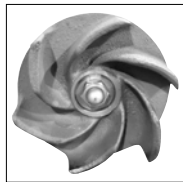


## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER

in cast iron



Submersible sewage pumps with semi-vortex impeller in cast iron

### APPLICATIONS

- Ideal for waste water applications containing soft or fibrous solids
- Industrial waste water drainage
- Septic effluent
- Miscellaneous drainage

### TECHNICAL DETAILS

- Semi-Vortex Impeller offers non-clog operation and allows pumping of foreign matter up to 70% of discharge size
- Easy maintenance

### TECHNICAL DATA

- Maximum temperature of the liquid: 40°C
- Max solids size for passage: 21 mm (50DVS)  
33 mm (65DVS and 80DVS 1,5kW)  
41 mm (65DVS and 80DVS 2,2-3,7 kW)
- Max fibers length: 100mm (50DVS)  
200 (65DVS and 80DVS 1,5kW)  
245 (65DVS and 80DVS ,2-3,7 kW)
- 2 poles motor
- Insulation class F
- Degree protection IP68
- 380-415±10%, 50Hz threephase voltage
- Flanges: G1½ (50DVS 1,5kW)  
DN50, DN65, DN80
- Power up to 3,7 kW

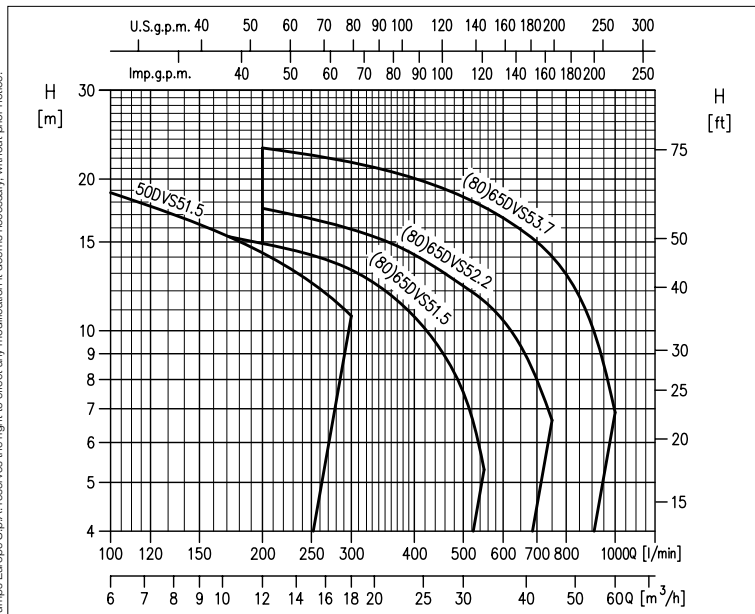
### MATERIALS

- Pump body, semi-vortex impeller, elbow in cast iron
- Shaft in AISI 403
- Mechanical seal: SiC/SiC/NBR (pump side)  
Carbon/Ceramic/NBR (motor side)

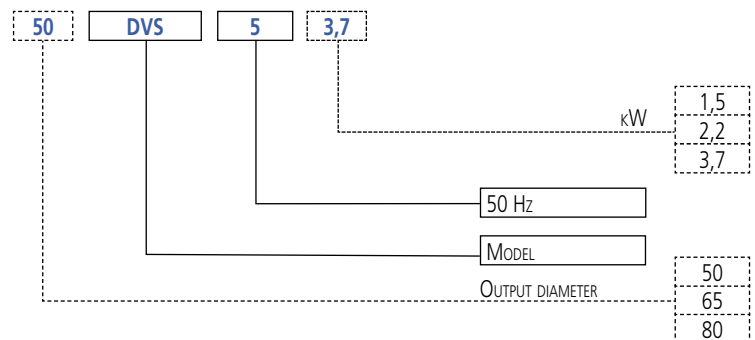
### ACCESSORIES (ON REQUEST)

- See from page 142

PERFORMANCE CHART (according to ISO 9906 Attachment A)



