HIGH PRESSURE VERTICAL MULTISTAGE CENTRIFUGAL PUMPS

OMK-V SERIES
(50 - 60 Hz)

TECHNICAL MANUAL

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MAS OMK-V – High Pressure Centrifugal Pumps
General Specifications

Fields of application

For pumping of clear and slightly contaminated liquids in:

- Water supply systems.
- Booster sets in high rise buildings and industry.
- Water treatment.
- Industrial washdown systems.
- Fire extinguishing plants.
- Boiler feed and condensate transfer.
- Sanitary and cleaning installations.
- For industrial applications and public services.
- Water distribution services.
- Industrial applications.

Pumped Liquids

Thin, clean, non-aggressive and non-explosive liquids free from solid particles and fibres.

- Fresh water, potable water, boiler feed water, industrial water, sea and brackish water, hot water, condensate, lyes, etc.

For special applications, please consult to MAS DAF MAKİNA SAN. A.Ş.

Design

- The OMK-V Pump is a vertical axis, radially split, ring section design multistage centrifugal pump of non-self priming type.
- Impellers are between bearings, single entry, closed type and dynamically balanced. Impeller diameter will be corrected for optimal adherence to the required duty point.
- The axial thrust is relieved by relieving boreholes in each impeller. The remaining thrust can be borne by large-sized bearings.
- Pumps with exchangeable wear rings are available upon request.
- The pump series consists of 5 sizes.
- Pump and motor are fitted on a common base plate and connected to each other via flexible coupling.
- Normally, discharge part is at motor side on top and suction part is at dead end side at the bottom. Rotation of pump is clockwise when viewed from driver.
  Please see the possible arrangements at “Different Mounting Arrangements “section.

Shaft

Chromium steel (AISI 420) fine grained shafts are used on OMK-V pumps. There is no big diameter difference along the shaft and it is possible and very easy to dismantling the pump beginning from suction or discharge ends.

Bearings

- At the discharge side, bearing house is equipped with grease lubricated extra heavy duty ball bearings (6400 C3 series). It carries extra axial load for the pump.
- At the suction side, there is a bronze sliding bearing with teflon. It carries only the radial load.
- Deflectors and lip seals on the shaft prevent leakage fluid from getting into bracket.

Shaft Seal

- Uncooled gland packing is standard (Up to 110 °C).
- Standardized, single acting, balanced and uncooled mechanical seal is optional (Up to 140 °C).
- Double-acting and cartridge seals are upon request.

Technical Data

- Suction Flanges…… : DN 50...DN 125 (PN 40) (DIN 2535)
- Discharge Flanges… : DN 32...DN 80 (PN 40) (DIN 2535)
- Operating Pressure.. : 40 Bar
- No of Stages…….. : 2-14
- Capacity Range…… : 5-220 m³ / h
- Head Range…….. : 30-400 m

Shaft Coupling and Coupling Guard

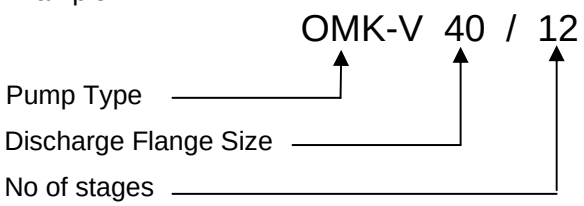
Connection of pump with driver unit by flexible coupling without intermediate bushing. OMK-V series pumps are always delivered with coupling and coupling guard.

Driver

Common electric motors according to IEC.

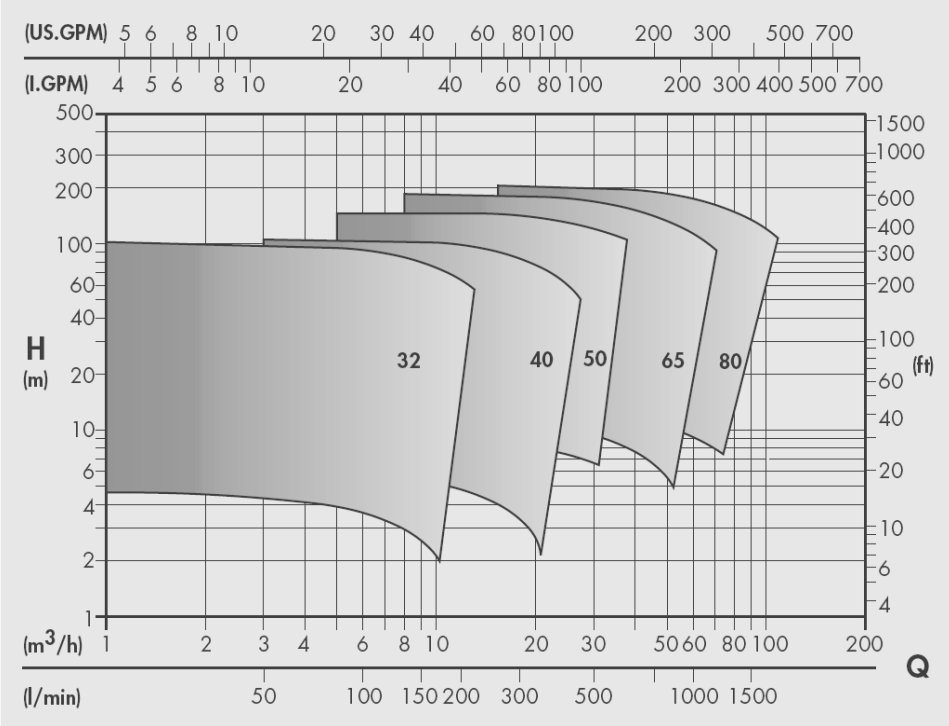
Idendification Code for Pump

Example:

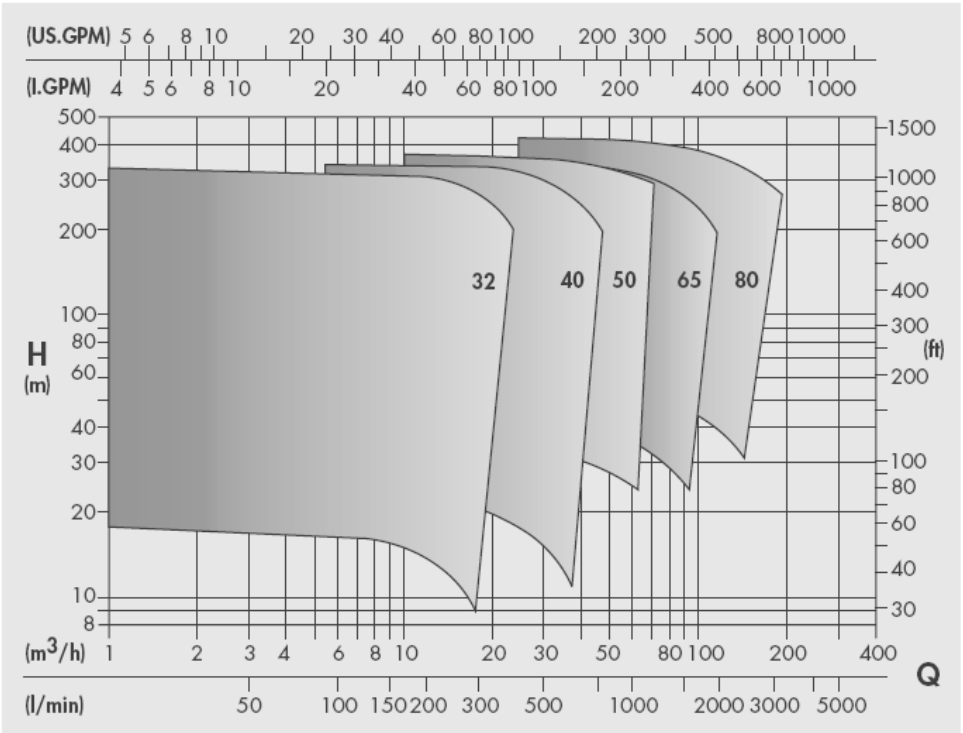


MAS OMK-V – High Pressure Multistage Pumps
Performance Range – 50 Hz

For 1450 RPM



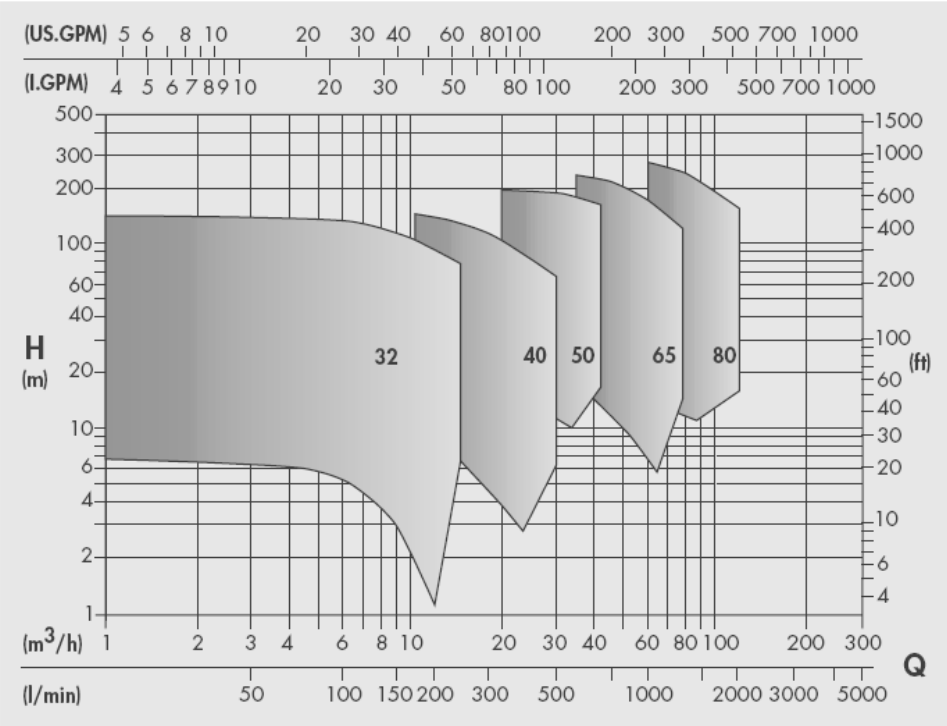
For 2900 RPM



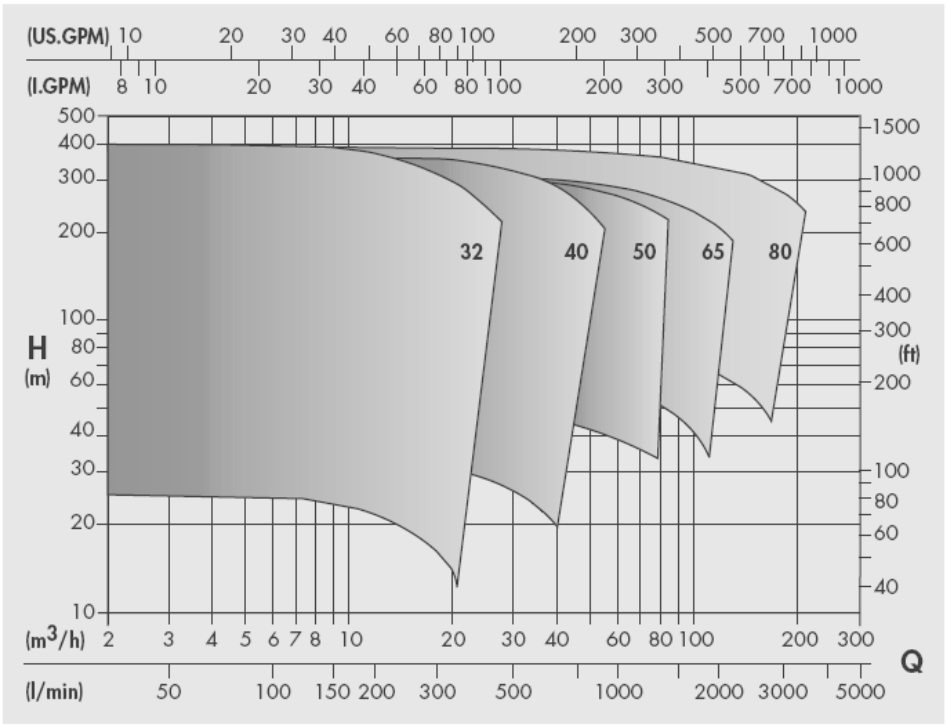
Model Designation	Min Number of Stages	Max Stages	
		1450 rpm	2900 rpm
OMK-V 32	2	14	12
OMK-V 40	2	12	10
OMK-V 50	2	11	7
OMK-V 65	2	11	5
OMK-V 80	2	10	5

MAS OMK-V – High Pressure Multistage Pumps
Performance Range – 60 Hz

For 1750 RPM

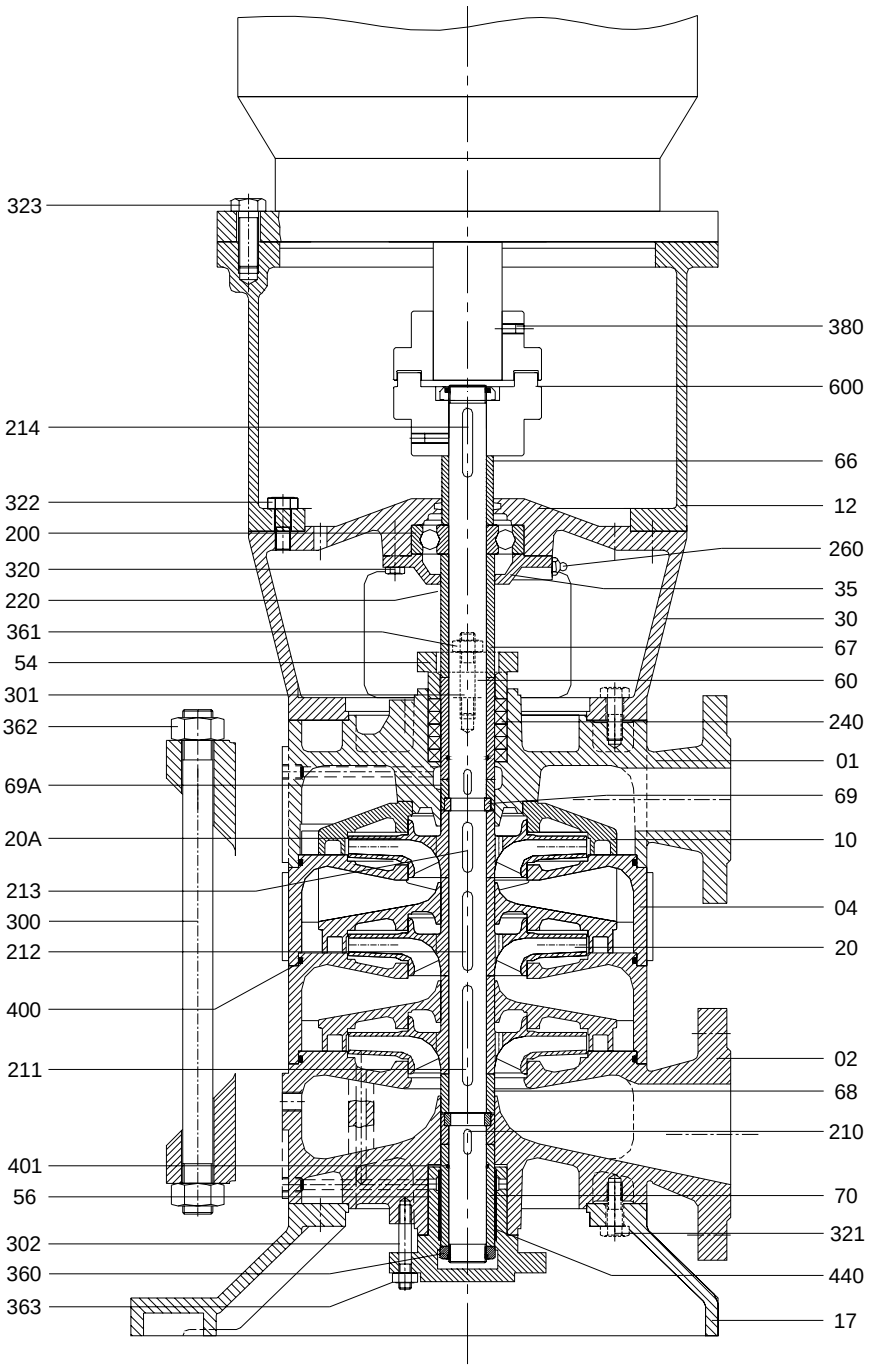


For 3500 RPM



Model Designation	Min Number of Stages	Max Stages	
		1750 rpm	3500 rpm
OMK-V 32	2	13	9
OMK-V 40	2	11	7
OMK-V 50	2	11	4
OMK-V 65	2	10	3
OMK-V 80	2	10	3

MAS OMK-V – High Pressure Centrifugal Pumps
Sectional Drawing and Part List



Part List

No	
01	Discharge Casing
02	Suction Casing
04	Stage Casing With Diffuser
10	Last Stage Diffuser
12	Adapter
17	Base Plate
20	Impeller
20A	Last Stage Impeller
30	Bearing Housing
35	Bearing Cover
54	Gland
56	Teflon Bearing Gland
60	Pump Shaft
66	Coupling Sleeve
67	Space Sleeve
68	Space Sleeve
69	Split Ring
69A	Retaining Ring
200	Ball Bearing (6400 Series)
210	Key for sleeve
211	Key for First Stage Impeller
212	Key For Standard Impeller
213	Key For Last Stage Impeller
214	Key For Coupling
220	V-Ring
240	Soft Packing
260	Greaser
301	Stud and Nut For Gland
302	Stud
320	Bolt for Bearing Cover
321	Bolt for Suction Casing
322	Bolt for Adapter
323	Bolt for Motor
360	Shaft Nut
361	Nut For Gland Stud
362	Nut For Casing Stud
363	Nut
380	Set-Screw
400	O-Ring
401	O-Ring
440	Teflon (Bearing Shell)
600	Coupling

Material Options

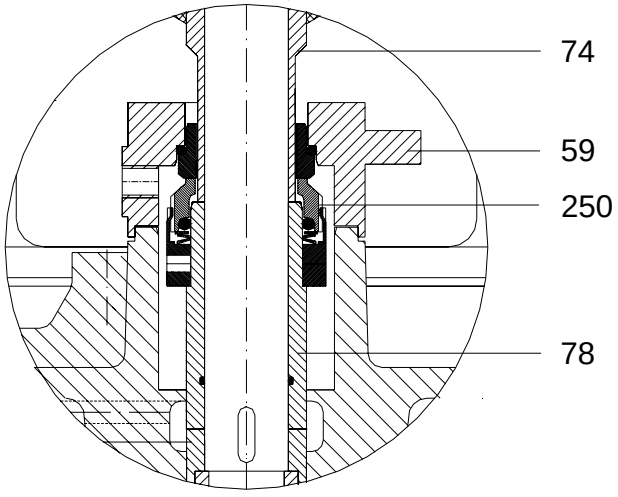
Components	0.6025	0.7040	2.1050.01	1.4021	1.4301	1.4401
Suction & Discharge Casing	●	o	o		o	o
Stage Casing With Diffuser	●	o	o		o	o
Impeller	●	o	o		o	o
Last Stage Diffuser	●	o	o		o	o
Gland		●	o		o	o
Shaft				●	o	o
Shaft Sleeve				●	o	o
Bearing Housing	●	o				
Bearing Cover	●	o		o	o	o

● - Standard Manufacturing
o - Optional

Material Equivalent

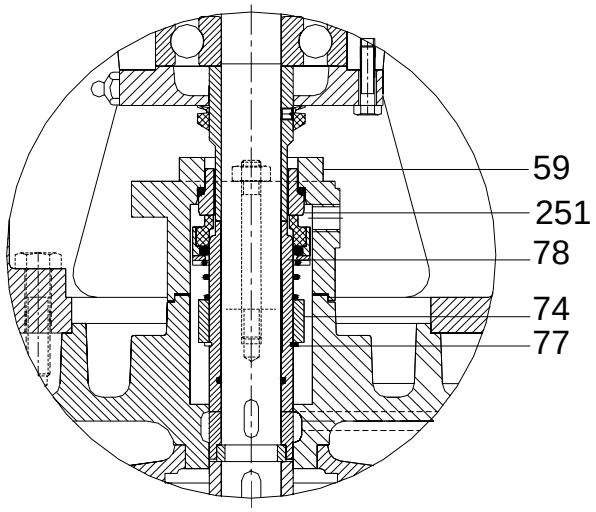
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG40)	A 536 Gr.60-40-18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel Molybdenum Steel	1.4401	X5 Cr Ni Mo 18.10	A 276 Type 316

Mechanical Seal Applications



Balanced Mechanical Seal
(Burgmann H7N – Up to 40 Bar)

78	Special Seal Sleeve
74	Spacer Ring
250	Balanced Mech. Seal.
59	Mech Seal Cover



Balanced Mechanical seal
(Burgmann H12N– Up to 25 Bar)

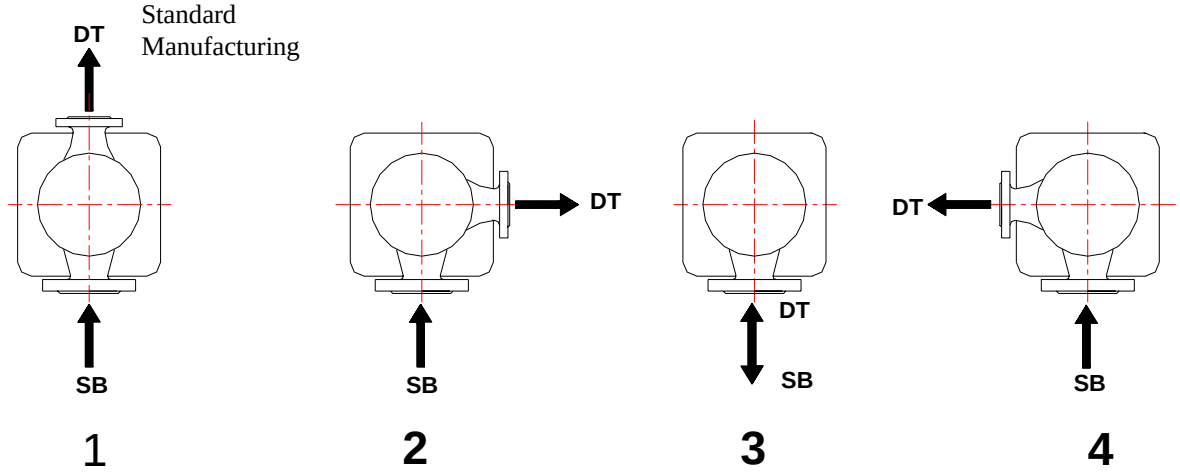
78	Special Seal Sleeve
77	Retaining ring
74	Spacer Ring
251	Balanced Mech. Seal.
59	Mech Seal Cover

Ball bearing, Packing & Mechanical Seal Types

Pump Type	OMK-V 32	OMK-V 40	OMK-V 50	OMK-V 65	OMK-V 80
Ball Bearing No 6400 Series	6405 (C3)	6405 (C3)	6406 (C3)	6407 (C3)	6409(C3)
Packing Dimensions – (inside diam.)	8 x 8 (30 ø)	8 x 8 (30 ø)	10x10(43ø)	10x10(45ø)	12x12 (60ø)
Number of seal Rings (Discharge)	5	5	5	5	5
Balanced Mech.Seal (Burgmann)	H12N or H7N ø 30	H12N or H7N ø 30	H12N or H7N ø 35	H12N or H7N ø 40	H12N or H7N ø 55

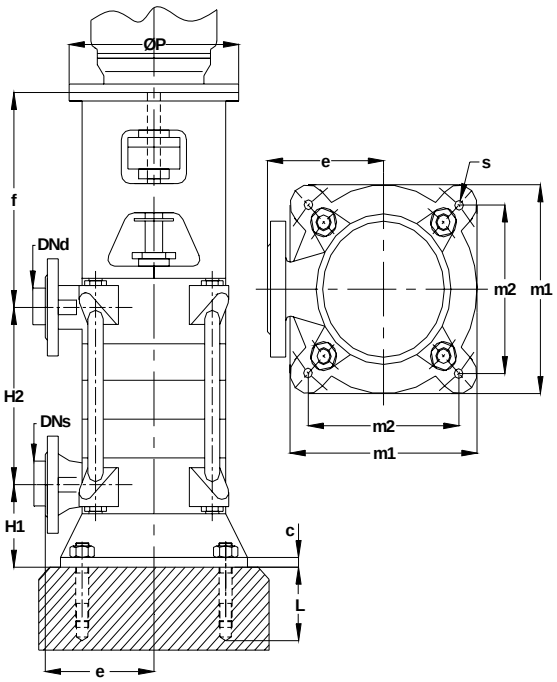
Different Mounting Arrangements

Standard Manufacturing



(SB : Suction **B**ottom **- DT : D**ischarge **T**op **)**

MAS OMK-V – High Pressure Centrifugal Pumps
Technical Data



Pump Size	Dn s mm ø	Dn d mm ø	H1	e	m1	m2	c	s	L
OMK-V 32	50	32	124	160	300	248	20	19	300
OMK-V 40	65	40	130	180	300	248	20	19	300
OMK-V 50	80	50	160	210	400	332	30	19	300
OMK-V 65	100	65	162	240	400	332	30	19	300
OMK-V 80	125	80	185	270	450	375	30	13	300

OMK-V 32

ØP	m	f
200	40	323
200	50	323
250	60	333
300	80	353
350	110	383
400	110	383
450	110	383

OMK-V 40

ØP	m	f
200	40	320
200	50	320
250	60	330
300	80	350
350	110	380
400	110	380
450	110	380

OMK-V 50

ØP	m	f
250	60	393
300	80	413
350	110	443
400	110	443
450	110	443
550	140	473

OMK-V 65

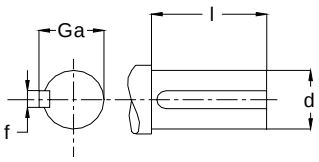
ØP	m	f
250	60	397
300	80	417
350	110	447
400	110	447
450	110	447
550	140	477
650	140	477

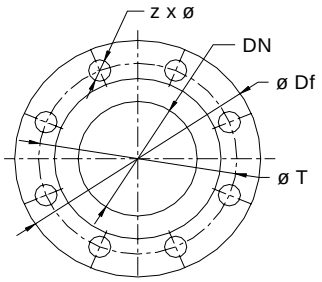
OMK-V 80

ØP	m	f
250	60	433
300	80	453
350	110	483
400	110	483
450	110	483
550	140	513
660	140	513

Dimension “H2” according to the number of stages

Pump Size	2	3	4	5	6	7	8	9	10	11	12	13	14
OMK-V 32	124	178	232	286	340	394	448	502	556	610	664	718	772
OMK-V 40	133	191	249	307	365	423	481	539	597	655	713		
OMK-V 50	188	266	344	422	500	578	656	734	812	890			
OMK-V 65	193	278	363	448	533	618	703	788	873	958			
OMK-V 80	250	360	470	580	690	800	910	1020	1130				





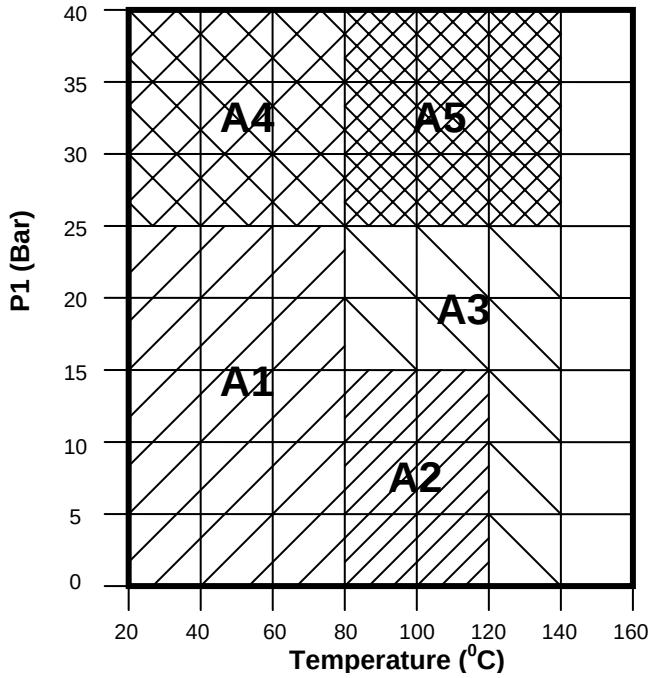
Shaft End & Key Way Dimensions

Pump Size	d mm ø	l mm	f mm	Ga mm
OMK-V 32	25	60	8	28
OMK-V 40	25	60	8	28
OMK-V 50	28	70	8	31
OMK-V 65	32	80	10	35
OMK-V 80	42	100	12	45

Flange Dimensions (PN 40)

DN mm ø	Df mm ø	T mm ø	Z Each	ø mm ø
DN 32	140	100	4	18
DN 40	150	110	4	18
DN 50	165	125	4	18
DN 65	185	145	8	18
DN 80	200	160	8	18
DN 100	235	190	8	23
DN 125	270	220	8	27

Pressure and Temperature Restrictions



Advice

P1 pressure to be sealed = 0.8 x Pump Pressure

Liquids: Clean water (hot or cold), condensate

Balanced Mechanical Seals

Pump Size	Installation Dimensions	Direction of Rotation
	d_1/d_2	OMK
32	30/35	R/L
40	30/35	R/L
50	35/40	R/L
65	40/45	R/L
80	55/60	R/L

R: for discharge side
L: for suction side

Materials according to DIN 24960

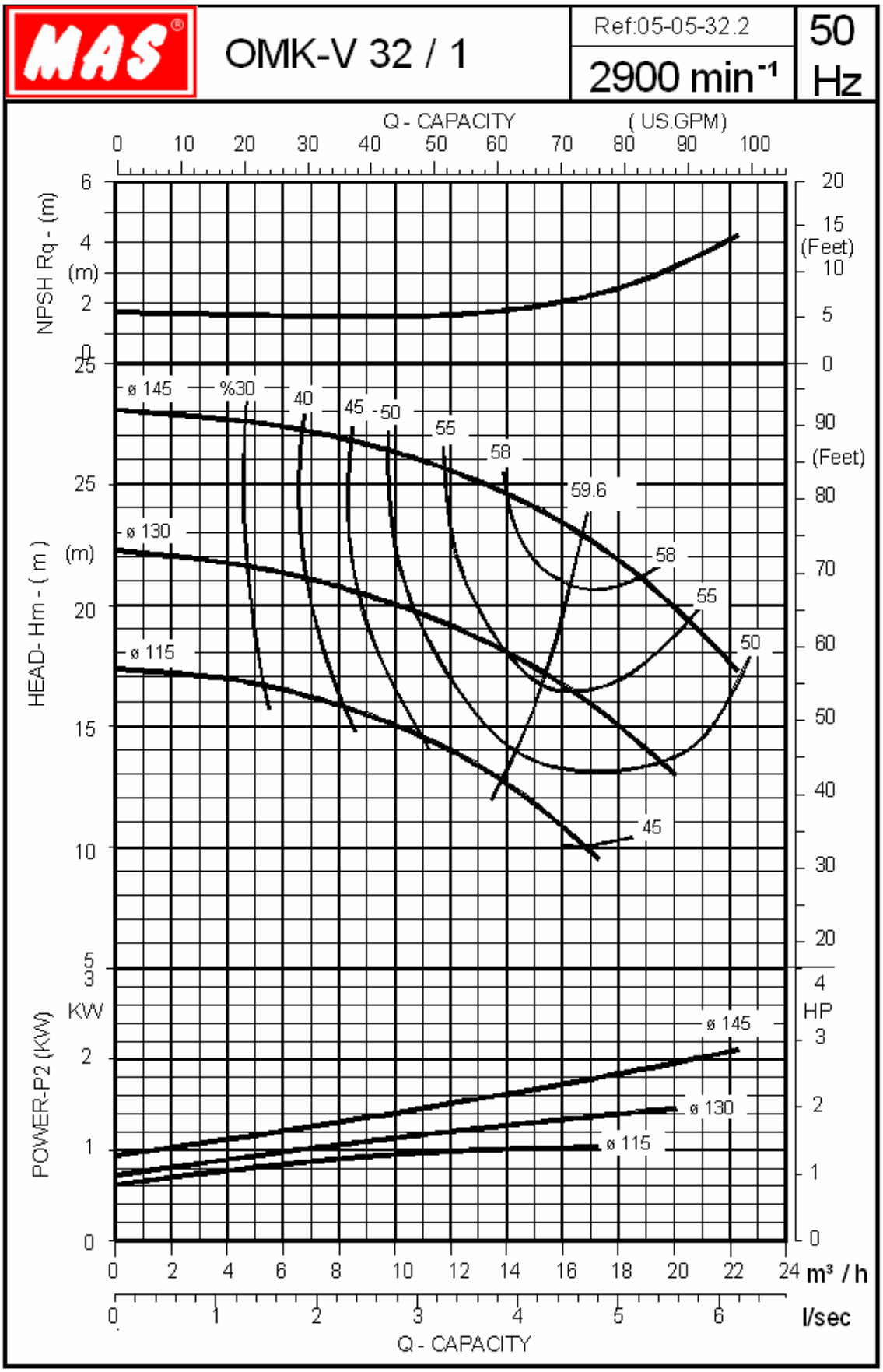
1	Rotary Face Ring
2	Stationary Face Ring
3	O-Ring
4	Spring
5	Remaining Parts

Important Note: While H7N is independent on the direction of rotation, H12N is dependent on the direction of the rotation.

