

CLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304



DWC-N



DWC-V



Closed impeller centrifugal electric pumps in AISI 304 stainless steel.

APPLICATIONS

- Cooling, air-conditioning and heating systems
- Chiller
- Washing systems
- Provisioning of civil and industrial water

TECHNICAL DETAILS

- Available in two different versions: with threaded (DWC-N) and Victaulic connections (DWC-V)
- Insulation as per standard for the Victaulic version (DWC-V)

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
 - Temperature of the liquid:
 - 15°C ÷ +90°C
 - 15°C ÷ +110°C for H-HS-HW-HSW versions
 - Suction and discharge connection: G2 for DWC-N
 - Suction and discharge connection: Ø2" (60,3 mm) for DWC-V
 - MEI > 0,1
- For further information please see our Data Book on the web site www.ebaraurope.com

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 Protection rating
- 230/400V ±10%, 50Hz three phase voltage
- Protection under user's responsibility for the three phase version

MATERIALS

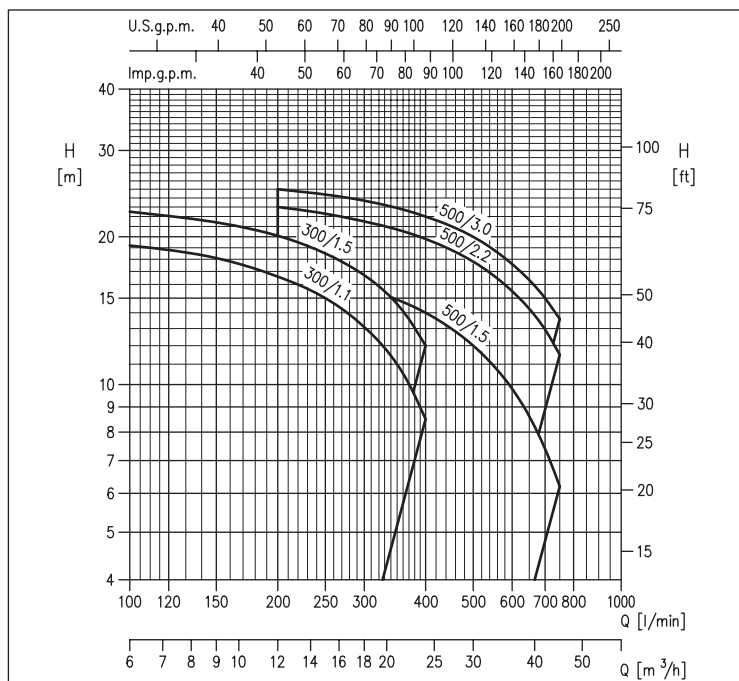
- Pump casing, casing cover, impeller and shaft (part in contact with the liquid) in AISI 304
- Bracket and motor frame in aluminium
- Mechanical seal in:
 - Ceramic/Carbon/EPDM (standard)
 - Ceramic/Carbon/FPM (H version)
 - SiC/SiC/FPM (HS version)
 - Tungsten Carbide/Tungsten Carbide/FPM (HW version)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

ACCESSORIES (On request)

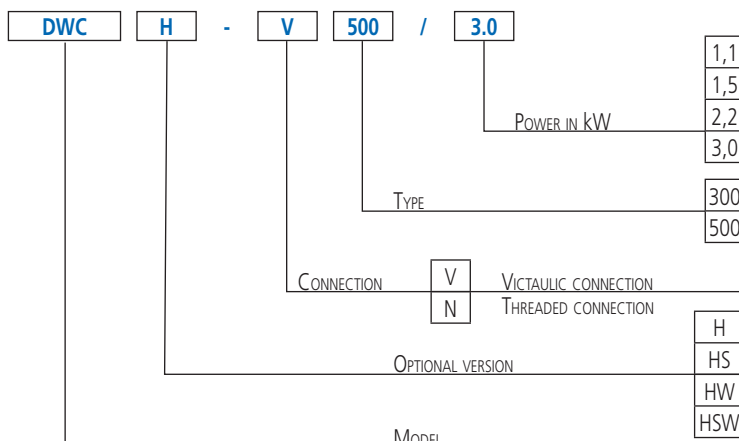
- Insulation casing for DWC pump casing
- For applications with refrigerant liquids or liquids with high thermal difference that may generate condensate.



