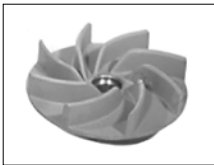


DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron



Submersible sewage pumps (vortex) in cast iron

APPLICATIONS

- Evacuation of civil and industrial waste waters
- Treating liquid manure
- Draining sub-layer zones
- Generally moving foul waste liquids also containing solid substances and/or suspended filamentary substances
- Emptying seepage water
- Moving sewage (sanitary services)
- Emptying cesspits

TECHNICAL DETAILS

- Equipped with vortex impeller
- Shaft seal upper and lower part (DMLV)
- Turbulence less in oil chamber (DMLV)

TECHNICAL DATA

- Maximum temperature of the liquid: 40°C
- Max solids size for passage: 80÷100 mm (DMLV)
- Max solids size for passage: max 30÷100 mm (DMLVF)
- 4 poles motor (DMLV)
- 2/4/6 poles motor (DMLVF)
- Insulation class F (DMLV)
- Insulation class H (DMLVF)
- Protection degree IP68
- 380-415-10+6%, 50Hz (DMLV 2,2 kW) threephase voltage - DOL
- 380-415±10%, 50Hz (DML 3,7÷22 kW) threephase voltage - Y/Δ
- 230±10%, 50Hz (DMLVF) singlephase voltage
- 400/690V±10%, 50Hz (DMLVF) threephase voltage
- Flanges: DN80, DN100 (DMLV)
- 1"¼ (32DMLVF), DN50, DN55, DN65, DN80, DN100, DN150 (DMLVF)
- Power up to 22kW (DMLV)
- up to 35,7 kW (DMLVF)

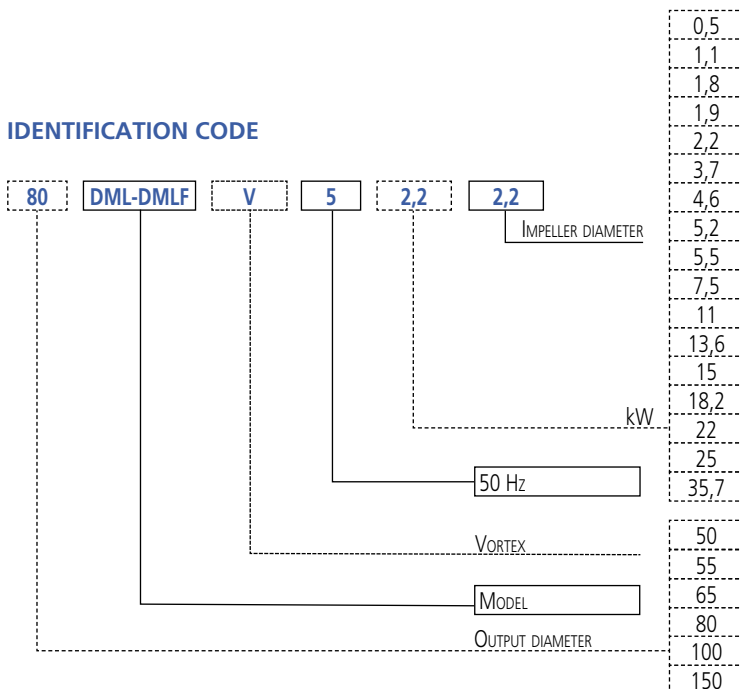
MATERIALS

- Pump body, vortex, impeller, elbow in cast iron
- Shaft in AISI 403 (DMLV) and AISI 420B (DMLVF)
- Mechanical seal: SiC/SiC/NBR (pump side) (DMLV)
- Carbon/Ceramic/NBR (motor side)(DMLVF)
- Carbon/Ceramic/NBR (pump side)(32DMLVF)
- SiC/SiC/NBR (pump side) (DMLVF except 32DMLVF)
- Carbon/ Ceramic/NBR (motor side)(DMLVF 4.6kW and above)

ACCESSORIES (ON REQUEST)

- See from page 142

IDENTIFICATION CODE



0,5
1,1
1,8
1,9
2,2
3,7
4,6
5,2
5,5
7,5
11
13,6
15
18,2
22
25
35,7
50
55
65
80
100
150

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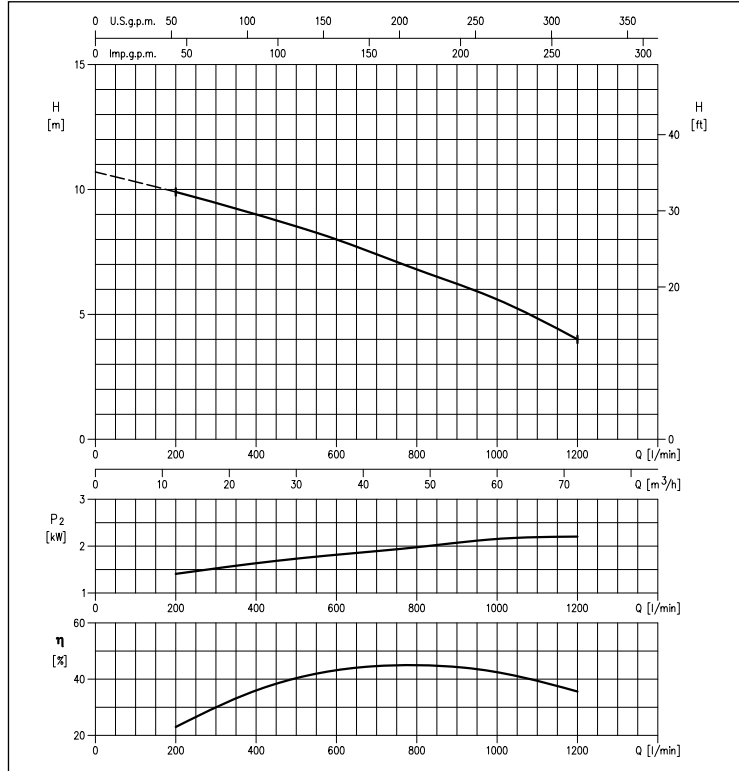


DMLV - DMLVF

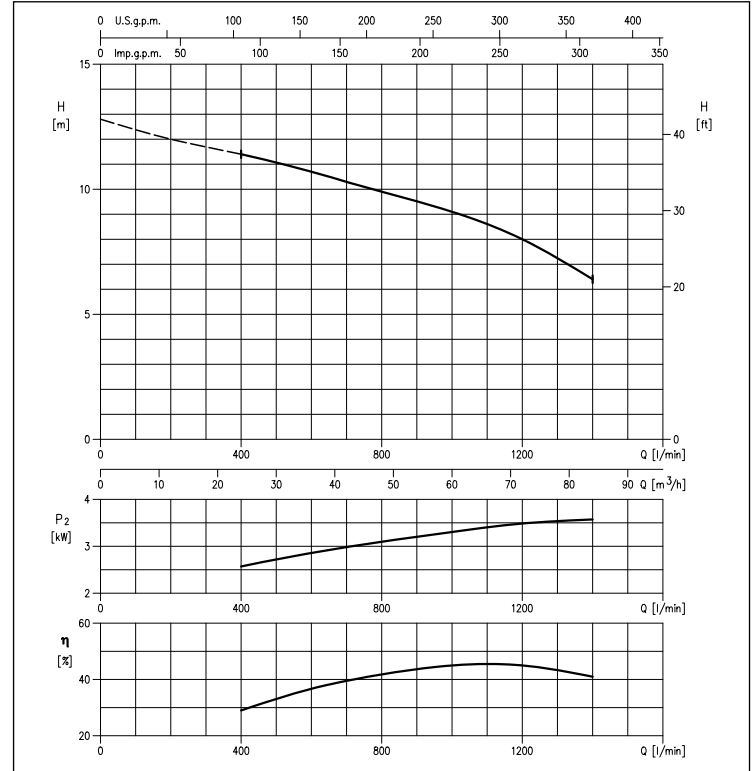
SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

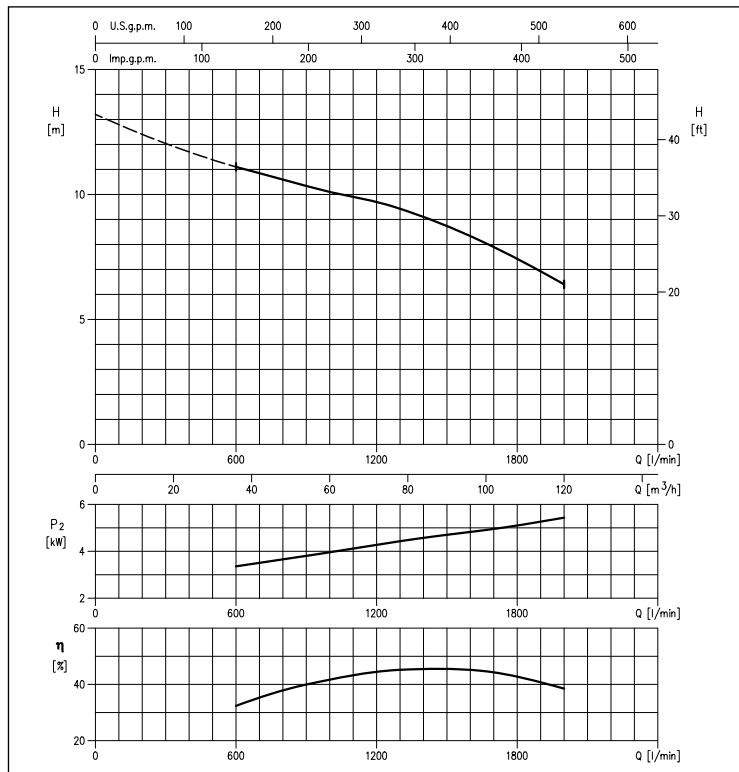
PERFORMANCE CURVES 80DMLV 52.2 range
(according to ISO 9906 Attachment A) IMPELLER DIAMETER: 185 mm



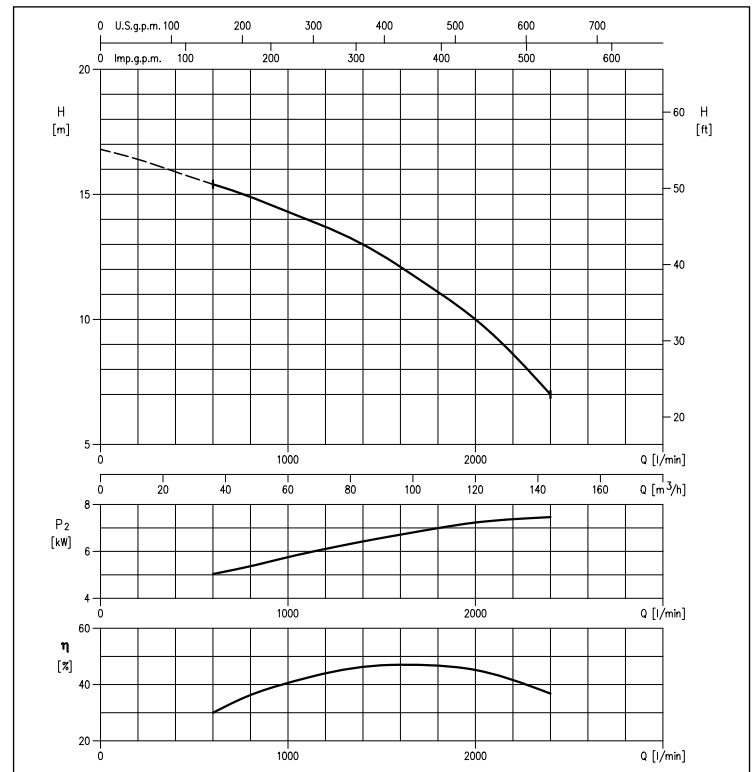
PERFORMANCE CURVES 80DMLV 53.7 range
(according to ISO 9906 Attachment A) IMPELLER DIAMETER: 204 mm



PERFORMANCE CURVES 100DMLV 55.5 range
(according to ISO 9906 Attachment A) IMPELLER DIAMETER: 211 mm



PERFORMANCE CURVES 100DMLV 57.5 range
(according to ISO 9906 Attachment A) IMPELLER DIAMETER: 231 mm



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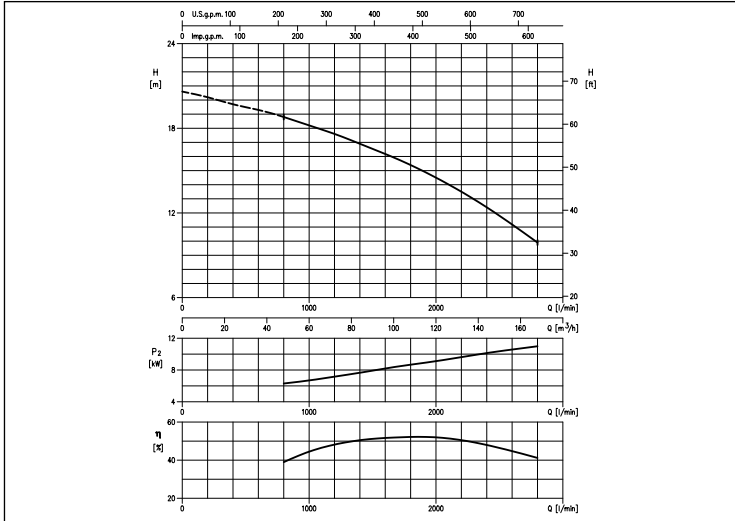
DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

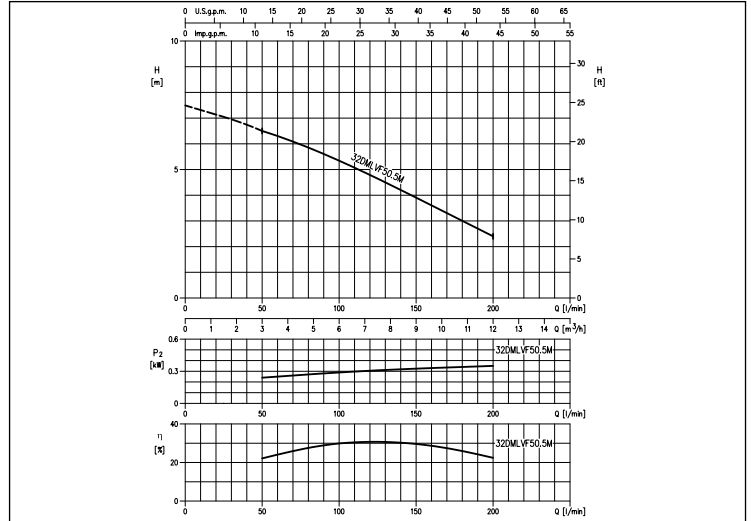
in cast iron

PERFORMANCE CURVES

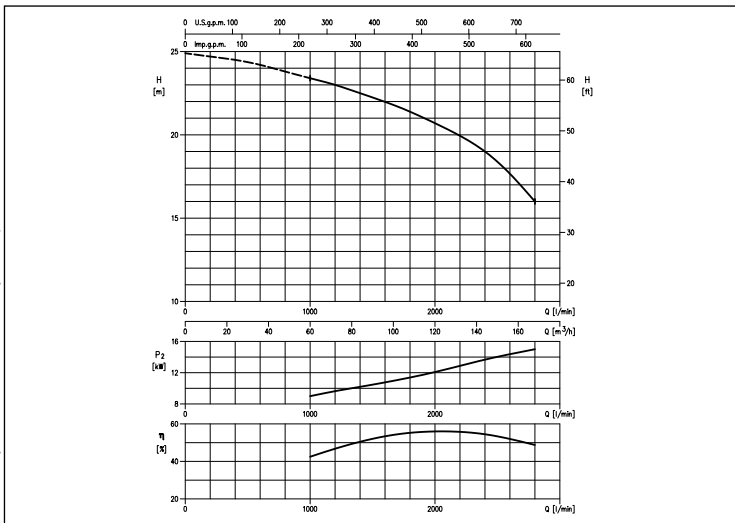
100DMLV511 (according to ISO 9906 Attachment A)