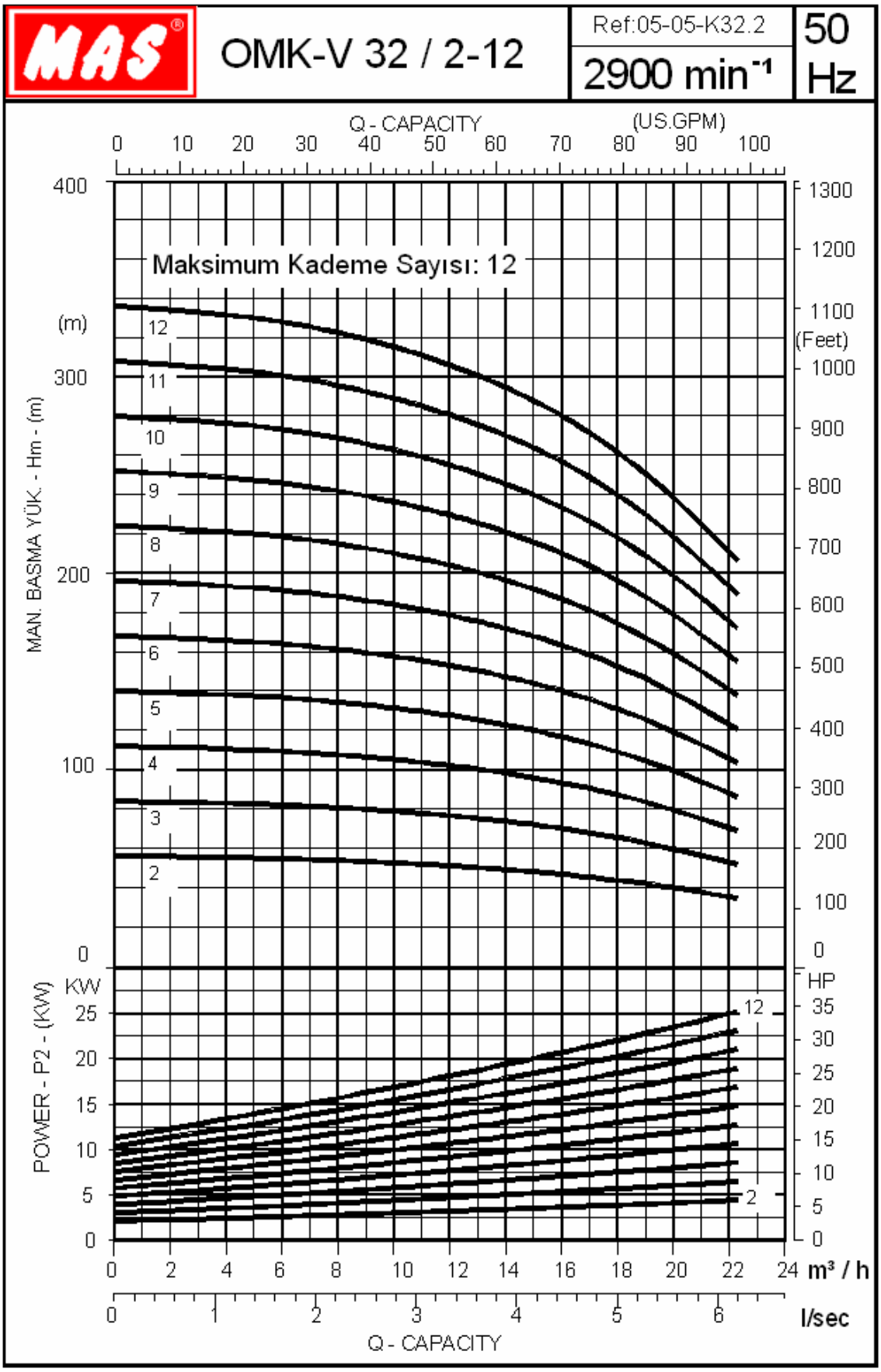
Materials

	BURGMANN		
	Type	**Code**	**Material**
For A1	H12N	A S P G G	1. Antimony-Impregnated Carbon Graphite 2. CrMo-Casting 3. Perbunan 4. CrNiMo-Steel 5. CrNiMo-Steel
For A2	H12N	A S E G G	1. Antimony-Impregnated Carbon Graphite 2. CrMo-Casting 3. EP-Rubber 4. CrNiMo-Steel 5. CrNiMo-Steel
For A3	H12N	A Q1 E G G	1. Antimony-Impregnated Carbon Graphite 2. SiC, Pressure-free Sintered 3. EP-Rubber 4. CrNiMo-Steel 5. CrNiMo-Steel
For A4	H7N	S A P G G	1. CrMo-Casting 2. Antimony-Impregnated Carbon Graphite 3. Perbunan 4. CrNiMo-Steel 5. CrNiMo-Steel
For A5	H7N	Q1 A E G G	1. SiC, Pressure-free Sintered 2. Antimony-Impregnated Carbon Graphite 3. EP-Rubber 4. CrNiMo-Steel 5. CrNiMo-Steel

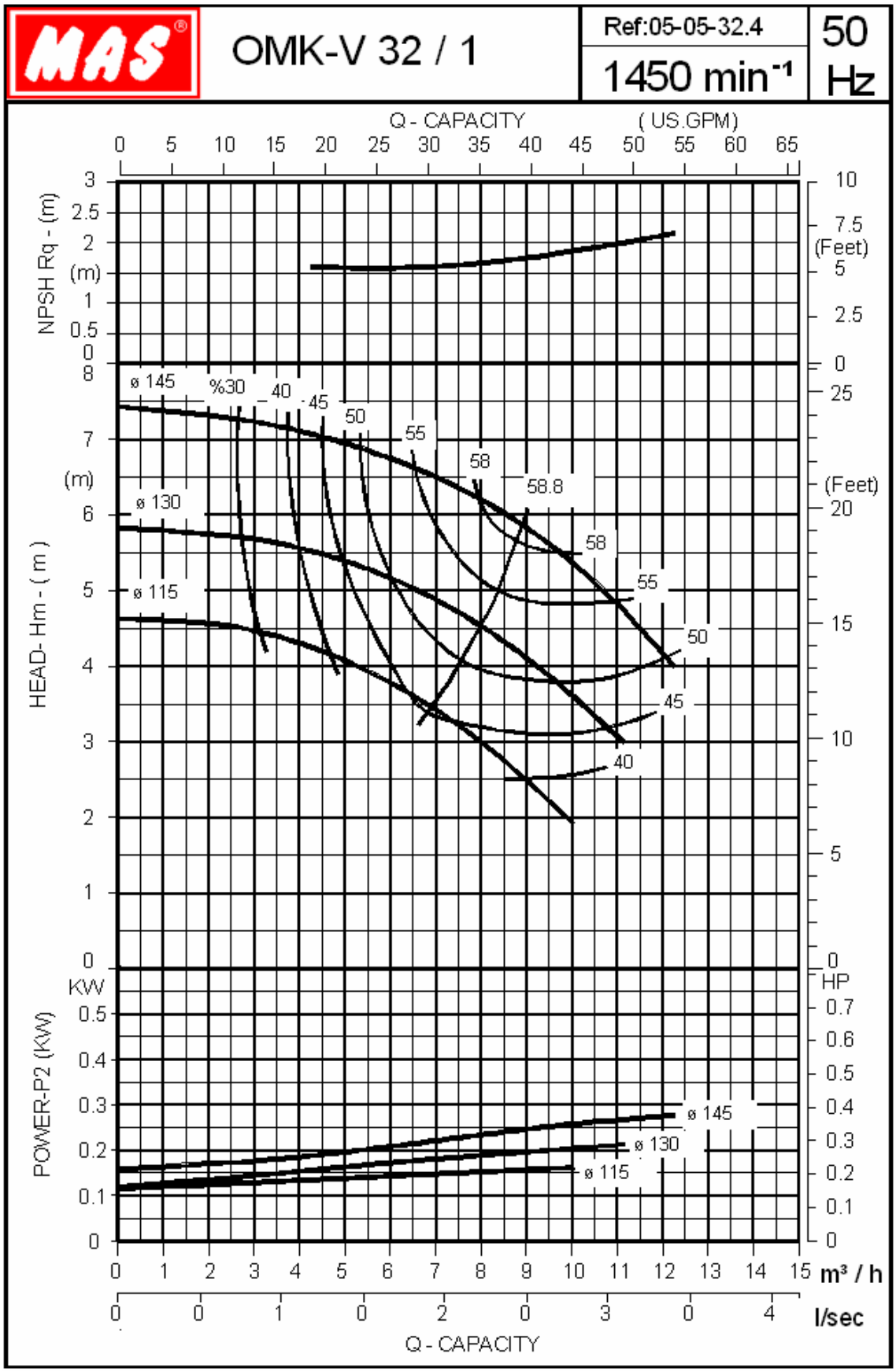
Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø Min. D2= 115 mm ø	Impeller Width b2= 6 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant sspeed 2900rpm. Tolerance DIN 9906.			



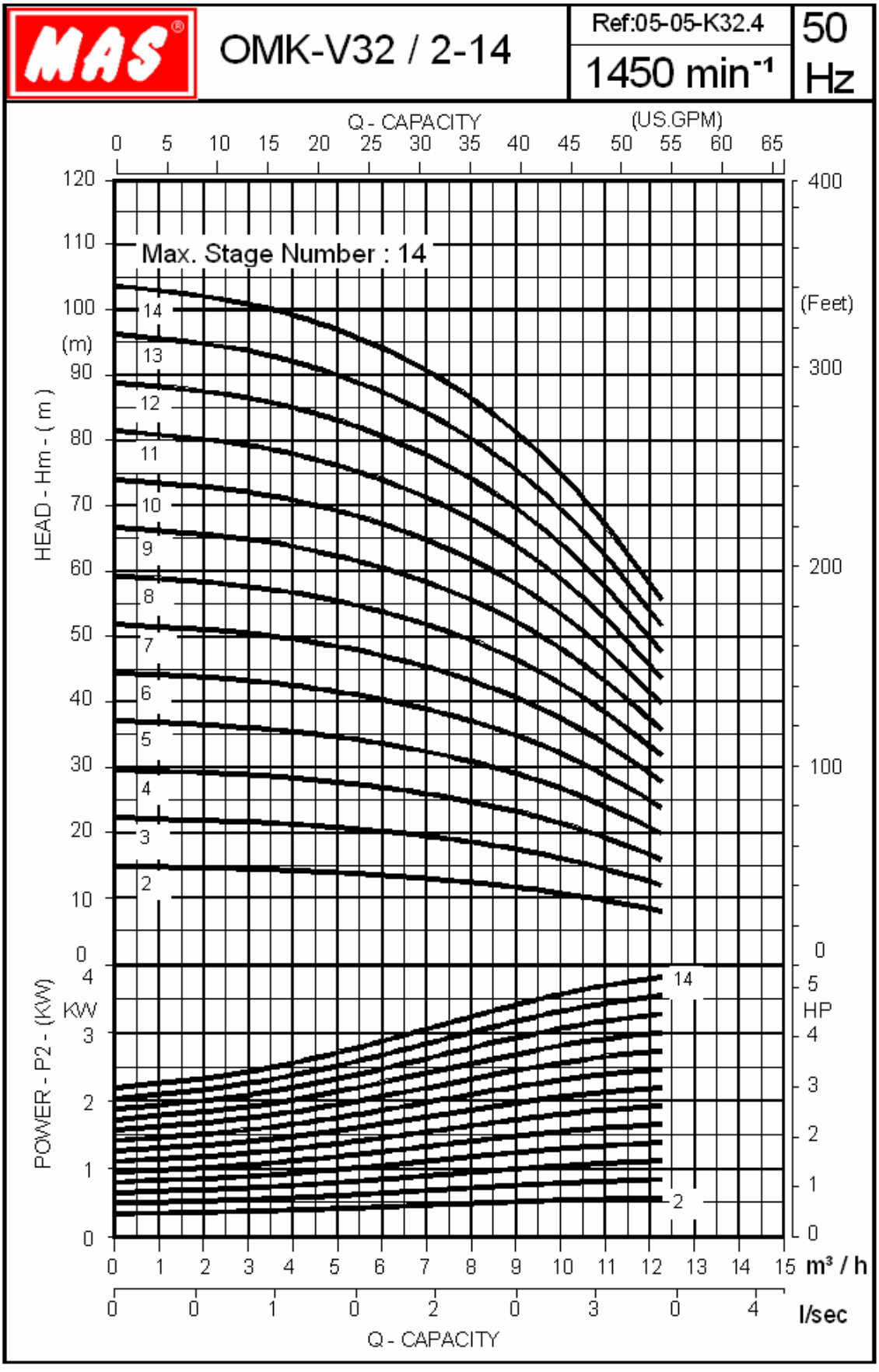
Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø Min. D2= 115 mm ø	Impeller Width b2= 6 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant sspeed 2900rpm. Tolerance DIN 9906.			



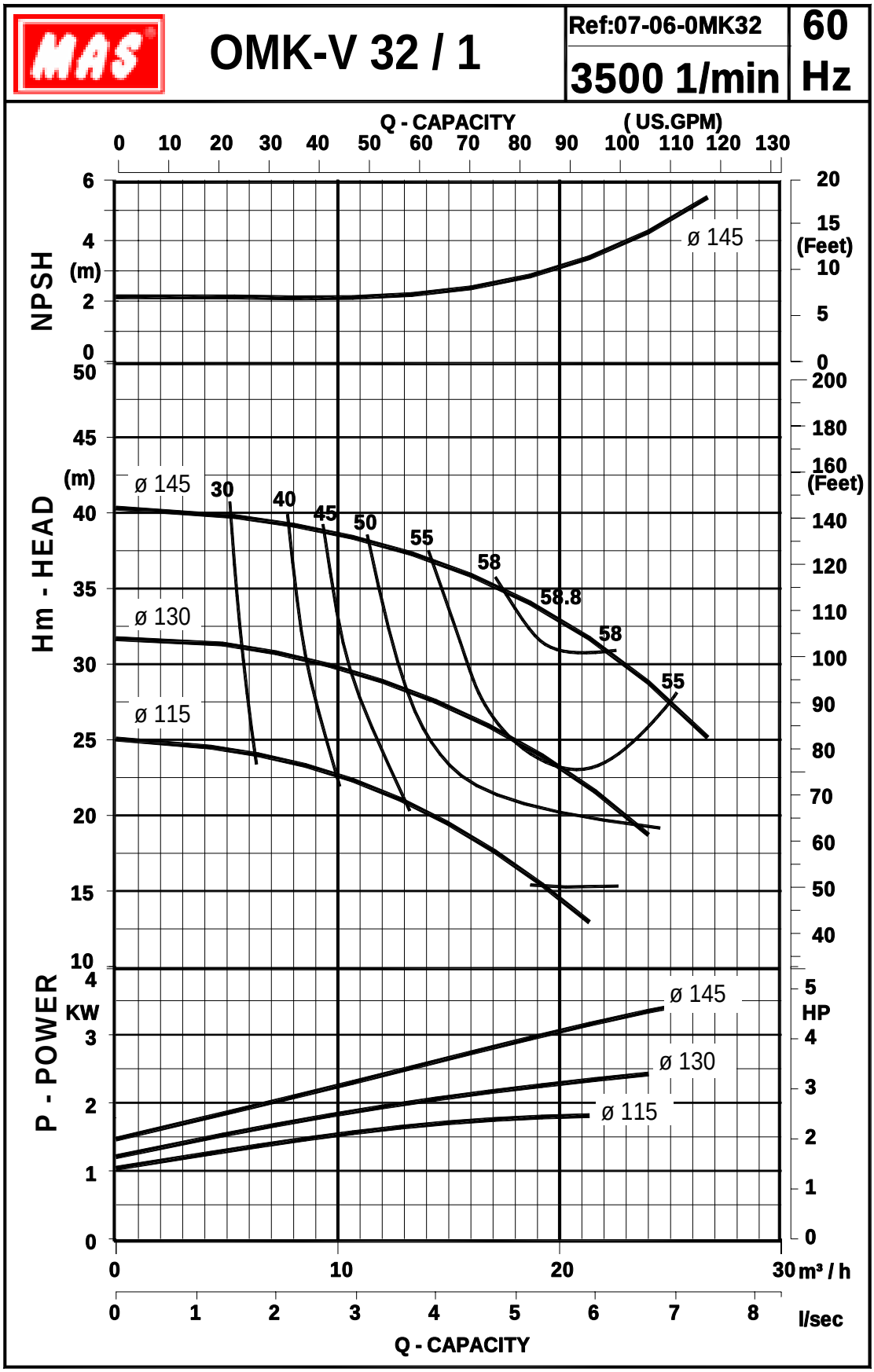
Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø	Impeller Width b2= 6 mm
		Min. D2= 115 mm ø	
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant sspeed 1450rpm. Tolerance DIN 9906.			



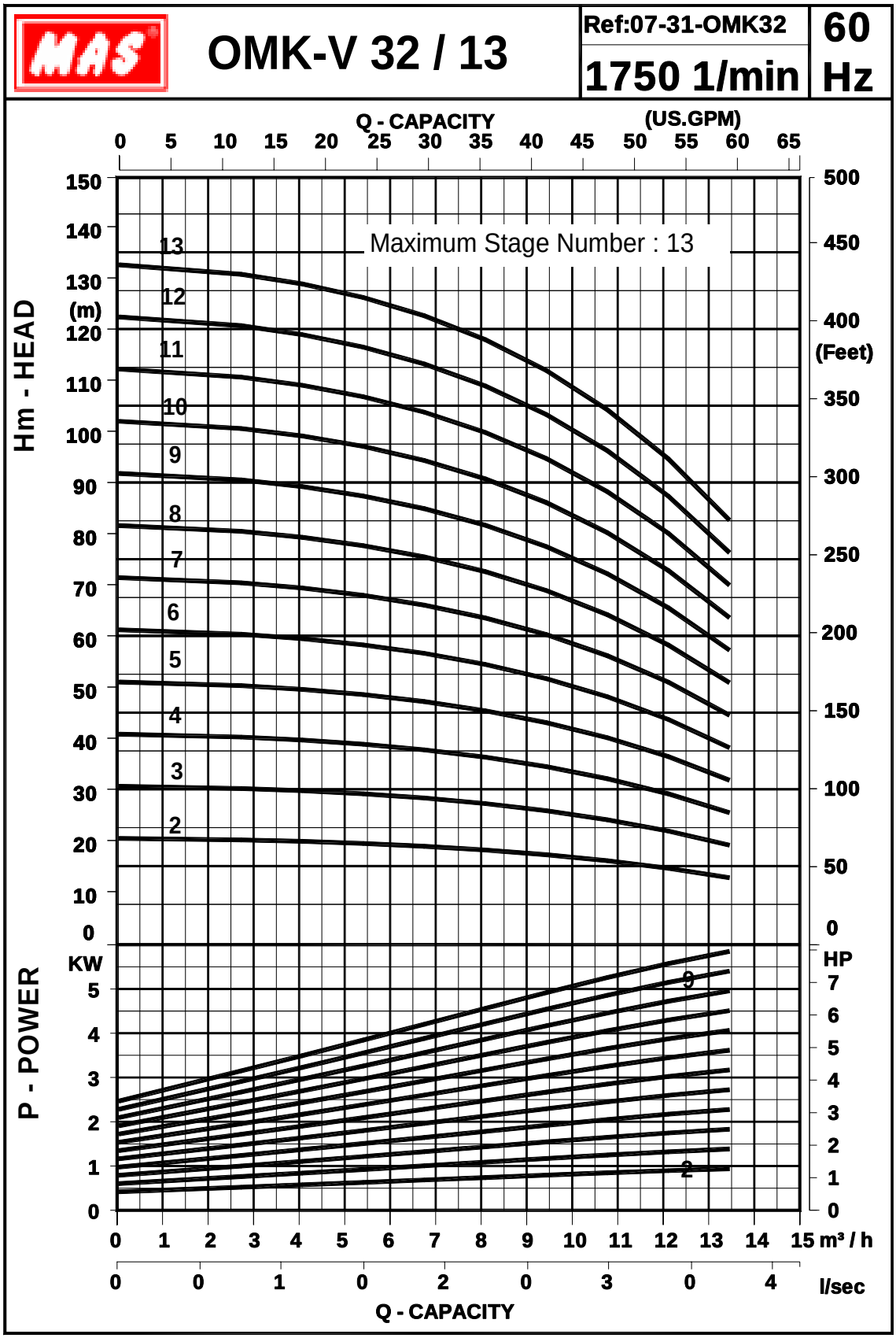
Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø Min. D2= 115 mm ø	Impeller Width b2= 6 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant sspeed 1450rpm. Tolerance DIN 9906.			



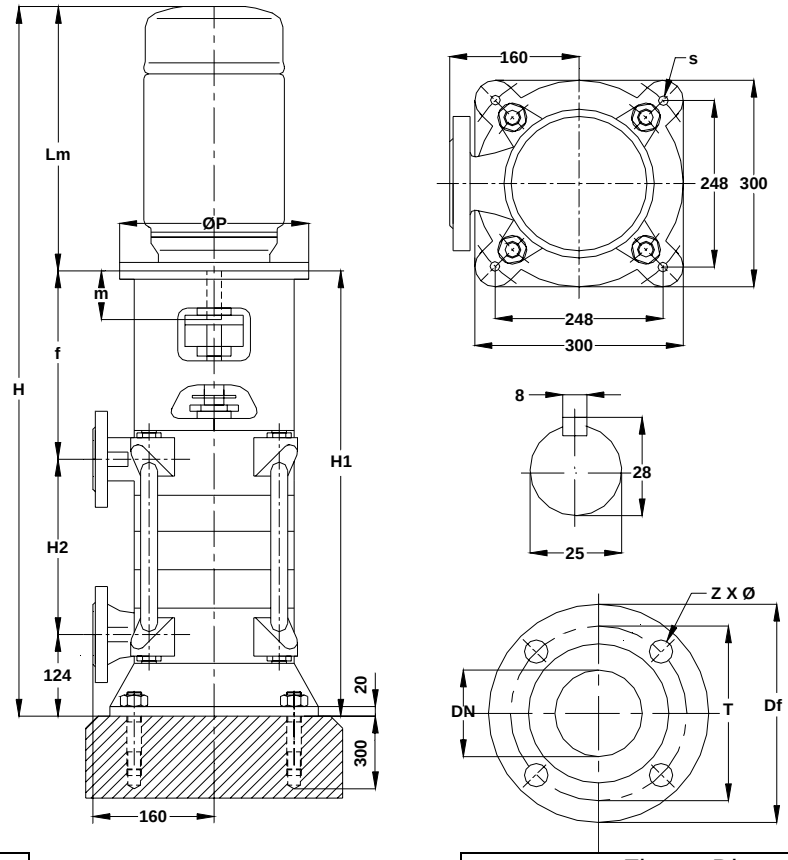
Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø Min. D2= 115 mm ø	Impeller Width b2= 6 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant sspeed 3500rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 32	IMPELLER	Max D2= 145 mm ø Min. D2= 115 mm ø	Impeller Width b2= 6 mm
The graphs on lower part refer to single-stage pumps. On the upper part, Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant sspeed 1750 rpm. Tolerance DIN 9906.			



MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 32 – 2900 rpm - 50 Hz



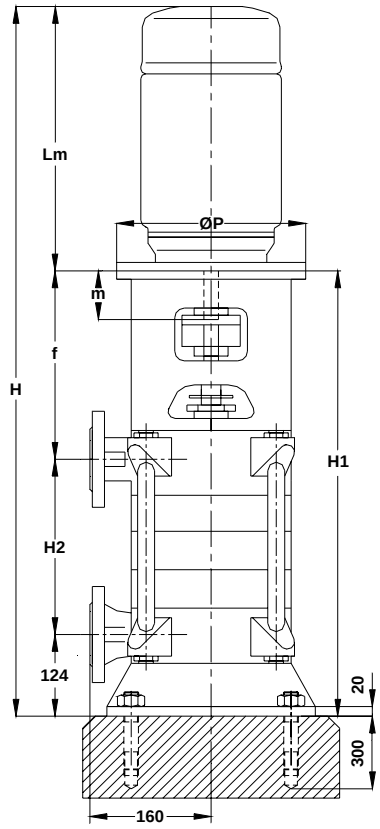
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

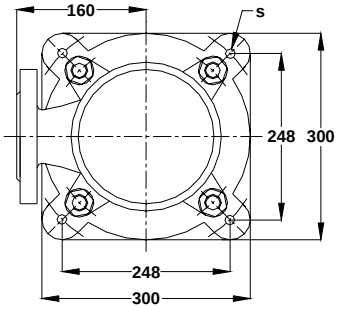
Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	50	165	125	4	18
Discharge	40	32	140	100	4	18

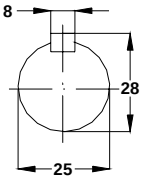
Dimensions – 2900 RPM – 50 Hz

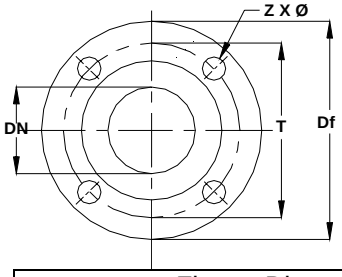
Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 32-2	5.5	132S	375	80	300	124	353	601	976	19
	4	112M	324	60	250	124	333	581	905	19
32-3	7.5	132S	375	80	300	178	353	655	1030	19
	5.5	132S	375	80	300	178	353	655	1030	19
32-4	11	160M	484	110	350	232	383	739	1223	19
	7.5	132S	375	80	300	232	353	709	1084	19
32-5	11	160M	484	110	350	286	383	793	1277	19
	7.5	132S	375	80	300	286	353	763	1138	19
32-6	15	160M	484	110	350	340	383	847	1331	19
	11	160M	484	110	350	340	383	847	1331	19
32-7	18.5	160L	528	110	350	394	383	901	1429	19
	15	160M	484	110	350	394	383	901	1385	19
32-8	18.5	160L	528	110	350	448	383	955	1483	19
	15	594	484	110	350	448	383	955	1439	19
32-9	22	180M	544	110	350	502	383	1009	1553	19
	18.5	160L	528	110	350	502	383	1009	1537	19
32-10	30	200L	637	110	400	556	383	1063	1700	19
	22	180M	544	110	350	556	383	1063	1607	19
32-11	30	200L	637	110	400	610	383	1117	1754	19
	22	180M	544	110	350	610	383	1117	1661	19
32-12	30	200L	637	110	400	664	383	1171	1808	19
	22	180M	544	110	350	664	383	1171	1715	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 32 – 1450 rpm – 50 Hz









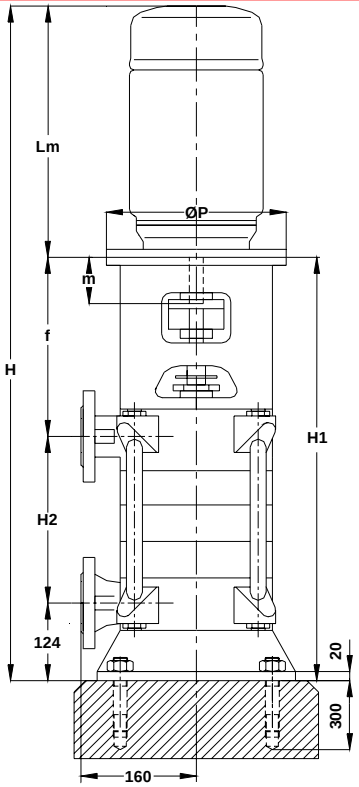
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

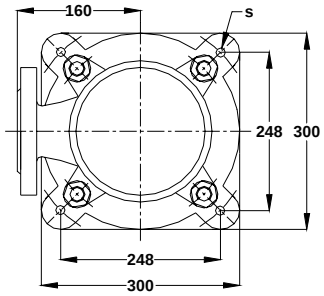
Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	50	165	125	4	18
Discharge	40	32	140	100	4	18

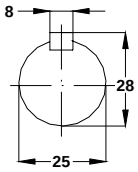
Dimensions – 1450 RPM – 50 Hz

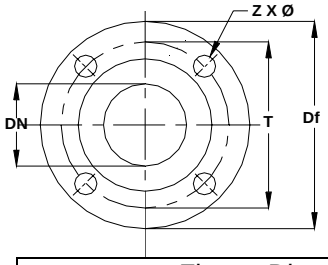
Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 32 2	0.75	80	233	40	200	124	323	571	804	19
	0.55	80	233	40	200	124	323	571	804	19
32–3	1.1	90S	250	50	200	178	323	625	875	19
	0.75	80	223	50	200	178	323	625	848	19
32–4	1.5	90L	275	50	200	232	323	679	954	19
	1.1	90S	250	50	200	232	323	679	929	19
32–5	1.5	90L	225	50	200	286	323	733	958	19
	1.1	90S	200	50	200	286	323	733	933	19
32–6	2.2	100L	305	60	250	340	333	797	1102	19
	1.5	90L	275	50	200	340	323	787	1062	19
32–7	2.2	100L	305	60	250	394	333	851	1156	19
	1.5	90L	195	50	200	394	323	841	1036	19
32–8	3	100L	305	60	250	448	333	905	1210	19
	2.2	100L	305	60	250	448	333	905	1210	19
32–9	3	100L	305	60	250	502	333	959	1264	19
	2.2	100L	305	60	250	502	333	959	1264	19
32–10	3	100L	305	60	250	556	333	1013	1318	19
	2.2	100L	305	60	250	556	333	1013	1318	19
32–11	4	112M	324	60	250	610	333	1067	1391	19
	3	100L	305	60	250	610	333	1067	1372	19
32–12	4	112M	286	60	250	664	333	1121	1407	19
	3	100L	267	60	250	664	333	1121	1388	19
32–13	4	112M	248	60	250	718	333	1175	1423	19
	3	100L	229	60	250	718	333	1175	1404	19
32–14	5.5	132S	375	80	300	772	353	1229	1604	19
	4	112M	324	60	250	772	333	1229	1553	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 32 – 1750 rpm – 60 Hz









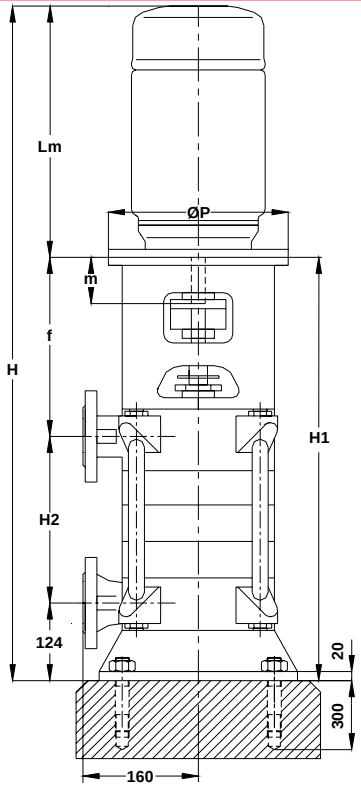
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

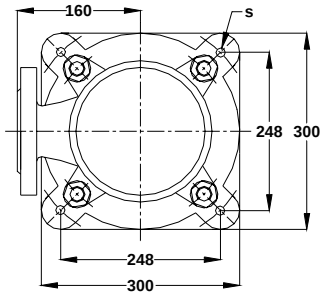
Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	50	165	125	4	18
Discharge	40	32	140	100	4	18

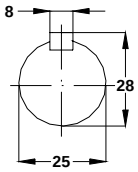
Dimensions – 1750 RPM – 60 Hz

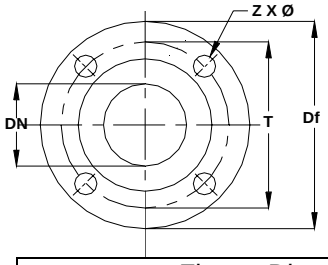
Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 32 2	1.1	90S	258	50	200	124	323	571	829	19
	0.75	80	238	40	200	124	323	571	809	19
32–3	1.5	90L	283	50	200	178	323	625	908	19
	1.1	90S	258	50	200	178	323	625	883	19
32–4	2.2	100L	315	60	250	232	333	689	1004	19
	1.5	90L	283	50	200	232	323	679	962	19
32–5	3	100L	315	60	250	286	333	743	1058	19
	2.2	100L	315	60	250	286	333	743	1058	19
32–6	3	100L	315	60	250	340	333	797	1112	19
	2.2	100L	315	60	250	340	333	797	1112	19
32–7	4	112M	332	60	250	394	333	851	1183	19
	3	100L	315	60	250	394	333	851	1166	19
32–8	4	112M	332	60	250	448	333	905	1237	19
	3	100L	315	60	250	448	333	905	1220	19
32–9	5.5	132S	375	80	300	502	353	979	1354	19
	4	112M	332	60	250	502	333	959	1291	19
32–10	5.5	132S	375	80	300	556	353	1033	1408	19
	4	112M	332	60	250	556	333	1013	1345	19
32–11	5.5	132S	375	80	300	610	353	1087	1462	19
	4	112M	332	60	250	610	333	1067	1399	19
32–12	7.5	132M	375	80	300	664	353	1141	1516	19
	5.5	132S	332	80	300	664	353	1141	1473	19
32–13	7.5	132M	375	80	300	718	353	1195	1570	19
	5.5	132S	332	80	300	718	353	1195	1527	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 32 – 3500 rpm – 60 Hz









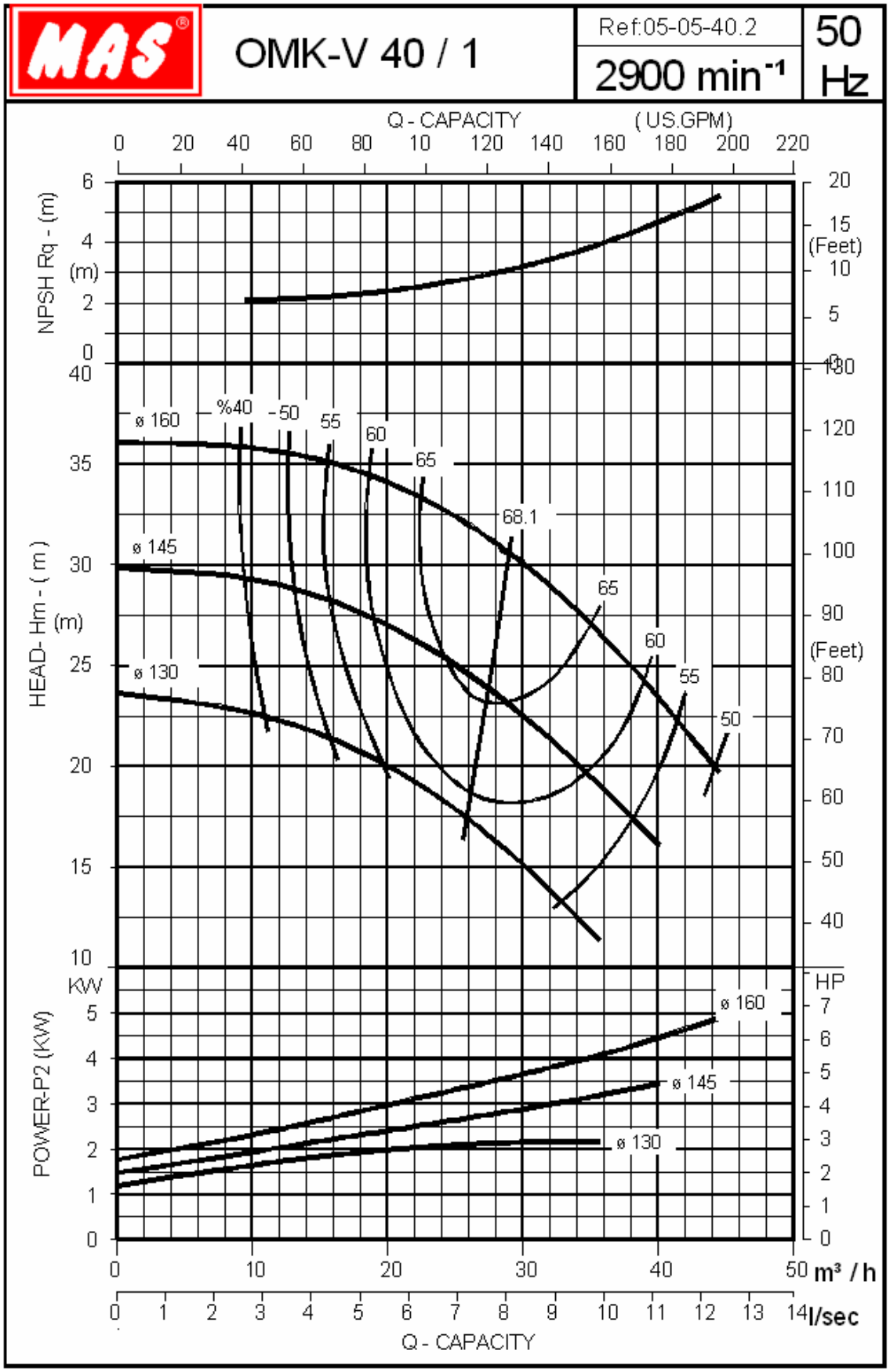
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	50	165	125	4	18
Discharge	40	32	140	100	4	18

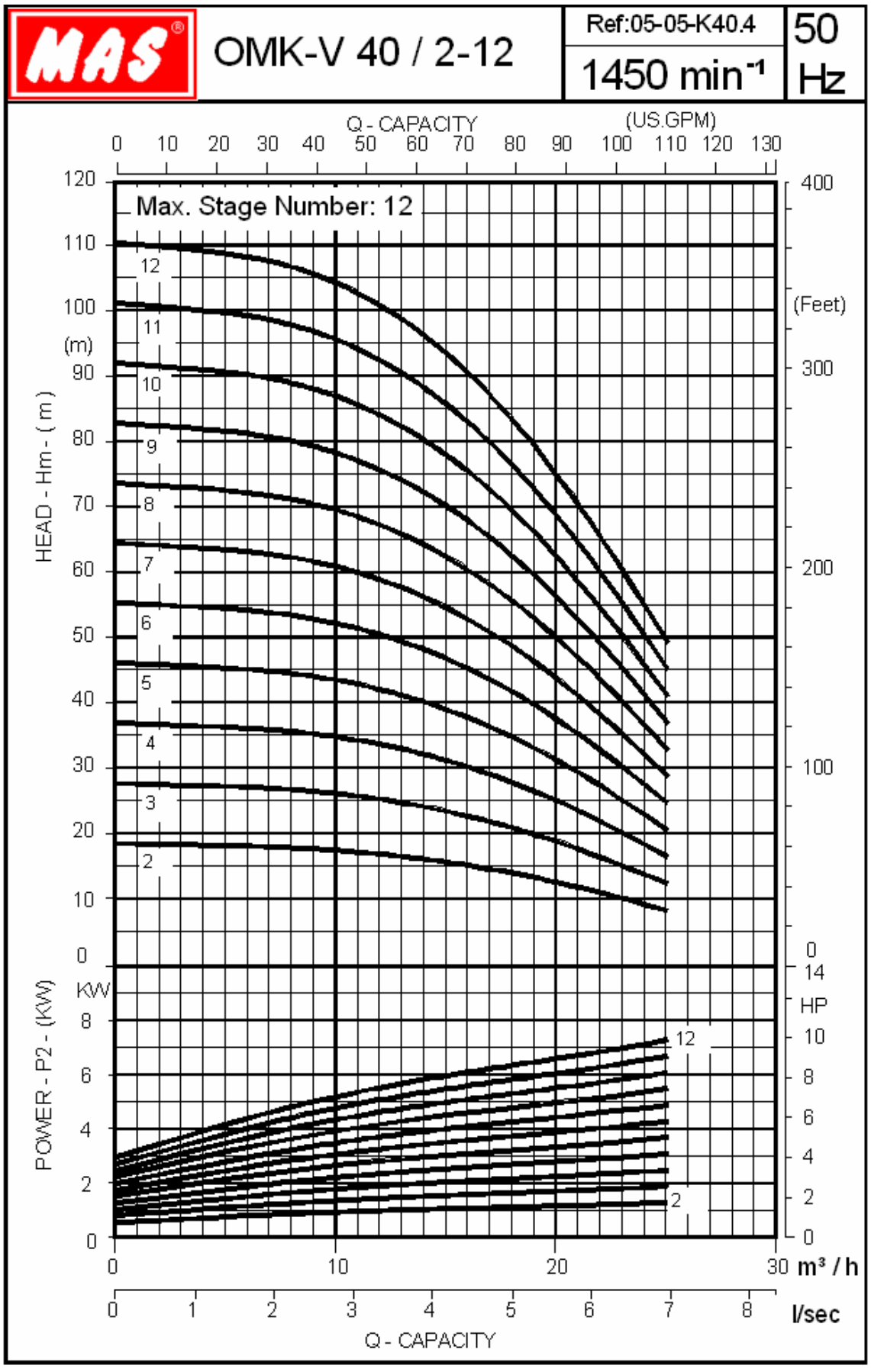
Dimensions – 3500 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 32 2	7.5	132S	375	80	300	124	353	601	976	19
	5.5	132S	375	80	300	124	353	601	976	19
32–3	11	160M	491	110	350	178	383	685	1176	19
	7.5	132S	375	80	300	178	353	655	1030	19
32–4	15	160M	491	110	350	232	383	739	1230	19
	11	160M	491	110	350	232	383	739	1230	19
32–5	18.5	160L	491	110	350	286	383	793	1284	19
	15	160M	491	110	350	286	383	793	1284	19
32–6	22	180M	549	110	350	340	383	847	1396	19
	18.5	160L	491	110	350	340	383	847	1338	19
32–7	30	200L	637	110	400	394	383	901	1538	19
	22	180M	549	110	350	394	383	901	1450	19
32–8	30	200L	637	110	400	448	383	955	1592	19
	22	180M	549	110	350	448	383	955	1504	19
32–9	37	200L	637	110	400	502	383	1009	1646	19
	30	200L	637	110	400	502	383	1009	1646	19

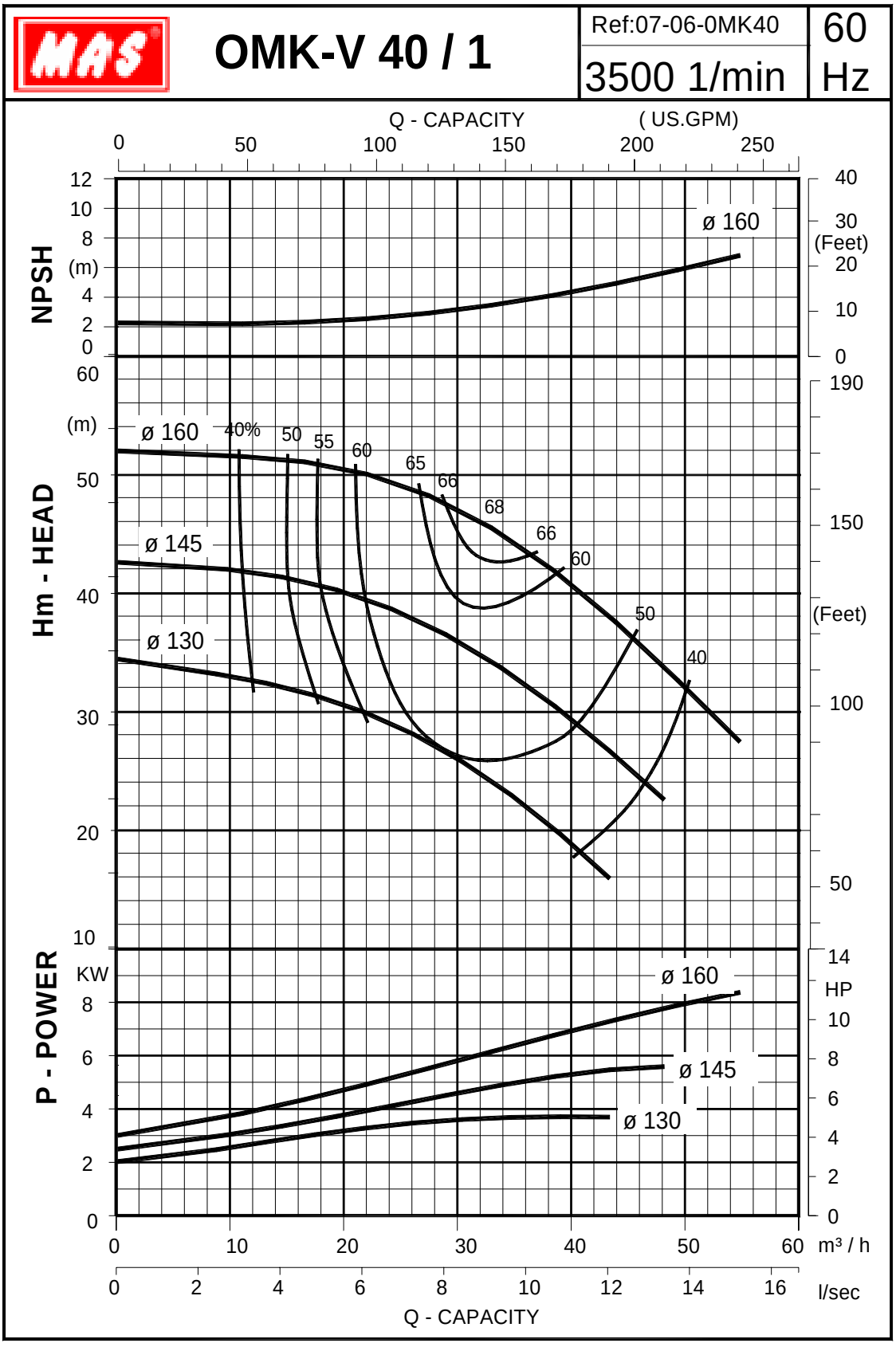
Multi-Stage Centrifugal Pump TYPE: OMK-V 40	IMPELLER	Max D2= 160 mm ø Min. D2= 130 mm ø	Impeller Width b2= 9 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



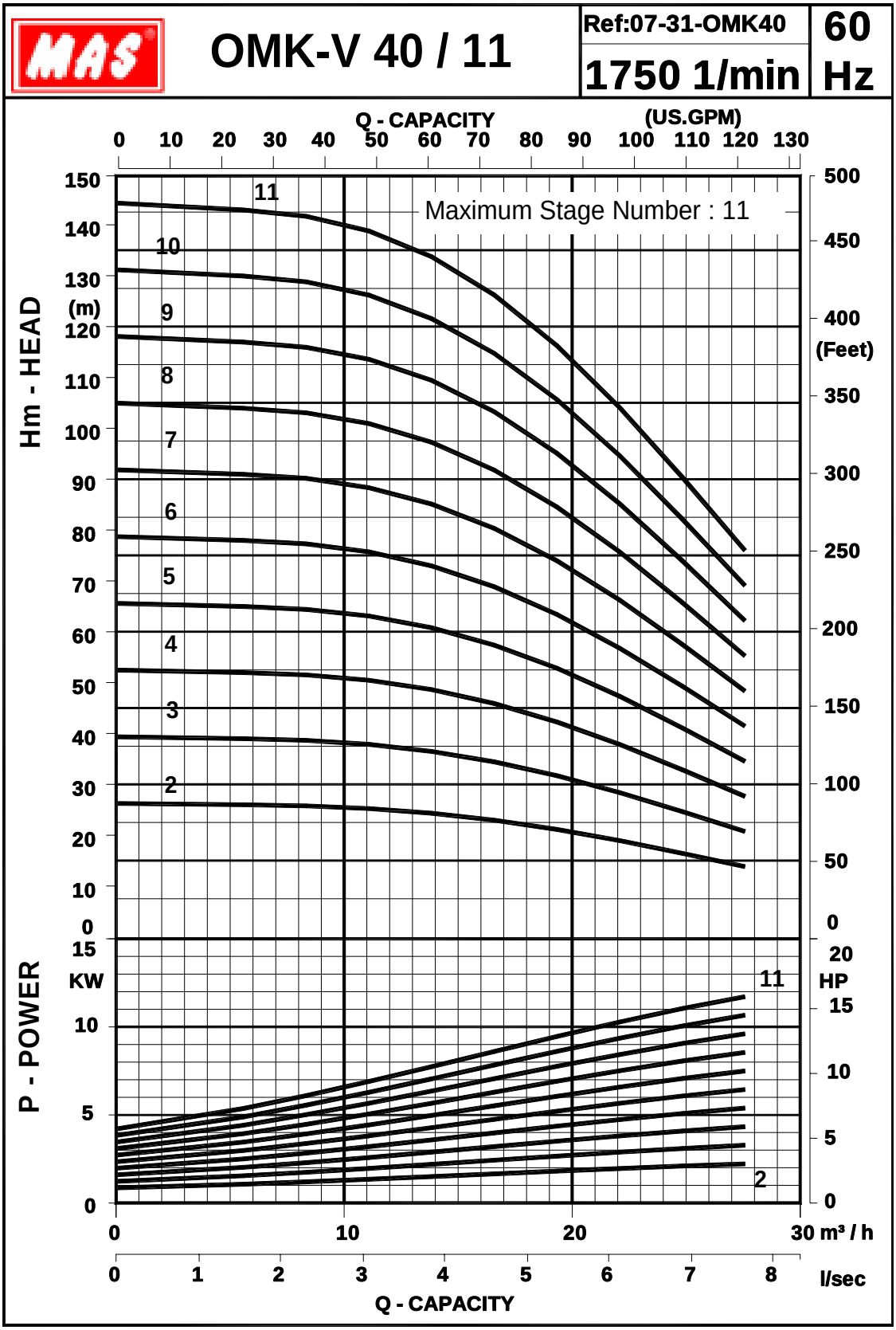
Multi-Stage Centrifugal Pump TYPE: OMK-V 40	IMPELLER	Max D2= 160 mm ø Min. D2= 130 mm ø	Impeller Width b2= 9 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 1450rpm. Tolerance DIN 9906.			



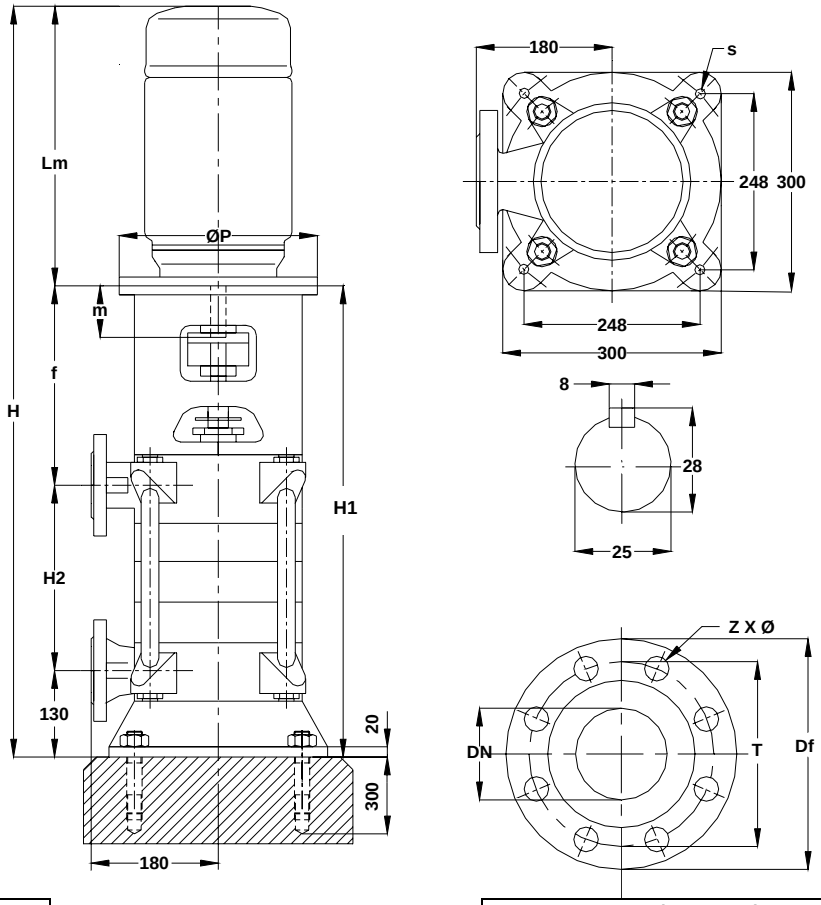
Multi-Stage Centrifugal Pump TYPE: OMK-V 40	IMPELLER	Max D2= 160 mm ø Min. D2= 130 mm ø	Impeller Width b2= 9 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 3500rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 40	IMPELLER	Max D2= 160 mm ø Min. D2= 130 mm ø	Impeller Width b2= 9 mm
Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant speed 1750rpm. Tolerance DIN 9906.			



MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 40 – 2900 rpm – 50 Hz



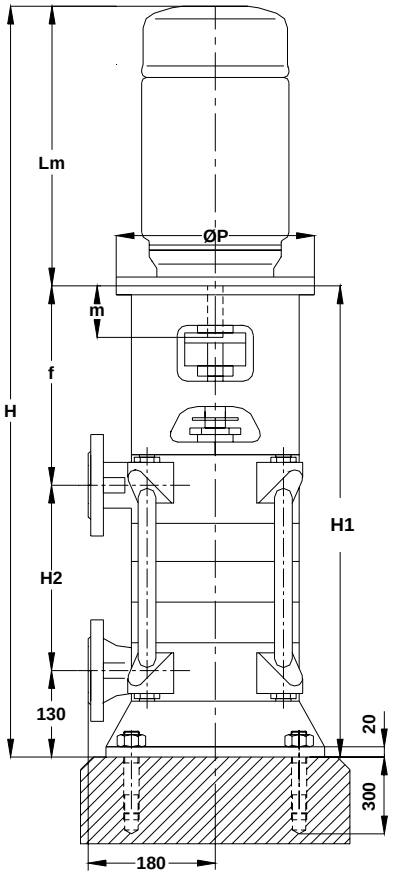
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

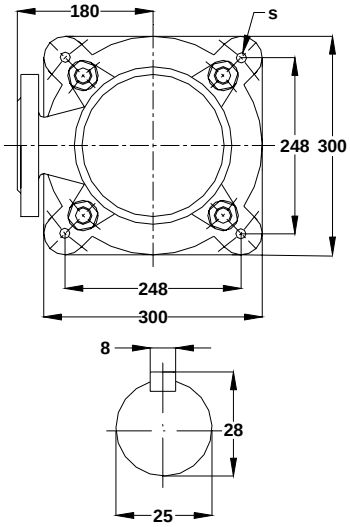
Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	65	185	145	8	18
Discharge	40	40	150	110	4	18

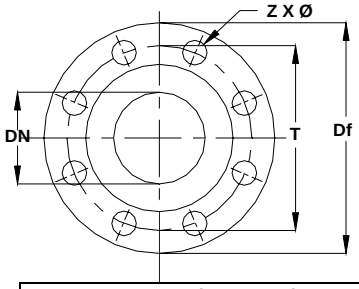
Dimensions – 2900 RPM – 50 Hz

Pump Type	MOTOR					PUMP			OVERALL	
	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 40 2	11	160M	484	110	350	133	380	643	1127	19
	7.5	132S	375	80	300	133	350	613	988	19
40–3	15	160M	484	110	350	191	380	701	1185	19
	11	160M	484	110	350	191	380	701	1185	19
40–4	22	180M	544	110	350	249	380	759	1303	19
	18.5	160L	528	110	350	249	380	759	1287	19
40–5	30	200L	637	110	400	307	380	817	1454	19
	22	180M	544	110	350	307	380	817	1361	19
40–6	30	200L	637	110	400	365	380	875	1512	19
	22	180M	544	110	350	365	380	875	1419	19
40–7	37	200L	637	110	400	423	380	933	1570	19
	30	200L	637	110	400	423	380	933	1570	19
40–8	45	225M	680	110	450	481	380	991	1671	19
	37	200L	637	110	400	481	380	991	1628	19
40–9	55	C225M	680	110	450	539	380	1049	1729	19
	45	225M	680	110	450	539	380	1049	1729	19
40–10	55	C225M	680	110	450	597	380	1107	1787	19
	45	225M	680	110	450	597	380	1107	1787	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 40 – 1450 rpm – 50 Hz







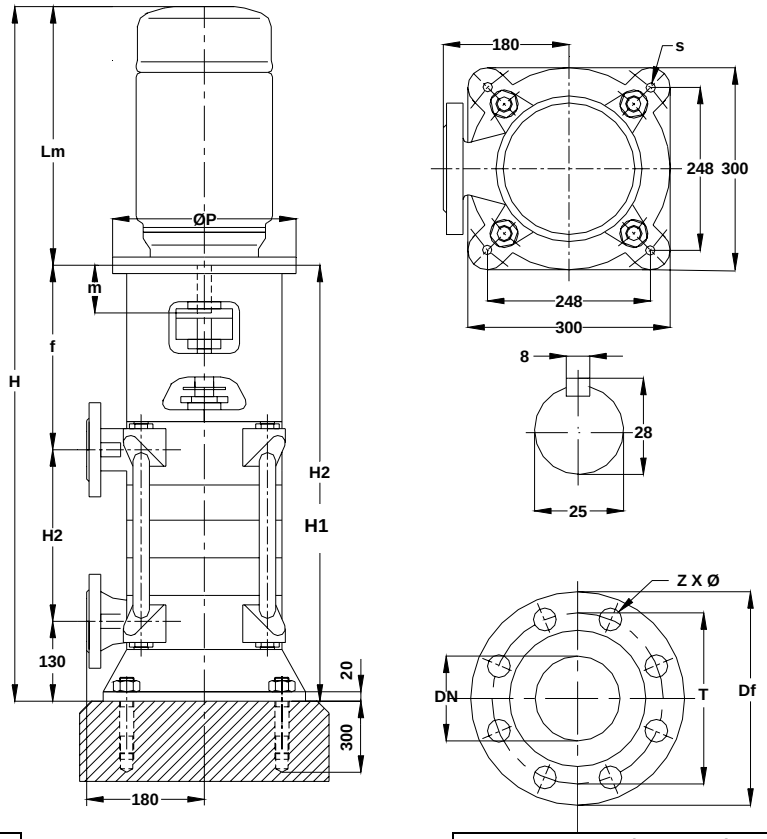
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	65	185	145	8	18
Discharge	40	40	150	110	4	18