PERFORMANCE RANGE (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



CLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

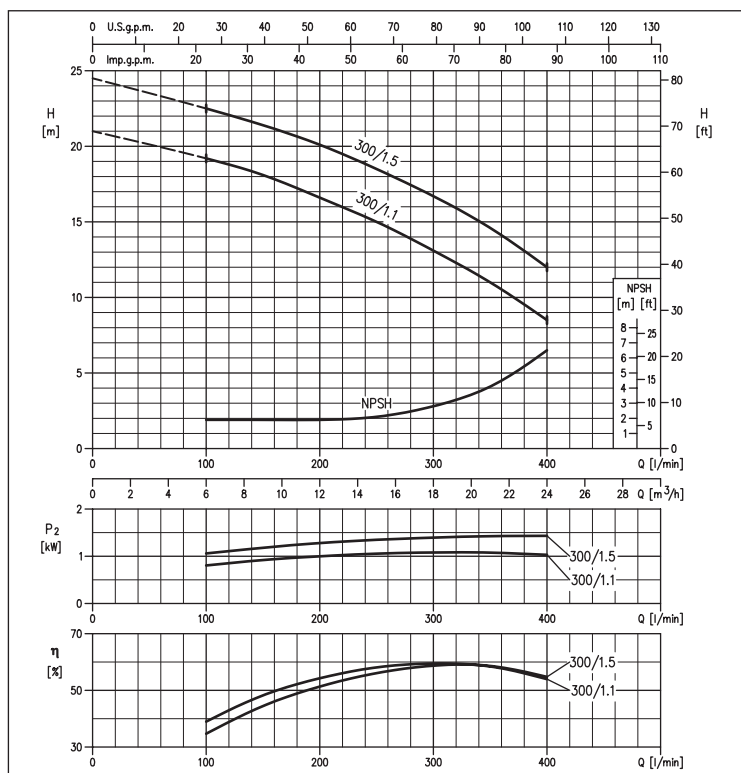
in AISI 304

PERFORMANCE TABLE

Model Three phase 230/400V	P ₂		Q=Flow rate											
	[HP]	[kW]	l/min	100	150	200	250	300	350	400	500	600	700	750
			m³/h	6	9	12	15	18	21	24	30	36	42	45
			H=Head [m]											
DWC 300/1,1	1,5	1,1	19,2	18,1	16,6	15,0	13,1	11,0	8,5	-	-	-	-	
DWC 300/1,5	2	1,5	22,5	21,4	20,1	18,5	16,7	14,6	12,0	-	-	-	-	
DWC 500/1,5	2	1,5	-	-	17,0	16,4	15,7	14,9	14,0	12,0	9,8	7,4	6,2	
DWC 500/2,2	3	2,2	-	-	23,0	22,3	21,5	20,7	19,8	17,8	15,5	13,0	11,5	
DWC 500/3,0	4	3	-	-	25,0	24,4	23,7	22,9	22,0	20,0	17,6	15,0	13,6	