32DMLVF50.5M (0.5kW) (according to ISO 9906 Attachment A)



100DMLV515 (according to ISO 9906 Attachment A)

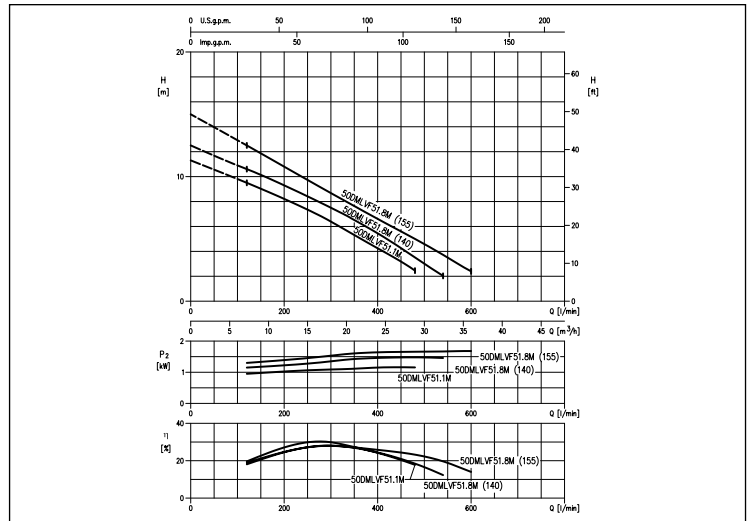


50DMLVF51.1M (1.1 kW)

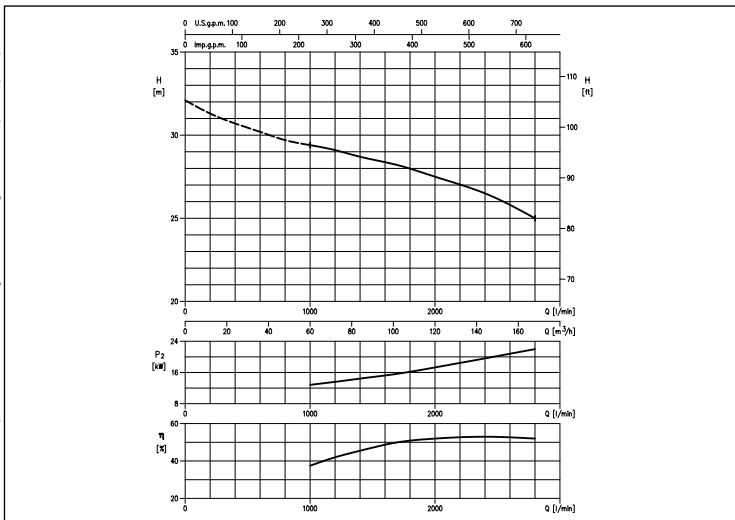
50DMLVF 51.8 (1.8 kW) - Impeller Diameter = 140 mm

50DMLVF 51.8 (1.8 kW) - Impeller Diameter = 155 mm

(according to ISO 9906 Attachment A)



100DMLV522 (according to ISO 9906 Attachment A)



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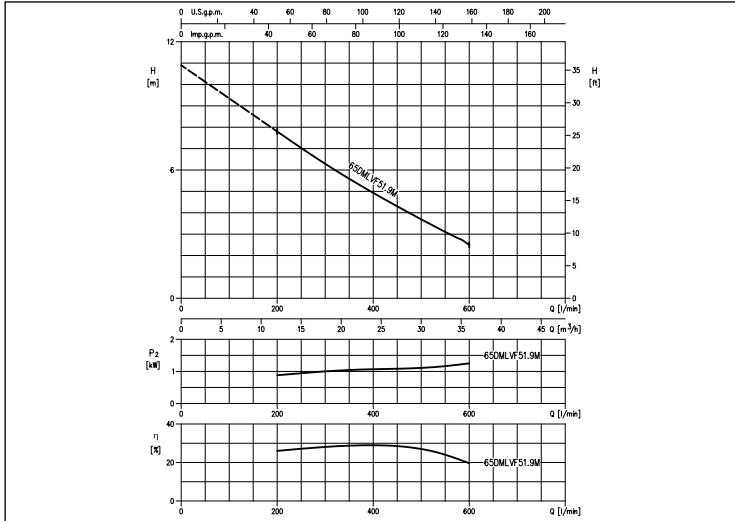
DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

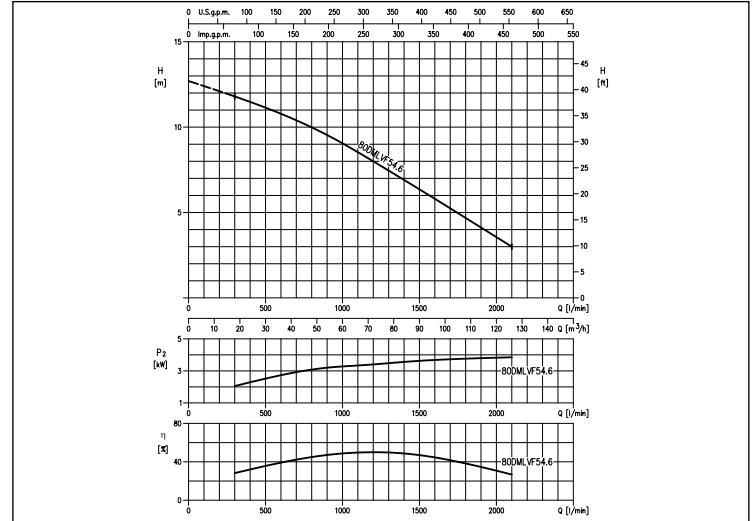
in cast iron

PERFORMANCE CURVES

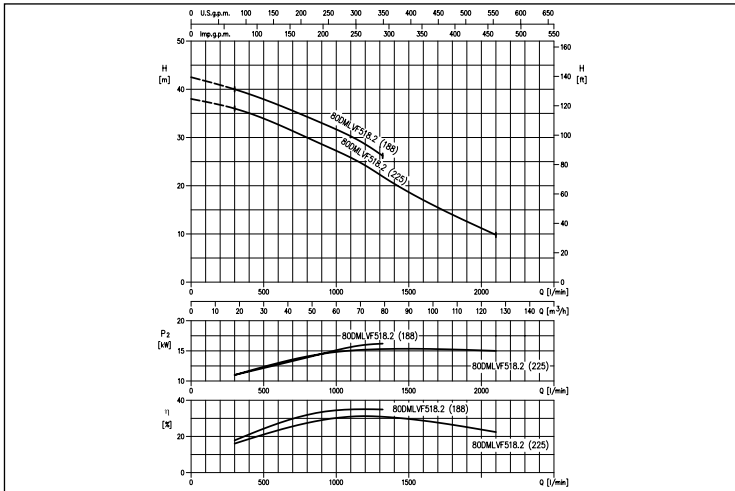
65DMLVF51.9 (1.9kW) (according to ISO 9906 Attachment A)



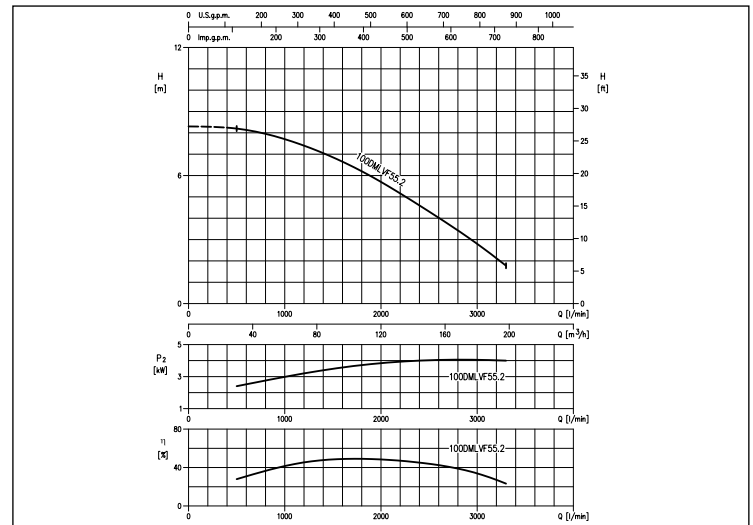
80DMLVF54.6 (4.6 kW) (according to ISO 9906 Attachment A)



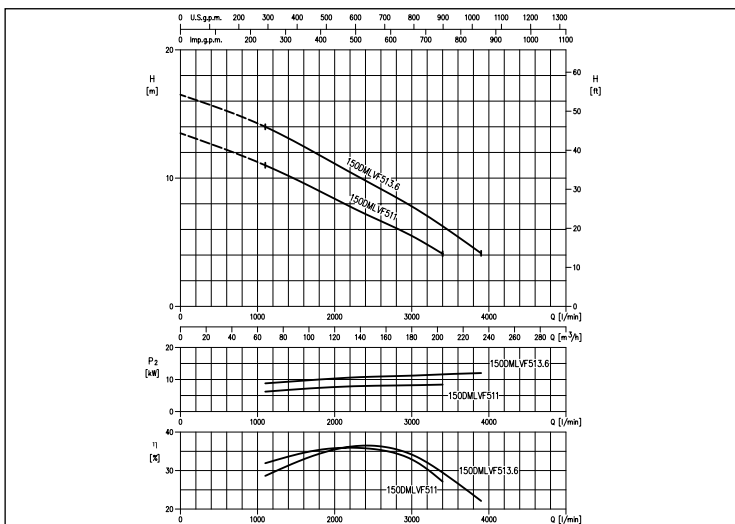
80DMLVF518.2 (18.2 kW) – Impeller Diameter = 255 mm
80DMLVF518.2 (18.2 kW) – Impeller Diameter = 188 mm
 (according to ISO 9906 Attachment A)



100DMLVF55.2 (5.2 kW) (according to ISO 9906 Attachment A)

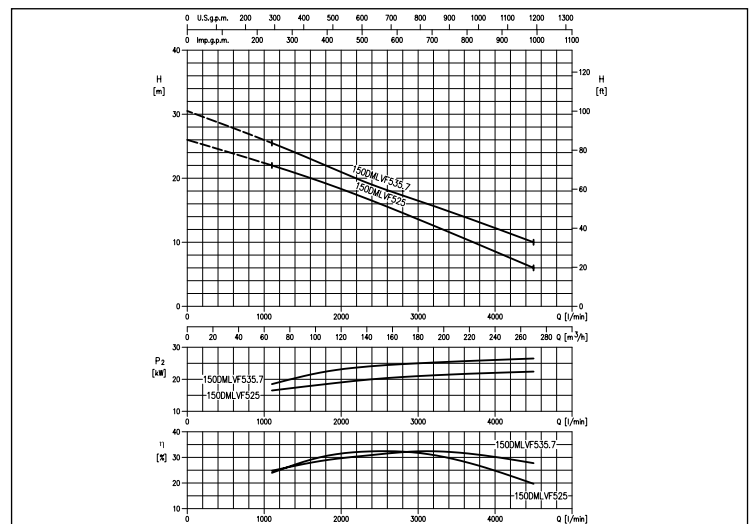


150DMLVF511 (11 kW)
 (according to ISO 9906 Attachment A)



150DMLVF513.6 (13.6 kW)

150DMLVF525 (25 kW)
 (according to ISO 9906 Attachment A)



150DMLVF535.7 (35.7 kW)

DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

PERFORMANCE TABLE 32-50-65 DMLVF

Model	P ₂		Q=Flow rate										
	[HP]	[kW]	l/min 50	90	120	180	200	300	333	400	480	540	600
			m ³ /h 3	5	7	11	12	18	20	24	29	32	36
			H=Head [m]										
32DMLVF50.5M	1,5	0,5	6,5	5,6	4,7	3	2,4	-	-	-	-	-	-
50DMLVF51.1M	0,7	1,1	-	-	9,5	8,5	8,2	6,4	5,8	4,3	2,2	-	-
50DMLVF51.8M (140)	2,5	1,8	-	-	10,6	9,7	9,3	7,5	6,8	5,5	3,7	2	-
50DMLVF51.8M (155)	2,5	1,8	-	-	12,5	11,3	10,9	8,5	7,8	6,5	4,7	3,5	2,2
65DMLVF51.9M	2,6	1,9	-	-	-	-	7,8	6,4	6	5,1	4,0	3,2	2,5

PERFORMANCE TABLE 80DMLV- 80DMLVF

Model	P ₂		Q=Flow rate									
	[HP]	[kW]	l/min 200	300	400	600	900	1200	1320	1400	2100	
			m ³ /h 12	18	24	36	54	72	79	84	126	
			H=Head [m]									
80DMLV52.2	3	2,2	9,9	9,5	9,0	8	6,4	4	-	-	-	-
80DMLV53.7	5	3,7	-	-	11,5	10,7	9,4	7,9	7,2	6,4	-	-
80DMLVF54.6	6,2	4,6	-	11,8	11,5	10,8	9,5	8	7,2	6,7	3	-
80DMLVF518.2 (225)	25	18,2	-	36	35	33	28,6	24,2	22,4	21	9,8	-
80DMLVF518.2 (188)	25	18,2	-	40	39	37	33	28,6	26,2	-	-	-