### PUMP IDENTIFICATION CODE



PERFORMANCE TABLE

Model	P <sub>2</sub>		Q=Flow rate													
	[HP]	[kW]	l/min	100	150	200	300	400	500	550	600	700	750	900	1000	
			m <sup>3</sup> /h	6	9	12	18	24	30	33	36	42	45	54	60	
				H=Head [m]												
50DVS51.5	2	1,5		18,8	16,6	14,3	10,7	-	-	-	-	-	-	-	-	
(80)65DVS51.5	2	1,5		-	15,8	14,9	13,2	10,9	7,6	5,3	-	-	-	-	-	
(80)65DVS52.2	3	2,2		-	-	17,5	15,9	14,2	12,3	11,5	10,5	8,1	6,6	-	-	
(80)65DVS53.7	5	3,7		-	-	23,0	21,6	20,1	18,4	17,6	16,7	15,0	14,0	10,4	6,9	

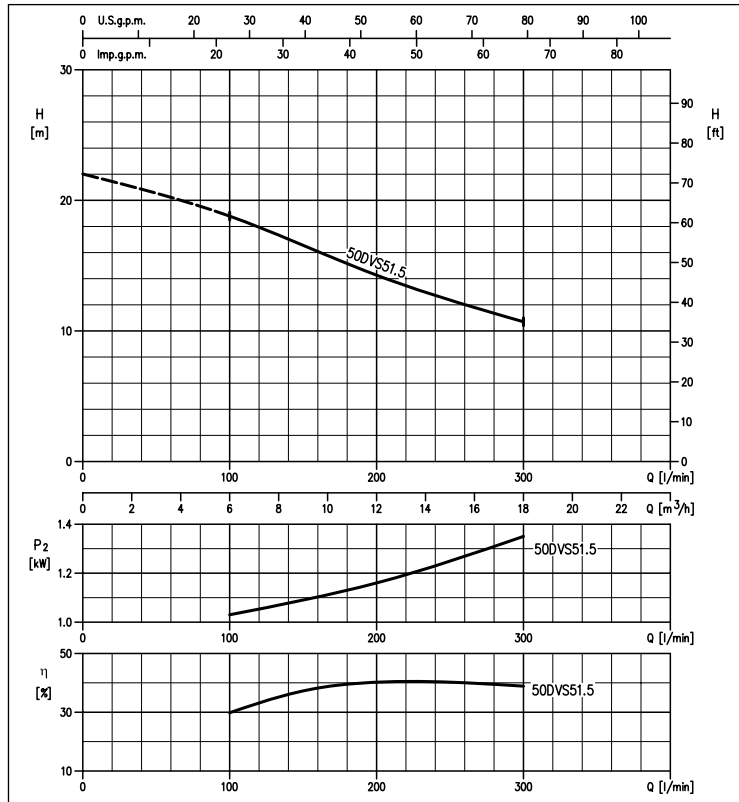
The contents of this publication must not be regarded as binding. EBARA Pumps Europe S.p.A. reserves the right to effect any modification it deems necessary, without prior notice.