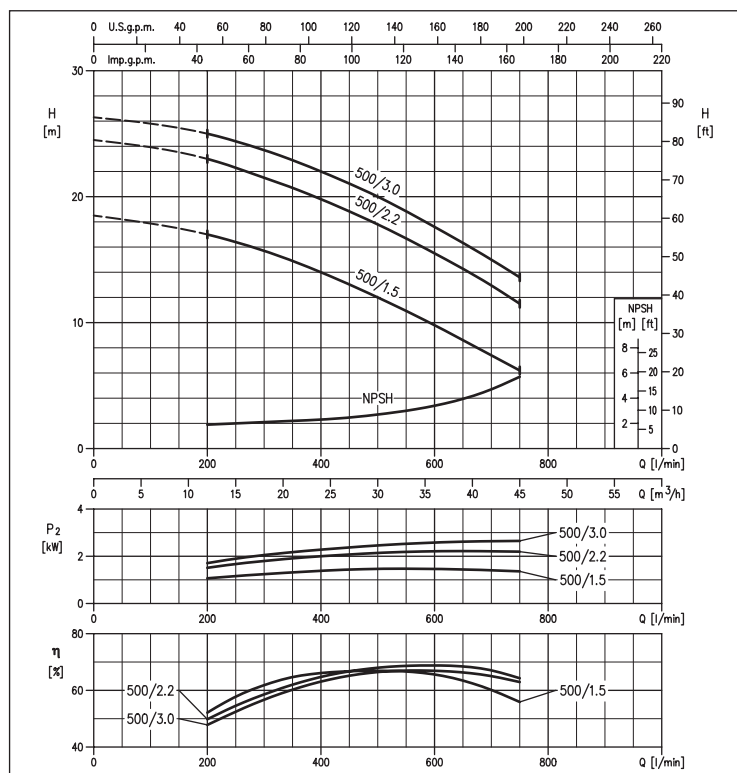
PERFORMANCE CURVES DWC 300 series

(according to ISO 9906 Attachment A)

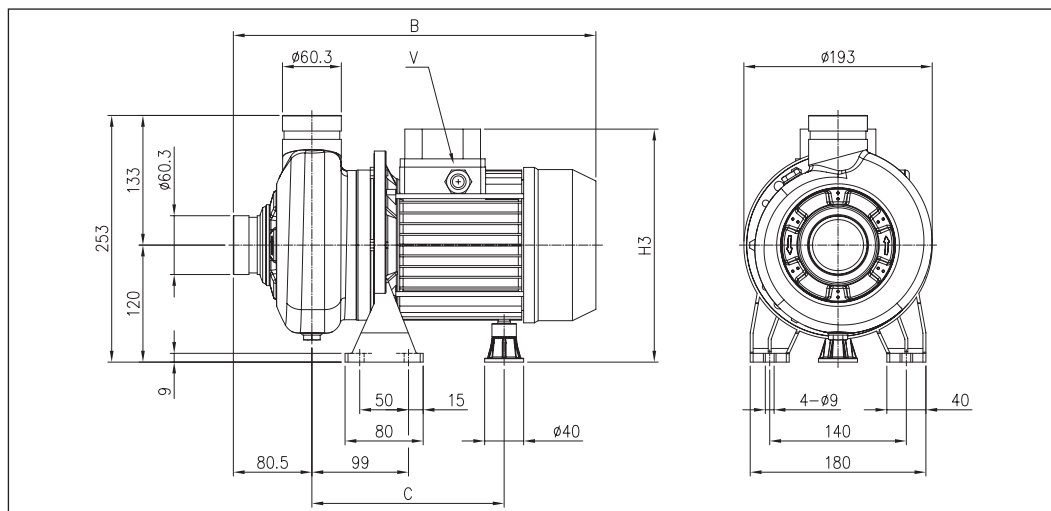


PERFORMANCE CURVES DWC 500 series

(according to ISO 9906 Attachment A)



DIMENSIONS DWC-V (VICTAULIC CONNECTION)