PERFORMANCE TABLE 100 DMLV - 100DMLVF

Model	P ₂		Q=Flow rate									
	[HP]	[kW]	l/min 500	600	800	1000	1200	1700	2000	2400	2800	3300
			m ³ /h 30	36	48	60	72	102	120	144	168	198
			H=Head [m]									
100DMLVF55.2	7	5,2	8,2	8,2	8	7,7	7,4	6,3	5,7	4,6	3,5	1,8
100DMLV5.5	7,5	5,5	-	11,1	10,6	10,1	9,7	7,9	6,4	-	-	-
100DMLV57.5	10	7,5	-	15,4	14,9	14,3	13,7	11,6	10	7	-	-
100DMLV511	15	11	-	-	18,8	18,2	17,6	15,8	14,5	12,4	9,9	-
100DMLV515	20	15	-	-	-	23,4	23	21,7	20,7	19	16	-
100DMLV522	30	22	-	-	-	29,4	29,1	28,2	27,5	26,5	25	-

PERFORMANCE TABLE 150DMLVF

Model	P ₂		Q=Flow rate						
	[HP]	[kW]	l/min 1100	1800	2400	3000	3400	3900	4500
			m ³ /h 66	108	144	180	204	234	270
			H=Head [m]						
150DMLVF511	15	11	11,00	9,00	7,20	5,50	4,10	-	-
150DMLVF513.6	18,5	13,6	14,00	11,80	9,80	7,80	6,10	4,18	-
150DMLVF525	34	25	22,00	19,20	16,50	13,60	11,69	9,19	6,00
150DMLVF535.7	48,5	35,7	25,50	22,24	19,43	16,72	14,84	12,63	10,00

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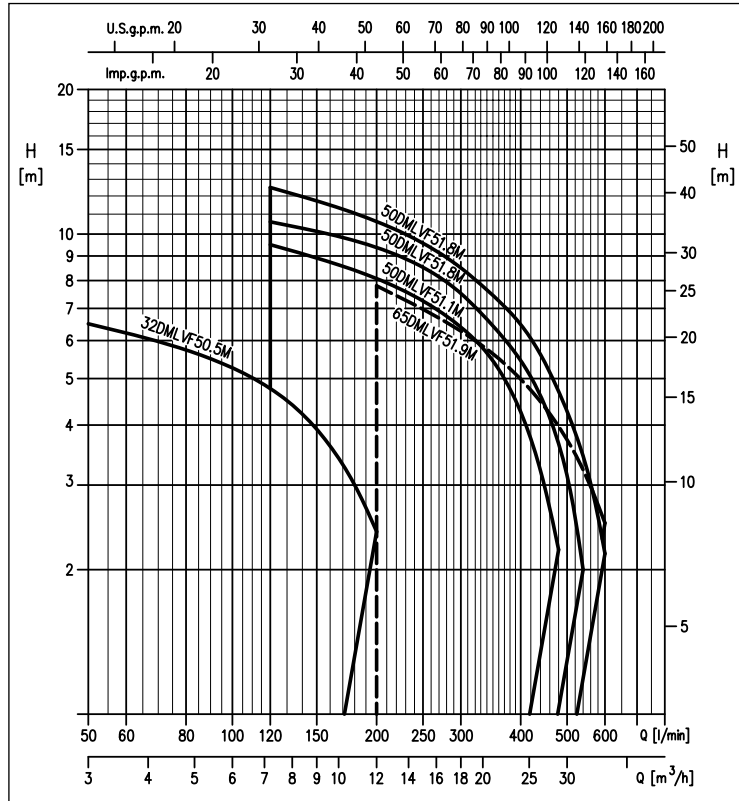
DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

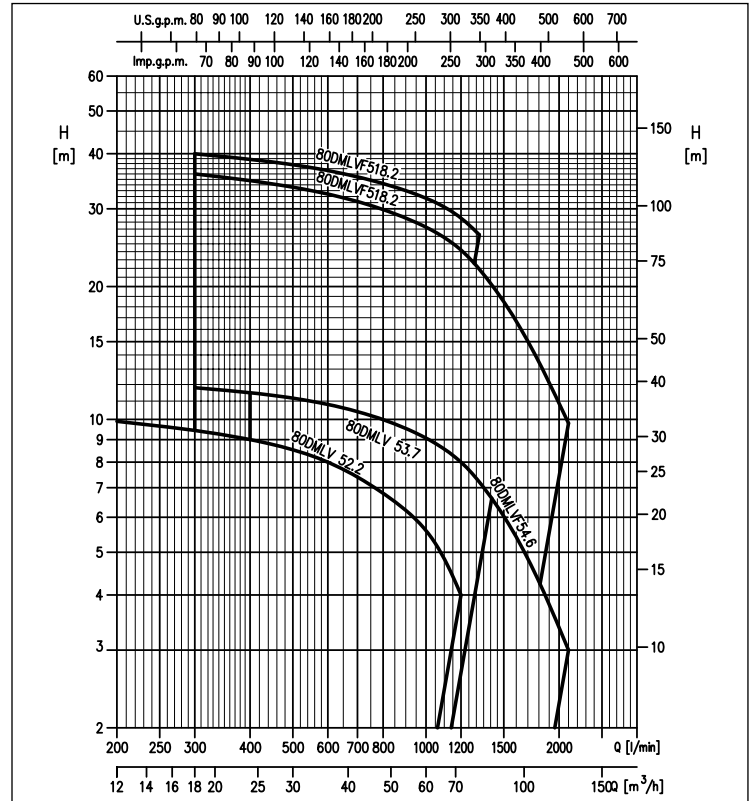
PERFORMANCE CURVES 32-50-65 DMLVF range

(according to ISO 9906 Attachment A)



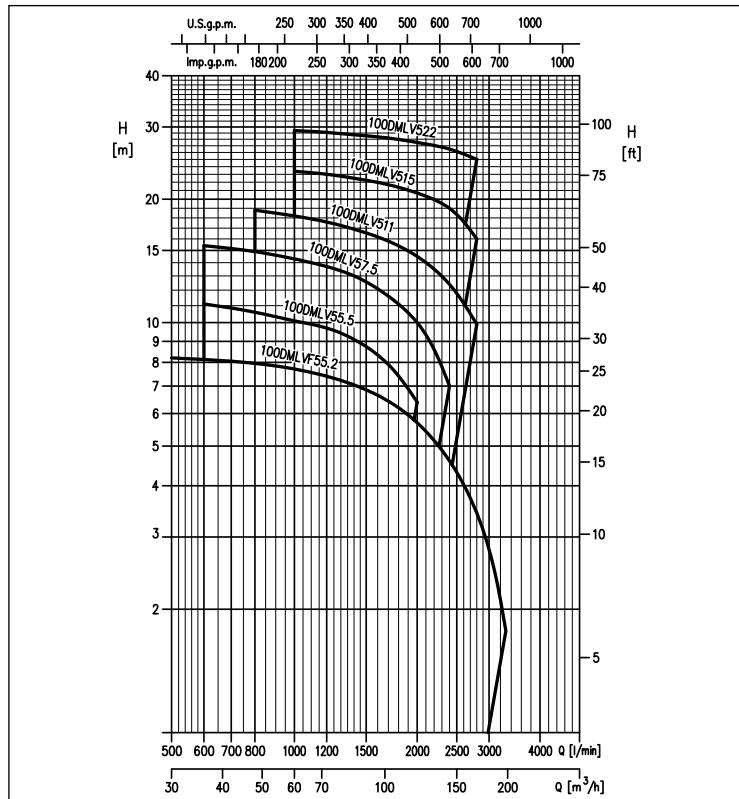
PERFORMANCE CURVES 80DMLV- 80DMLVF range

(according to ISO 9906 Attachment A)



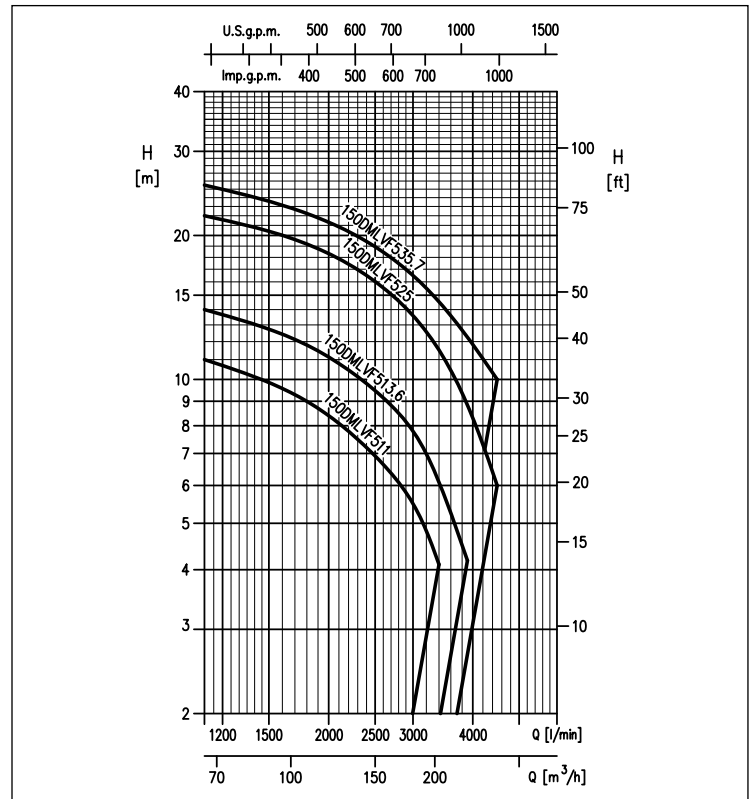
PERFORMANCE CURVES 100 DMLV - 100DMLVF range

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES 150DMLVF range

(according to ISO 9906 Attachment A)



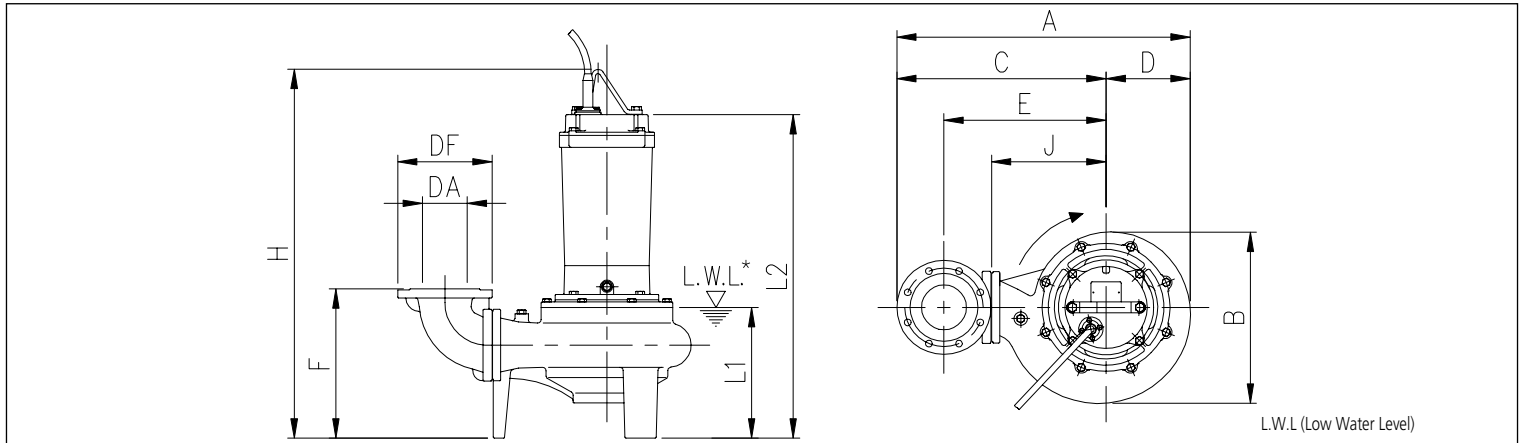
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

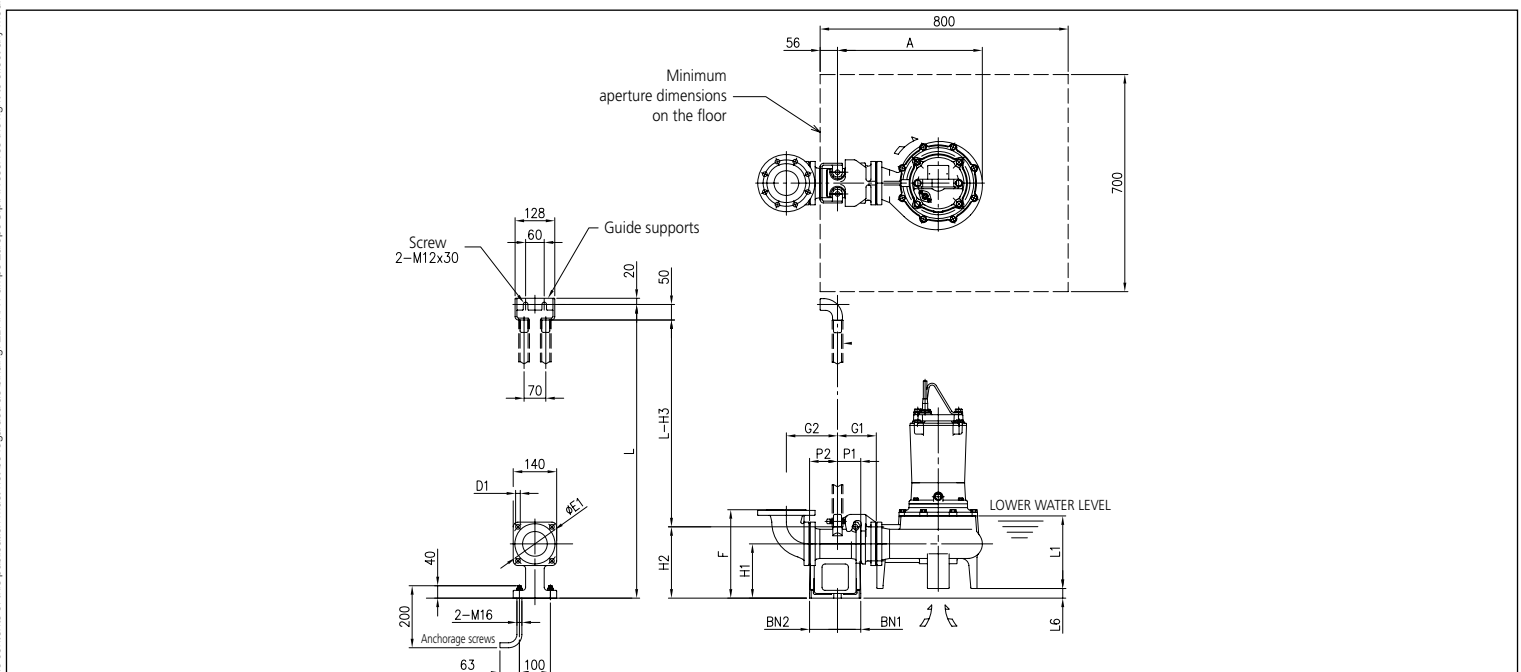
DIMENSIONS DMLV



DIMENSIONS TABLE DMLV

Model	Dimensions [mm]																		Weight [kg]
	DA	kW	DE	DF	DG	DT	N°	D1	A	B	C	D	E	F	H	J	L1	L2	
80DMLV52.2	80	2,2	160	200	138	22	8	18	518	285	375	143	275	254	660	200	200	560	70
80DMLV53.7	80	3,7	160	200	138	22	8	18	518	285	375	143	721	254	721	200	200	620	80
100DMLV55.5	100	5,5	180	220	158	24	8	22	584	308	430	154	860	305	860	215	250	760	105
100DMLV57.5	100	7,5	180	220	158	24	8	22	641	352	465	176	860	305	860	250	250	760	120
100DMLV511	100	11	180	220	158	24	8	22	641	352	465	176	970	305	970	250	250	810	150
100DMLV515	100	15	180	220	158	24	8	22	728	426	515	213	970	305	970	300	250	810	180
100DMLV522	100	22	180	220	158	24	8	22	728	426	515	213	1045	305	1045	300	250	865	235