Dimensions – 1450 RPM – 50 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 40 2	1.5	90L	275	50	200	133	320	577	852	19
	1.1	90S	250	50	200	133	320	577	827	19
40–3	2.2	100L	305	60	250	191	330	645	950	19
	1.5	90L	275	50	200	191	320	635	910	19
40–4	3	100L	305	60	250	249	330	703	1008	19
	2.2	100L	305	60	250	249	330	703	1008	19
40–5	4	112M	324	60	250	307	330	761	1085	19
	3	100L	305	60	250	307	330	761	1066	19
40–6	4	112M	324	60	250	365	330	819	1143	19
	3	100L	305	60	250	365	330	819	1124	19
40–7	5.5	132S	375	80	300	423	350	897	1272	19
	4	112M	324	60	250	423	330	877	1201	19
40–8	5.5	132S	375	80	300	481	350	955	1330	19
	4	112M	324	60	250	481	330	935	1259	19
40–9	7.5	132M	413	80	300	539	350	1013	1426	19
	5.5	132M	375	80	300	539	350	1013	1388	19
40–10	7.5	132M	413	80	300	597	350	1071	1484	19
	5.5	132S	375	80	300	597	350	1071	1446	19
40–11	7.5	132M	413	80	300	655	350	1129	1542	19
	5.5	132S	375	80	300	655	350	1129	1504	19
40–12	9	C132M	413	80	300	713	350	1187	1600	19
	7.5	132M	413	80	300	713	350	1187	1600	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 40 – 1750 rpm – 60 Hz

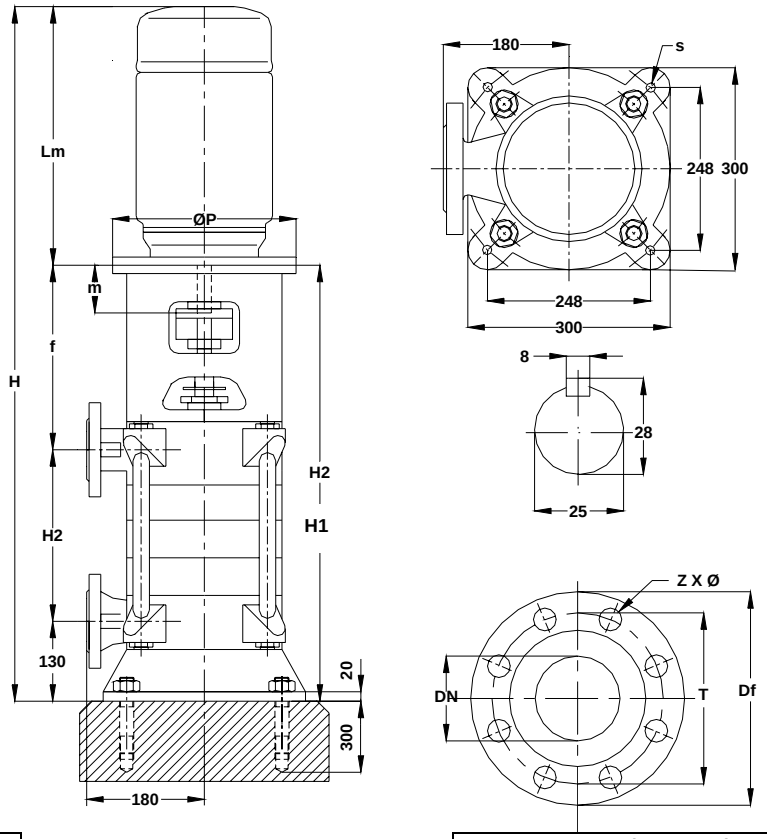


Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	65	185	145	8	18
Discharge	40	40	150	110	4	18

Dimensions – 1750 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 40 2	2.2	100L	315	60	250	133	330	593	908	19
	1.5	90L	283	50	200	133	320	583	866	19
40–3	4	112M	332	60	250	191	330	651	983	19
	3	100L	315	60	250	191	330	651	966	19
40–4	5.5	132S	375	80	300	249	350	729	1104	19
	4	112M	332	60	250	249	330	709	1041	19
40–5	5.5	132S	375	80	300	307	350	787	1162	19
	4	112M	332	60	250	307	330	767	1099	19
40–6	7.5	132M	375	80	300	365	350	845	1220	19
	5.5	132S	375	80	300	365	350	845	1220	19
40–7	7.5	132M	375	80	300	423	350	903	1278	19
	5.5	132S	375	80	300	423	350	903	1278	19
40–8	11	160M	491	110	350	481	380	991	1482	19
	7.5	132M	375	80	300	481	350	961	1336	19
40–9	11	160M	491	110	350	539	380	1049	1540	19
	7.5	132M	375	80	300	539	350	1019	1394	19
40–10	11	160M	491	110	350	597	380	1107	1598	19
	7.5	132M	375	80	300	597	350	1077	1452	19
40–11	15	160L	491	110	350	655	380	1165	1656	19
	11	160M	491	110	350	655	380	1165	1656	19



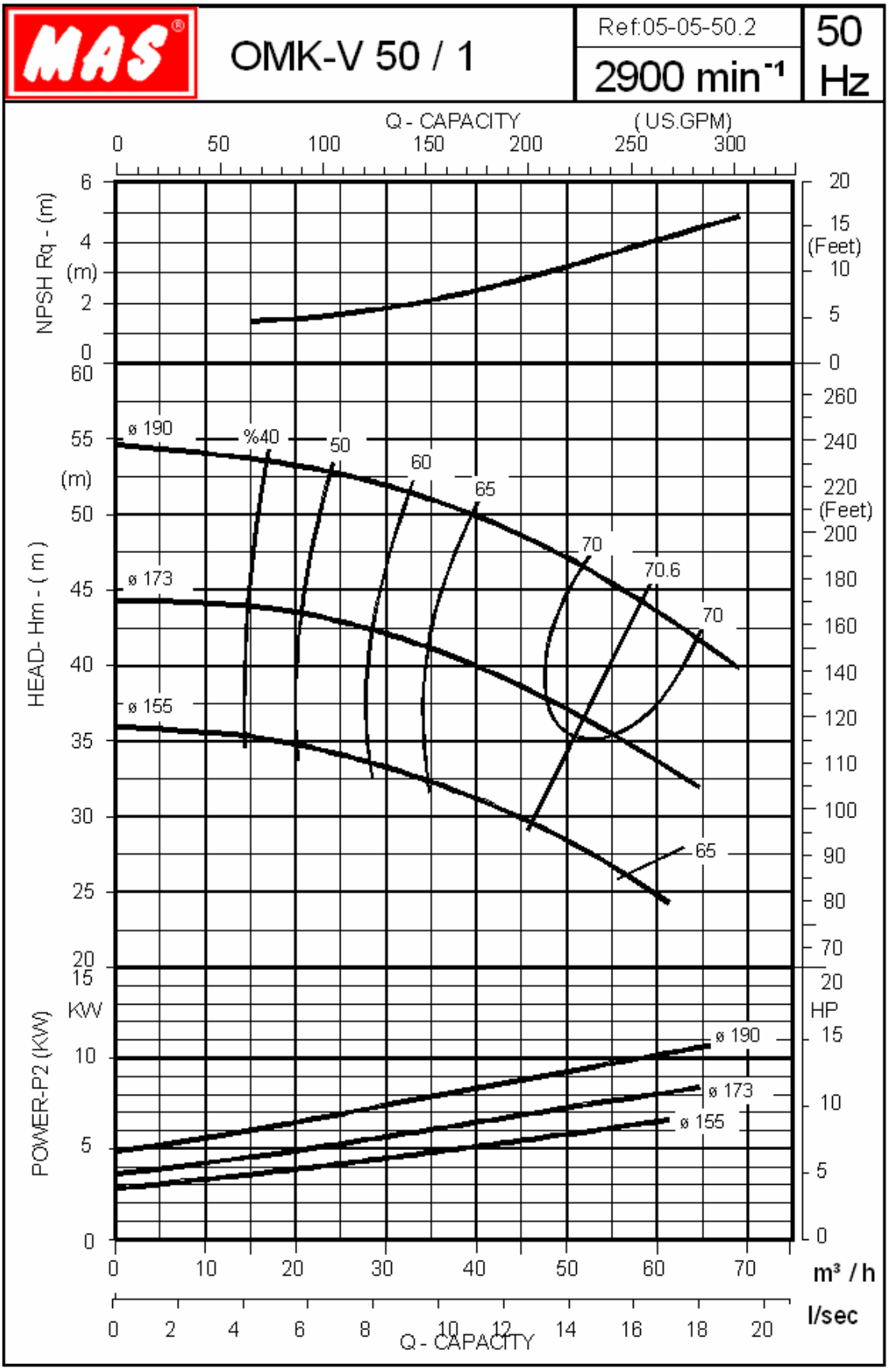
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	65	185	145	8	18
Discharge	40	40	150	110	4	18

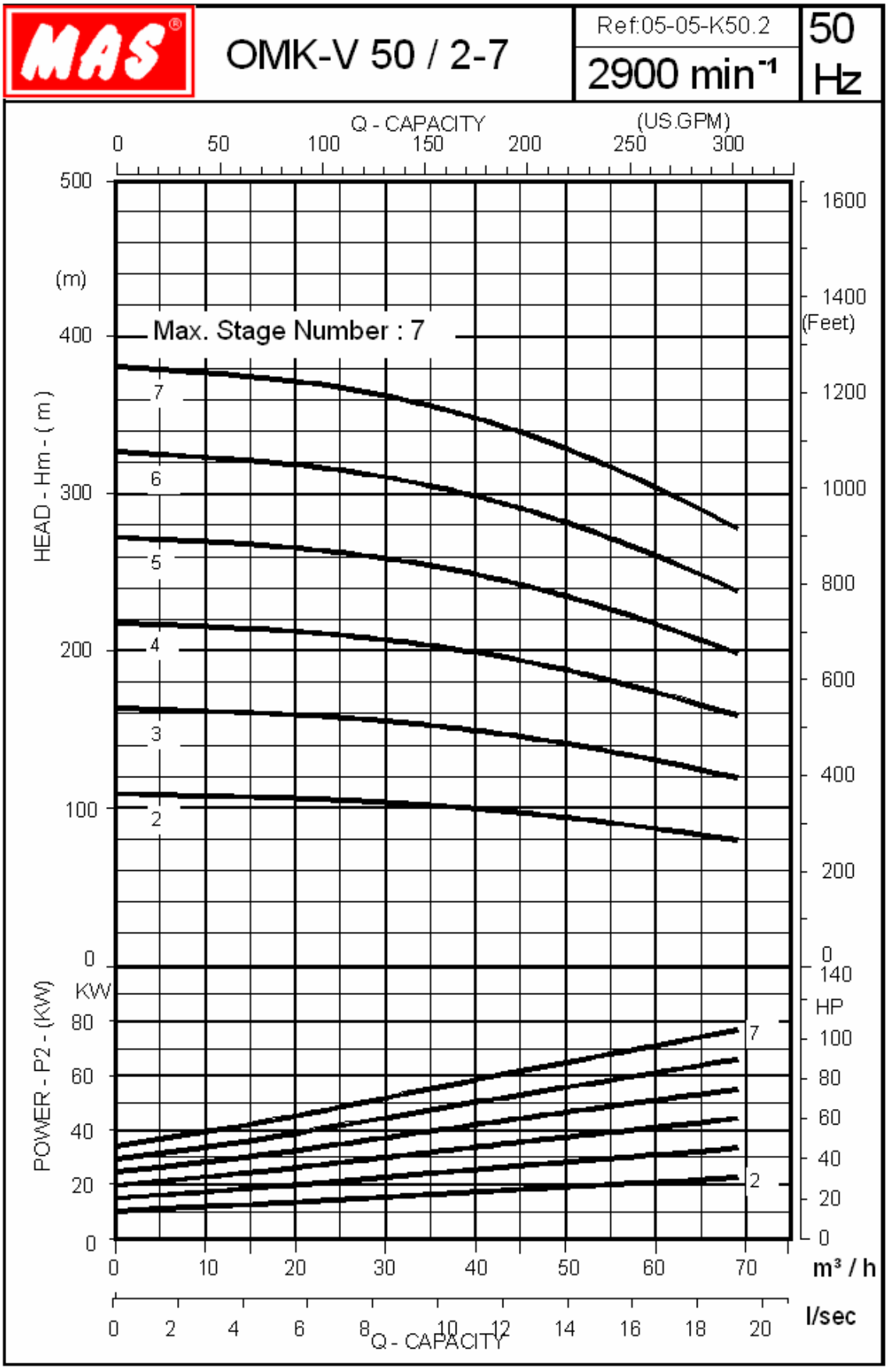
Dimensions – 3500 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 40 2	18.5	160L	491	110	350	133	380	643	1134	19
	15	160M	491	110	350	133	380	643	1134	19
40–3	30	200L	637	110	400	191	380	701	1338	19
	22	180M	549	110	350	191	380	701	1250	19
40–4	37	200L	637	110	400	249	380	759	1396	19
	30	200L	637	110	400	249	380	759	1396	19
40–5	45	225M	680	110	450	307	380	817	1497	19
	37	200L	637	110	400	307	380	817	1454	19
40–6	55	C225M	680	110	450	365	380	875	1555	19
	45	225M	680	110	450	365	380	875	1555	19
40–7	55	C225M	680	110	450	423	380	933	1613	19
	45	225M	680	110	450	423	380	933	1613	19

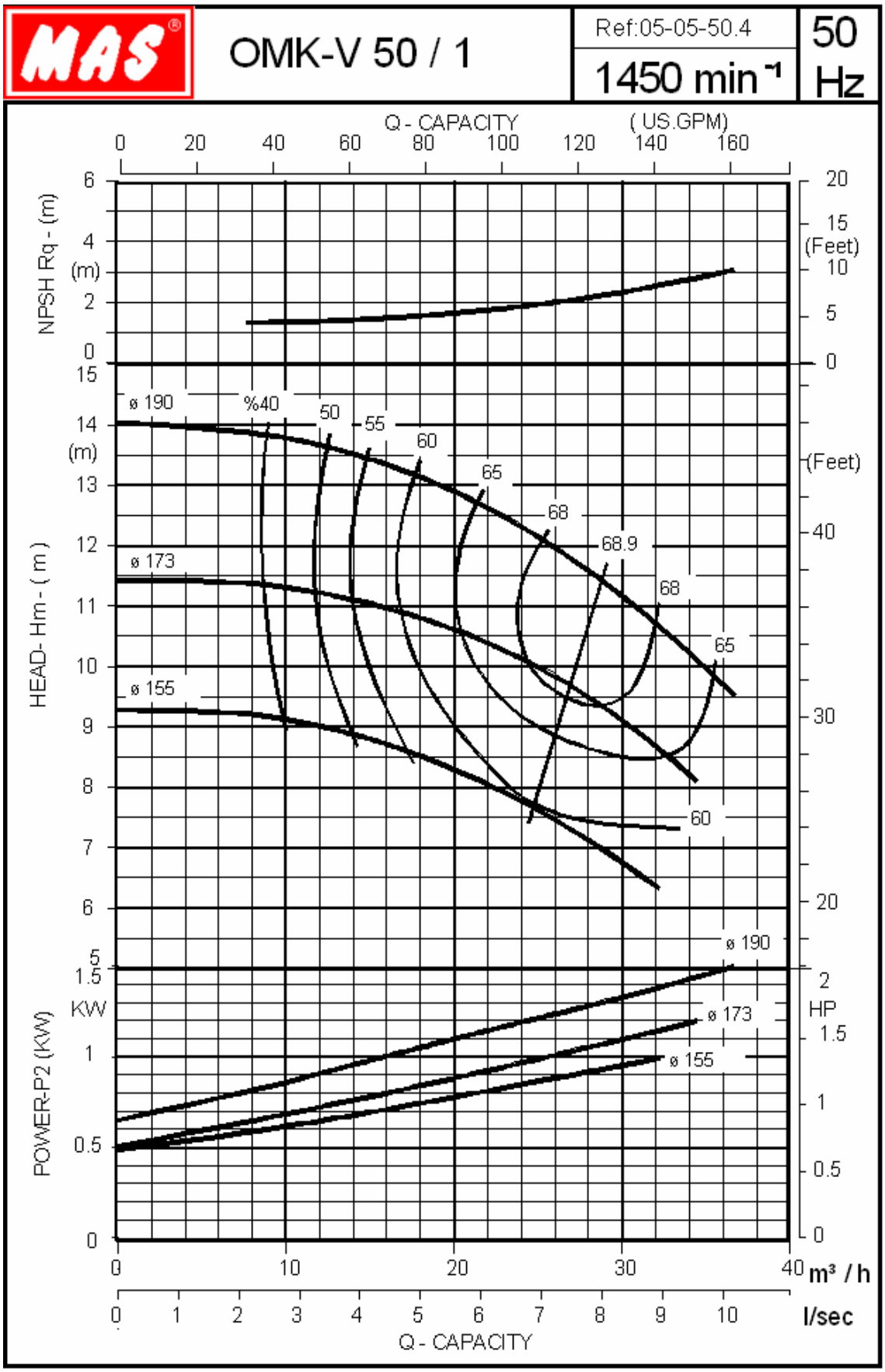
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



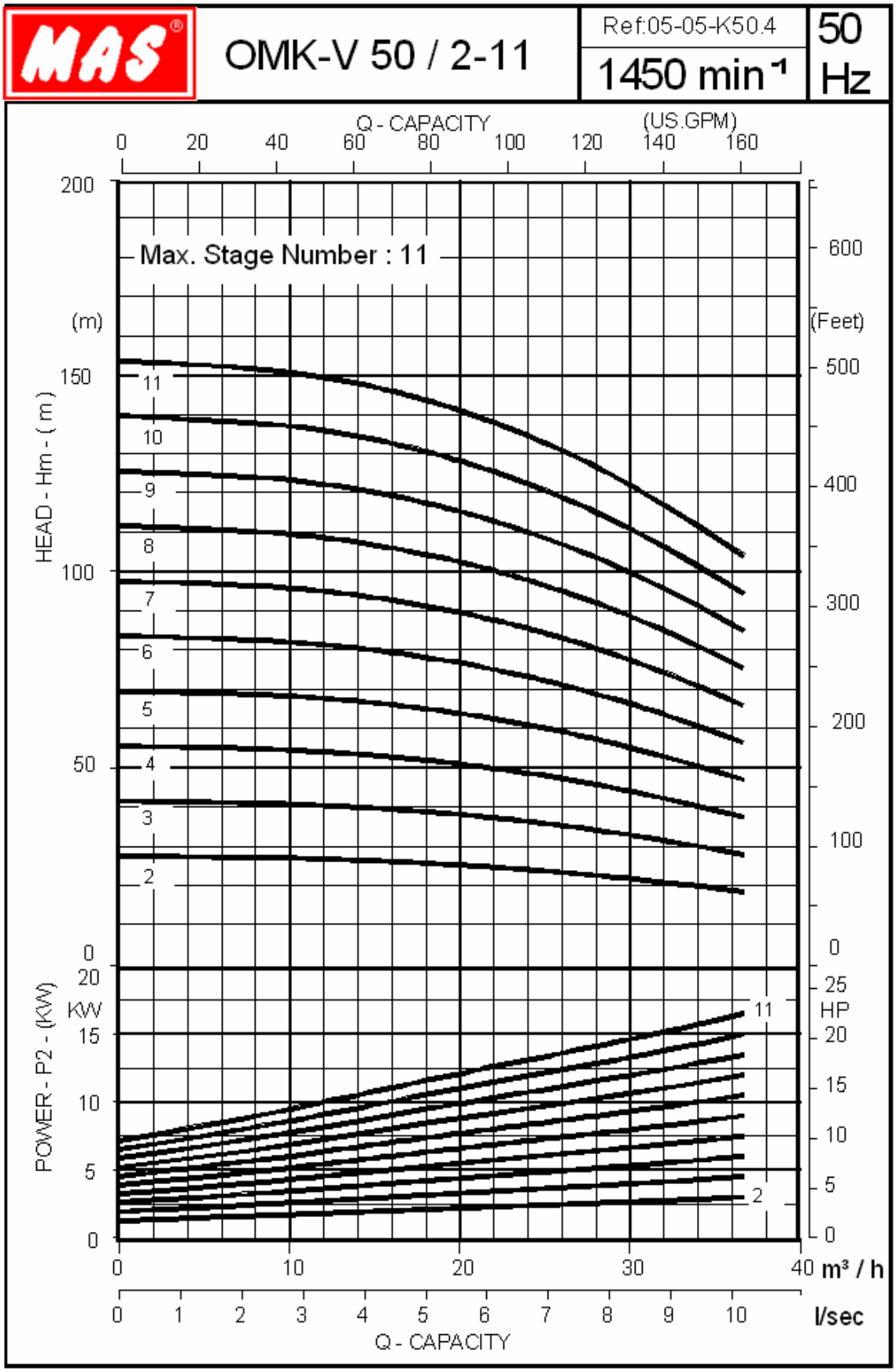
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



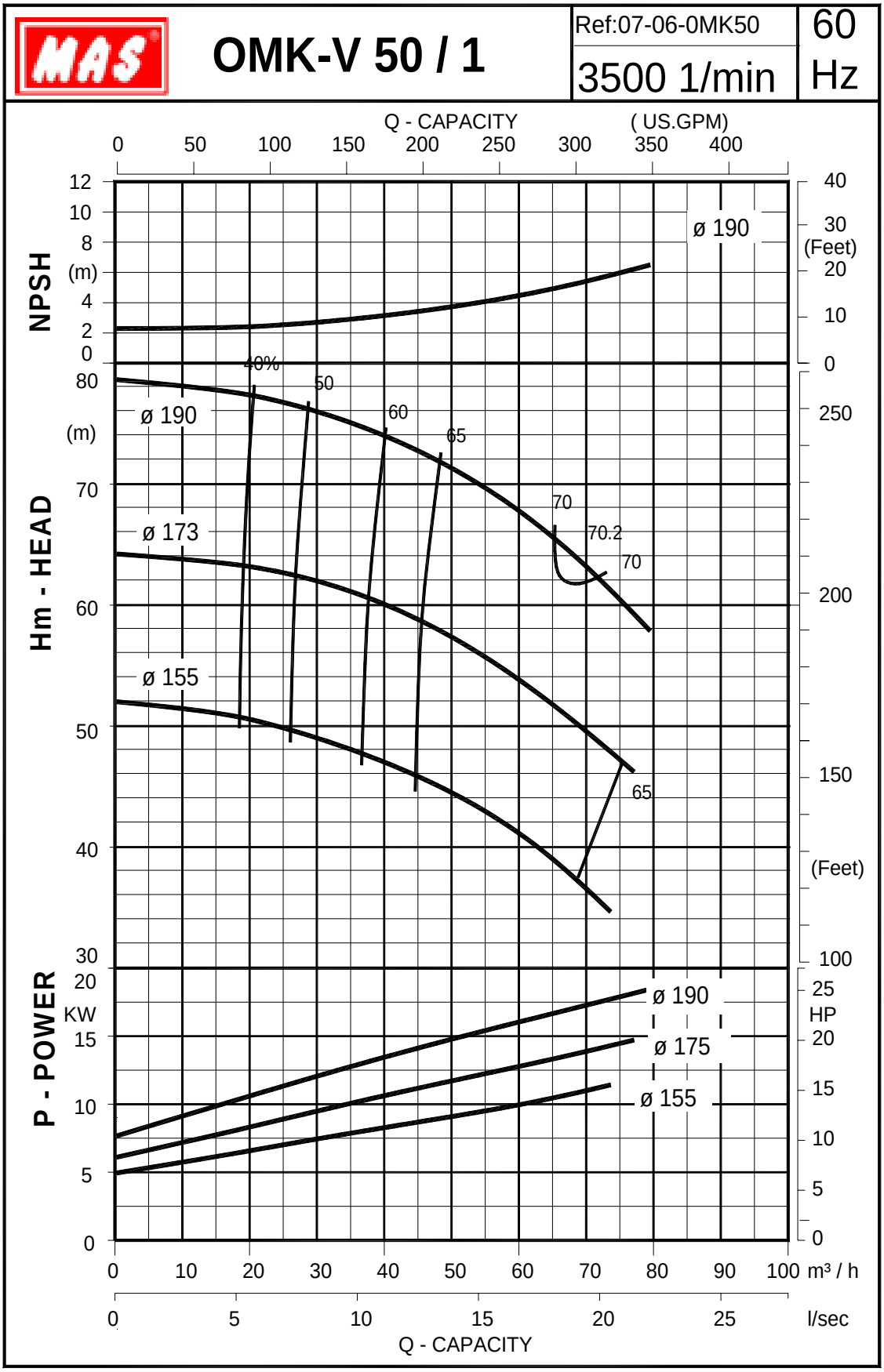
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø	Impeller Width b2= 11 mm
		Min. D2= 155 mm ø	
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 1450rpm. Tolerance DIN 9906.			



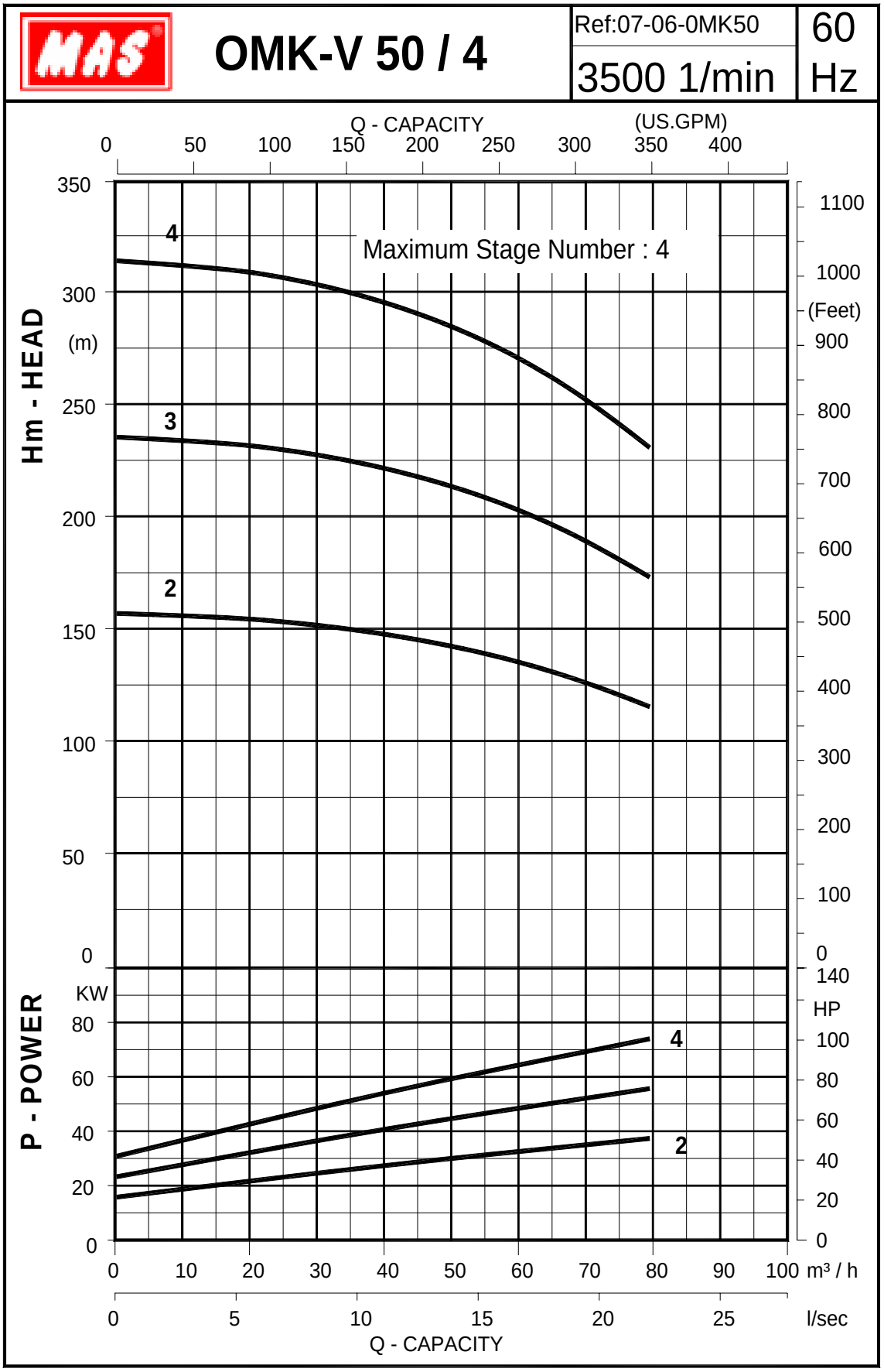
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant speed 1450rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
The graphs refer to single-stage pumps..			
The graphs are valid for 20 °C clean water at the constant speed 3500 rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 3500 rpm. Tolerance DIN 9906.			



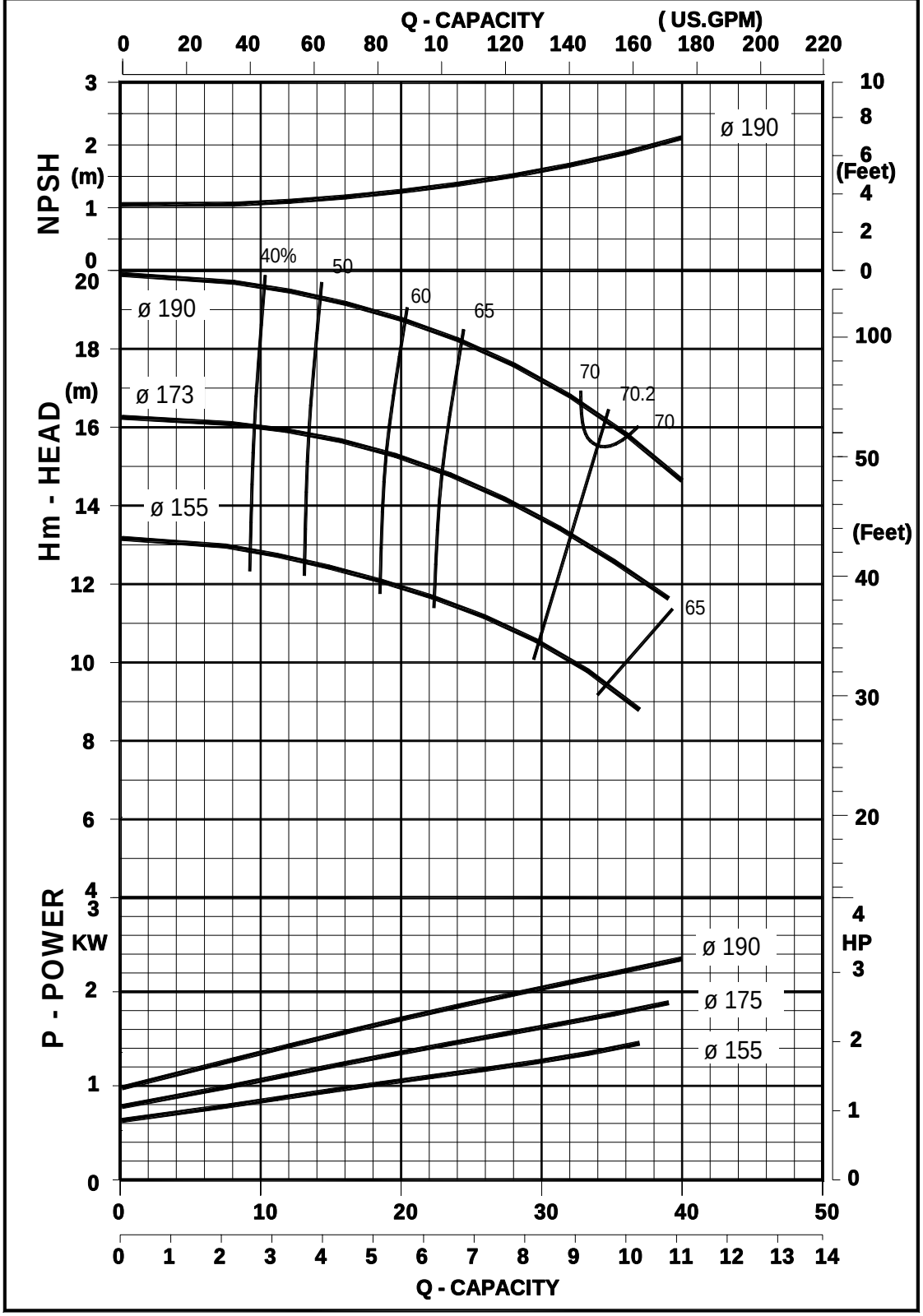
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 1750 rpm. Tolerance DIN 9906.			

