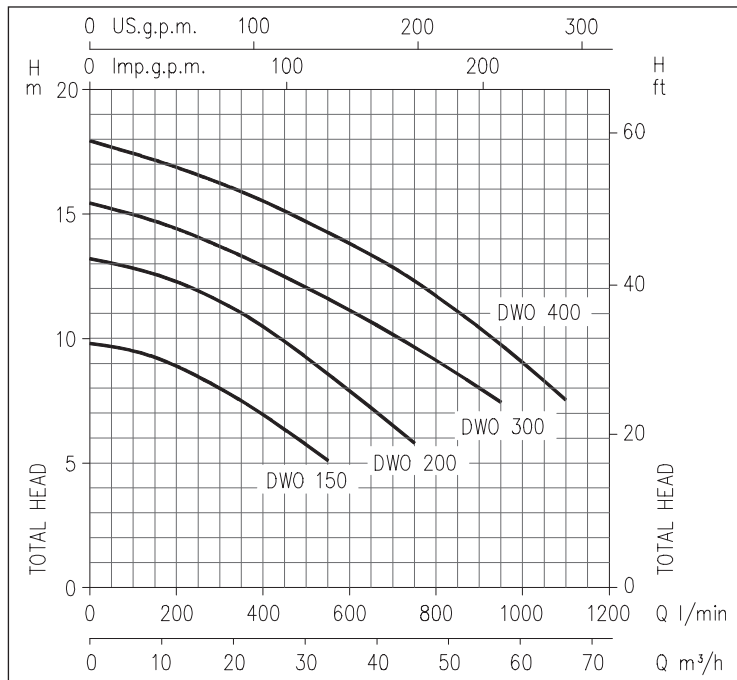


OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

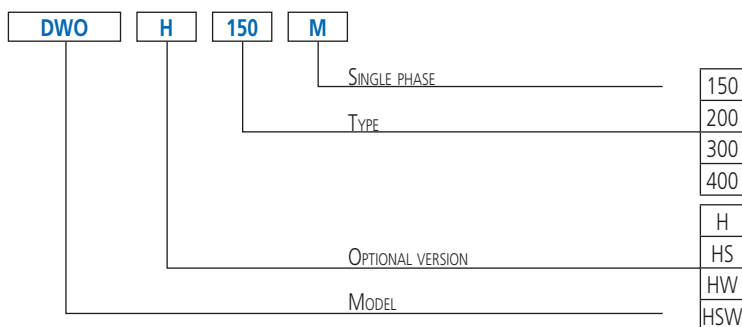
in AISI 304



PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



Open impeller centrifugal electric pumps in AISI 304 stainless steel.

APPLICATIONS

- Washing vegetables, meat, fish, molluscs
- Industrial washing plants at cycle end
- Washing and surface finishing of metal pieces, boxes, washing bottles, vases, glass containers, crates, baskets
- Dishwashers, glasswashers, cupwashers for communities
- Painting booths
- Moving, evacuation, transfer of liquids

TECHNICAL DETAILS

- Strong construction
- Small dimensions
- Silent

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maximum temperature of the liquid:
 - 5°C ÷ +90°C
 - 5°C ÷ +110°C for H-HS-HW-HSW version
- Max. solids size for passage: 19 mm
- G2½ suction connection for DWO 300-400, G2 for the rest of the range
- G2 discharge connection

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- Self-ventilated 2 poleS asynchronous motor
- Class of insulation F
- IP55 Protection degree
- 230V ± 10%, 50Hz single phase voltage
- 230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

- Pump casing, casing cover, impeller and shaft (part in contact with the liquid) in AISI 304
- Bracket and motor casing in aluminium
- Mechanical seal in:
 - Ceramic/Carbon/NBR (standard)
 - Ceramic/Carbon/FPM (H version)
 - SiC/SiC/FPM (HS version)
 - Tungsten Carbide/Tungsten Carbide/FPM (HW version)
 - SiC/Tungsten Carbide/FPM (HSW version)