DIMENSIONS QDC (quick discharge connector) LM 80 (for model 80 DMLV 52.2 - 80 DMLV 53.7)

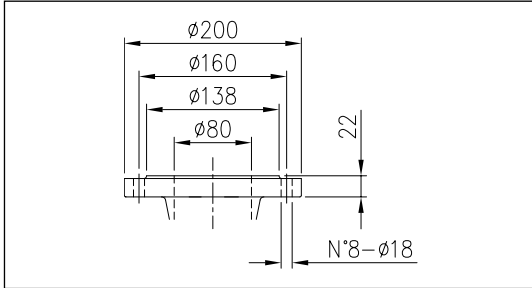


DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

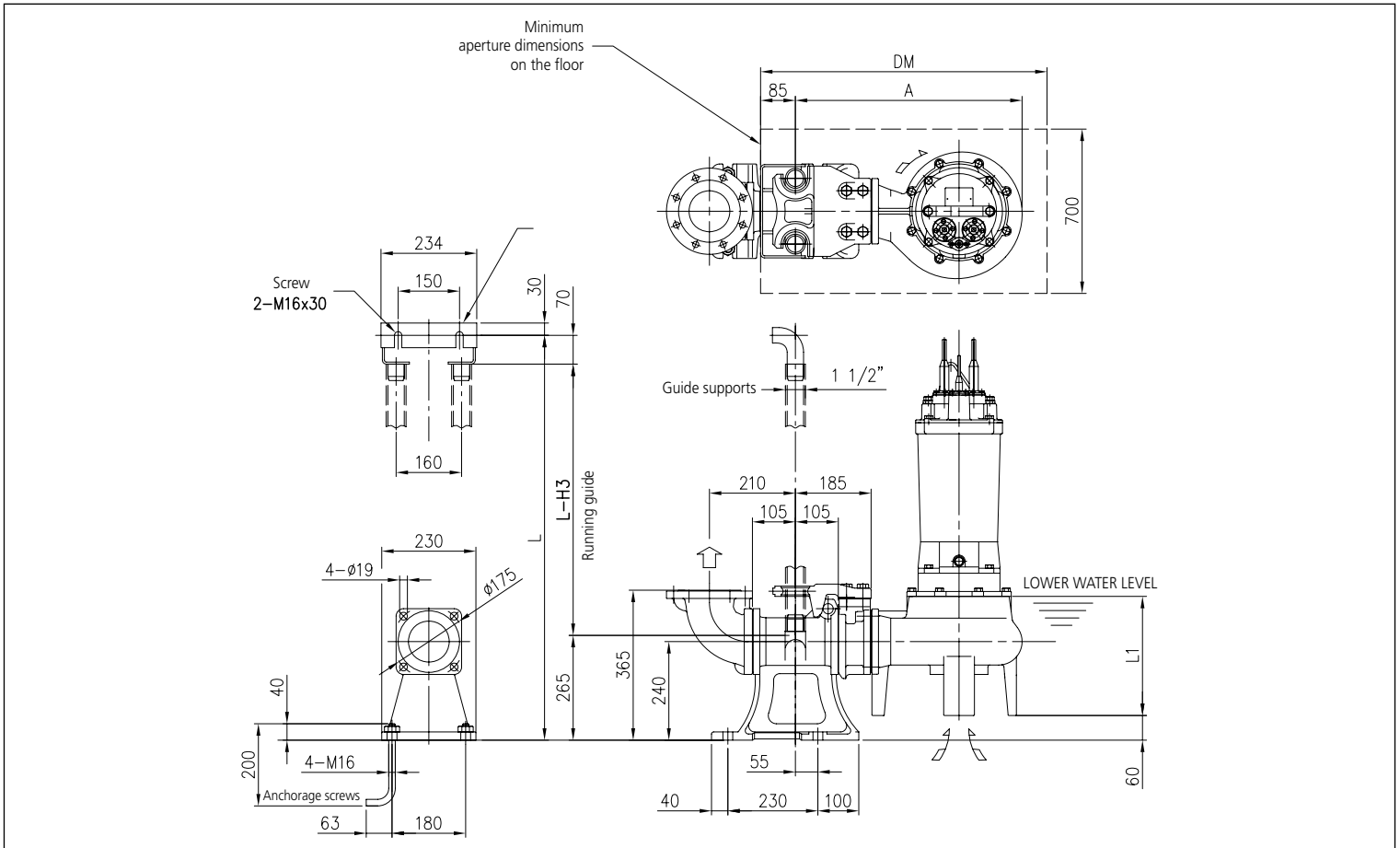
DIMENSIONS FLANGES PN 10 (ACCORDING TO EN 1092-2)



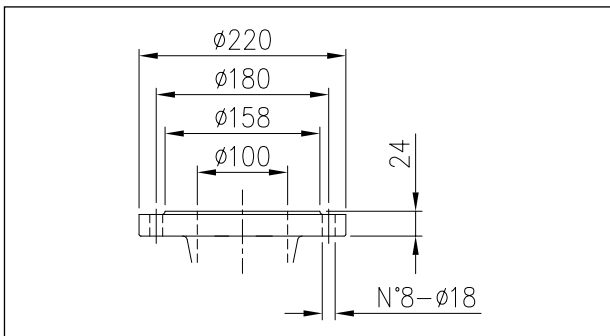
DIMENSIONS TABLE QDC (quick discharge connector) LM 80 (DMLV)

Model	A	P1	P2	G1	G2	F	H1	H2	H3	L1	L6	BN1	BN2	D1	E1	coupl. foot	Weight [kg]
80 DMLV52.2	468	75	90	125	165	285	175	230	280	200	31	75	90	15	155	LM80	17
80 DMLV53.7	468	75	90	125	165	285	175	230	280	200	31	75	90	15	155		17

DIMENSIONS QDC (quick discharge connector) LL 100 (DMLV)



DIMENSIONS FLANGES PN 10 (ACCORDING TO EN 1092-2)



DIMENSIONS TABLE QDC (quick discharge connector) LM 100 (DMLV)

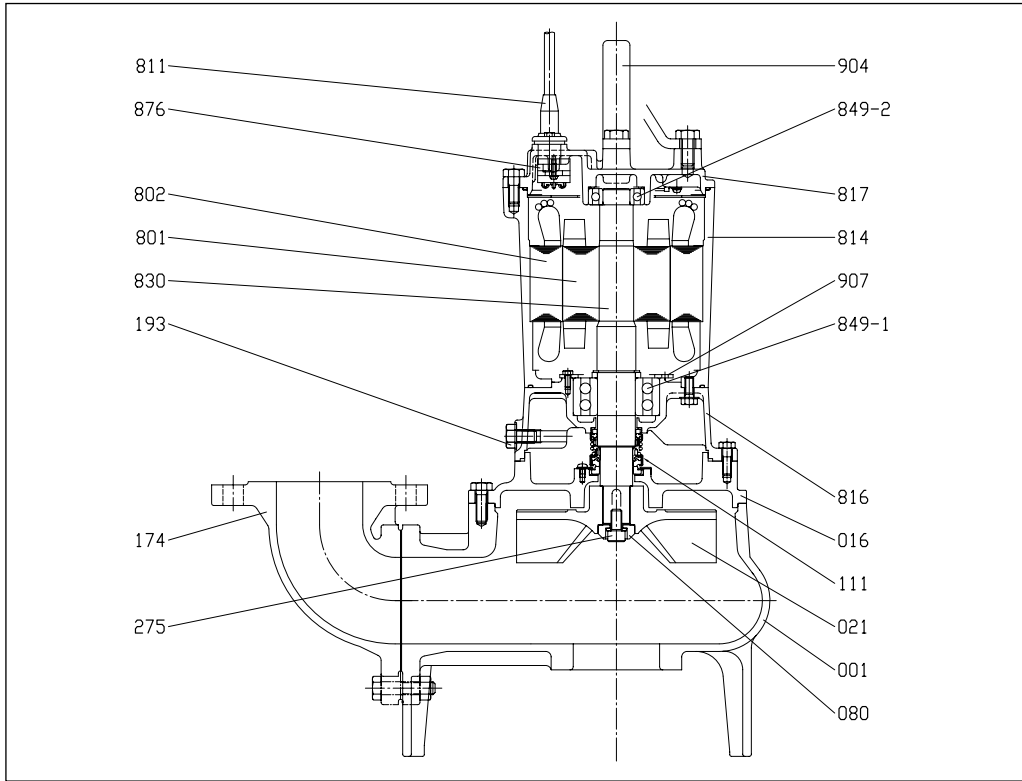
Model	A	H3	L1	Coupling foot	Weight [kg]
100 DMLV55.5	554	335	250	LL100	46
100 DMLV57.5	611	335	250		46
100 DMLV511	611	335	250		46
100 DMLV515	698	335	300		46
100 DMLV522	698	335	300		46

DMLV - DMLVF

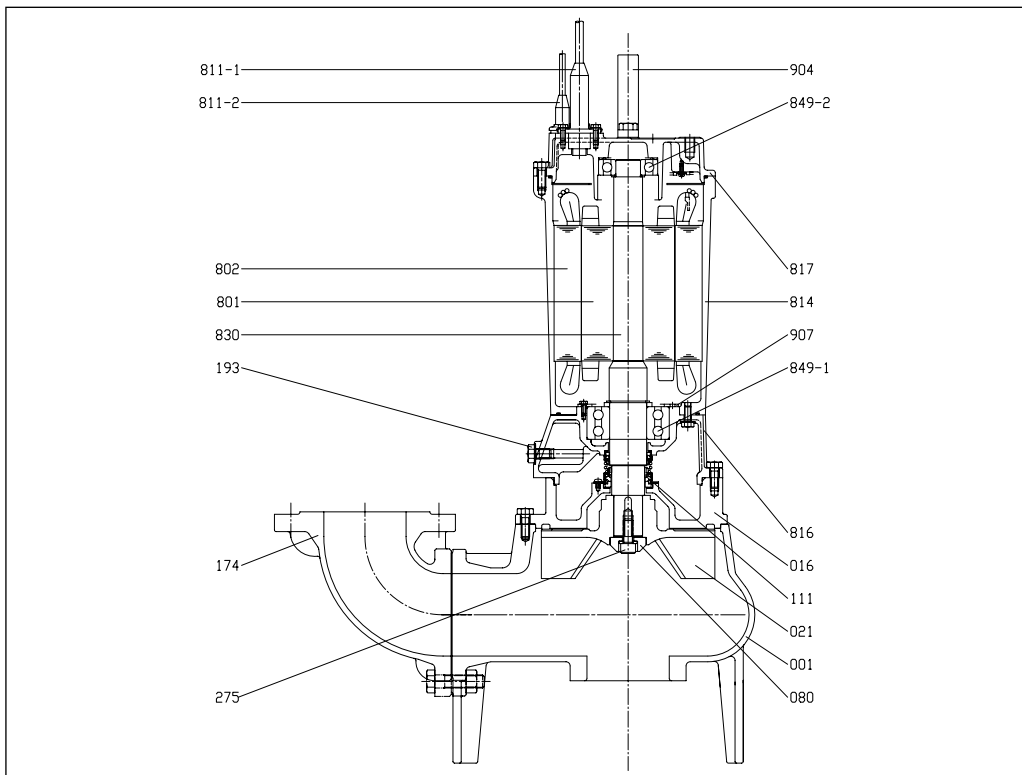
SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

SECTIONAL VIEW 80 DMLV 52.2



SECTIONAL VIEW DMLV (3.7÷7.5kW)



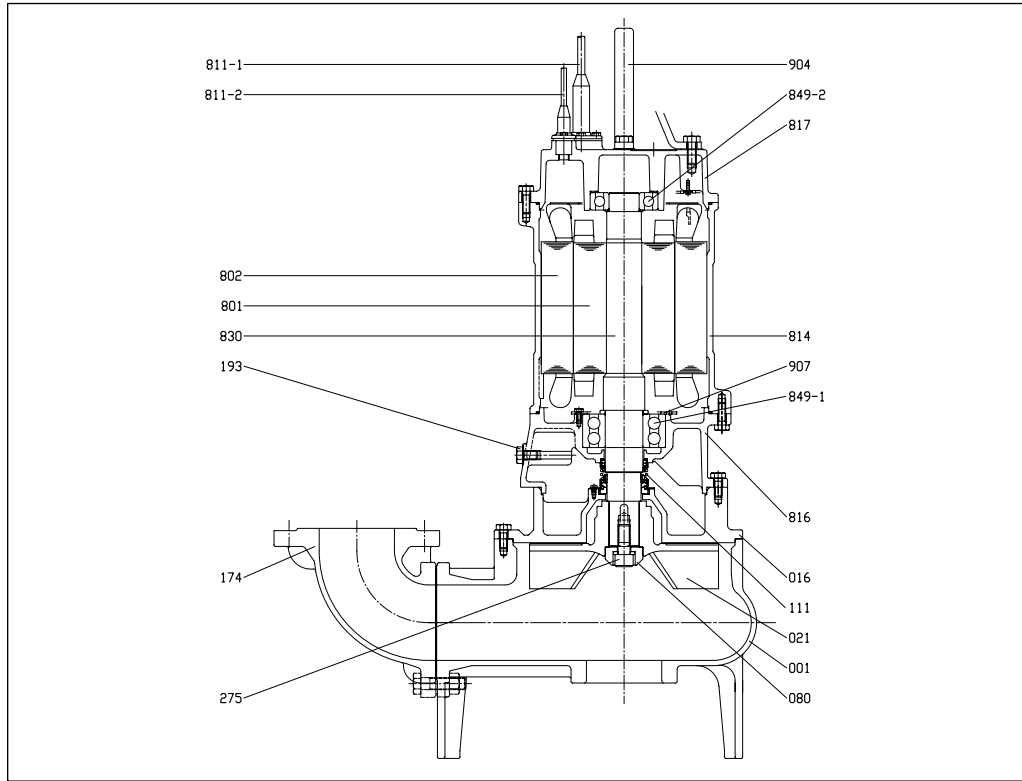
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