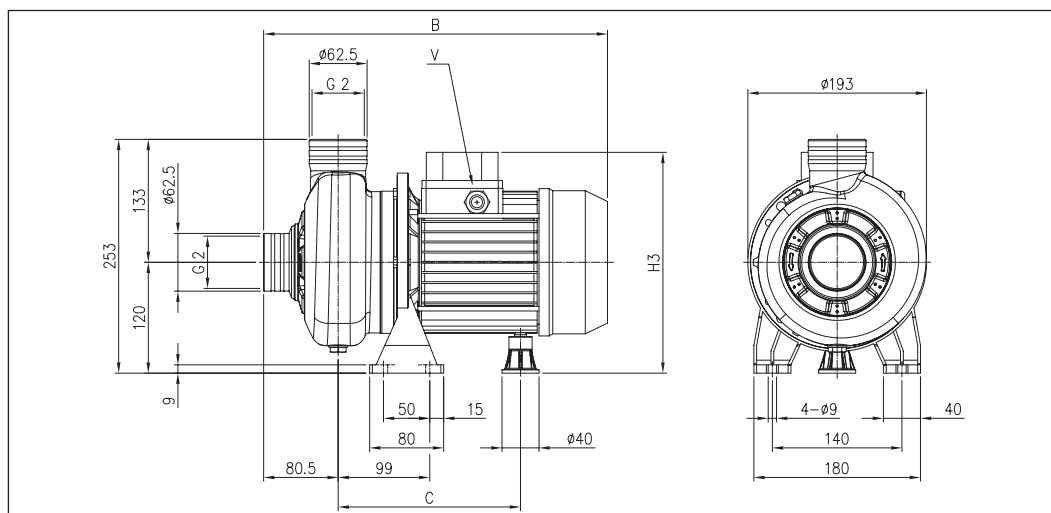
DIMENSIONAL TABLE

Model	Dimensions [mm]				Weight [kg]
	B	C	H3	V	
DWC 300/1,1	372	197	239	PG11	14,5
DWC 300/1,5	385	197	239	PG11	16,0
DWC 500/1,5	385	197	239	PG11	16,5
DWC 500/2,2	418	230÷241	244	PG13,5	20,3
DWC 500/3,0	457	230÷241	244	PG13,5	22,3

CLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

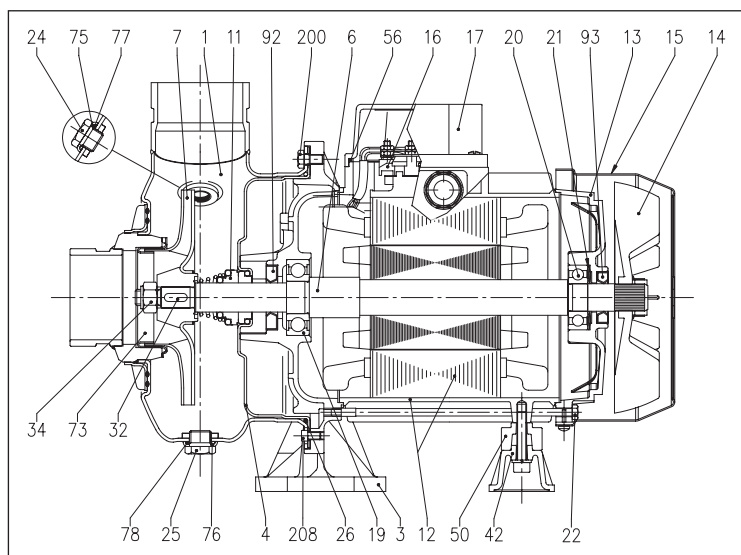
DIMENSIONS DWC-N (THREADED CONNECTION)



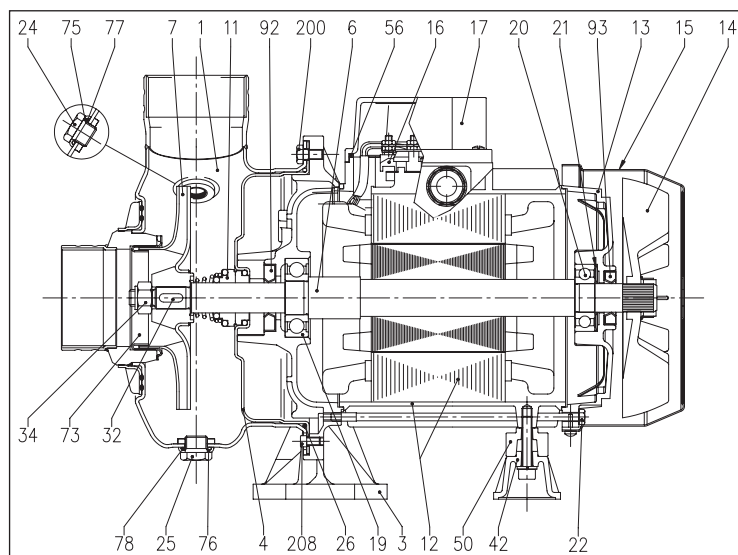
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DWC 500/1,5	385	197	239	PG11	16,5
DWC 500/2,2	418	230±241	244	PG13,5	20,3
DWC 500/3,0	457	230±241	244	PG13,5	22,3