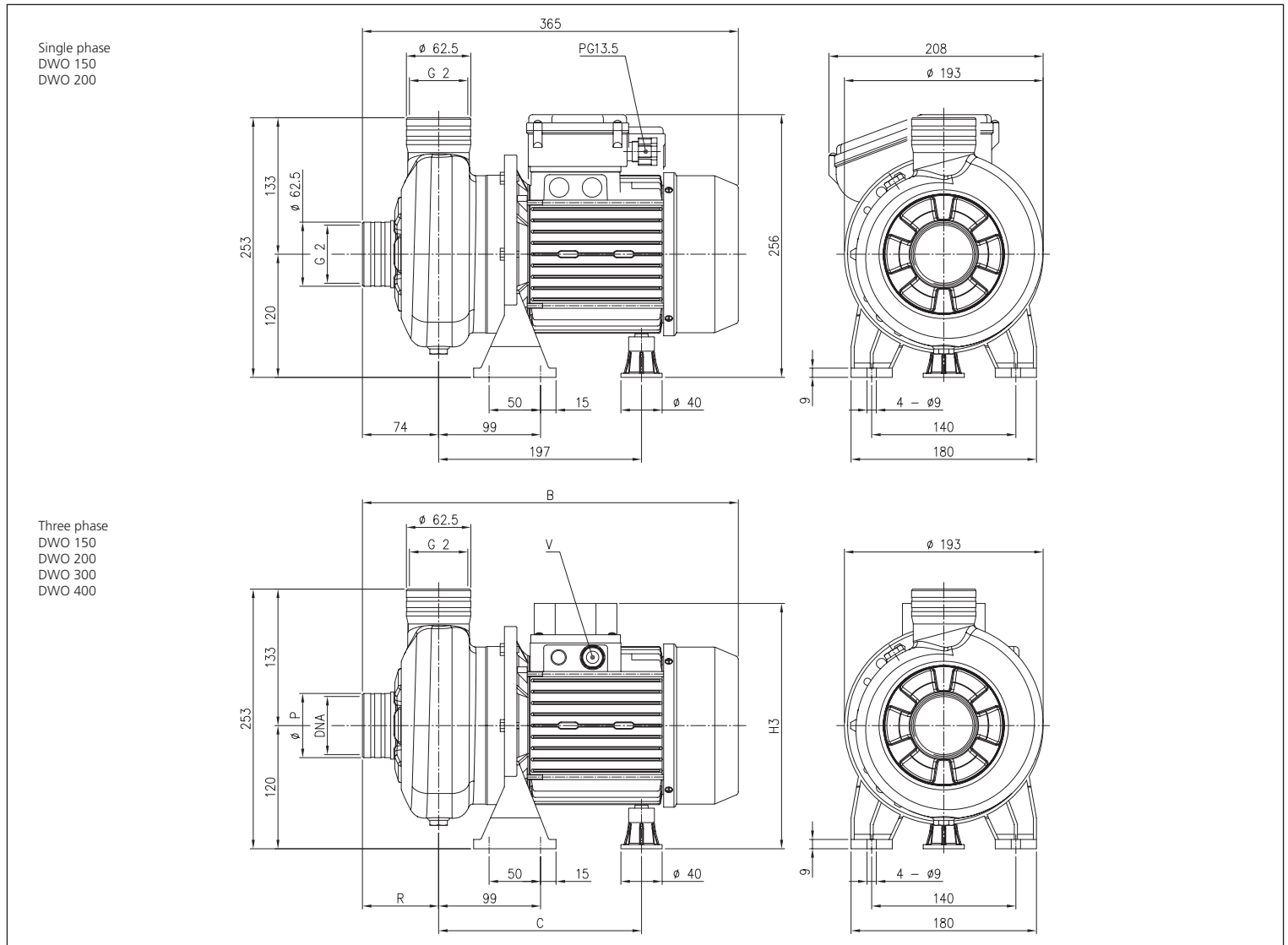
OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

PERFORMANCE TABLE

Model		P:		Q=Flow rate								
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min	100	200	300	400	550	750	950	1100
				m ³ /h	6	12	18	24	33	42	57	66
				H=Head [m]								
DWO 150 M	DWO 150	1,5	1,1	9,5	8,9	7,9	6,9	5,1	-	-	-	-
DWO 200 M	DWO 200	2	1,5	12,7	12,3	11,5	10,5	8,6	5,8	-	-	-
-	DWO 300	3	2,2	15,0	14,5	13,8	12,9	11,7	9,7	7,5	-	-
-	DWO 400	4	3	17,5	16,9	16,3	15,6	14,3	12,4	9,8	7,6	-