SECTIONAL VIEW DMLV (11÷22kW)



MATERIALS TABLE DMLV

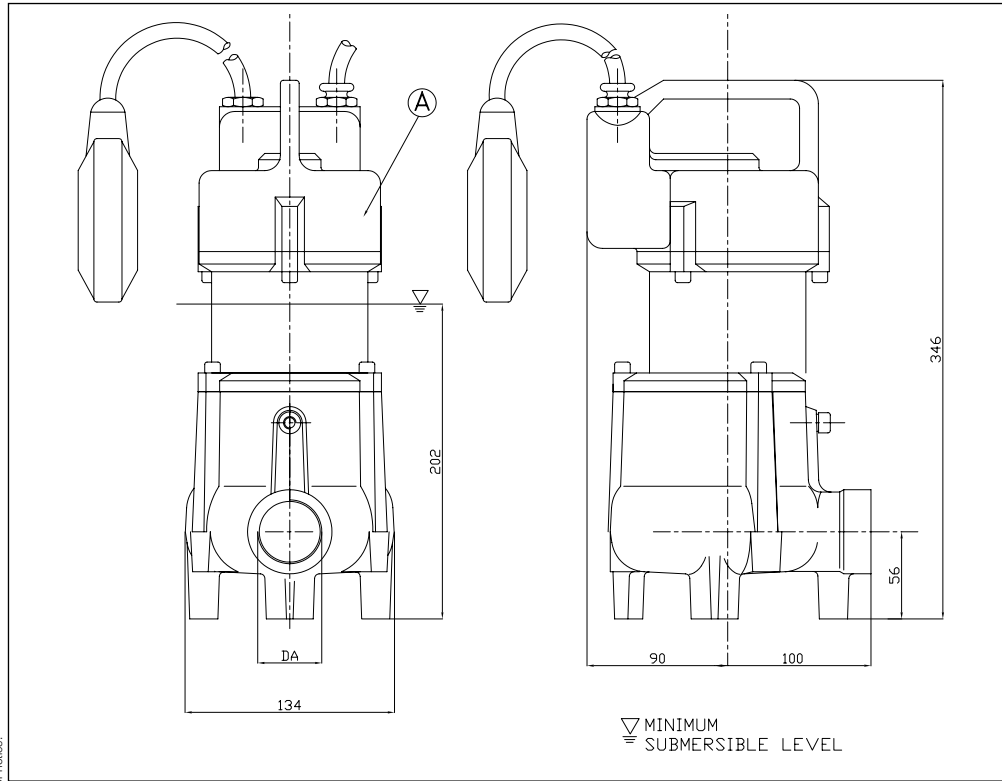
Ref.	Name	Material	Ref.	Name	Material
001	Pump body	Cast iron EN-GHJL-200 - EN 1561	811-1	Cable (power supply)	-
016	Mechanical seal cover	Cast iron EN-GHJL-200 - EN 1561	811-2	Cable (signal)	-
021	Impeller	Cast iron EN-GHJL-200 - EN 1561	814	Motor case	Cast iron EN-GHJL-200 - EN 1561
080	Bushing	Steel	816	Power side bracket	Cast iron EN-GHJL-200 - EN 1561
111	Mechanical seal	-	817	Opposite side bracket	Cast iron EN-GHJL-200 - EN 1561
174	Discharge bend	Cast iron EN-GHJL-200 - EN 1561	830	Shaft	EN 1.4006 (AISI403)
193	Oil plug	Steel inox	849-1	Ball bearing	-
275	Screw (Impeller)	Steel inox A2-70 Class ISO 3506/1	849-2	Ball bearing	-
801	Rotor	-	876	Protector	-
802	Stator	-	904	Lifting hanger	Steel
811	Cable	-	907	Cover	Steel

DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

DIMENSIONS 32DMLVF



DIMENSIONS TABLE 32DMLVF

DA	Model	[kW]	Weight [kg]
1" 1/4	32DMLVF50,5M (90)	0,5	14

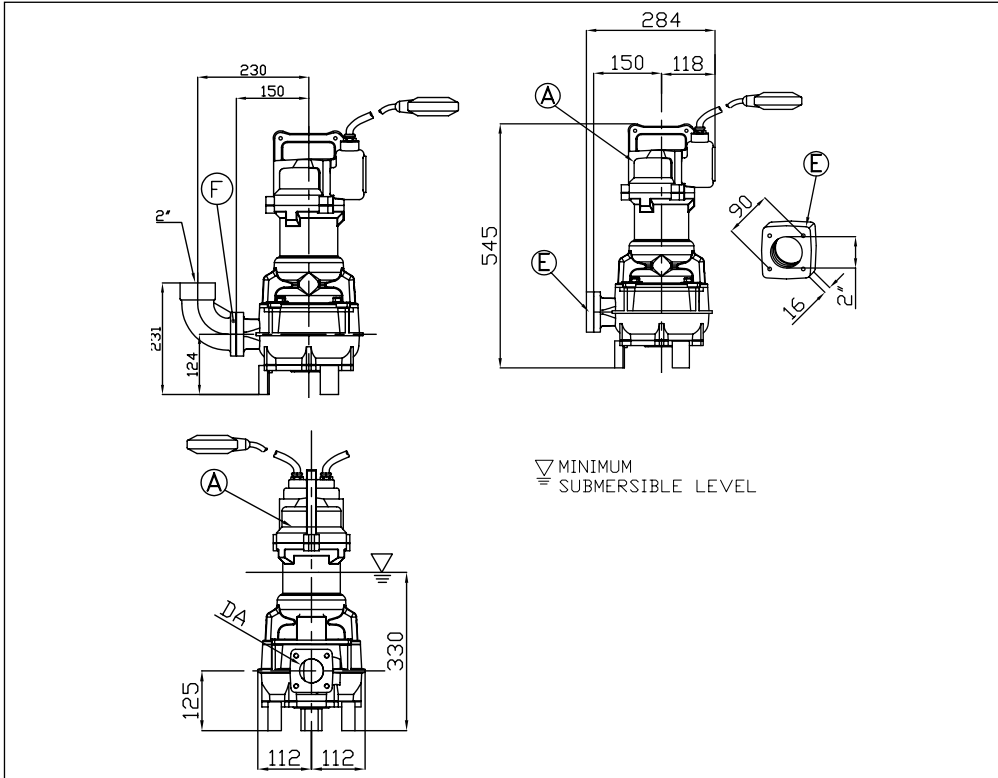
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

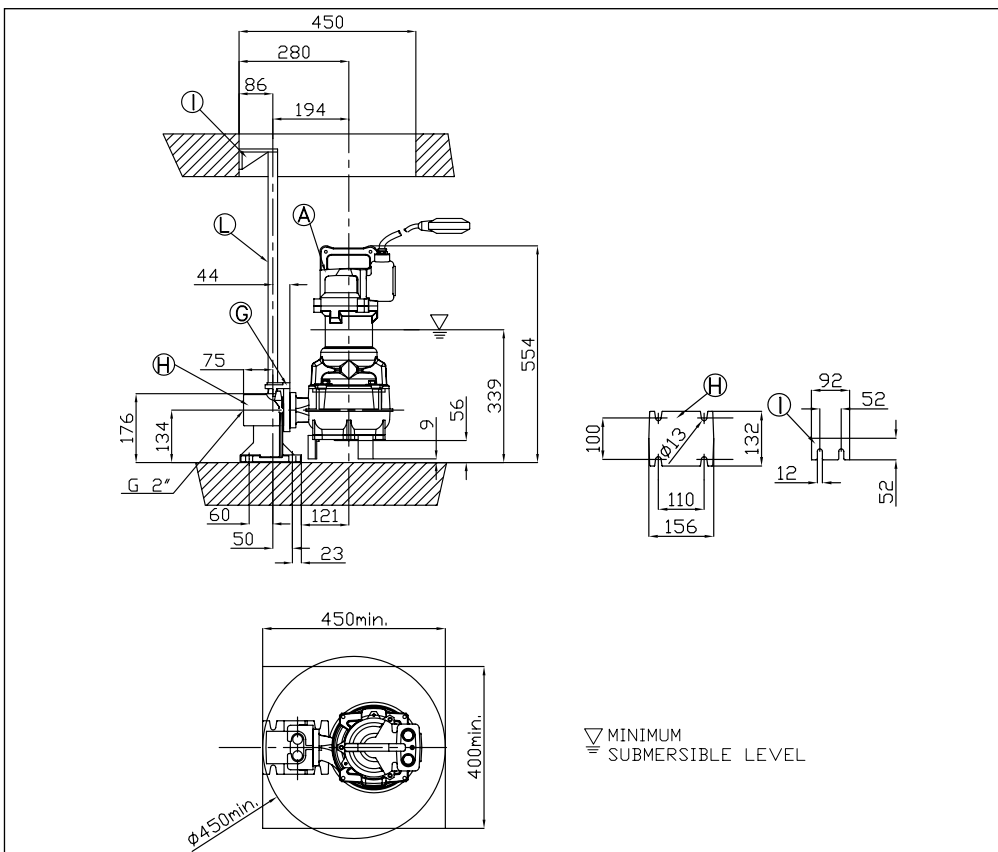
in cast iron

DIMENSIONS 50DMLVF (1.1 ÷ 1.8 kW)



DIMENSIONS TABLE 50DMLVF (1.1 ÷ 1.8 kW)

DA	Model	[kW]	Weight [kg]
50	50DMLVF51,1M (130)	1,1	43
	50DMLVF51,8M (140)	1,8	43
	50DMLVF51,8M (155)	1,8	4,3

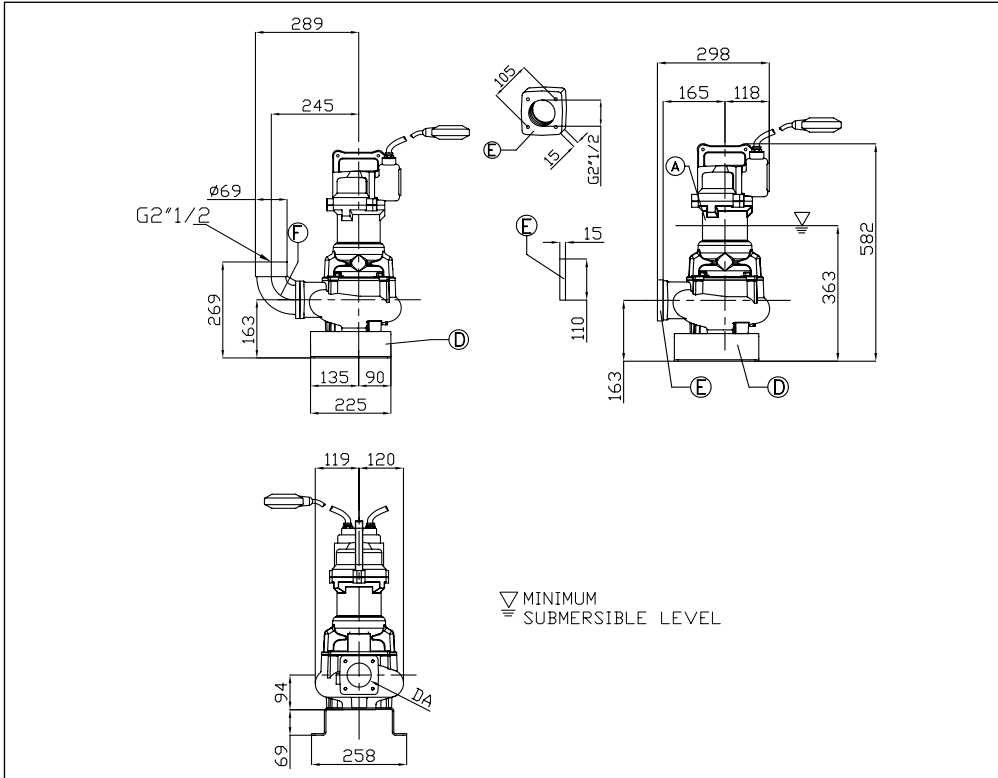


DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

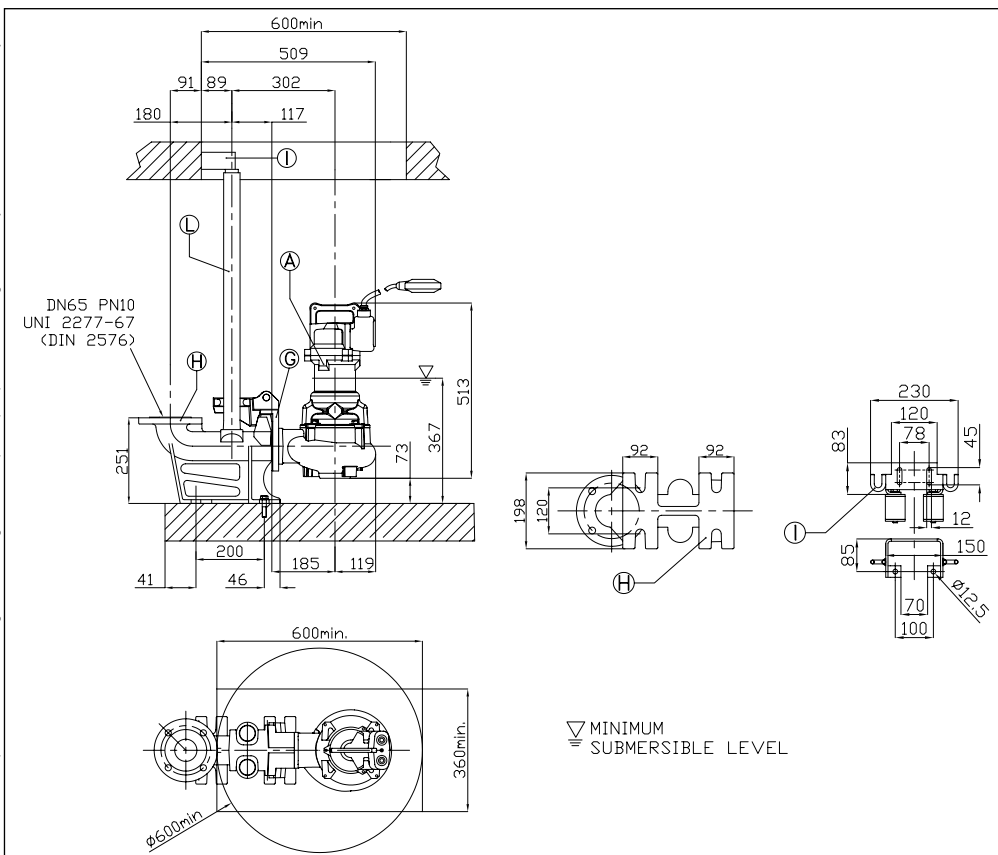
in cast iron

DIMENSIONS 65DMLVF (1.9 kW)