SECTIONAL VIEW DWC-V (VICTAULIC CONNECTION)



SECTIONAL VIEW DWC-N (THREADED CONNECTION)



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	Aluminium	26	O-Ring [1]	EPDM
4	Casing cover	EN 1.4301 (AISI 304)	32	Key	EN 1.4401 (AISI 316)
6	Shaft	EN 1.4301 (AISI 304) Part in contact with the liquid	34	Impeller nut	Stainless steel A2-70
7	Impeller	EN 1.4301 (AISI 304)	42	Motor support	Aluminium / Galvanised Steel
11	Mechanical seal	Ceramic/Carbon/EPDM	50	Spacer	-
12	Motor frame	-	56	Terminal box cover gasket	NBR
13	Motor cover	Aluminium	73	Casing ring	EN 1.4301 (AISI 304)
14	Fan	PA	75	Washer	EN 1.4301 (AISI 304)
15	Fan cover	Galvanised Fe P04	76	Washer	EN 1.4301 (AISI 304)
16	Terminal box	-	77	O-Ring [1]	EPDM
17	Terminal box cover	Aluminium	78	O-Ring [1]	EPDM
19	Bearing (pump side)	-	92	Seal ring	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjusting ring	Steel C70	200	Screw (pump body)	Stainless steel A2-70 class ISO 3506/1
22	Tie-rod	Galvanised Fe 42	208	Screw	Stainless steel A2-70 class ISO 3506/1
24	Plug	EN 1.4301 (AISI 304)			

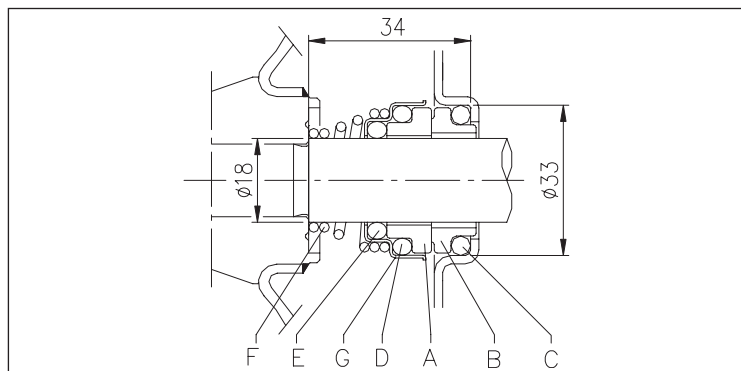
[1]= FPM for H-HS-HW-HSW versions

The contents of this declaration must not be considered as binding for the EDA and the EDA may not be held responsible for any consequences arising from its use.

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MECHANICAL SEAL standard



MATERIALS TABLE

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

ELECTRIC DATA TABLE

Model Three phase 230/400V	P ₂		Efficiency Three phase	Efficiency (%) Three phase			P ₁ Three phase [kW]	Absorbed Current [A]	
	[HP]	[kW]		50%	75%	100%		230V	400V
DWC 300/1,1	1,5	1,1	IE2	79,7	82,5	83,0	1,80	5,6	3,2
DWC 300/1,5	2	1,5	IE2	78,6	83,0	84,2	1,78	6,3	3,7
DWC 500/1,5	2	1,5	IE2	78,6	83,0	84,2	1,78	6,3	3,7
DWC 500/2,2	3	2,2	IE2	83,1	85,7	86,2	2,55	7,8	4,5
DWC 500/3,0	4	3	IE2	85,0	86,7	86,3	3,48	10,6	6,1

NOISE DATA TABLE

Model Three phase 230/400V	P ₂		L _{pa} - dB(A)*
	[HP]	[kW]	
DWC 300/1,1	1,5	1,1	64
DWC 300/1,5	2	1,5	
DWC 500/1,5	2	1,5	68
DWC 500/2,2	3	2,2	
DWC 500/3,0	4	3	

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