DIMENSIONS



DIMENSIONAL TABLE

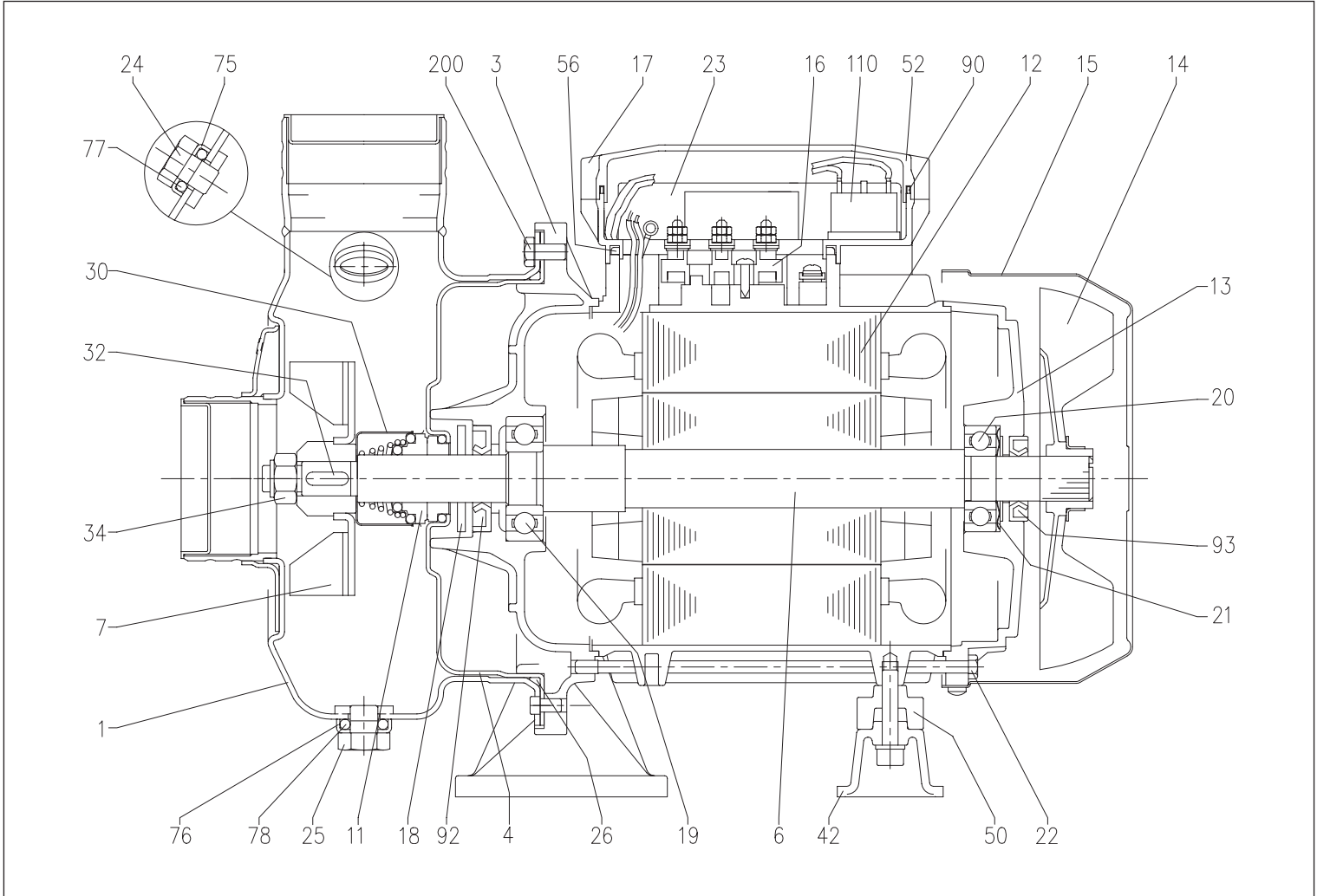
Model	Dimensions [mm]					Weight [kg]			
	B [1]	C [1]	H3 [1]	R [1]	P [1]	V [1]	DNA [1]	[2]	[1]
DWO 150	365	197	239	74	62,5	PG11	G2	14,4	14,5
DWO 200	378	197	239	74	62,5	PG11	G2	15,7	16,2
DWO 300	416	230/241	244	78	80	PG13,5	G2½	-	19,4
DWO 400	455	230/241	244	78	80	PG13,5	G2½	-	22,4