DIMENSIONS TABLE 65DMLVF (1.9 kW)

DA	Model	[kW]	Weight [kg]
65	65DMLVF51,9M (109)	1,9	44



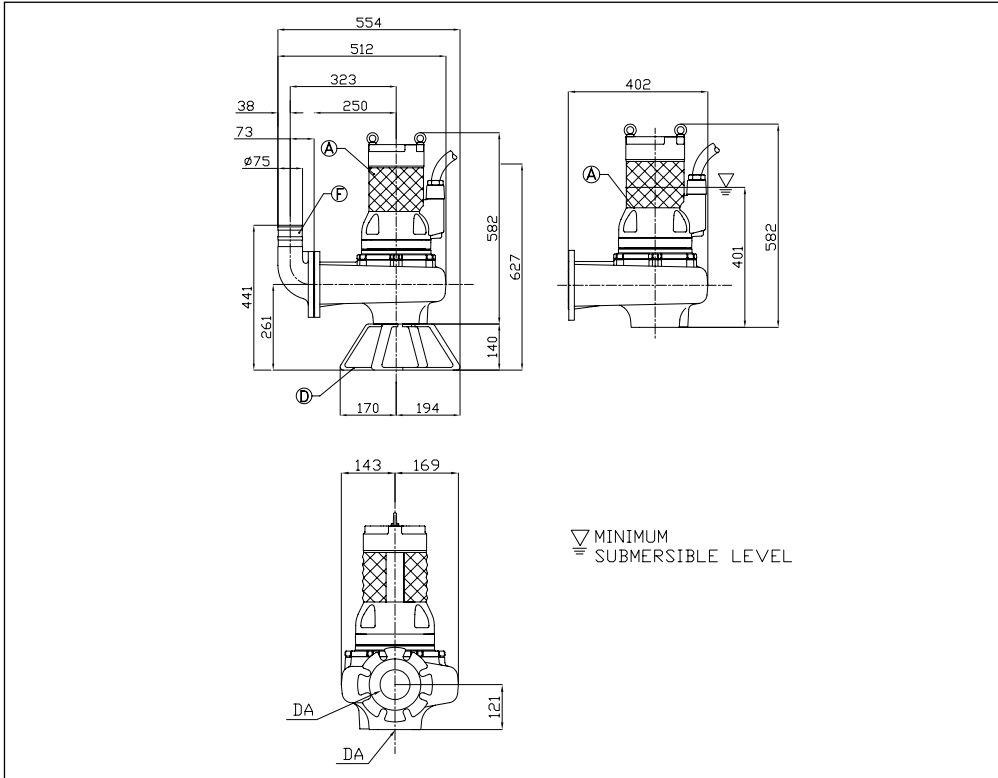
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

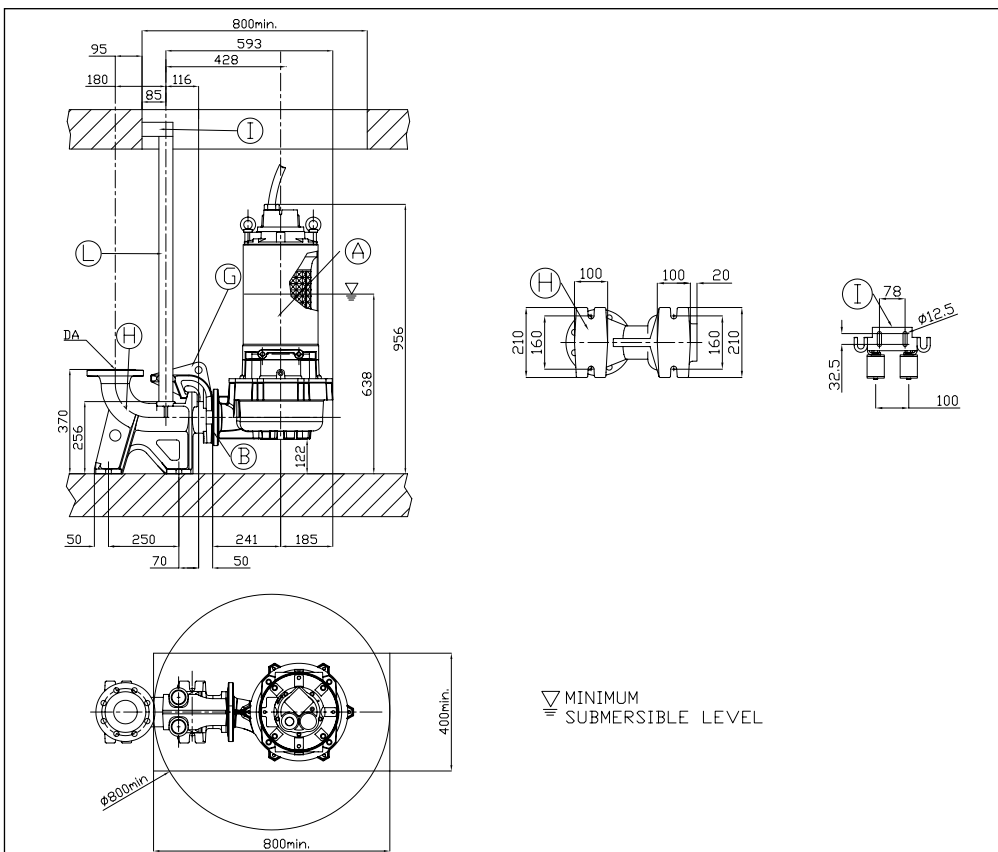
in cast iron

DIMENSIONS 80DMLVF (4.6 kW)



DIMENSIONS TABLE 80DMLVF (4.6 kW)

DA	Model	[kW]	Weight [kg]
DN 80	80DMLVF54,6 (206)	4,6	79



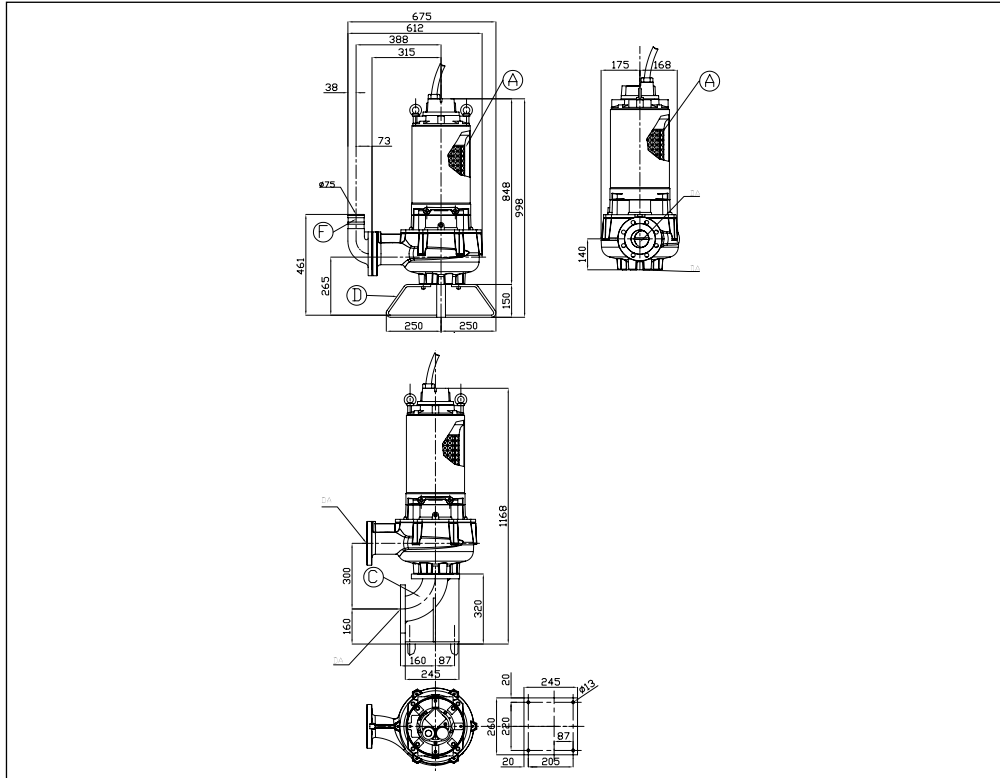
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

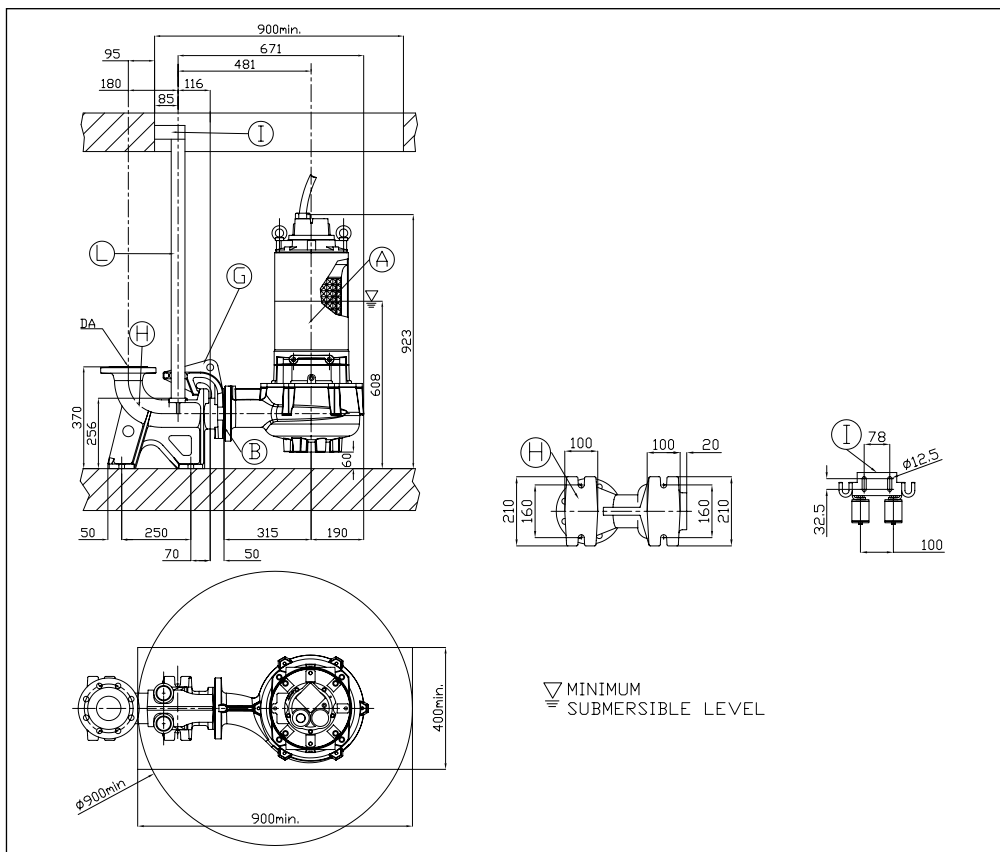
in cast iron

DIMENSIONS 80DMLVF (18.2 kW)



DIMENSIONS TABLE 80DMLVF (18.2 kW)

DA	Model	[kW]	Weight [kg]
DN 80	80DMLVF518,2 (225)	18,2	190



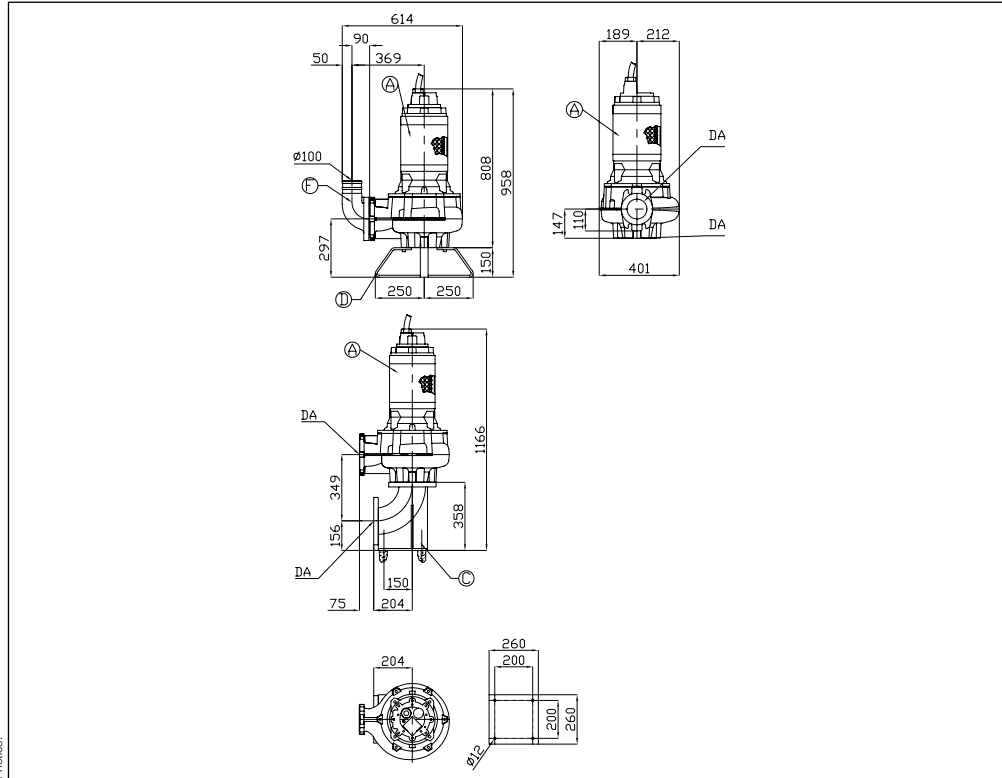
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