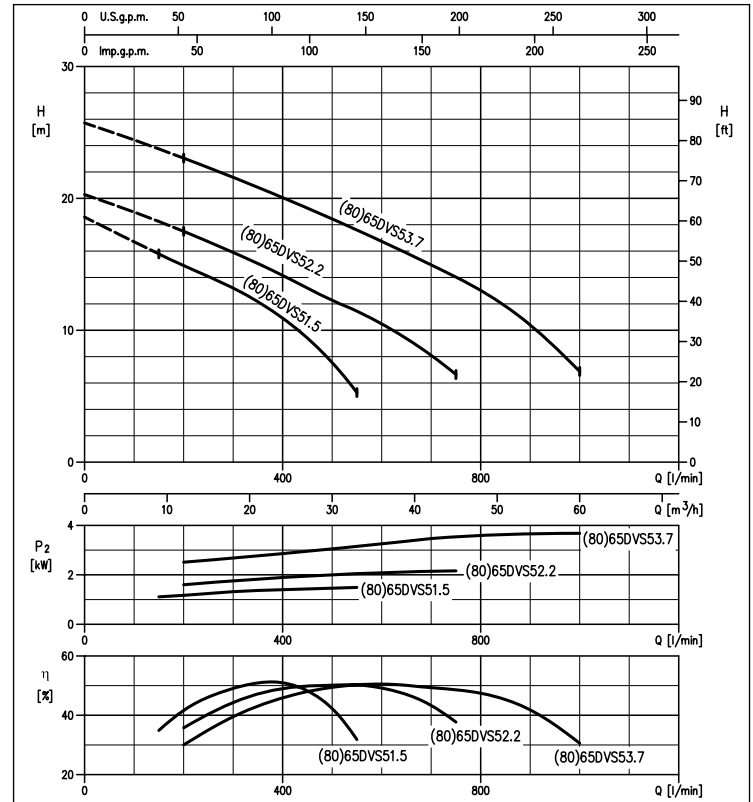
# DVS

## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER in cast iron

**PERFORMANCE CURVES 50DVS51.5 (1.5 kW) range**  
(according to ISO 9906 Attachment A)



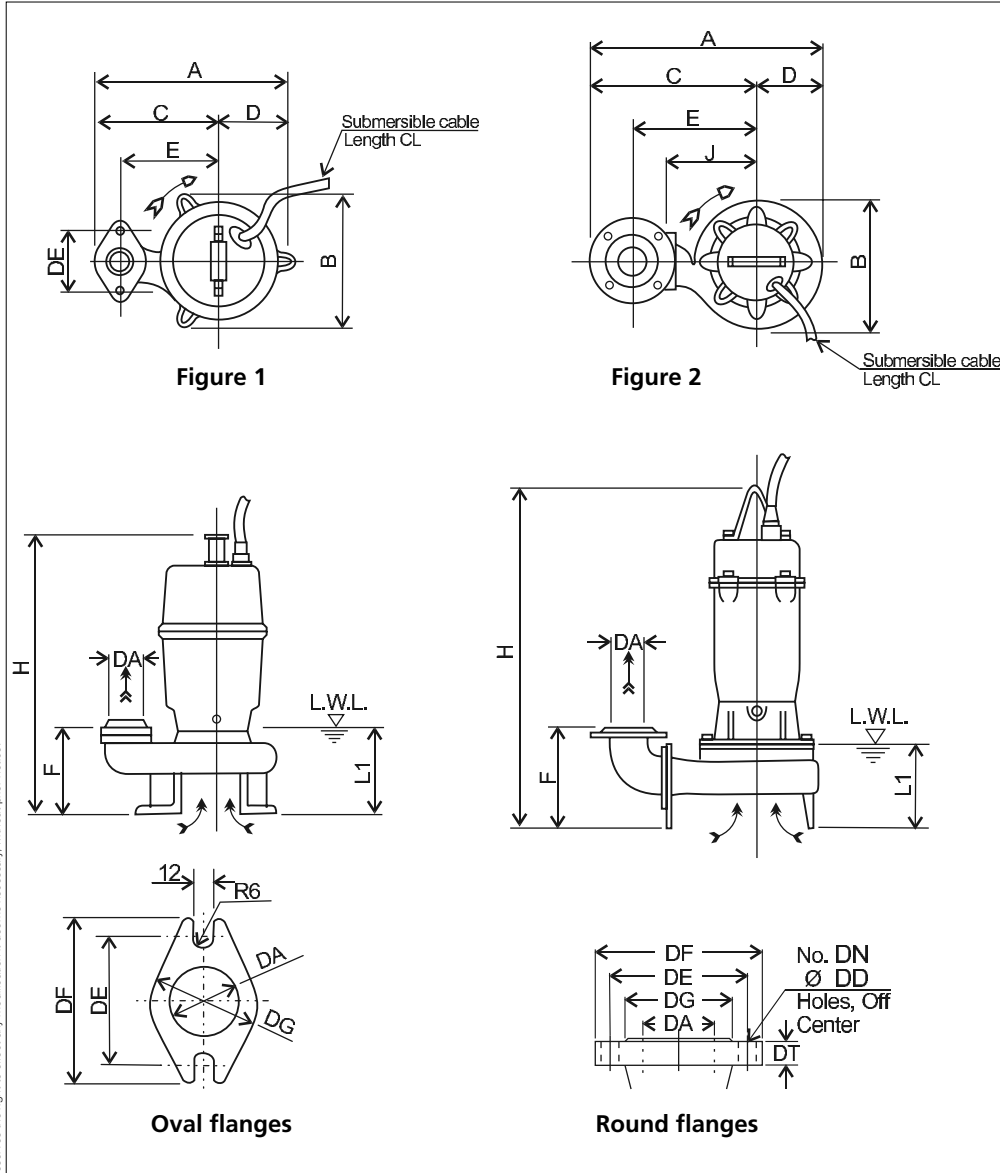
**PERFORMANCE CURVES (80)65DVS51.5 (1.5 kW) range  
(80)65DVS52.2 (2.2 kW) range  
(80)65DVS53.7 (3.7 kW) range**



The contents of this publication must not be regarded as binding. EBARA Pumps Europe S.p.A. reserves the right to effect any modification it deems necessary, without prior notice.

## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER in cast iron

### DIMENSIONS DVS



Discharge flanges dimensions [mm] - EN 1092-2							
Type	DA	DE	DF	DG	DT	DN	DD
Oval	50	96	114	76	-	-	-
Round	65	145	185	118	17	4	19
	80	160	200	132	19	8	

### DIMENSIONS TABLE DVS

DA	Model	Fig.	Flanges Type	[kW]	DA	A	B	C	D	E	F	H	DE	J	L1 (*)	CL [m]	Weight [kg]								
50	50DVS51.5	1	Oval	1.5	G2	249	171	163	86	125	82	439	96	-	105	6	27								
	65DVS51.5			1.5													65	396	195	298	98	210	178	519	34
	65DVS52.2			2.2																					50
65	65DVS53.7	2	Round	3.7	80	427	227	313	114	225	201	643	-	160	155	10	59								
	80DVS51.5			1.5													80	411	195	98	220	183	519	35	
	80DVS52.2			2.2																				51	
80	80DVS53.7	2	Round	3.7	80	442	227	328	114	235	206	643	-	160	155	10	60								

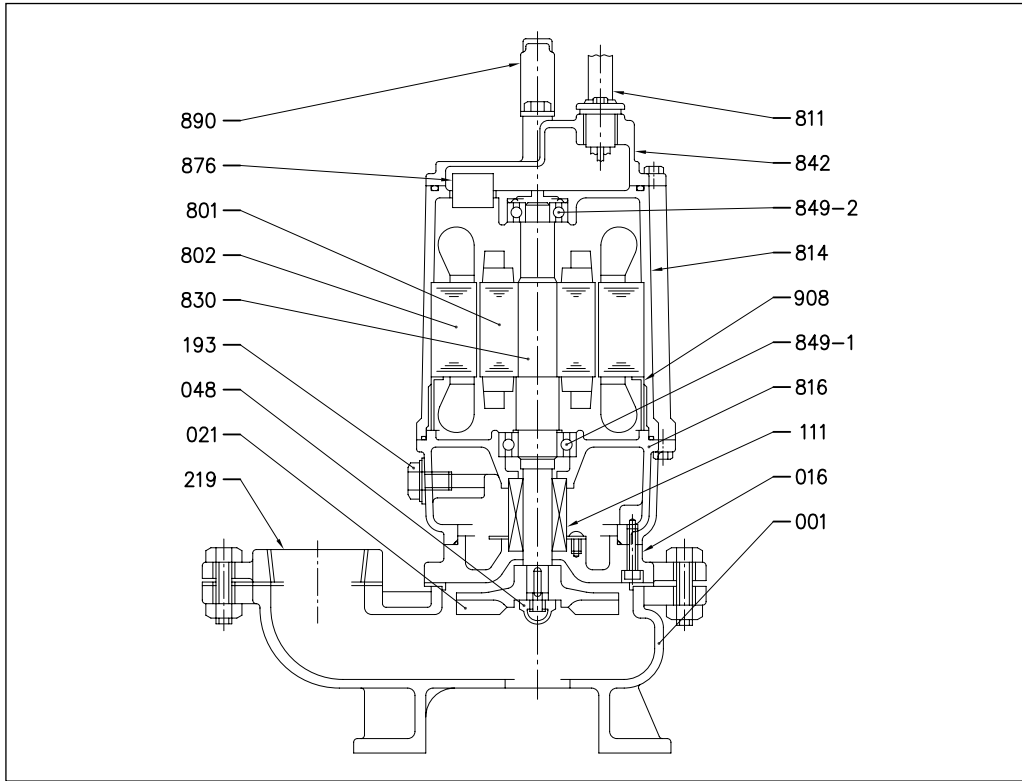
(\*) - L.W.L (Low Water Level)

The contents of this publication must not be regarded as binding. EBARA Pumps Europe S.p.A. reserves the right to effect any modification it deems necessary, without prior notice.