OMK-V 50 / 1

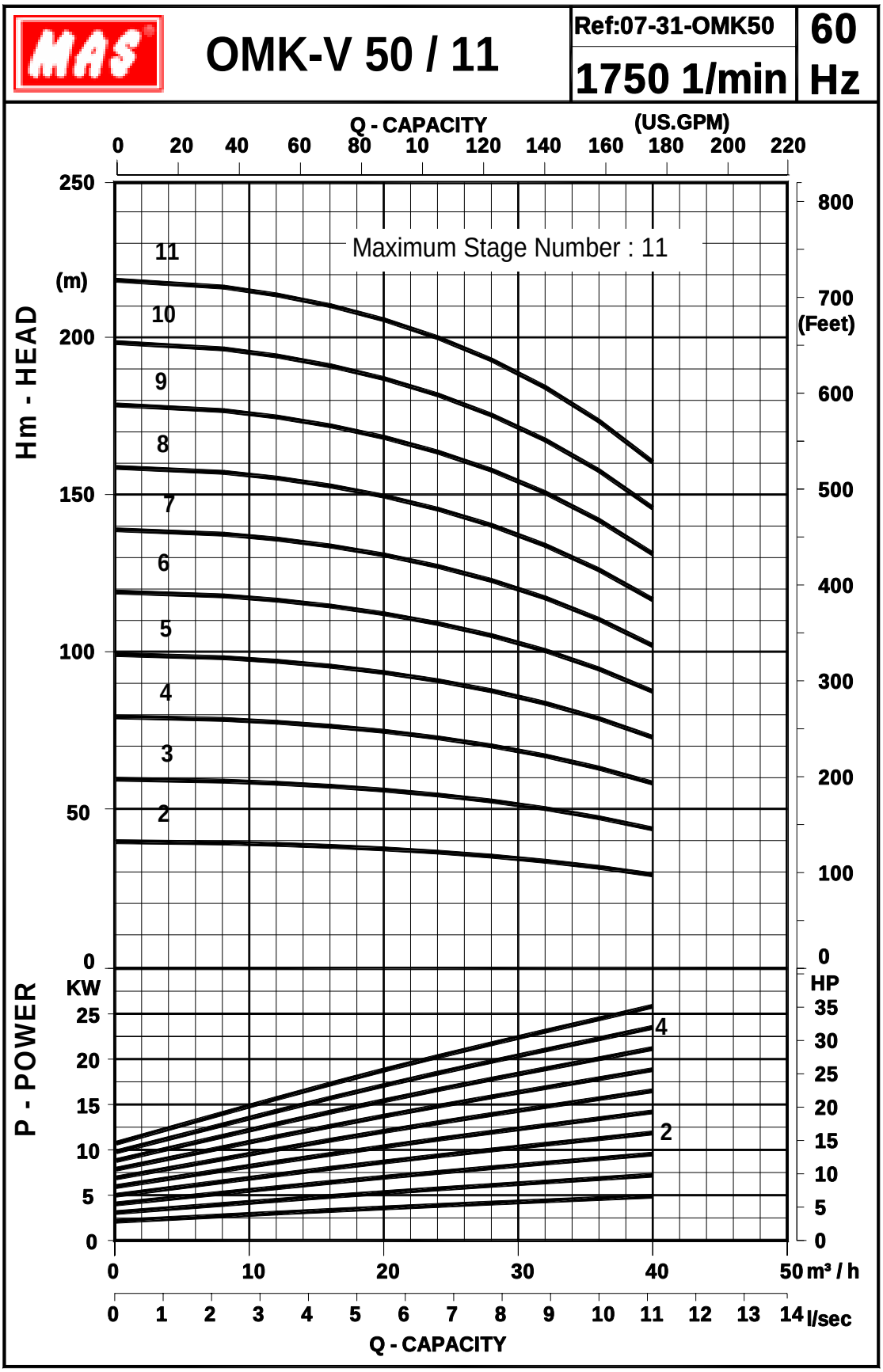
Ref:07-31-OMK50

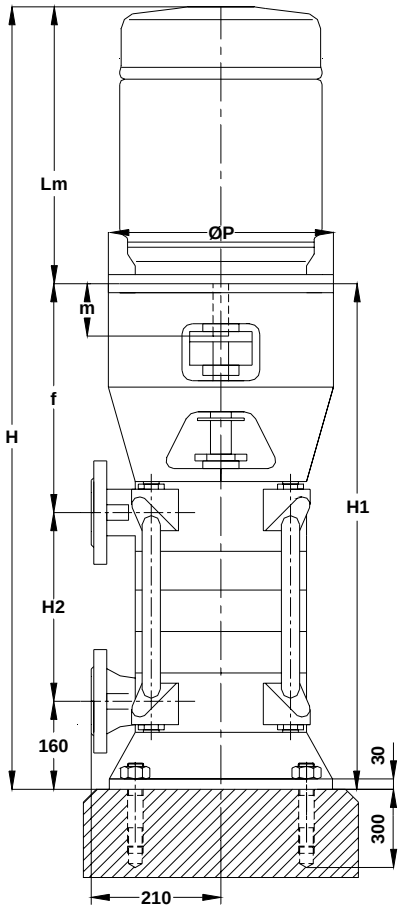
1750 1/min

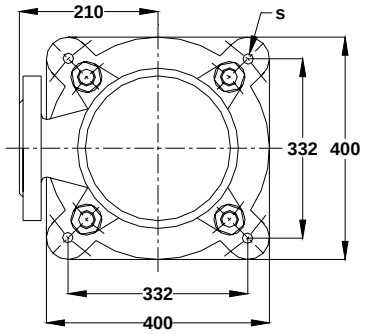
60 Hz

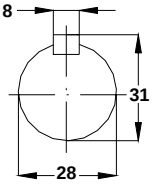


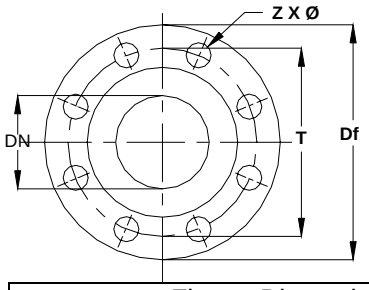
Multi-Stage Centrifugal Pump TYPE: OMK-V 50	IMPELLER	Max D2= 190 mm ø Min. D2= 155 mm ø	Impeller Width b2= 11 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 1750 rpm. Tolerance DIN 9906.			









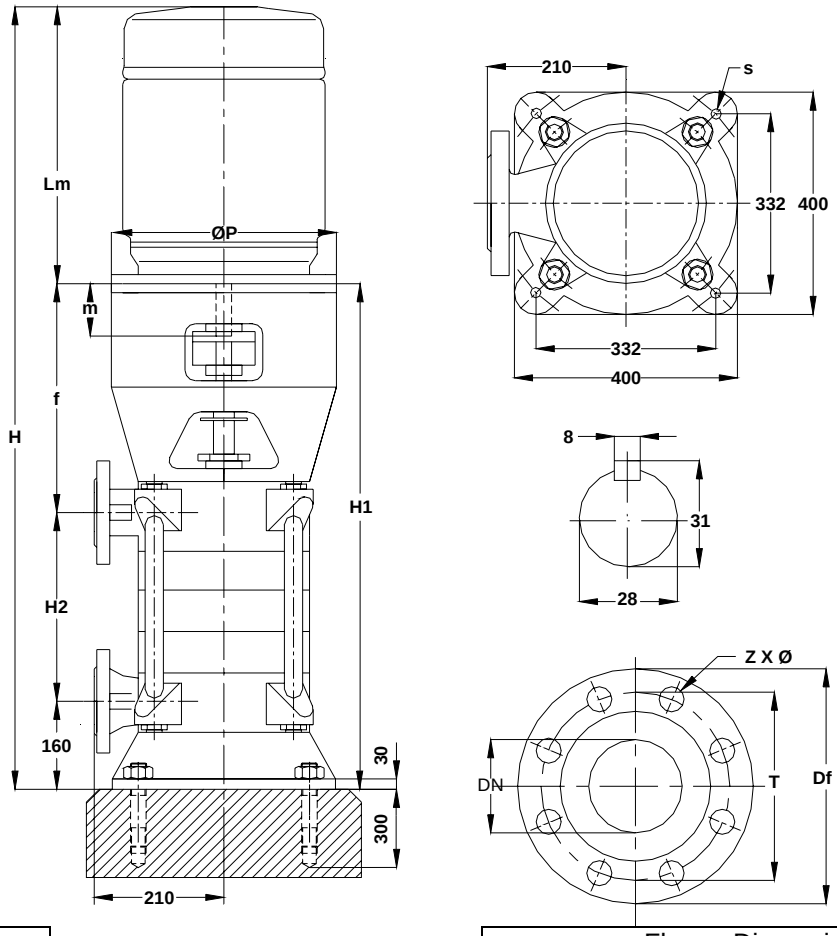


Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	80	200	160	8	18
Discharge	40	50	165	125	4	18

Dimensions – 2900 RPM – 50 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 50–2	30	200L	637	110	400	188	443	791	1428	19
	22	180M	544	110	350	188	443	791	1335	19
50–3	37	200L	637	110	400	266	443	869	1506	19
	30	200L	637	110	400	266	443	869	1506	19
50–4	45	225M	680	110	450	344	443	947	1627	19
	37	200L	637	110	400	344	443	947	1584	19
50–5	75	280S	818	140	550	422	473	1055	1873	19
	55	250M	750	140	550	422	473	1055	1805	19
50–6	75	280S	818	140	550	500	473	1133	1951	19
	55	250M	750	140	550	500	473	1133	1883	19
50–7	90	280M	870	140	550	578	473	1211	2081	19
	75	280S	818	140	550	578	473	1211	2029	19

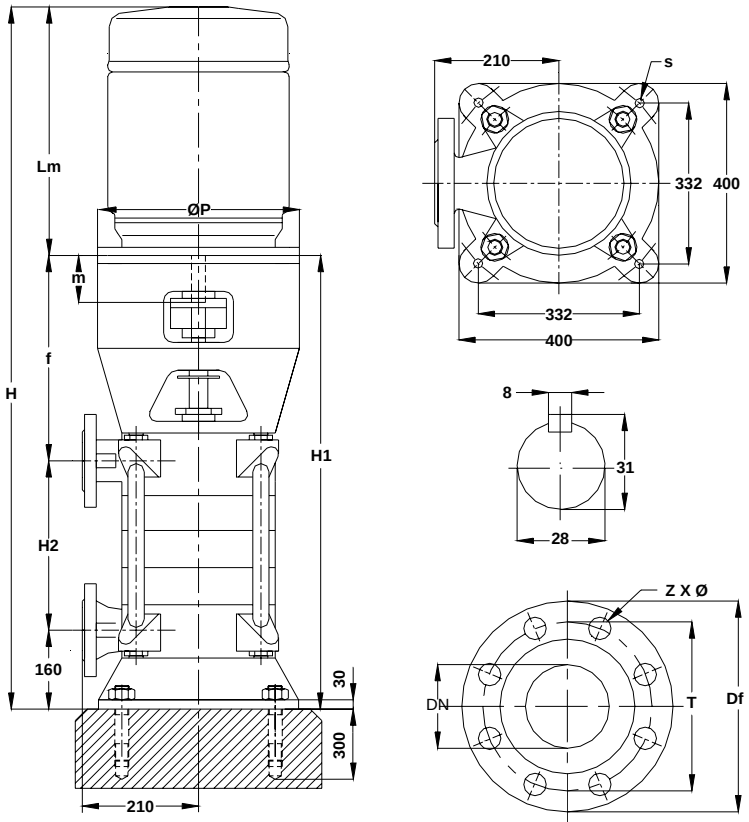


Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	80	200	160	8	18
Discharge	40	50	165	125	4	18

Dimensions – 1450 RPM – 50 Hz

Pump Type	MOTOR					PUMP			OVERALL	
	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 50 2	4	112M	324	60	250	188	393	741	1065	19
	3	100L	305	60	250	188	393	741	1046	19
50–3	5.5	132S	375	80	300	266	413	839	1214	19
	4	112M	324	60	250	266	393	819	1143	19
50–4	7.5	132M	413	80	300	344	413	917	1330	19
	5.5	132S	375	80	300	344	413	917	1292	19
50–5	9	C132M	413	80	300	422	413	995	1408	19
	7.5	132M	413	80	300	422	413	995	1408	19
50–6	11	160M	484	110	350	500	443	1103	1587	19
	9	C132M	413	80	300	500	413	1073	1486	19
50–7	11	160M	484	110	350	578	443	1181	1665	19
	9	C132M	413	80	300	578	413	1151	1564	19
50–8	15	160L	528	110	350	656	443	1259	1787	19
	11	160M	484	110	350	656	443	1259	1743	19
50–9	15	160L	528	110	350	734	443	1337	1865	19
	11	160M	484	110	350	734	443	1337	1821	19
50–10	18.5	180M	544	110	350	812	443	1415	1959	19
	15	160L	528	110	350	812	443	1415	1943	19
50–11	18.5	180M	544	110	350	890	443	1493	2037	19
	15	160L	528	110	350	890	443	1493	2021	19

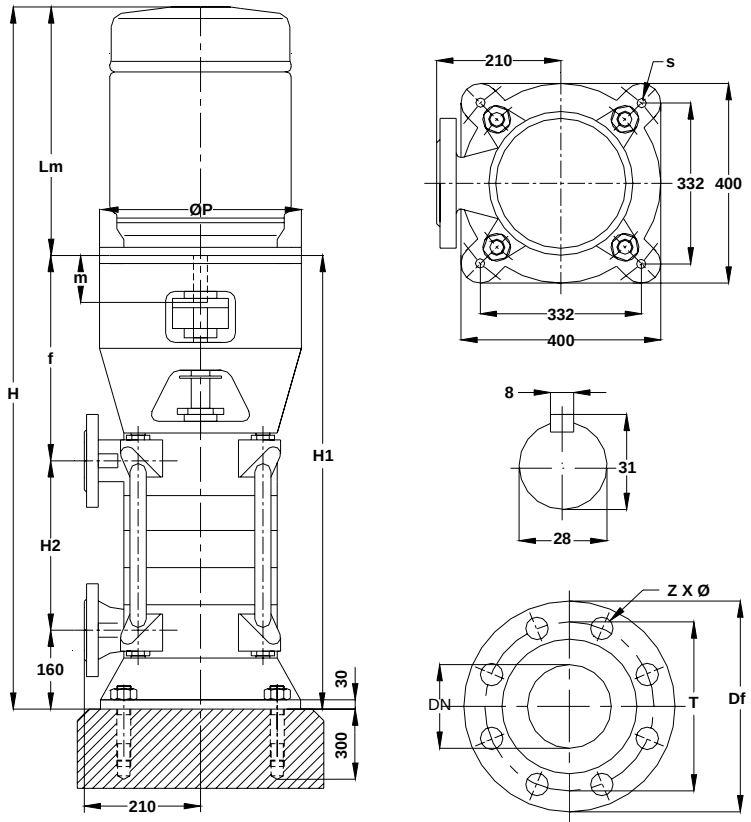


Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	80	200	160	8	18
Discharge	40	50	165	125	4	18

Dimensions – 1750 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 50 2	5.5	132S	375	80	300	188	413	761	1136	19
	4	112M	332	60	250	188	393	741	1073	19
50–3	11	160M	491	110	350	266	443	869	1360	19
	7.5	132M	375	80	300	266	413	839	1214	19
50–4	11	160M	491	110	350	344	443	947	1438	19
	7.5	132M	375	80	300	344	413	917	1292	19
50–5	15	160L	491	110	350	422	443	1025	1516	19
	11	160M	491	110	350	422	443	1025	1516	19
50–6	18.5	180M	549	110	350	500	443	1103	1652	19
	15	160L	491	110	350	500	443	1103	1594	19
50–7	22	180L	587	110	350	578	443	1181	1768	19
	18.5	180M	549	110	350	578	443	1181	1730	19
50–8	22	180L	587	110	350	656	443	1259	1846	19
	18.5	180M	549	110	350	656	443	1259	1808	19
50–9	22	180L	587	110	350	734	443	1337	1924	19
	18.5	180M	549	110	350	734	443	1337	1886	19
50–10	30	200L	637	110	400	812	443	1415	2052	19
	22	180L	587	110	350	812	443	1415	2002	19
50–11	30	200L	637	110	400	890	443	1493	2130	19
	22	180L	587	110	350	890	443	1493	2080	19



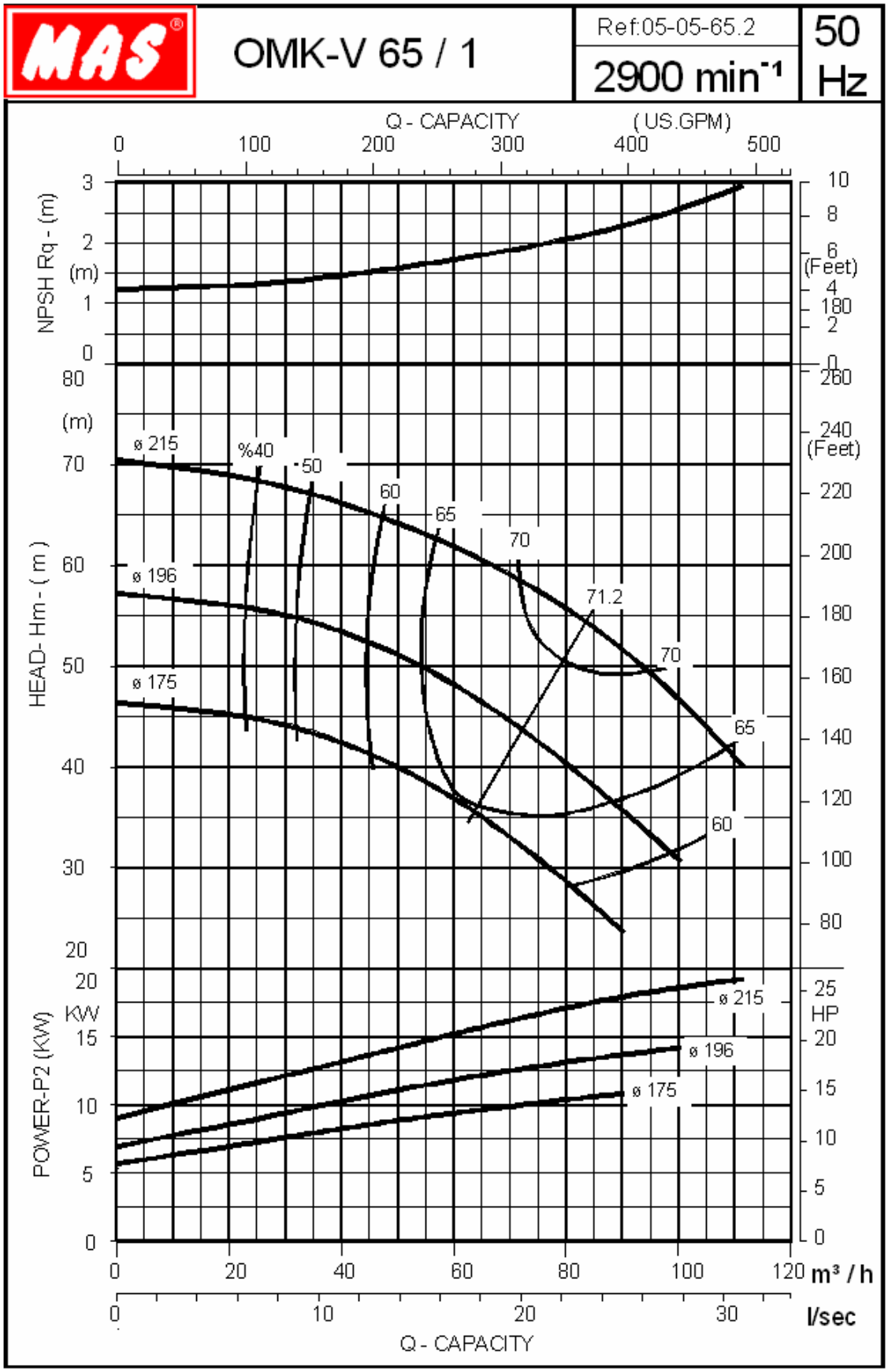
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	80	200	160	8	18
Discharge	40	50	165	125	4	18

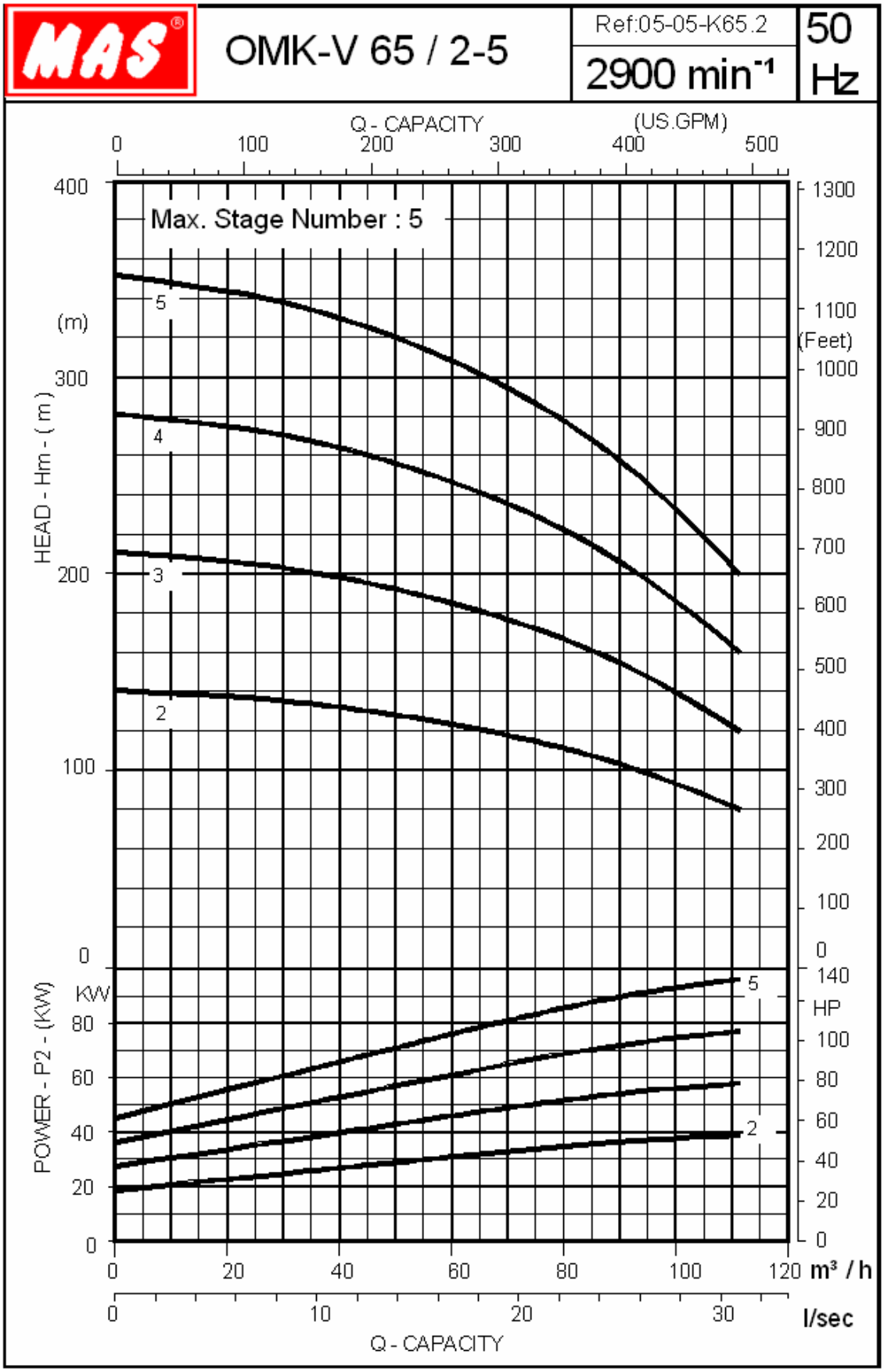
Dimensions – 3500 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 50 2	45	225M	680	110	450	188	443	791	1471	19
	37	200L	637	110	400	188	443	791	1428	19
50–3	75	280S	767	140	550	266	473	899	1666	19
	55	250M	755	140	550	266	473	899	1654	19
50–4	90	280M	818	140	550	344	473	977	1795	19
	75	280S	767	140	550	344	473	977	1744	19

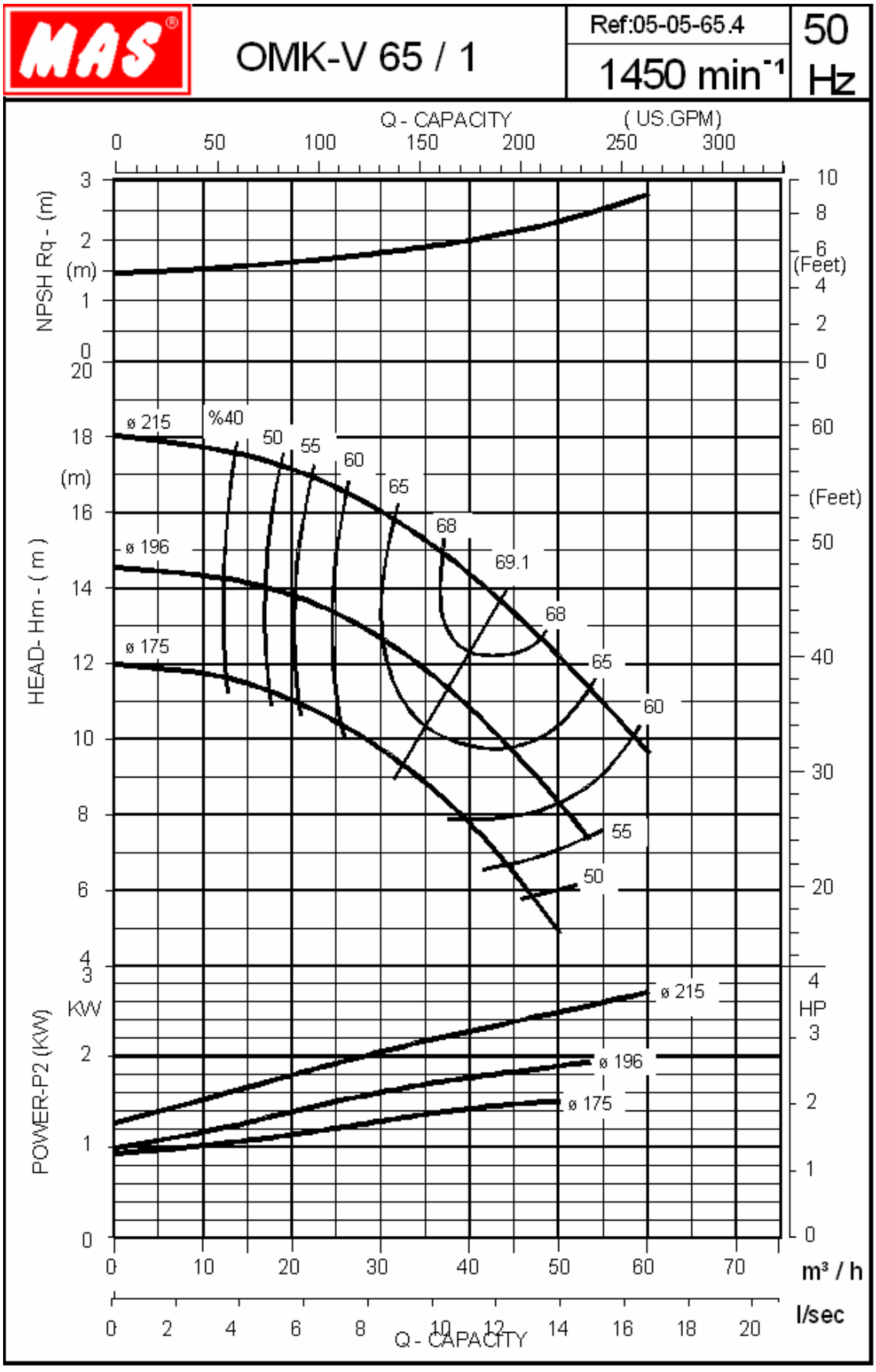
Multi-Stage Centrifugal Pump TYPE: OMK-V 65	IMPELLER	Max D2= 215 mm ø Min. D2= 175 mm ø	Impeller Width b2= 14 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



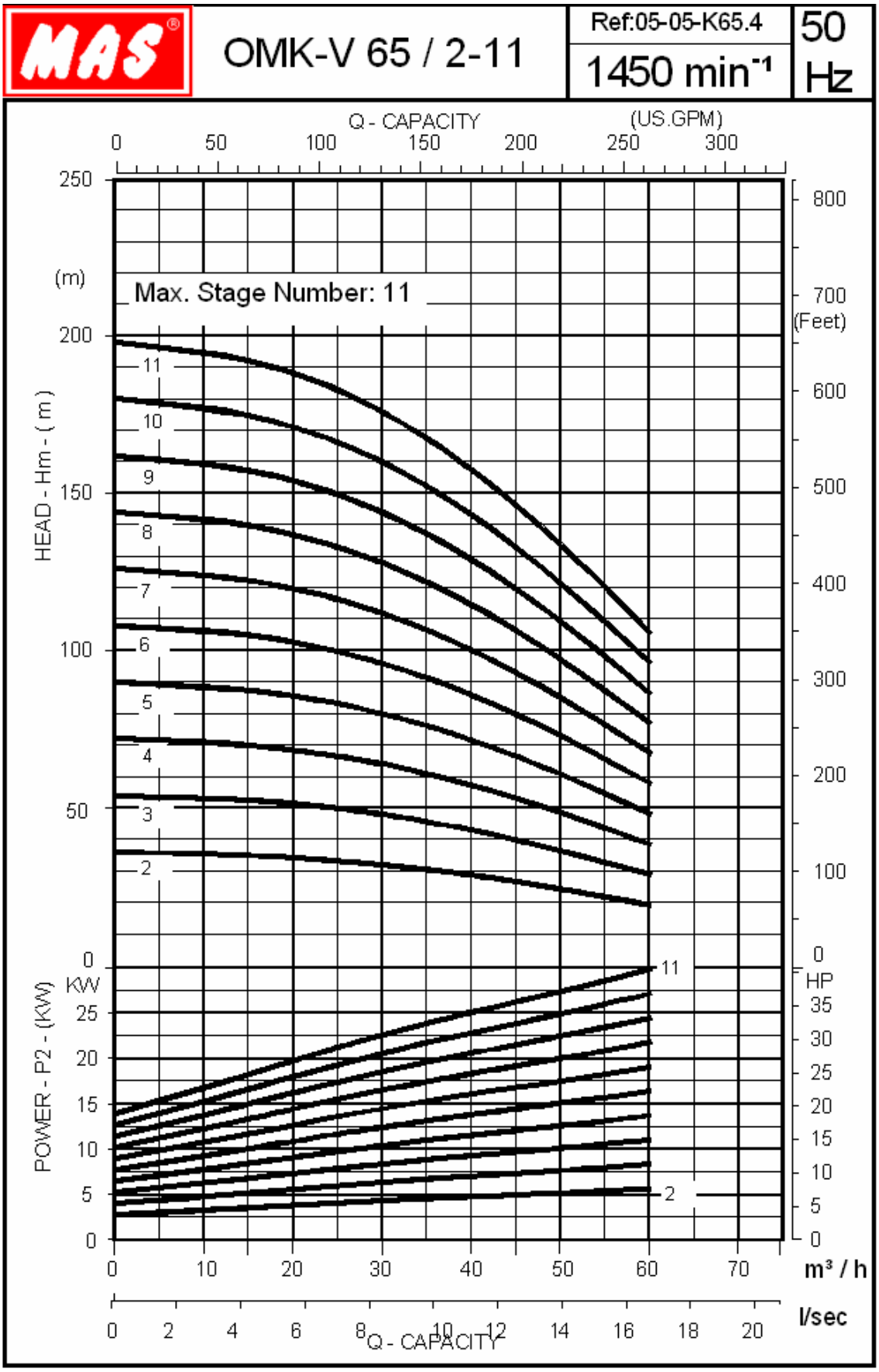
Multi-Stage Centrifugal Pump TYPE: OMK-V 65	IMPELLER	Max D2= 215 mm ø Min. D2= 175 mm ø	Impeller Width b2= 14 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 65	IMPELLER	Max D2= 215 mm ø Min. D2= 175 mm ø	Impeller Width b2= 14 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 1450rpm. Tolerance DIN 9906.			