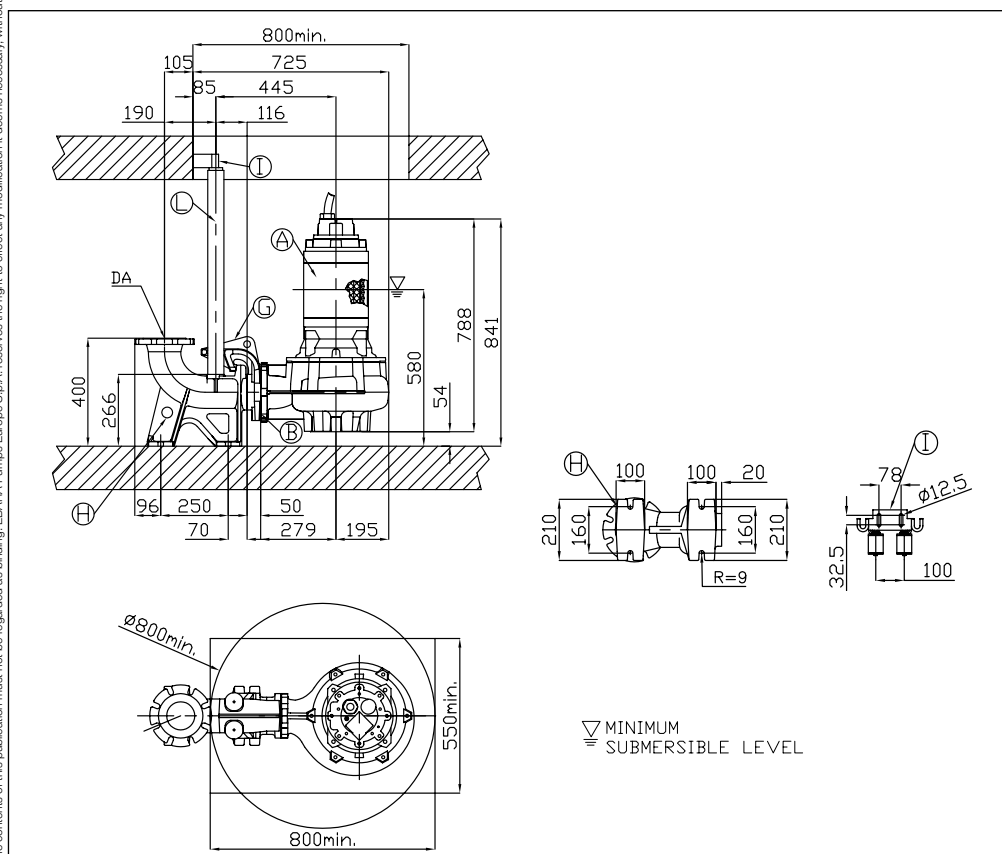
in cast iron

DIMENSIONS 100DMLVF



DIMENSIONS TABLE 100DMLVF

DA	Model	[kW]	Weight [kg]
DN 100	100DMLVF55,2 (260)	5,2	166



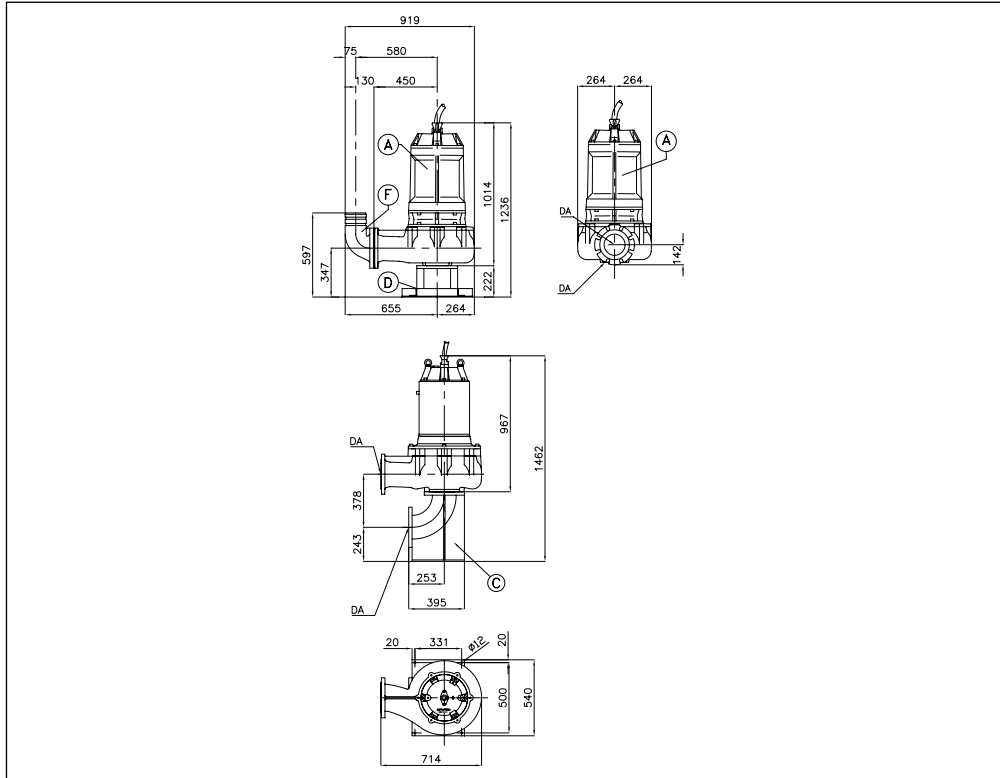
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

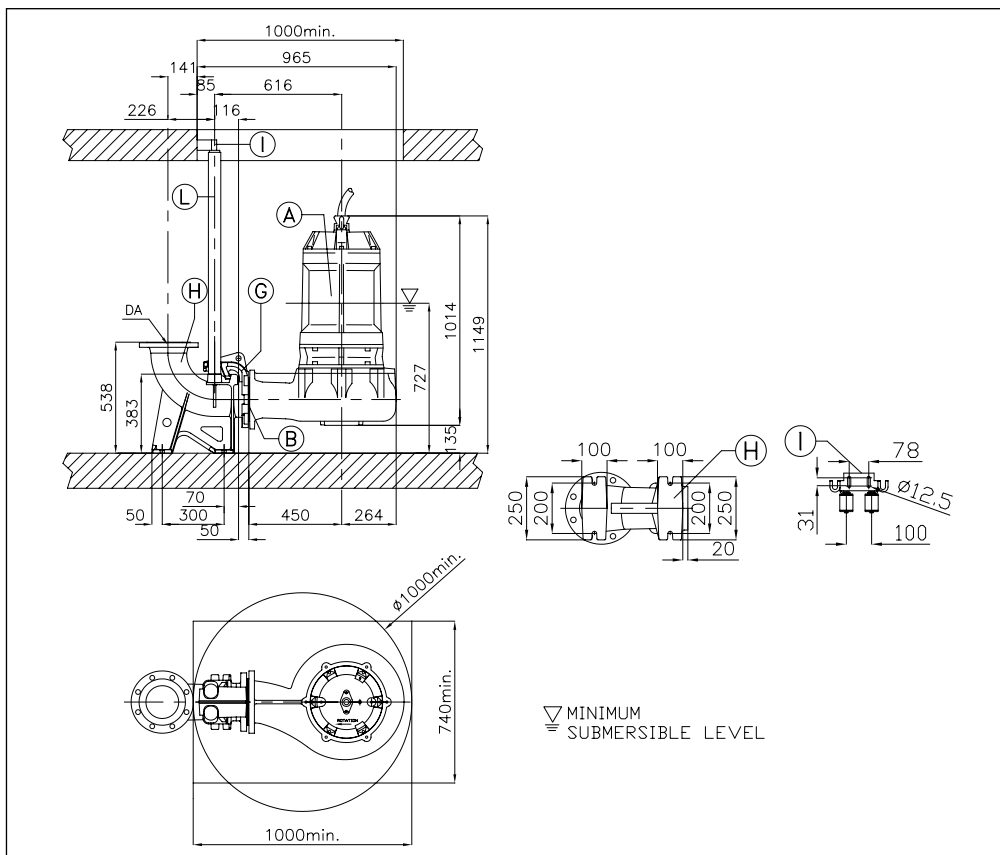
in cast iron

DIMENSIONS 150DMLVF



DIMENSIONS TABLE 150DMLVF

DA	Model	[kW]	Weight [kg]
DN 150	150DMLVF511 (360)	11	361
	150DMLVF513,6 (400)	13,5	361
	150DMLVF525 (340)	25	361
	150DMLVF535,7 (360)	35,7	361

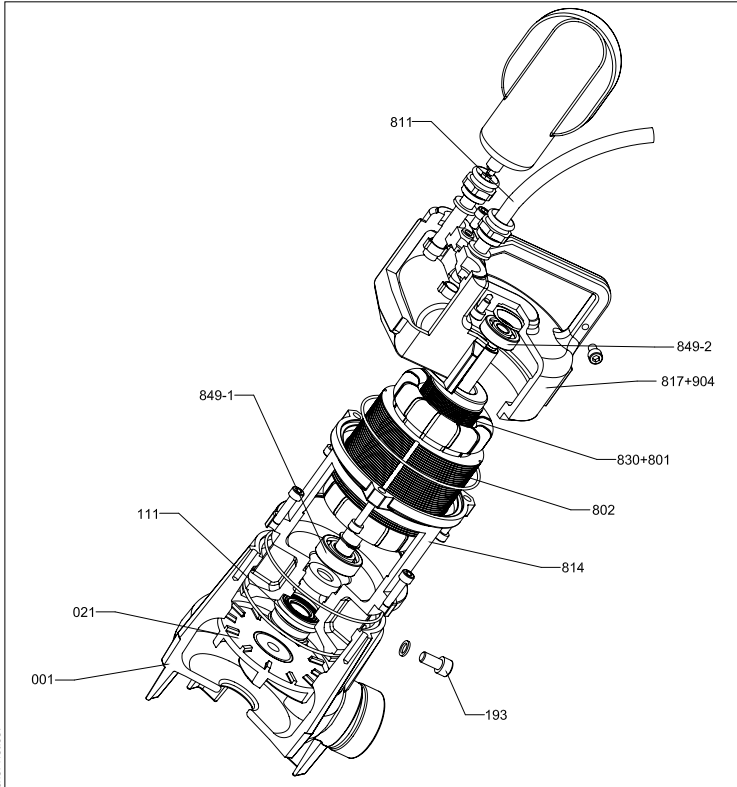


DMLV - DMLVF

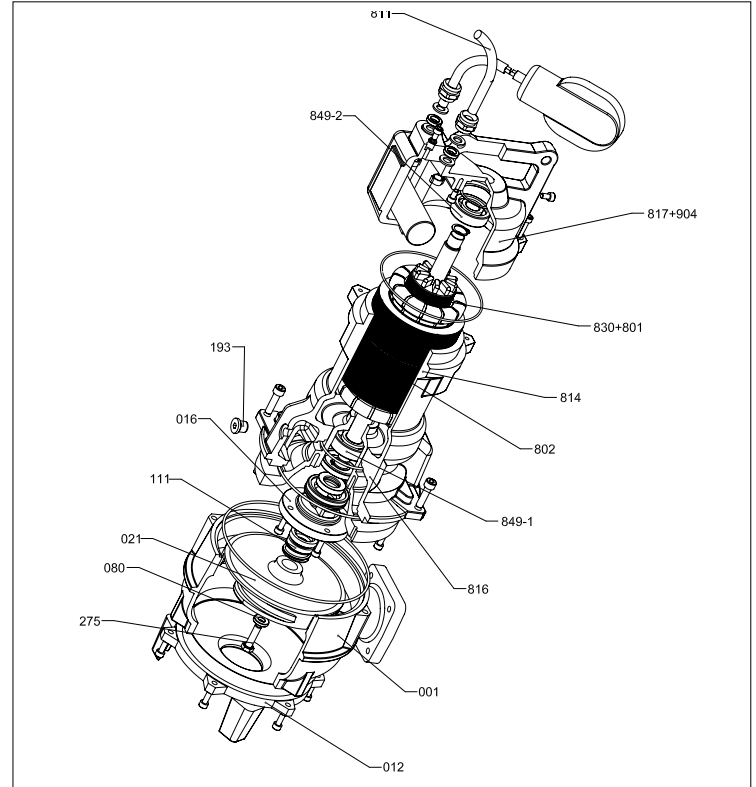
SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

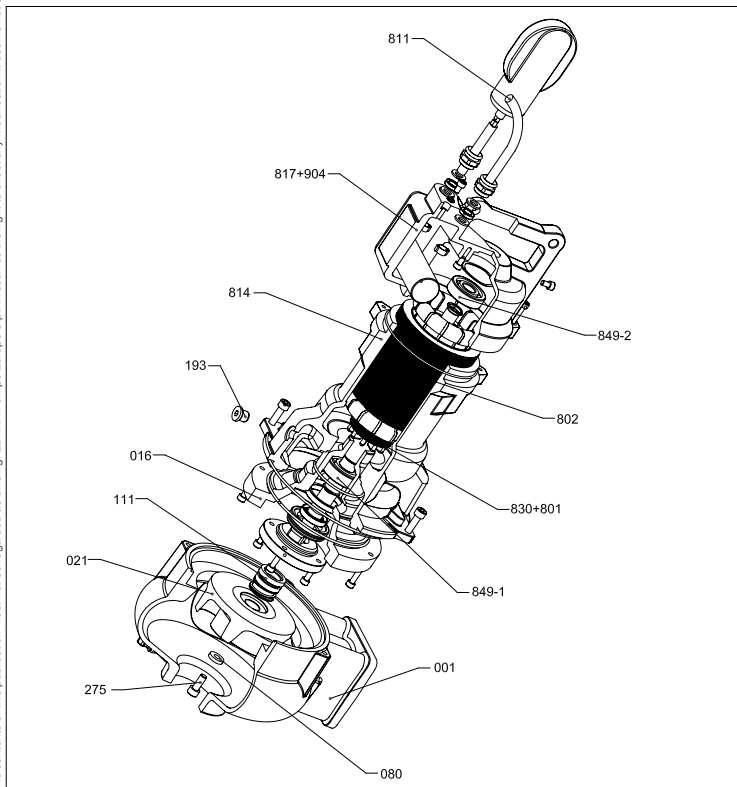
SECTIONAL VIEW 32DMLVF (0.5 kW)



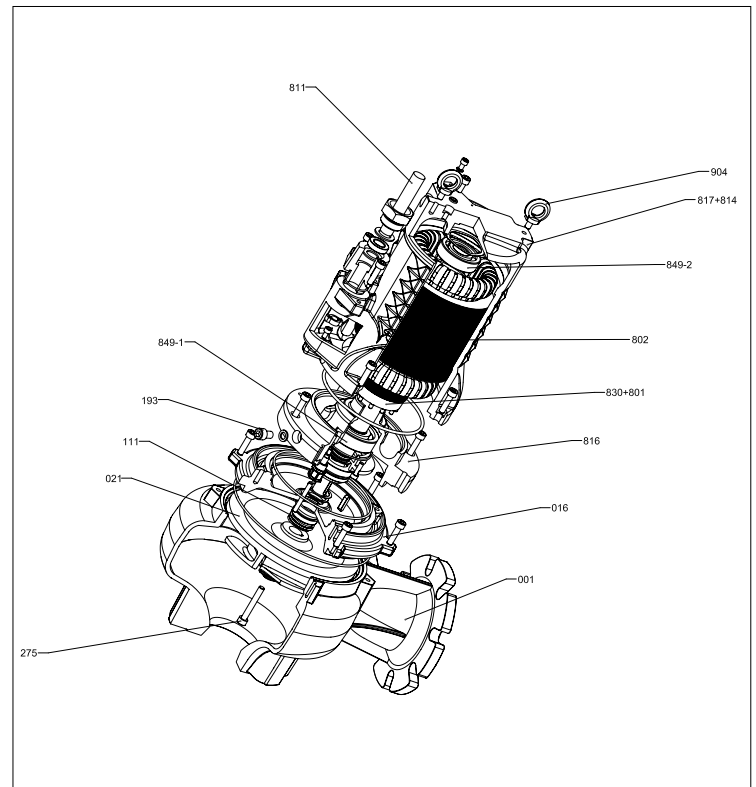
SECTIONAL VIEW 50DMLVF (1.1÷1.8 kW)