[1]= Three phase only
[2]= Single phase only

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW



MATERIALS TABLE

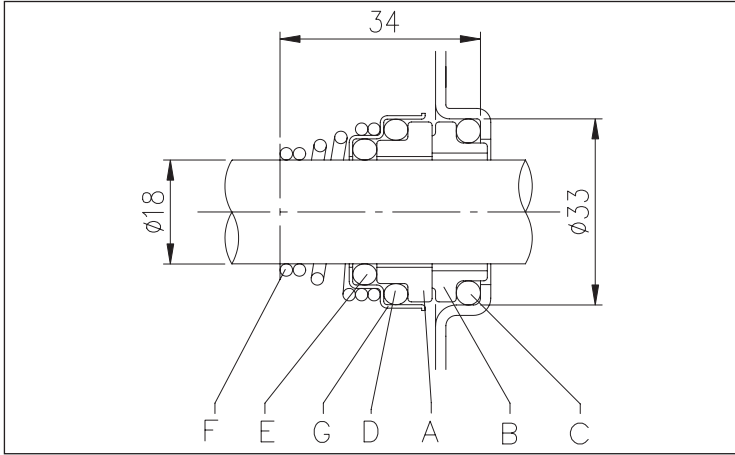
Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	25	Plug	AISI 303
3	Motor bracket	Aluminium	26	O-Ring [3]	NBR
4	Casing cover	EN 1.4301 (AISI 304)	30	Spray protector washer	EN 1.4301 (AISI 304)
6	Shaft	EN 1.4301 (AISI 304) Part in contact with the liquid	32	Key	AISI 316
7	Impeller	EN 1.4301 (AISI 304)	34	Impeller nut	EN 1.4301 (AISI 304)
11	Mechanical seal	Ceramic/Carbon/NBR	42	Motor support	Aluminium
12	Motor frame	-	50	Spacer	-
13	Motor cover	Aluminium	52	Terminal box [2]	PP
14	Fan	PP	56	Box gasket	NBR
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304)
16	Terminal box	-	76	Washer	EN 1.4301 (AISI 304)
17	Terminal box cover [1]	Aluminium	77	O-Ring	NBR
18	Splash ring	NBR	78	O-Ring	NBR
19	Bearing (pump side)	-	90	Terminal box cover gasket [2]	NBR
20	Bearing (motor side)	-	92	Seal ring	-
21	Adjusting ring	Steel C70	93	Seal ring	-
22	Tie-rod	Galvanised Fe 42	110	Motorprotector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	Stainless steel A2 UNI7323
24	Plug	AISI 303			

[1]= Three phase only [2]= Single phase only
[3]= FPM for H-HS-HW-HSW versions

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MECHANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316L
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials			
		H version	HS version	HW version	HSW version
A	Rotating part	Ceramic	SiC	Tungsten Carbide	SiC
B	Fixed part	Carbon	SiC	Tungsten Carbide	Tungsten Carbide
C	O-Ring	FPM	FPM	FPM	FPM
D	O-Ring	FPM	FPM	FPM	FPM
E	O-Ring	FPM	FPM	FPM	FPM
F	Spring	AISI 316L	AISI 316L	AISI 316L	AISI 316L
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316

ELECTRIC DATA TABLE

Model	P ₁	Efficiency	Capacitor	Efficiency (%)	P ₁	Absorbed Current			
						Single phase 230V	Three phase 230/400V	[A]	
								Single phase [kW]	Three phase [kW]
DWO 150 M	DWO 150	1,5 1,1	- -	79,7 82,5 83,0	1,36 1,80	6,8	5,6 3,2		
DWO 200 M	DWO 200	2 1,5	- -	78,6 83,0 84,2	2,05 1,78	9,0	6,3 3,7		
-	DWO 300	3 2,2	- -	83,1 85,7 86,2	- 2,55	-	7,8 4,5		
-	DWO 400	4 3	- -	85,0 86,7 86,3	- 3,48	-	10,6 6,1		

NOISE DATA TABLE

Model	P ₂	L _{PA} - dB(A)*	
			Single phase 230V
DWO 150 M	DWO 150	1,5 1,1	<70
DWO 200 M	DWO 200	2 1,5	
-	DWO 300	3 2,2	
-	DWO 400	4 3	

* Mean value of several measures at 1m distance around the pump.
Tolerance ± 2.5 dB.