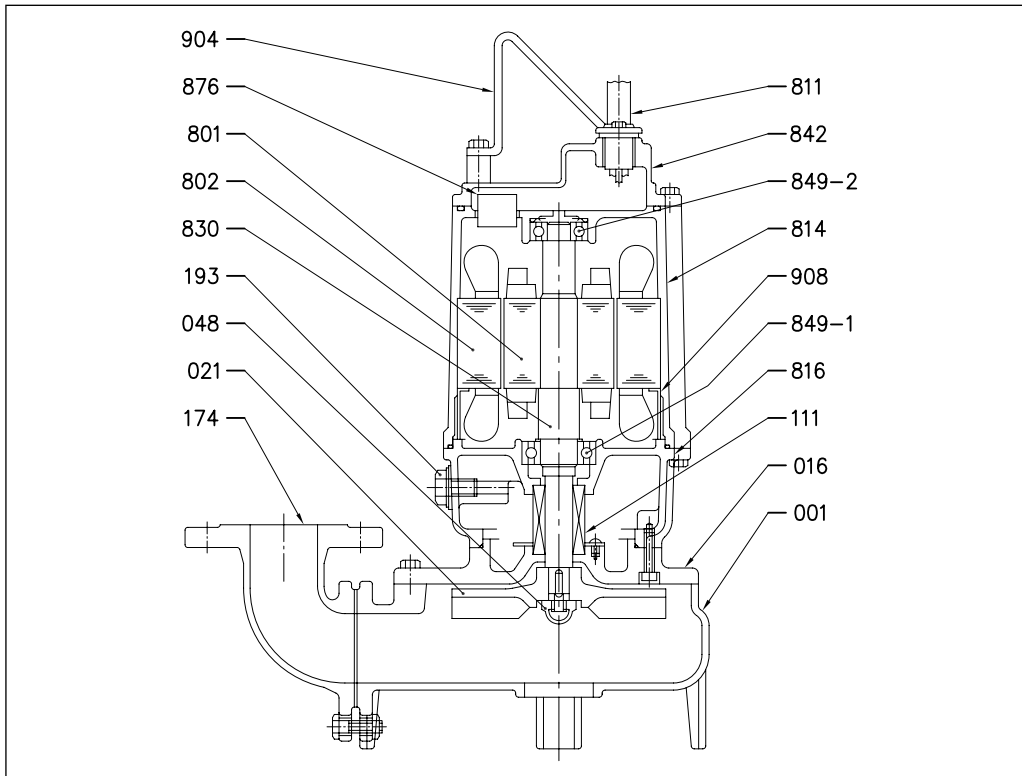


## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER in cast iron

SECTIONAL VIEW 50 DVS (1.5kW)



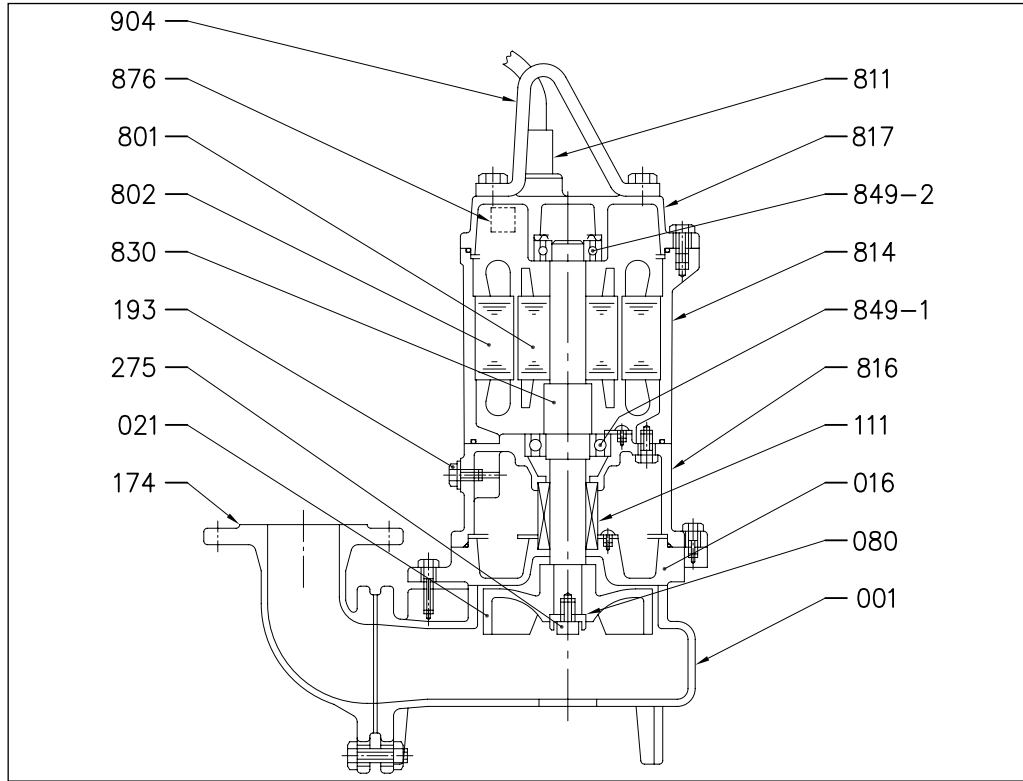
SECTIONAL VIEW 65(80) DVS (1.5kW)