Multi-Stage Centrifugal Pump TYPE: OMK-V 65	IMPELLER	Max D2= 215 mm ø Min. D2= 175 mm ø	Impeller Width b2= 14 mm
Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant speed 1450rpm. Tolerance DIN 9906.			

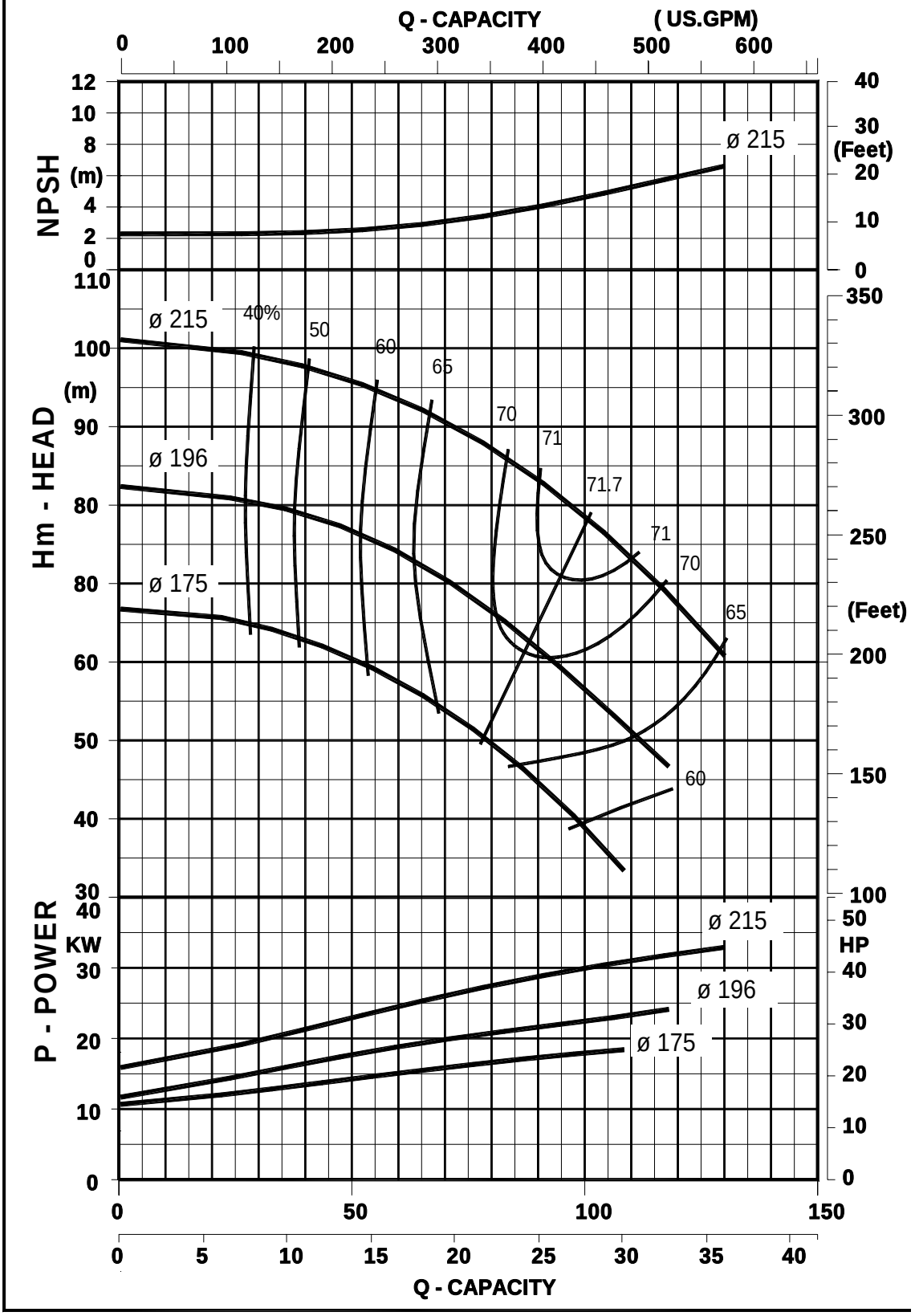


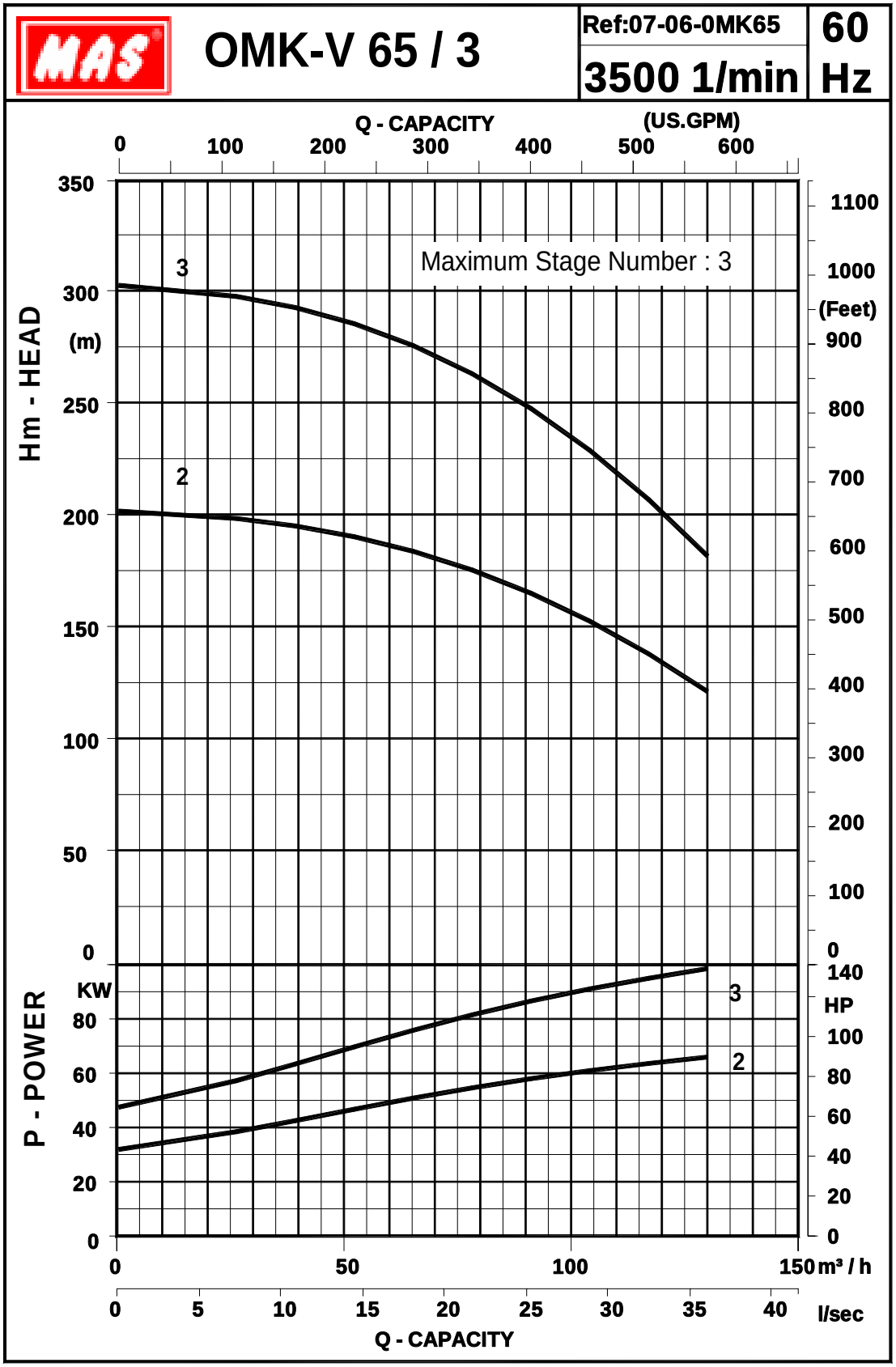
OMK-V 65 / 1

Ref:07-06-0MK65

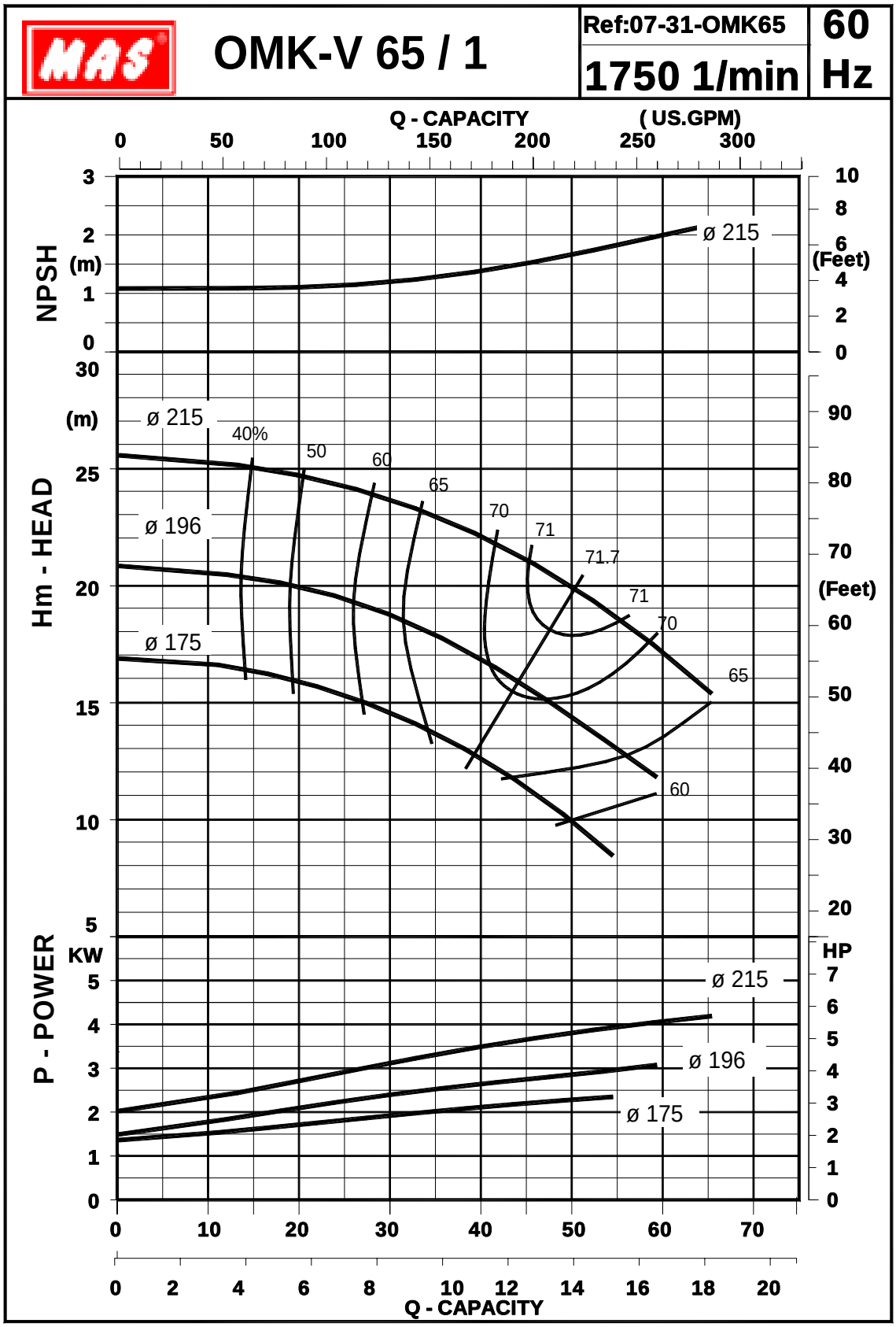
3500 1/min

60 Hz



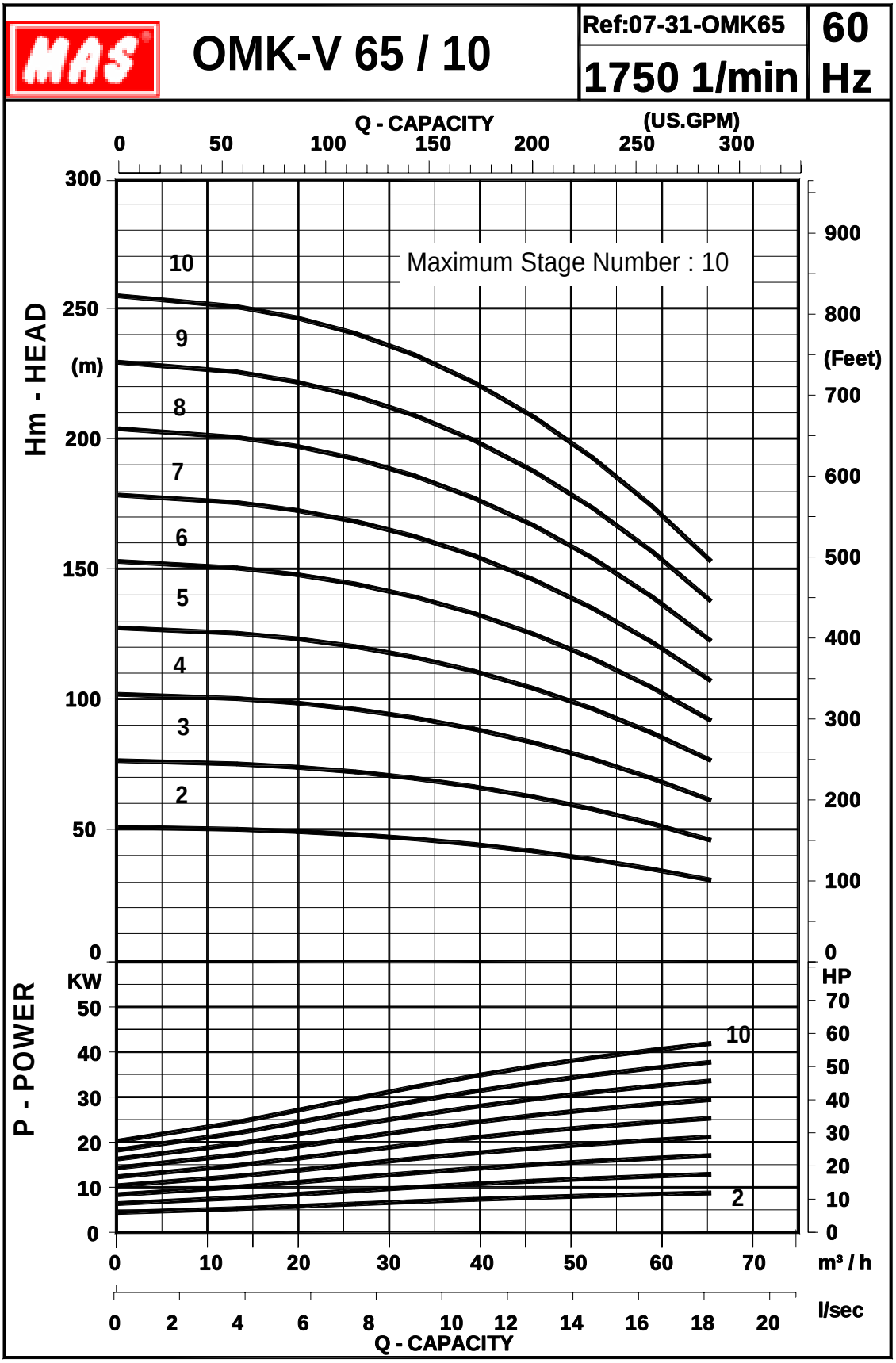

OMK-V 65 / 3
Ref:07-06-0MK65
3500 1/min
60 Hz
Q - CAPACITY (US.GPM)
0 100 200 300 400 500 600
Maximum Stage Number : 3
Hm - HEAD
(m)
(Feet)
P - POWER
KW
HP
m³ / h
l/sec
Q - CAPACITY

		Min. D2= 175 mm ø	
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 1750 rpm. Tolerance DIN 9906.			

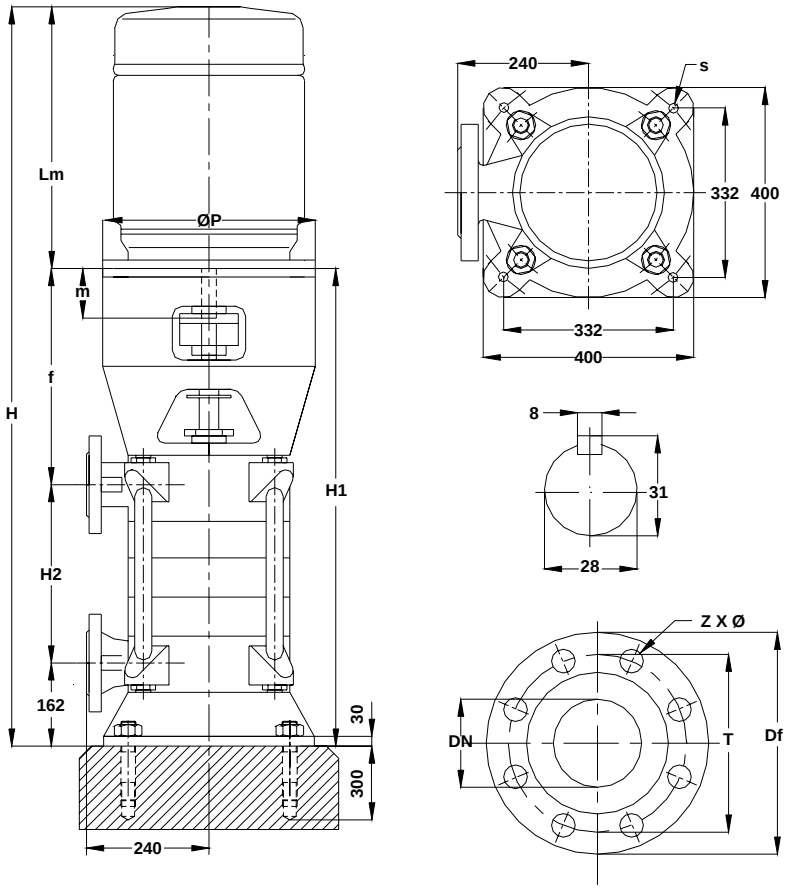


Multi-Stage Centrifugal Pump TYPE: OMK-V 65	**IMPELLER**	Max D2= 215 mm ø Min. D2= 175 mm ø	Impeller Width b2= 14 mm

Head and Power vs. Flowrate curves for multistages are shown.
The graphs are valid for 20 °C clean water at the constant speed 1750 rpm. Tolerance DIN 9906.



MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 65 – 2900 rpm - 50 Hz



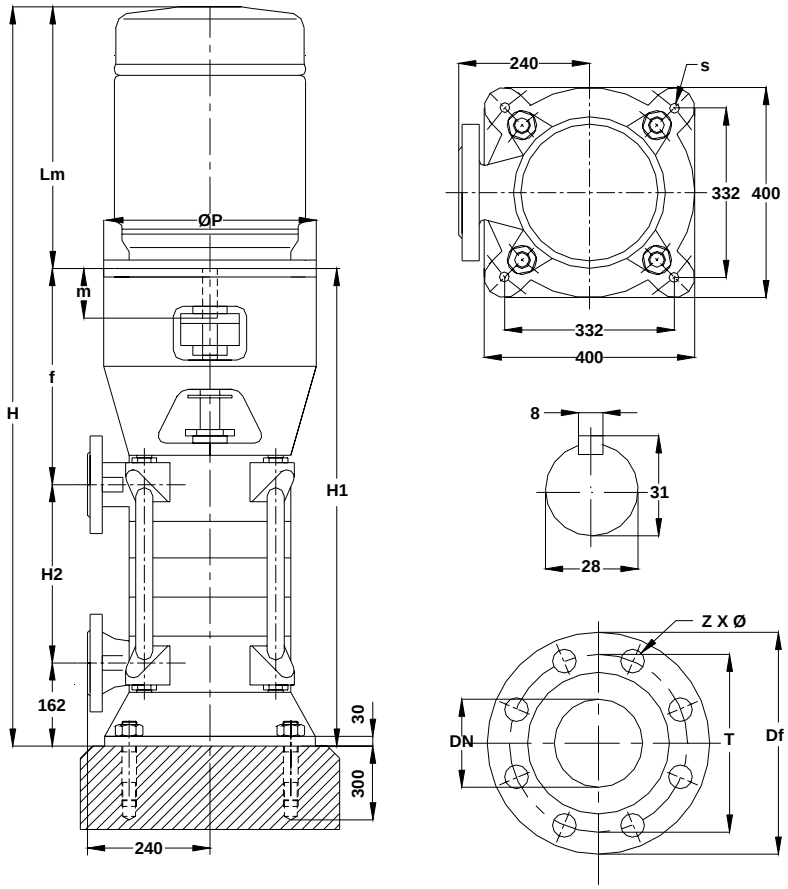
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	100	235	190	8	23
Discharge	40	65	185	145	8	18

Dimensions – 2900 RPM – 50 Hz

Pump Type	MOTOR					PUMP			OVERALL	
	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 65 -2	45	225M	680	110	450	193	447	802	1482	19
	37	200L	637	110	400	193	447	802	1439	19
65–3	75	280S	818	140	550	278	477	917	1735	19
	55	250M	750	140	550	278	477	917	1667	19
65–4	90	280M	870	140	550	363	477	1002	1872	19
	75	280S	818	140	550	363	477	1002	1820	19
65–5	110	315S	938	140	660	448	477	1087	2025	19
	90	280M	870	140	550	448	477	1087	1957	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 65 – 1450 rpm – 50 Hz



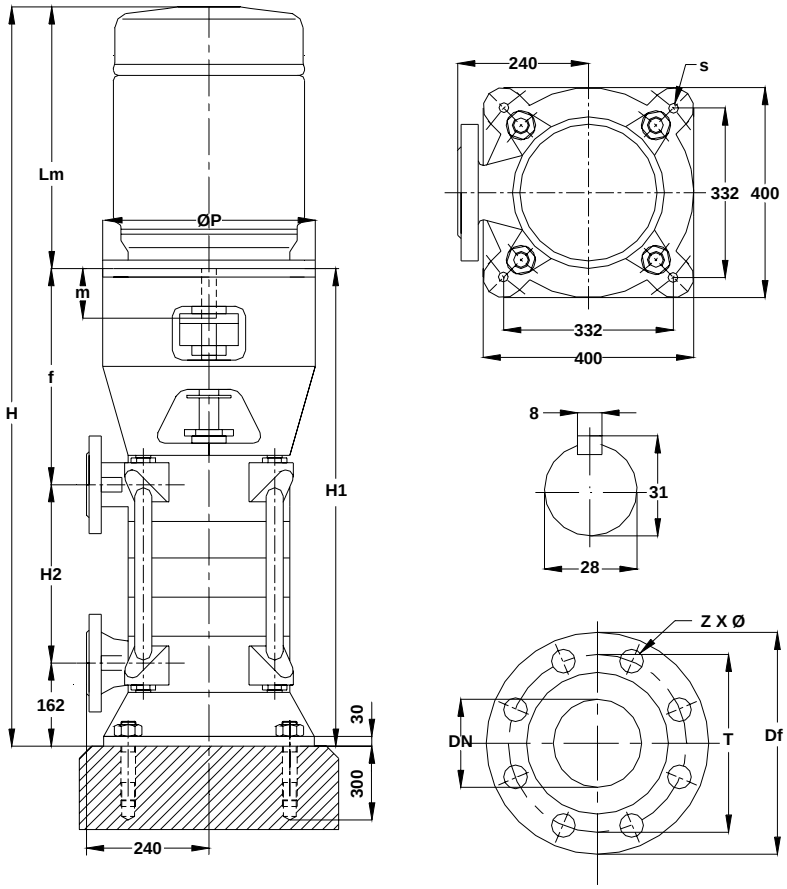
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	100	235	190	8	23
Discharge	40	65	185	145	8	18

Dimensions – 1450 RPM – 50 Hz

Pump Type	MOTOR					PUMP			OVERALL	
	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 65 -2	5.5	132S	375	80	300	193	417	772	1147	19
	4	112M	324	60	250	193	397	752	1076	19
65–3	9	C132M	413	80	300	278	417	857	1270	19
	7.5	132M	413	80	300	278	417	857	1270	19
65–4	15	160L	528	110	350	363	447	972	1500	19
	11	160M	484	110	350	363	447	972	1456	19
65–5	15	160L	528	110	350	448	447	1057	1585	19
	11	160M	484	110	350	448	447	1057	1541	19
65–6	18.5	180M	544	110	350	533	447	1142	1686	19
	15	160L	528	110	350	533	447	1142	1670	19
65–7	22	180L	582	110	350	618	447	1227	1809	19
	18.5	180L	544	110	350	618	447	1227	1771	19
65–8	30	200L	637	110	400	703	447	1312	1949	19
	22	180L	582	110	350	703	447	1312	1894	19
65–9	30	200L	637	110	400	788	447	1397	2034	19
	22	180L	582	110	350	788	447	1397	1979	19
65–10	30	200L	637	110	400	873	447	1482	2119	19
	22	180L	582	110	350	873	447	1482	2064	19
65–11	37	225S	685	110	450	958	447	1567	2252	19
	30	200L	637	110	400	958	447	1567	2204	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 65 – 1750 rpm – 60 Hz



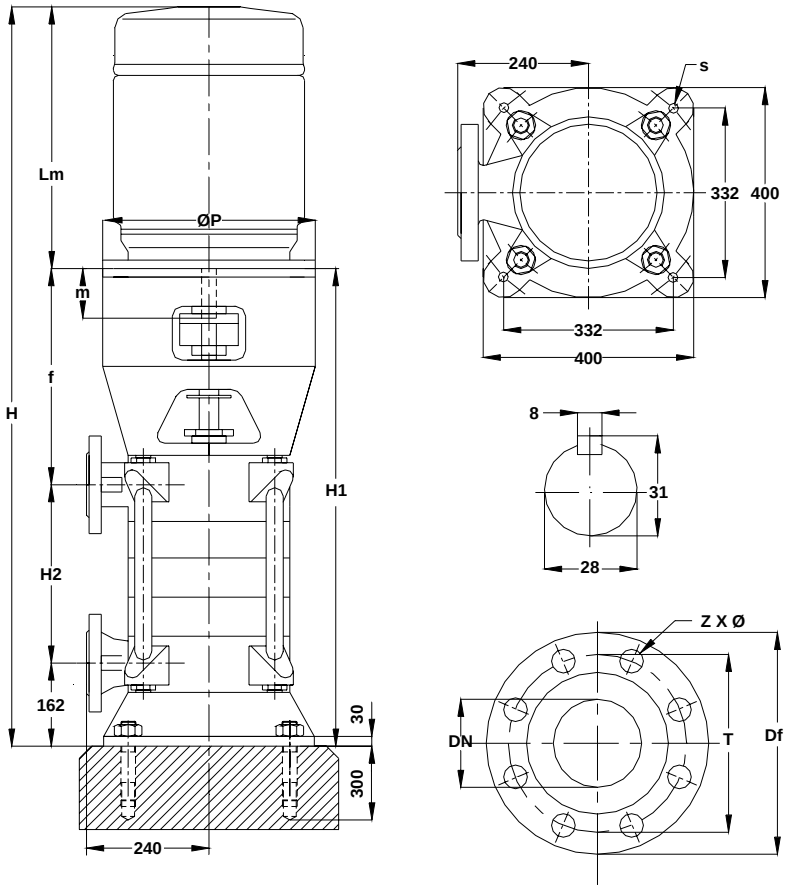
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	100	235	190	8	23
Discharge	40	65	185	145	8	18