SECTIONAL VIEW 65DMLVF (1.9 kW)



SECTIONAL VIEW 80DMLVF (4.6 kW)



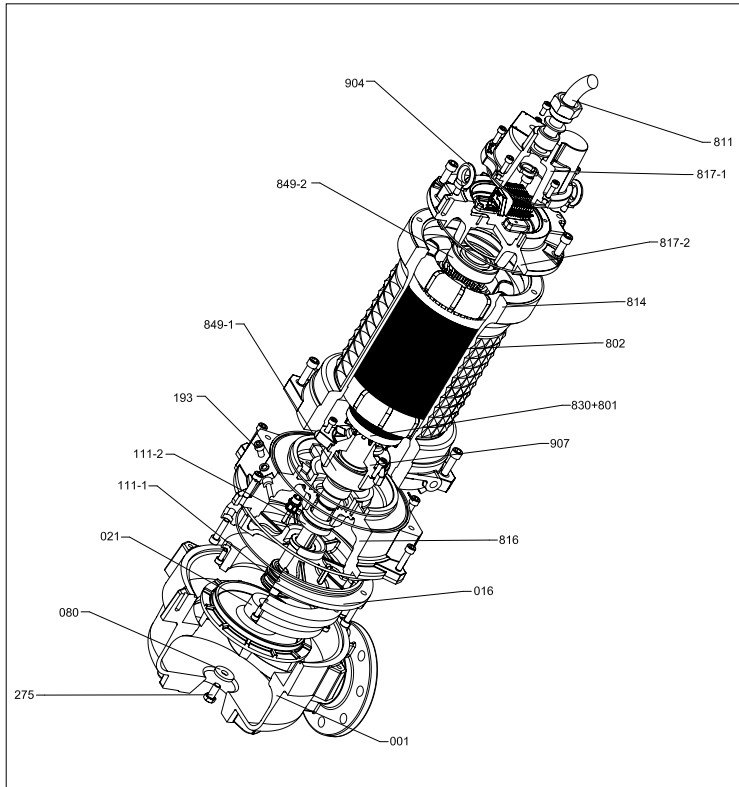
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DMLV - DMLVF

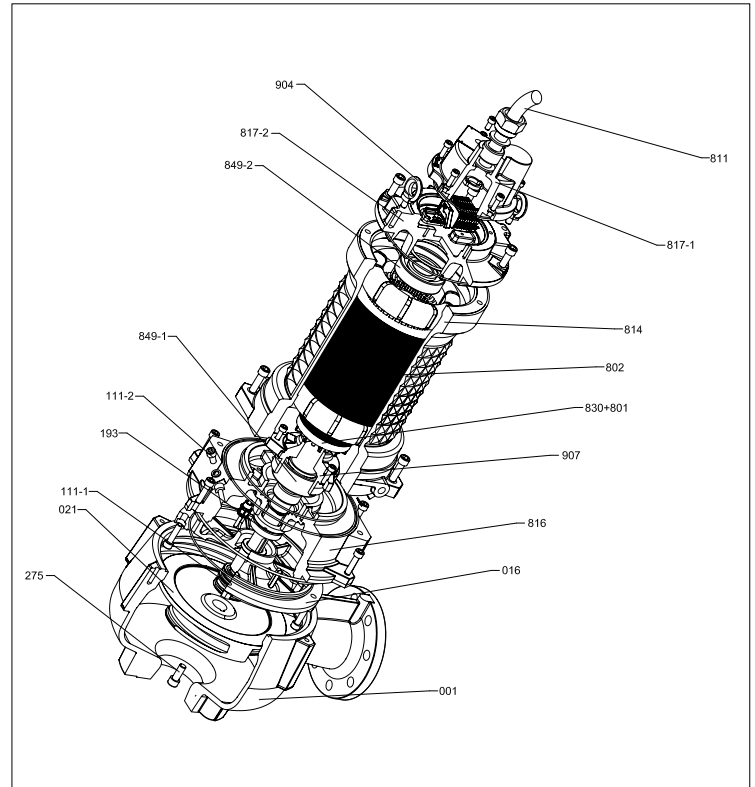
SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

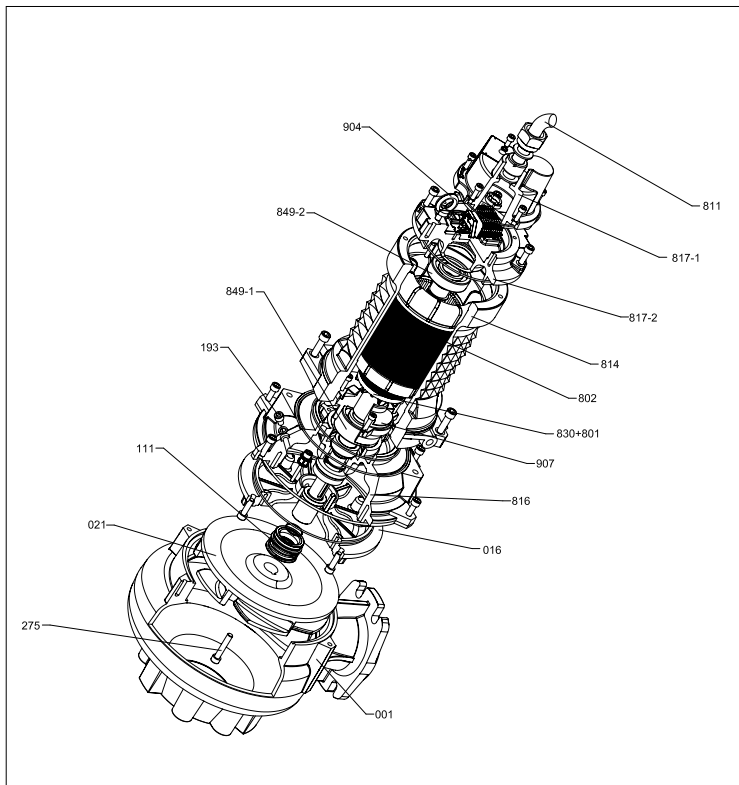
SECTIONAL VIEW 80DMLVF 18.2 (188)



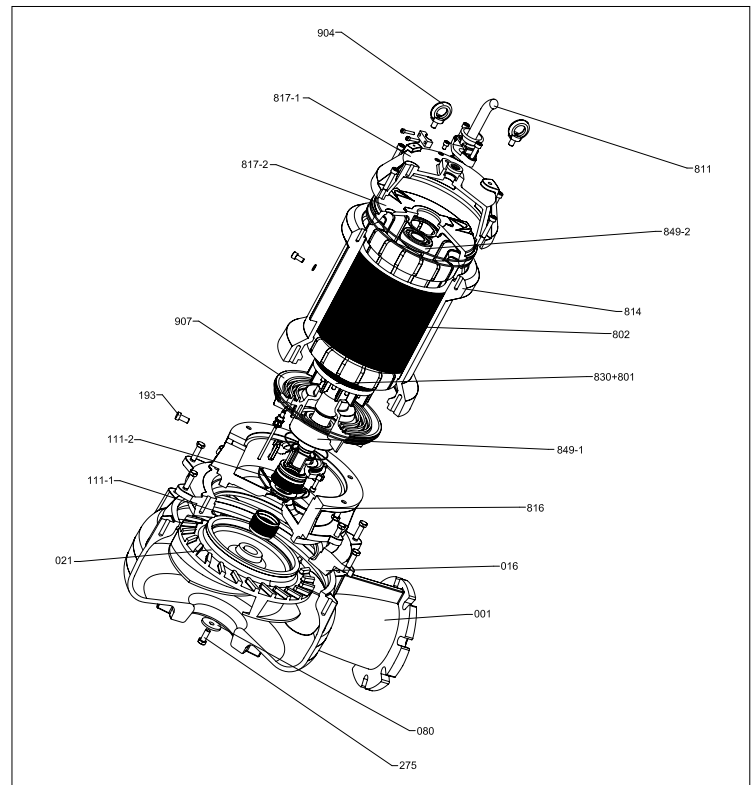
SECTIONAL VIEW 80DMLVF 18.2 (225)



SECTIONAL VIEW 100DMLVF (5.2 kW)



SECTIONAL VIEW 150DMLVF (11÷13.6 kW)



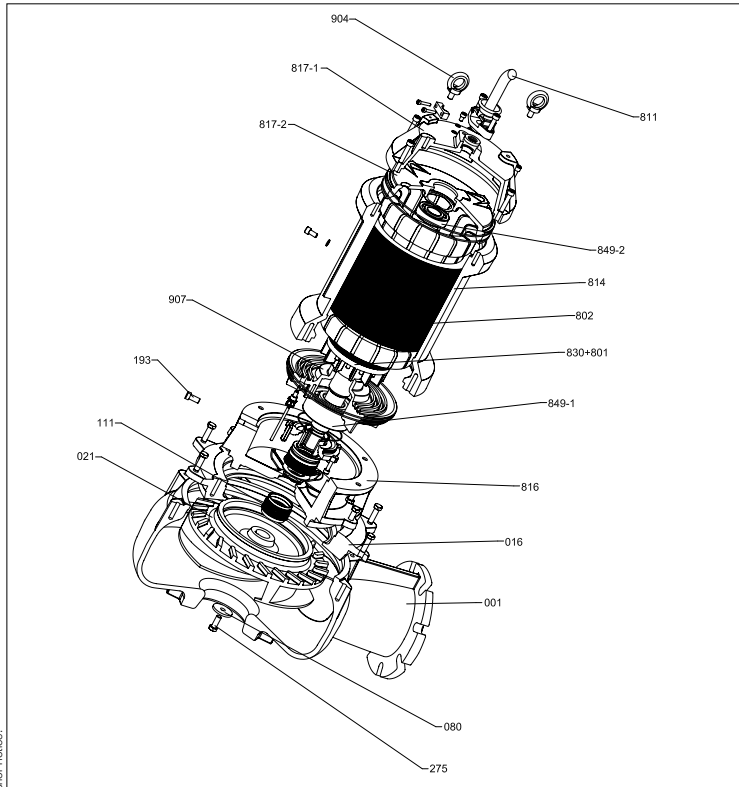
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DMLV - DMLVF

SUBMERSIBLE SEWAGE PUMPS (VORTEX)

in cast iron

SECTIONAL VIEW 150DMLVF (25÷35.7 kW)



MATERIALS TABLE DMLVF

Ref.	Name	Material
001	Pump body	Cast iron EN-GHJL-250
012	Suction side lid	Cast iron EN-GHJL-250
016	Mechanical seal cover	Cast iron EN-GHJL-250
021	Impeller	Cast iron EN-GHJL-250+Ni
080	Bushing	Steel
111	Mechanical seal	-
111-1	Mechanical seal	-
111-2	Mechanical seal	-
193	Oil plug	NBR/Stainless Steel
275	Impeller nut	AISI304 Class A2
801	Rotor	-
802	Stator	-
811	Cable	-
814	Motor case	Cast iron EN-GHJL-250
816	Power side bracket	Cast iron EN-GHJL-250
817	Opposite side bracket	Cast iron EN-GHJL-250
817-1	Opposite side bracket [1]	Cast iron EN-GHJL-250
817-2	Opposite side bracket [1]	Cast iron EN-GHJL-250
830	Shaft	AISI 420B
849-1	Ball bearing	-
849-2	Ball bearing	-
904	Lifting hanger [2]	Cast iron EN-GHJL-250
907	Bearing cover	Cast iron EN-GHJL-250

[1] - Except 32DMLVF from 0,5 kW, 50DMLVF (1,1÷1,8 kW), 65DMLVF (1,9 kW), 80DMLVF (4,6 kW)
 [2] - For models 80DMLVF (4,6 kW), 80DMLVF (18,2 kW), 100DMLVF (5,2 kW), 150DMLVF (11÷13,6 kW), 150DMLVF (25÷35,7 kW) the lifting hanger is in steel

DMLVF (0.5÷35.7 kW) MOTOR DATA

For electrical data of DMLV pumps see pages 78-79

[P ₂]		[kW]	0,5	1,1	1,8	1,9	4,6	5,2	11	13,6	18,2	25	35,7	
Resistance at 20°C		[Ω]	10,1/20,2	1,97/4,38	1,9/4,3	1,8/4,1	6,100	4,000	1,600	1,550	0,540	0,310	0,240	
GD ²		[kg·m ²]	0,000241	0,000520	0,000520	0,000520	0,006	0,016	0,140	0,140	0,016	0,120	0,130	
Voltage		[V]	230	230	230	230	400	400	400	400	400	400	400	
Load	0%	Current	[A]	1	2,31	2,5	2,52	3	6	24,9	26	12,9	19	
		Power	[W]	170	415	420	433	480	720	2200	2300	1950	1800	2100
	75%	Current	[A]	2,8	5,4	7,6	7,6	7,1	9	16,4	20,1	25,6	36,3	49,7
		Efficiency	[%]	63	67	80	80	83	78	85	85	87,41	90	91
		Power factor	[%]	0,95	0,96	0,98	0,98	0,85	0,81	0,86	0,86	0,87	0,82	0,85
	100%	Speed	[min ⁻¹]	2831	2868	2795	2801	1440	942	959	956	2910	1434	1463
		Current	[A]	4	7,5	10	10	9,5	12,5	23	27,5	34	48	65,5
		Efficiency	[%]	63	68	80,5	80,5	83	78	85	85	88,4	91	91,5
		Power factor	[%]	0,96	0,98	0,99	0,99	0,89	0,88	0,89	0,89	0,91	0,85	0,88
Speed		[min ⁻¹]	2815	2750	2710	2700	1430	935	950	950	2870	1430	1460	
Locked Rotor Torque		[%]	57	20	30	30	200	210	240	240	330	250	250	
Start Current		[A]	12,4	21	35	35	42,8	63,8	124,2	148,5	193,8	283,2	384,4	
Poles			2				4	6	6		2	4		
Phase			1				3			3				
No. starts per hour			15											
Model			M206MM-264	M271MM-2282-3028-3534-6437	M271ML-3026-3536-5432-5372-6436	M271MLR-846	M410T/Lp-2016	M611T/M-4980	M618T/S-300	M618T/M-299	M213T/Lp-6110-6429	M418T/M-296	M418T/L-295	

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