The contents of this publication must not be regarded as binding. EBARA Pumps Europe S.p.A. reserves the right to effect any modification it deems necessary, without prior notice.

## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER in cast iron

SECTIONAL VIEW 65(80) DVS (2.2÷3.7 kW)



MATERIALS TABLE DVS

Ref.	Name	Material	Ref.	Name	Material
001	Pump body	Cast iron EN-GHJL-200-EN 1561	811	Cable	-
016	Mechanical seal cover	Cast iron EN-GHJL-200-EN 1561	814	Motor case	Cast iron EN-GHJL-200-EN 1561
021	Impeller	Cast iron EN-GHJL-200-EN 1561	816	Motor support	Cast iron EN-GHJL-200-EN 1561
048	Impeller nut	Brass	830	Shaft	EN 1.4006 (AISI403)
080	Bushing	Cast iron EN-GHJL-200-EN 1561	842	Motor cover	Cast iron EN-GHJL-200-EN 1561
111	Mechanical seal	-	849-1	Ball bearing	-
174	Discharge bend	Cast iron EN-GHJL-200-EN 1561	849-2	Ball bearing	-
193	Oil plug	NBR/EN 1.4301 (AISI304)	876	Protector	-
219	Flanges	Cast iron EN-GHJL-200-EN 1561	890	Lifting hanger	Stainless Steel
801	Rotor	-	908	Spacer	Steel
802	Stator	-			

## SUBMERSIBLE SEWAGE PUMPS WITH SEMI-VORTEX IMPELLER

in cast iron

### DVS (1.5÷3.7 kW) MOTOR DATA

[P <sub>2</sub> ]		[kW]	1,5			2,2			3,7			
Resistance at 20°C		[Ω]	11,973			4,942			2,647			
GD <sup>2</sup>		[kg·m <sup>2</sup> ]	0,0057			0,0082			0,011			
Voltage		[V]	380	400	415	380	400	415	380	400	415	
Load	0%	Current	[A]	1,25	1,32	1,30	1,95	2,15	2,33	3,20	3,30	3,90
		Power	[W]	430	405	400	500	500	252	800	500	600
	75%	Current	[A]	2,92	2,62	2,61	4,07	4,06	3,82	7,07	6,32	6,45
		Efficiency	[%]	63,59	69,18	70,11	71,23	69,69	77,58	68,00	75,54	74,26
		Power factor	[%]	91,93	89,54	85,68	86,44	84,27	77,40	87,75	83,92	80,61
	100%	Speed	[min <sup>-1</sup> ]	2872	2887	2898	2895	2901	2927	2890	2917	2922
		Current	[A]	3,70	3,30	3,30	5,10	5,00	4,60	8,80	7,80	7,80
		Efficiency	[%]	65,61	71,25	70,89	73,05	72,28	79,33	70,79	77,64	76,74
		Power factor	[%]	9,88	92,08	89,21	89,71	87,87	83,88	90,24	88,18	86,00
	Speed	[min <sup>-1</sup> ]	2821	2847	2854	2851	2864	2900	2847	2886	2890	
Locked Rotor Torque		[%]	243	295	303	161	186	184	175	216	233	
Start Current		[A]	20,5	21,1	22,5	28,7	30,0	31,5	51,2	51,0	53,0	
Poles			2									
Phase			3									
Frequency		[Hz]	50									
No. starts per hour			10									
Voltage Tolerance		[%]	±10%									
Frequency Tolerance		[%]	±1%									
Insulation Class			F									
Model			ZDSEU									