Dimensions – 1750 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 65 -2	11	160M	491	110	350	193	447	802	1293	19
	7.5	132M	375	80	300	193	417	772	1147	19
65–3	15	160L	491	110	350	278	447	887	1378	19
	11	160M	491	110	350	278	447	887	1378	19
65–4	22	180L	587	110	350	363	447	972	1559	19
	18.5	180M	549	110	350	363	447	972	1521	19
65–5	30	200L	637	110	400	448	447	1057	1694	19
	22	180L	587	110	350	448	447	1057	1644	19
65–6	30	200L	637	110	400	533	447	1142	1779	19
	22	180L	587	110	350	533	447	1142	1729	19
65–7	37	225S	655	140	450	618	447	1227	1882	19
	30	200L	637	110	400	618	447	1227	1864	19
65–8	45	225M	680	110	450	703	447	1312	1992	19
	37	225S	655	140	450	703	447	1312	1967	19
65–9	45	225M	680	110	450	788	447	1397	2077	19
	37	225S	655	140	450	788	447	1397	2052	19
65–10	55	250M	755	140	550	873	477	1512	2267	19
	45	225M	680	110	450	873	447	1482	2162	19

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 65 – 3500 rpm – 60 Hz



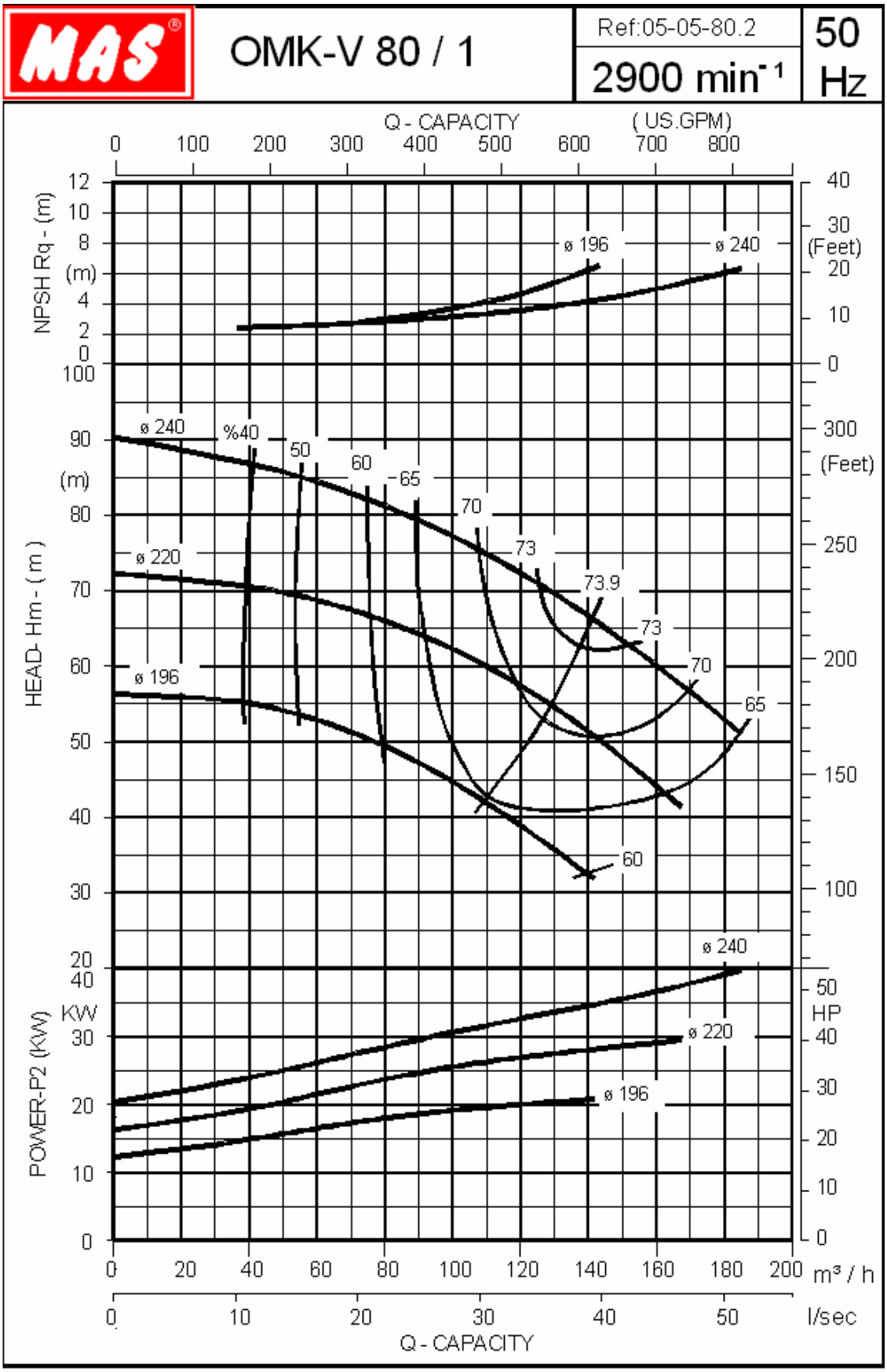
Foundation Bolts	
Number	Dimensions
4	M 16 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	100	235	190	8	23
Discharge	40	65	185	145	8	18

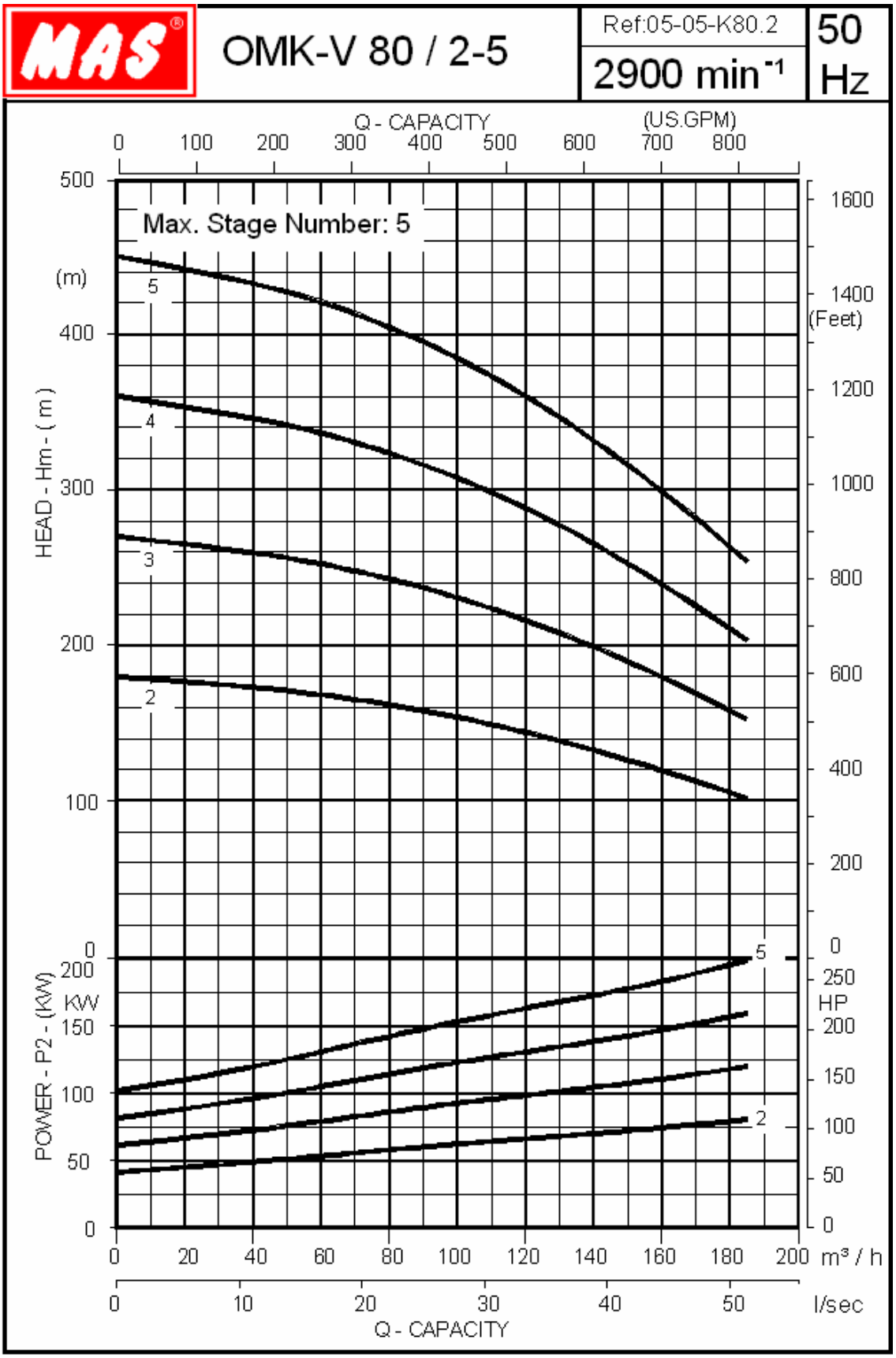
Dimensions – 3500 RPM – 60 Hz

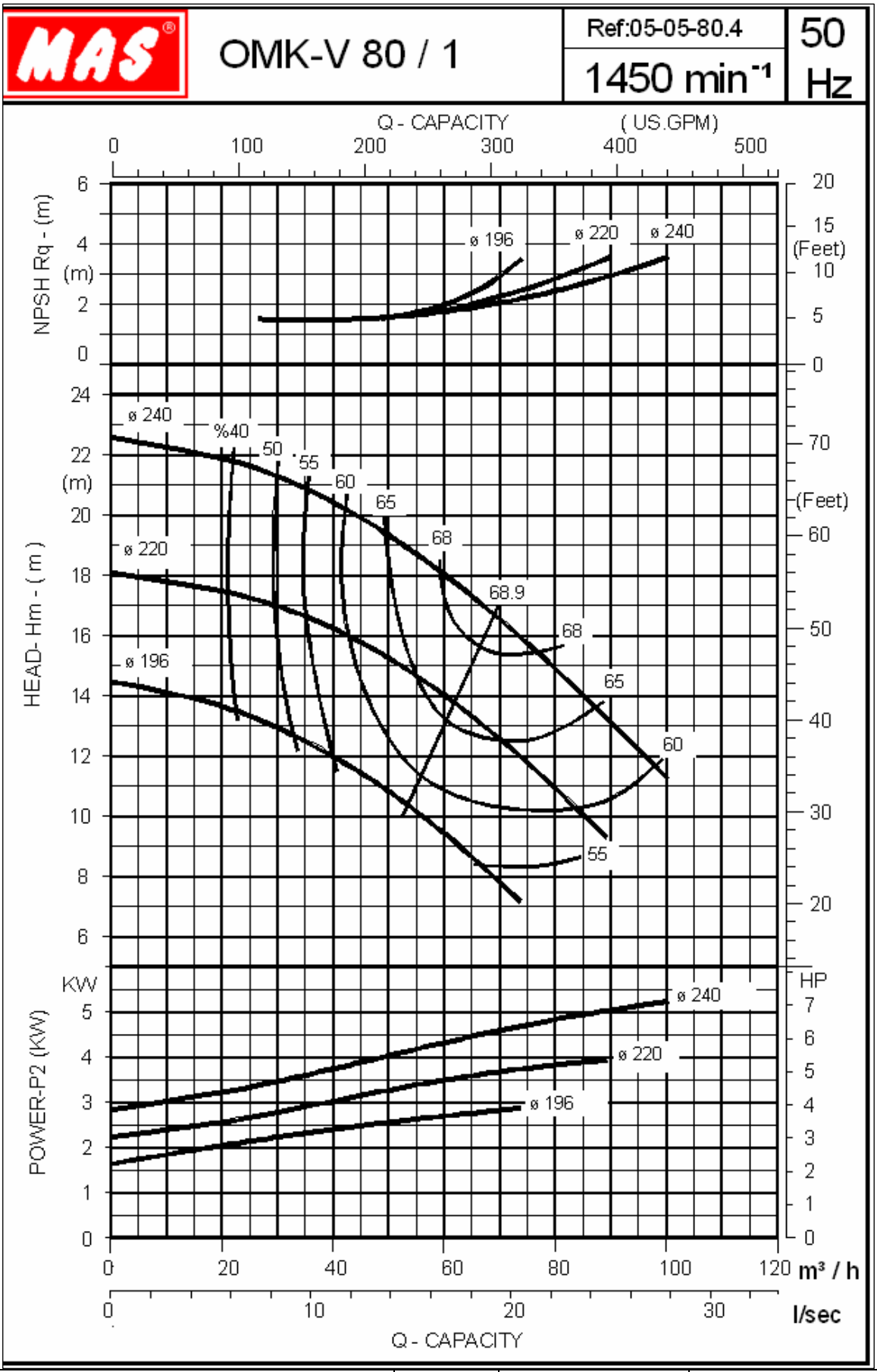
Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 65 -2	75	280S	767	140	550	193	477	832	1599	19
	55	250M	755	140	450	193	447	802	1557	19
65–3	110	315S	928	140	660	278	477	917	1845	19
	90	280M	818	140	550	278	447	887	1705	19

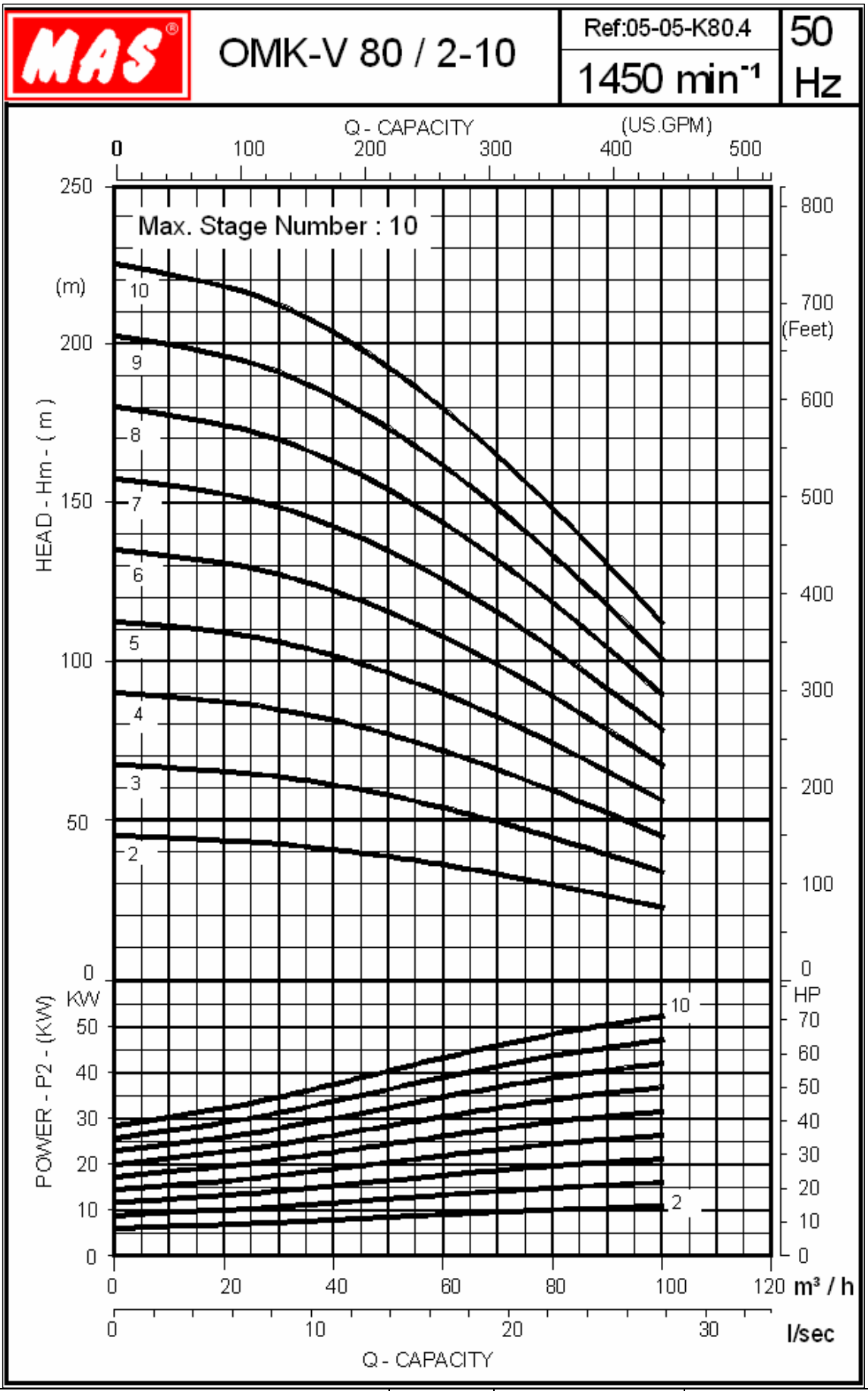
Multi-Stage Centrifugal Pump TYPE: OMK-V 80	IMPELLER	Max D2= 240 mm ø Min. D2= 196 mm ø	Impeller Width b2= 18 mm
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



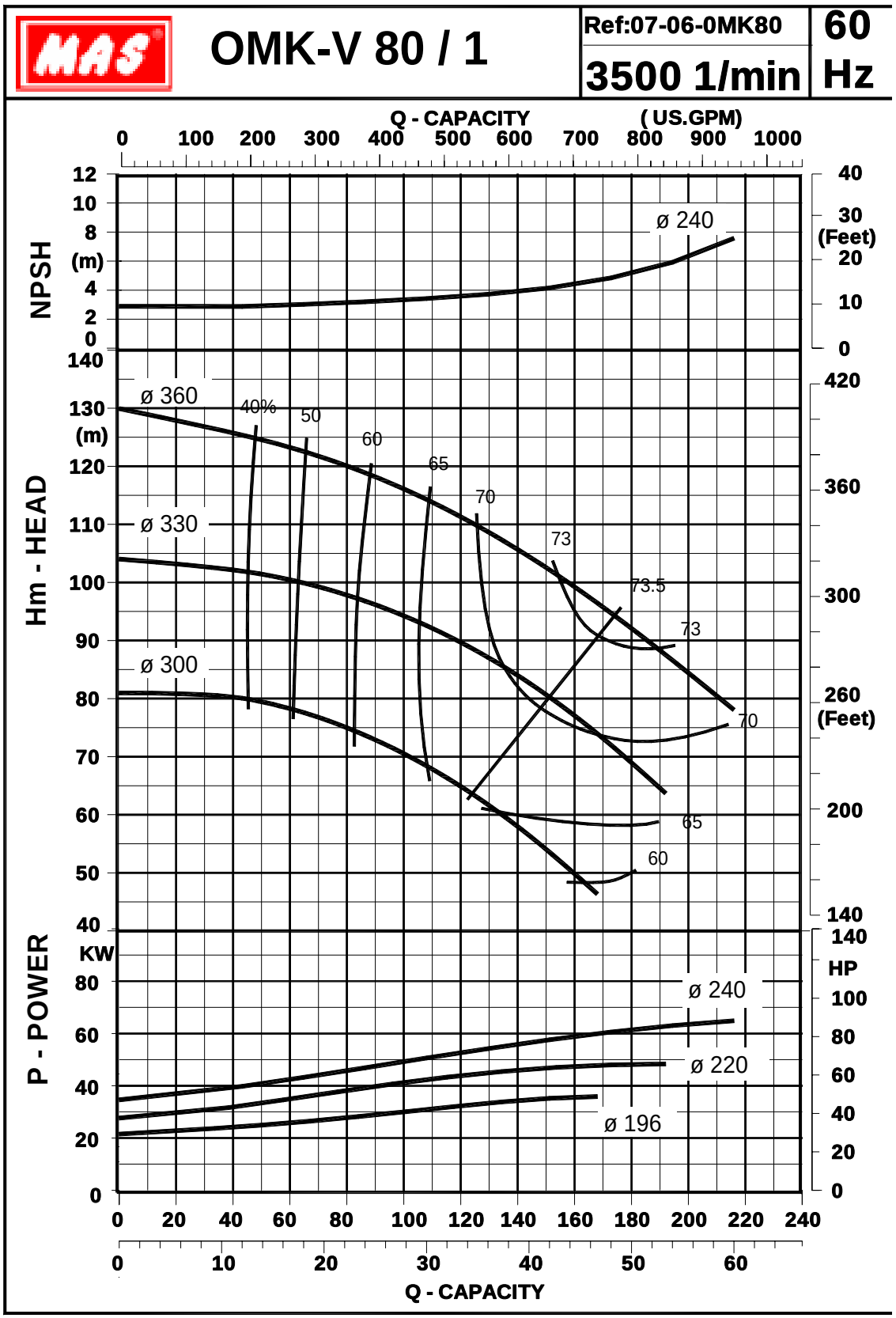
Multi-Stage Centrifugal Pump TYPE: OMK-V 80	IMPELLER	Max D2= 240 mm ø Min. D2= 196 mm ø	Impeller Width b2= 18 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 2900rpm. Tolerance DIN 9906.			



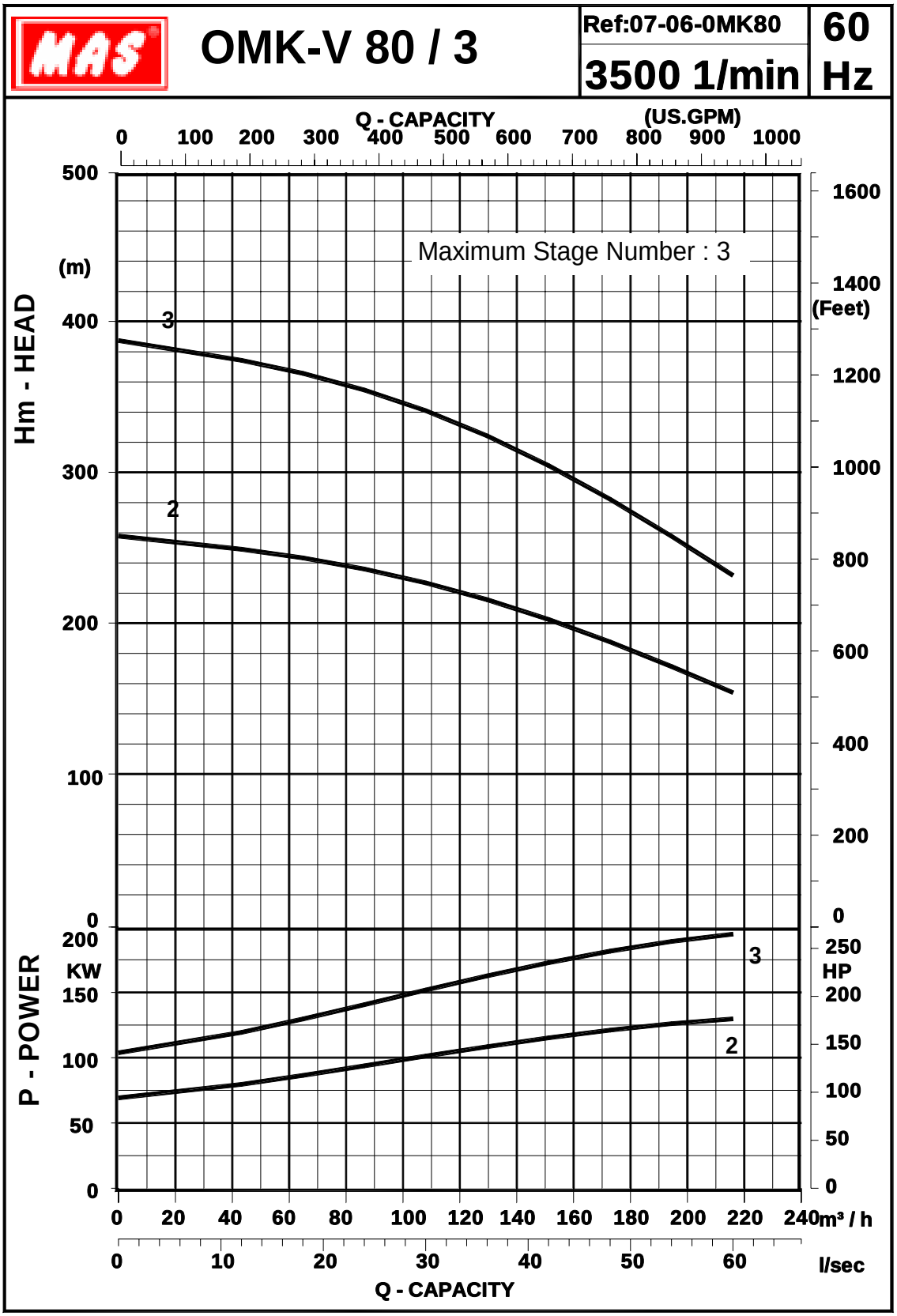

MAS
OMK-V 80 / 1
Ref:05-05-80.4
1450 min⁻¹
50 Hz
Q - CAPACITY (US.GPM)
0 100 200 300 400 500
NPSH Rq - (m)
(m)
ø 196
ø 220
ø 240
HEAD- Hm - (m)
(Feet)
ø 240
%40
50
55
60
65
68
68.9
ø 220
ø 196
KW
HP
POWER-P2 (KW)
0 20 40 60 80 100 120 m³ / h
0 10 20 30 l/sec
Q - CAPACITY

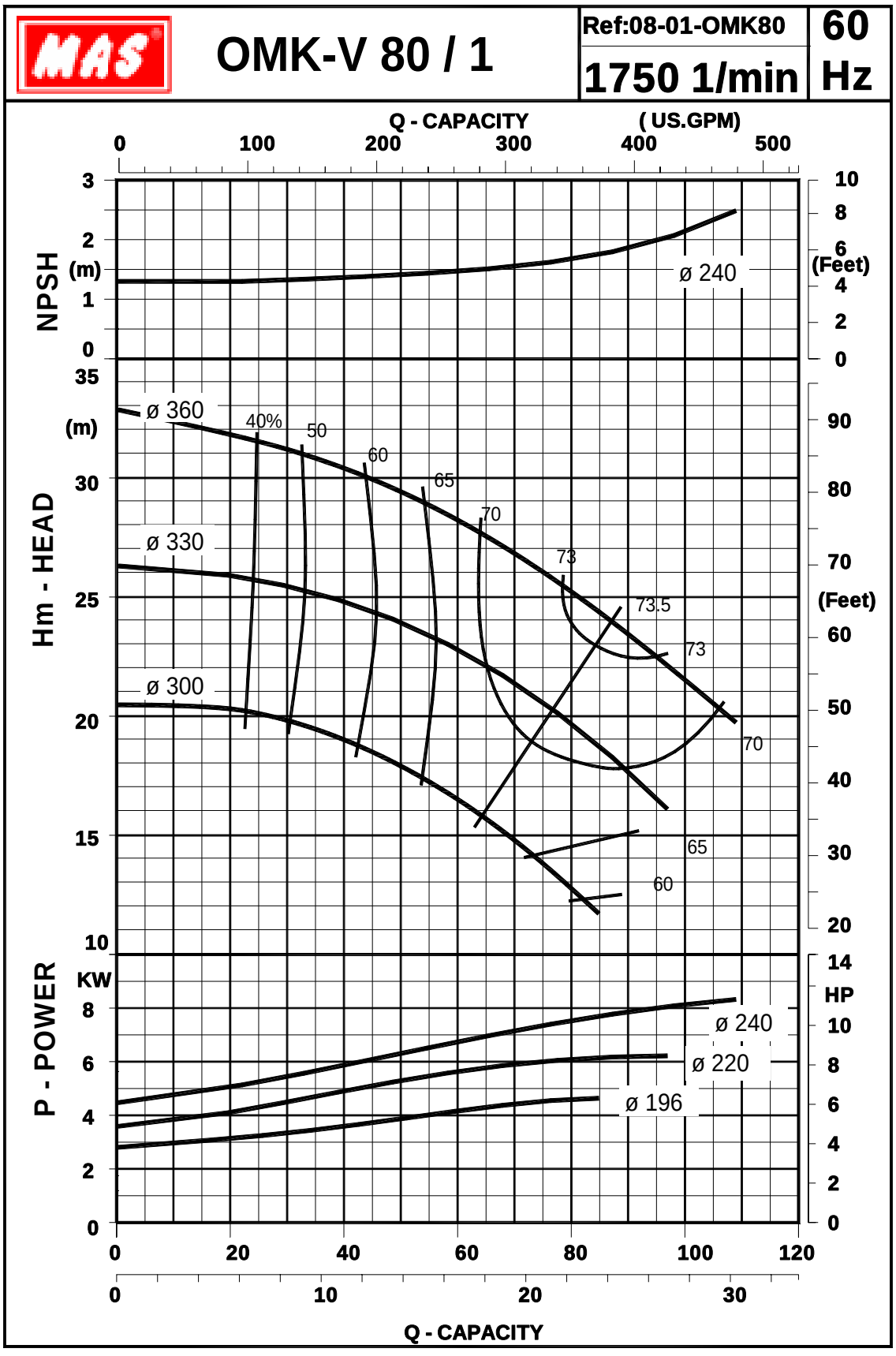

MAS
OMK-V 80 / 2-10
Ref:05-05-K80.4
1450 min-1
50 Hz
Q - CAPACITY (US.GPM)
0 100 200 300 400 500
Max. Stage Number : 10
(m)
HEAD - Hm - (m)
250 200 150 100 50 0
10 9 8 7 6 5 4 3 2
800 700 600 500 400 300 200 100 0
(Feet)
KW
POWER - P2 - (KW)
50 40 30 20 10 0
10 2
HP
70 60 50 40 30 20 10 0
0 20 40 60 80 100 120 m³ / h
0 10 20 30 l/sec
Q - CAPACITY

		Min. D2= 196 mm ø	
The graphs refer to single-stage pumps.			
The graphs are valid for 20 °C clean water at the constant speed 3500 rpm. Tolerance DIN 9906.			

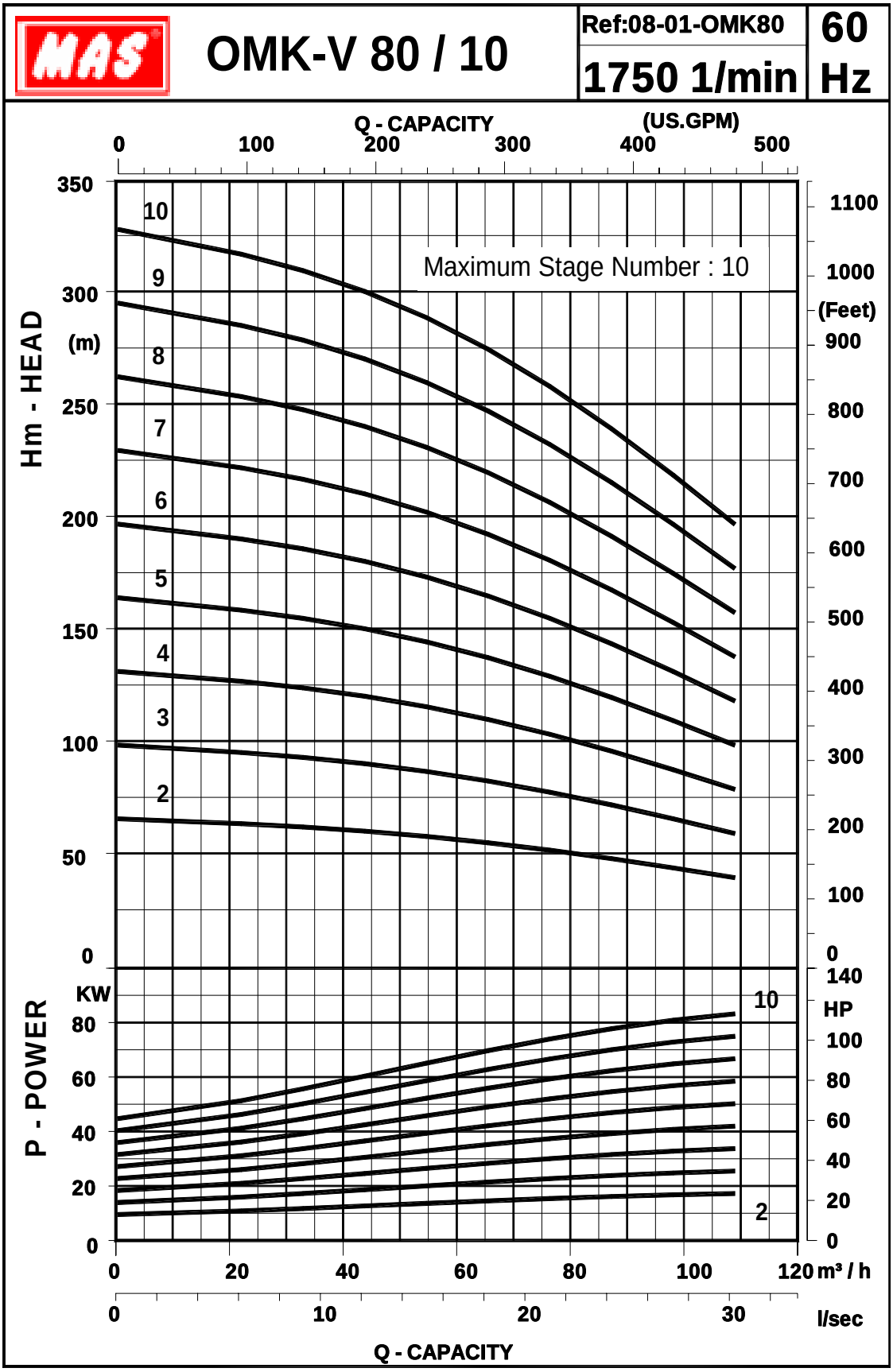


Multi-Stage Centrifugal Pump TYPE: OMK-V 80	IMPELLER	Max D2= 240 mm ø Min. D2= 196 mm ø	Impeller Width b2= 18 mm
Head and Power vs. Flowrate curves for multistages are shown below.			
The graphs are valid for 20 °C clean water at the constant speed 3500 rpm. Tolerance DIN 9906.			

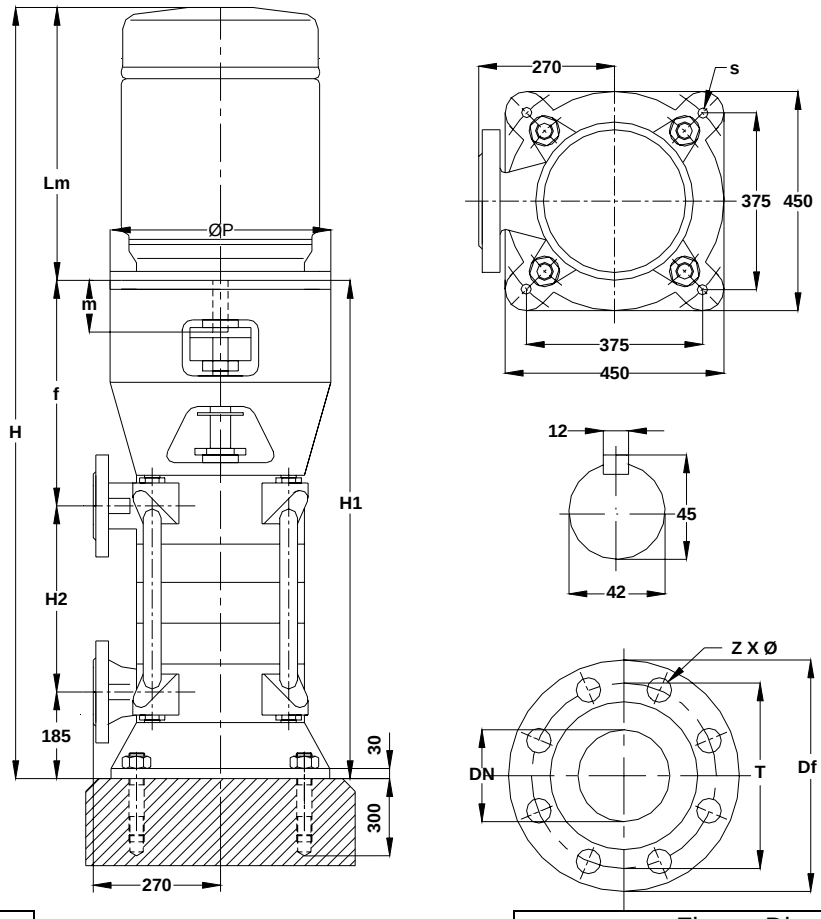



OMK-V 80 / 1
Ref:08-01-OMK80
1750 1/min
60 Hz
Q - CAPACITY (US.GPM)
0 100 200 300 400 500
NPSH (m) 0 1 2 3
(Feet) 0 2 4 6 8 10
ø 240
Hm - HEAD (m) 0 5 10 15 20 25 30 35
(Feet) 20 30 40 50 60 70 80 90
ø 360
ø 330
ø 300
40%
50
60
65
70
73
73.5
P - POWER KW 0 2 4 6 8 10
HP 0 2 4 6 8 10 14
ø 240
ø 220
ø 196
0 20 40 60 80 100 120
0 10 20 30
Q - CAPACITY

		Min. D2= 196 mm ø	
The graphs on lower part refer to single-stage pumps. On the upper part, Head and Power vs. Flowrate curves for multistages are shown.			
The graphs are valid for 20 °C clean water at the constant speed 1750 rpm. Tolerance DIN 9906.			



MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 80 – 2900 rpm – 50 Hz



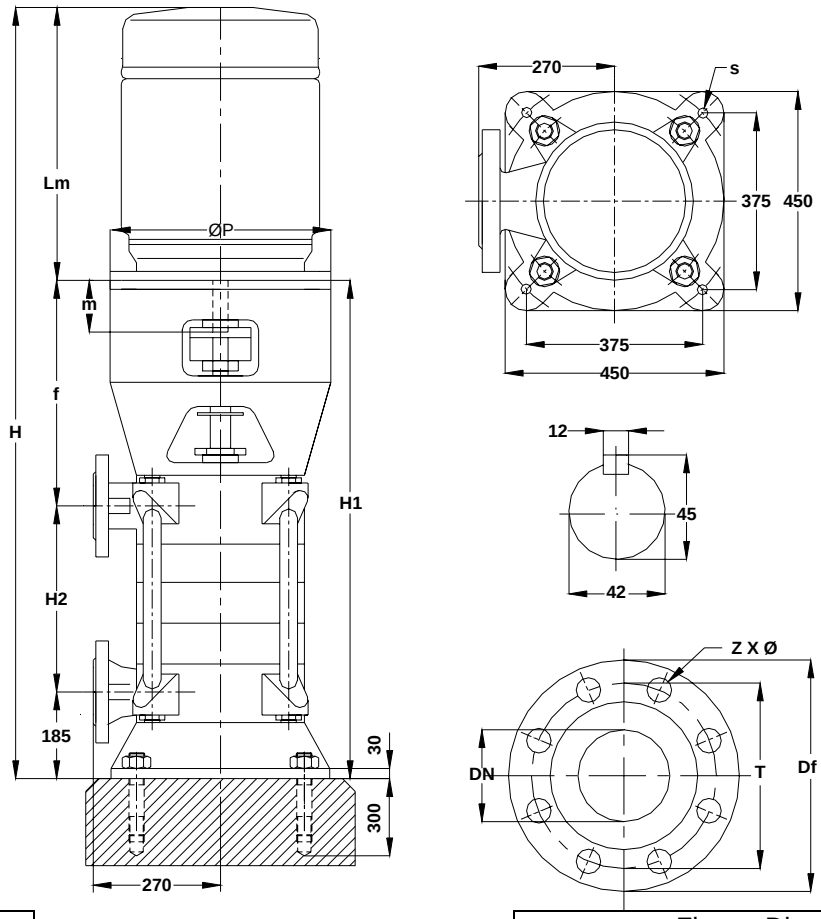
Foundation Bolts	
Number	Dimensions
4	M 20 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	125	270	220	8	27
Discharge	40	80	200	160	8	18

Dimensions – 2900 RPM – 50Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 80-2	90	280M	870	140	550	250	513	948	1818	23
	75	280S	818	140	550	250	513	948	1766	23
80-3	132	315M	990	140	660	360	513	1058	2048	23
	110	315S	938	140	660	360	513	1058	1996	23
80-4	185	315L	1080	140	660	470	513	1168	2248	23
	160	315M	990	140	660	470	513	1168	2158	23
	132	315M	990	140	660	470	513	1168	2158	23
80-5	200	315L	1080	140	660	580	513	1278	2358	23
	185	315M	1080	140	660	580	513	1278	2358	23
	160	315M	990	140	660	580	513	1278	2268	23

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 80 – 1450 rpm – 50 Hz



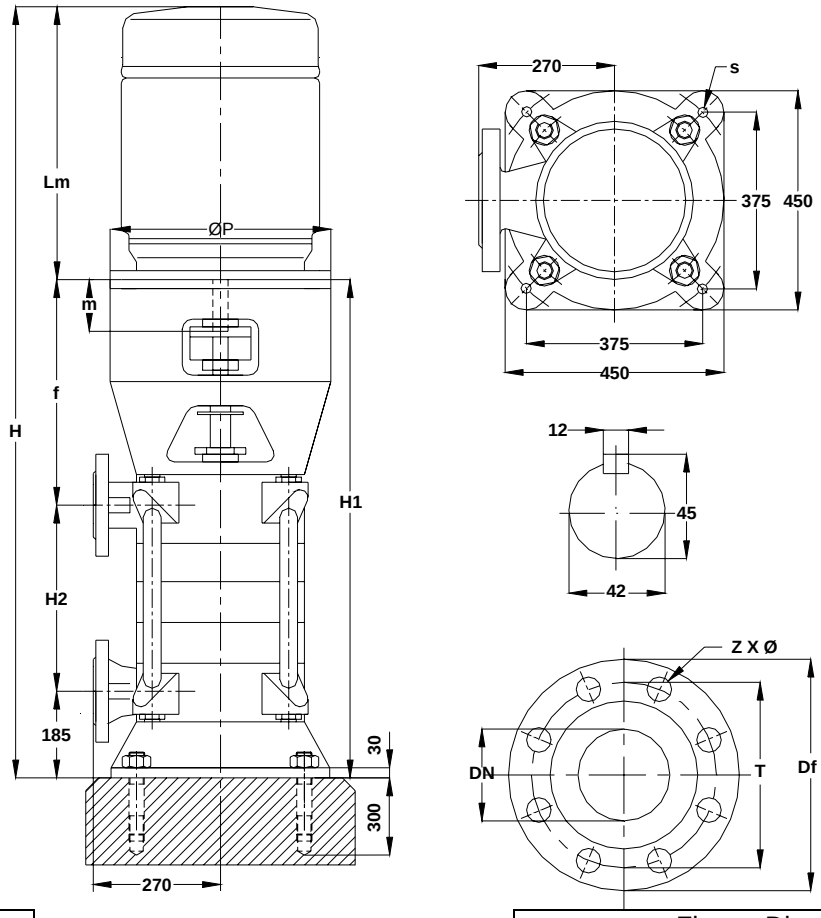
Foundation Bolts	
Number	Dimensions
4	M 20 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	125	270	220	8	27
Discharge	40	80	200	160	8	18

Dimensions – 1450 RPM – 50 Hz

Pump Type	MOTOR					PUMP			OVERALL	
	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 80 - 2	11	160M	484	110	350	250	483	918	1402	23
	9	C132M	413	80	300	250	453	888	1301	23
80–3	18.5	180M	544	110	350	360	483	1028	1572	23
	15	160L	528	110	350	360	483	1028	1556	23
80–4	22	180L	582	110	350	470	483	1138	1720	23
	18.5	180M	544	110	350	470	483	1138	1682	23
80–5	30	200L	647	100	400	580	483	1248	1895	23
	22	180L	582	110	350	580	483	1248	1830	23
80–6	37	225S	695	100	450	690	483	1358	2053	23
	30	200L	637	110	400	690	483	1358	1995	23
80–7	45	225M	710	110	450	800	483	1468	2178	23
	37	225S	685	110	450	800	483	1468	2153	23
80–8	45	225M	710	110	450	910	483	1578	2288	23
	37	225S	685	110	450	910	483	1578	2263	23
80–9	55	250M	750	140	550	1020	513	1718	2468	23
	45	225M	710	110	450	1020	483	1688	2398	23
80–10	55	250M	750	140	550	1130	513	1828	2578	23
	45	225M	710	110	450	1130	483	1798	2508	23

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 80 – 1750 rpm – 60 Hz



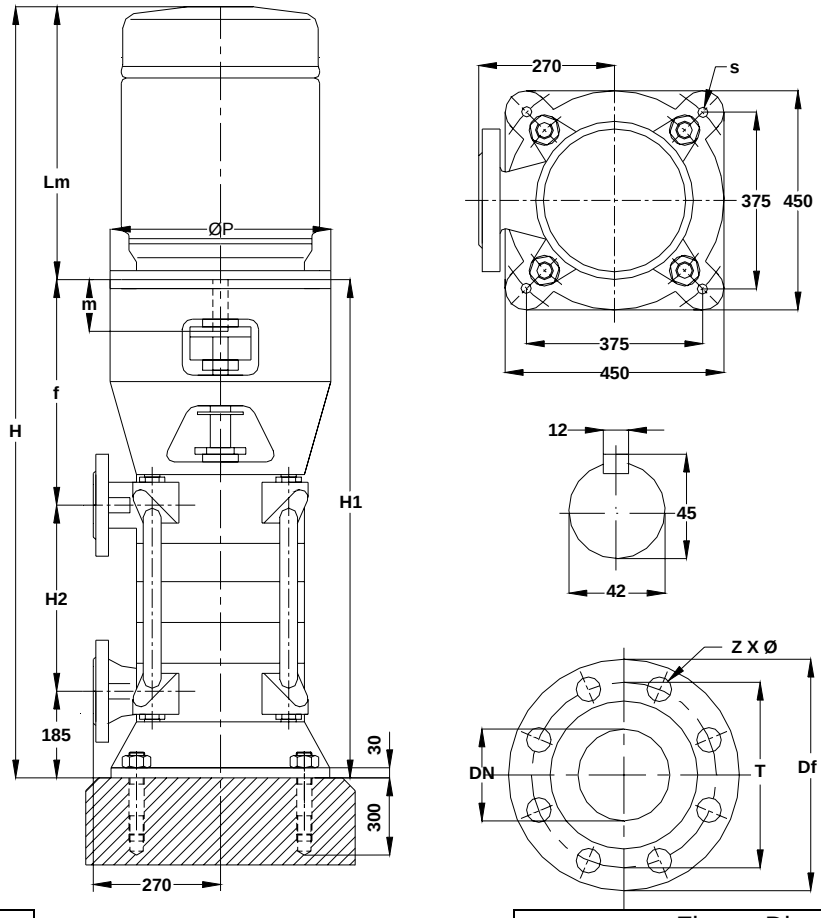
Foundation Bolts	
Number	Dimensions
4	M 20 x 200

Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	125	270	220	8	27
Discharge	40	80	200	160	8	18

Dimensions – 1750 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 80 - 2	18.5	180M	549	110	350	250	483	918	1467	23
	15	160L	491	110	350	250	483	918	1409	23
80–3	30	200L	637	110	400	360	483	1028	1665	23
	22	180L	587	110	350	360	483	1028	1615	23
80–4	37	225S	655	140	450	470	483	1138	1793	23
	30	200L	637	110	400	470	483	1138	1775	23
80–5	55	250M	755	140	450	580	483	1248	2003	23
	45	225M	680	140	450	580	483	1248	1928	23
80–6	75	280S	767	140	550	690	513	1388	2155	23
	55	250M	755	140	450	690	483	1358	2113	23
80–7	75	280S	767	140	550	800	513	1498	2265	23
	55	250M	755	140	450	800	483	1468	2223	23
80–8	75	280S	767	140	550	910	513	1608	2375	23
	55	250M	755	140	450	910	483	1578	2333	23
80–9	90	280M	818	140	550	1020	513	1718	2536	23
	75	280S	767	140	550	1020	513	1718	2485	23
80–10	110	315S	928	170	660	1130	513	1828	2756	23
	90	280M	818	140	550	1130	513	1828	2646	23

MAS OMK-V – High Pressure Centrifugal Pumps
Dimension Table for OMK-V 80 – 3500 rpm – 60 Hz



Foundation Bolts	
Number	Dimensions
4	M 20 x 200

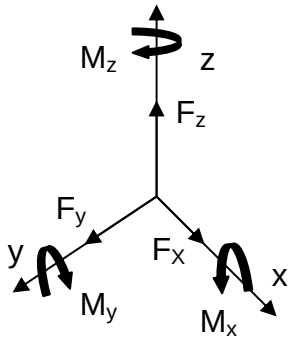
Flange Dimensions						
	PN	DN	Df	T	z	ø
Suction	40	125	270	220	8	27
Discharge	40	80	200	160	8	18

Dimensions – 3500 RPM – 60 Hz

Pump	MOTOR					PUMP			OVERALL	
Type	KW	IEC	Lm	m	ØP	H2	f	H1	H	s
OMK-V 80 – 2	160	315M	980	140	660	250	513	948	1928	23
	132	315M	980	140	660	250	513	948	1928	23
80–3	200	315L	1050	140	660	360	513	1058	2108	23
	185	315L	1050	140	660	360	513	1058	2108	23

Note: The total forces and the total moments are the sum of the individual forces and moments in the direction of x, y, z.

$$\sum F = \sqrt{(F_x + F_y + F_z)}\ [\mathrm{N}] \qquad \sum M = \sqrt{(M_x + M_y + M_z)}\ \ [\mathrm{Nm}]$$

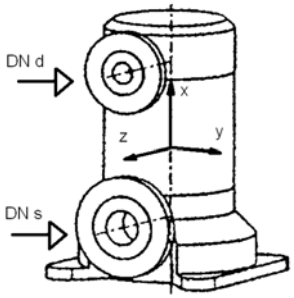


- Suction and discharge flanges should be considered separate.
- If the loads applied do not act simultaneously at their maximum values, it will be permissible for one of the loads to exceed its permissible value to a maximum of 1.4 times.
- The actual forces and moments can be connected by the relation below.

$$((\sum F_{calculated} / \sum F_{\max.permissible})^2 + (\sum M_{calculated} / \sum M_{\max.permissible})^2) \le 2$$

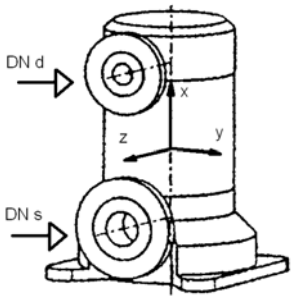
PERMISSIBLE FORCES AND MOMENTS ON PUMP SUCTION FLANGE

PUMP TYPE	FORCES (N)				MOMENTS (Nm)			
	F_X	F_Y	F_Z	∑F	M_X	M_Y	M_Z	∑M
OMK-V 32	431	392	477	753	269	154	200	369
OMK-V 40	560	510	620	979	350	200	260	480
OMK-V 50	730	660	815	1278	395	230	295	544
OMK-V 65	900	810	1010	1577	440	260	330	608
OMK-V 80	1125	1013	1263	1971	550	325	413	760

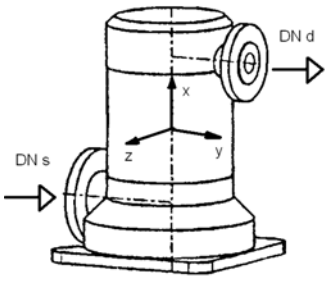


PERMISSIBLE FORCES AND MOMENTS ON PUMP DISCHARGE FLANGE

PUMP TYPE	FORCES (N)				MOMENTS (Nm)			
	F_X	F_Y	F_Z	∑F	M_X	M_Y	M_Z	∑M
OMK-V 32	264	240	304	469	224	112	152	293
OMK-V 40	330	300	380	586	280	140	190	366
OMK-V 50	445	405	500	782	315	170	225	423
OMK-V 65	560	510	620	979	350	200	260	480
OMK-V 80	700	638	775	1224	438	250	325	600

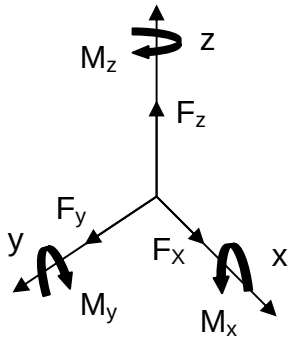


PUMP TYPE	FORCES (N)				MOMENTS (Nm)			
	F_X	F_Y	F_Z	∑F	M_X	M_Y	M_Z	∑M
OMK-V 32	264	240	304	469	224	112	152	293
OMK-V 40	330	300	380	586	280	140	190	366
OMK-V 50	445	405	500	782	315	170	225	423
OMK-V 65	560	510	620	979	350	200	260	480
OMK-V 80	689	627	763	1204	431	246	320	590



Note: The total forces and the total moments are the sum of the individual forces and moments in the direction of x, y, z.

$$\sum F = \sqrt{(F_x + F_y + F_z)}\ [\mathrm{N}] \qquad \sum M = \sqrt{(M_x + M_y + M_z)}\ \ [\mathrm{Nm}]$$

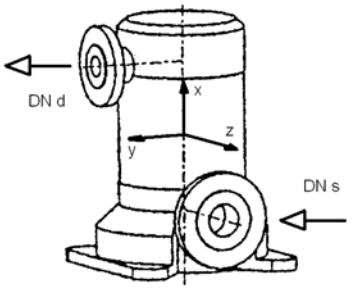


- Suction and discharge flanges should be considered separate.
- If the loads applied do not act simultaneously at their maximum values, it will be permissible for one of the loads to exceed its permissible value to a maximum of 1.4 times.
- The actual forces and moments can be connected by the relation below.

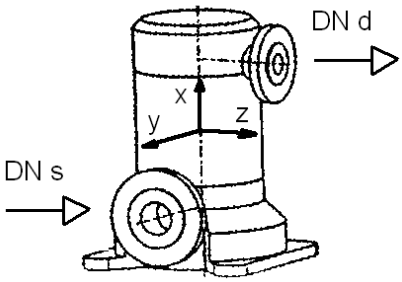
$$((\sum F_{calculated} / \sum F_{\max.permissible})^2 + (\sum M_{calculated} / \sum M_{\max.permissible})^2) \le 2$$

PERMISSIBLE FORCES AND MOMENTS ON PUMP DISCHARGE FLANGE

PUMP TYPE	FORCES (N)				MOMENTS (Nm)			
	F_X	F_Y	F_Z	$\sum F$	M_X	M_Y	M_Z	$\sum M$
OMK-V 32	264	304	240	469	224	112	152	293
OMK-V 40	330	380	300	586	280	140	190	366
OMK-V 50	445	500	405	782	315	170	225	423
OMK-V 65	560	620	510	979	350	200	260	480
OMK-V 80	689	763	627	1204	431	246	320	590



PUMP TYPE	FORCES (N)				MOMENTS (Nm)			
	F_X	F_Y	F_Z	$\sum F$	M_X	M_Y	M_Z	$\sum M$
OMK-V 32	264	304	240	469	224	112	152	293
OMK-V 40	330	380	300	586	280	140	190	366
OMK-V 50	445	500	405	782	315	170	225	423
OMK-V 65	560	620	510	979	350	200	260	480
OMK-V 80	700	775	638	1224	438	250	325	600



This leaflet is subject to alteration without notice.

PUMP TYPE	MOMENT OF INERTIA I [kgm^2]					
	Impeller GG25		Impeller Bronze		Impeller Stainless Steel	
	without water	with water	without water	with water	without water	with water
OMK-V 32 / 1	0.00826	0.00813	0.00820	0.00867	0.00785	0.00833
32 / 2	0.01122	0.01134	0.01147	0.01243	0.01079	0.01175
32 / 3	0.01409	0.01448	0.01468	0.01612	0.01366	0.01509
32 / 4	0.01697	0.01762	0.01789	0.01981	0.01653	0.01844
32 / 5	0.01992	0.02083	0.02117	0.02356	0.01947	0.02186
32 / 6	0.02280	0.02397	0.02438	0.02725	0.02233	0.02520
32 / 7	0.02575	0.02718	0.02766	0.03101	0.02527	0.02862
32 / 8	0.02863	0.03033	0.03087	0.03470	0.02814	0.03197
32 / 9	0.03151	0.03347	0.03408	0.03839	0.03101	0.03531
32 / 10	0.03446	0.03668	0.03736	0.04214	0.03395	0.03873
32 / 11	0.03734	0.03982	0.04057	0.04583	0.03681	0.04207
32 / 12	0.04022	0.04296	0.04378	0.04952	0.03968	0.04542
32 / 13	0.04309	0.04610	0.04699	0.05321	0.04255	0.04877
32 / 14	0.04309	0.04610	0.04699	0.05321	0.04255	0.04877
OMK-V 40 / 1	0.01000	0.00983	0.00992	0.01050	0.00950	0.01008
40 / 2	0.01357	0.01372	0.01388	0.01504	0.01306	0.01421
40 / 3	0.01705	0.01752	0.01777	0.01950	0.01653	0.01826
40 / 4	0.02054	0.02132	0.02165	0.02397	0.02000	0.02231
40 / 5	0.02411	0.02521	0.02562	0.02851	0.02355	0.02645
40 / 6	0.02759	0.02901	0.02950	0.03298	0.02702	0.03050
40 / 7	0.03116	0.03289	0.03347	0.03752	0.03058	0.03463
40 / 8	0.03464	0.03669	0.03736	0.04198	0.03405	0.03868
40 / 9	0.03813	0.04050	0.04124	0.04645	0.03752	0.04273
40 / 10	0.04170	0.04438	0.04521	0.05099	0.04107	0.04686
40 / 11	0.04518	0.04818	0.04909	0.05545	0.04455	0.05091
40 / 12	0.04866	0.05198	0.05298	0.05992	0.04802	0.05496
OMK-V 50 / 1	0.01275	0.01387	0.01398	0.01480	0.01340	0.01422
50 / 2	0.01879	0.01934	0.01958	0.02121	0.01841	0.02004
50 / 3	0.02463	0.02470	0.02505	0.02750	0.02331	0.02575
50 / 4	0.03047	0.03006	0.03053	0.03379	0.02820	0.03146
50 / 5	0.03635	0.03554	0.03612	0.04020	0.03321	0.03729
50 / 6	0.04214	0.04090	0.04160	0.04650	0.03810	0.04300
50 / 7	0.04803	0.04638	0.04719	0.05290	0.04312	0.04883
50 / 8	0.05387	0.05174	0.05267	0.05920	0.04801	0.05454
50 / 9	0.05971	0.05710	0.05815	0.06549	0.05290	0.06025
50 / 10	0.06560	0.06258	0.06374	0.07190	0.05791	0.06607
50 / 11	0.07139	0.06794	0.06922	0.07819	0.06281	0.07178

PUMP TYPE	MOMENT OF INERTIA I [kgm^2]					
	Impeller GG25		Impeller Bronze		Impeller Stainless Steel	
	without water	with water	without water	with water	without water	with water
OMK-V 65 / 1	0.01659	0.01883	0.01851	0.02044	0.01733	0.01926
65 / 2	0.02568	0.02953	0.02889	0.03274	0.02654	0.03039
65 / 3	0.03445	0.04023	0.03927	0.04505	0.03574	0.04152
65 / 4	0.04323	0.05093	0.04965	0.05735	0.04494	0.05264
65 / 5	0.05200	0.06163	0.06003	0.06966	0.05414	0.06377
65 / 6	0.06067	0.07223	0.07030	0.08186	0.06324	0.07479
65 / 7	0.06944	0.08293	0.08068	0.09416	0.07244	0.08592
65 / 8	0.07822	0.09363	0.09106	0.10647	0.08164	0.09705
65 / 9	0.08699	0.10433	0.10144	0.11877	0.08410	0.10818
65 / 10	0.09577	0.11503	0.11182	0.13108	0.10005	0.11931
65 / 11	0.10443	0.12562	0.12209	0.14327	0.10914	0.13033
OMK-V 80 / 1	0.02232	0.02534	0.02750	0.02333	0.02333	0.02592
80 / 2	0.03456	0.03974	0.04406	0.03571	0.03571	0.04090
80 / 3	0.04637	0.05414	0.06062	0.04810	0.04810	0.05587
80 / 4	0.05818	0.06854	0.07718	0.06048	0.06048	0.07085
80 / 5	0.06998	0.08294	0.09374	0.07286	0.07286	0.08582
80 / 6	0.08165	0.09720	0.11016	0.08510	0.08510	0.10066
80 / 7	0.09346	0.11160	0.12672	0.09749	0.09749	0.11563
80 / 8	0.10526	0.12600	0.14328	0.10987	0.10987	0.13061
80 / 9	0.11707	0.14040	0.15984	0.11318	0.11318	0.14558
80 / 10	0.12888	0.15480	0.17640	0.13464	0.13464	0.16056