

# HIGH PRESSURE HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

**KMU SERIES**  
**( 50 - 60 Hz )**

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## TECHNICAL MANUAL



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# MAS KMU – High Pressure Multistage 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.
- Boiler feed and condensate transfer.
- Sanitary and cleaning installations.
- For industrial applications and public services.
- Water distribution services.
- Industrial applications.
- Shipbuilding, Mining, Power Stations, Filter Units.
- Irrigation plants.
- Central heating systems.

### 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, lye, etc.

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

### Design

- The KMU Pump is a horizontally axis, radially split, ring section design multistage centrifugal pump of non-self priming type.
- Impellers are single entry, closed type and dynamically balanced. Impeller diameter are full diameter for all KMU pumps.
- The pump series consists of 4 sizes. KMU 25, 32, 40 and 50. Stages are from 3 up to max. 18 stages.
- Pump and motor are connected to each other via flexible coupling.
- Flanges are acc. to DIN 2535.
- Unstepped shaft design.
- Normally, discharge part is at motor side on top, suction part is at dead end side on the bottom and rotation of direction is clockwise when viewed from driver.

Suction and discharge nozzles may be a choice of three 90° positions.

Please see the possible arrangements at “Different Mounting Arrangements” section.

### Shaft

Chromium steel (1.4021/AISI 420) fine grained shafts are used on KMU pumps.

### Bearings

On both ends there are one bearing housing equipped with maintenance-free antifriction bearings, which are greased for life with high-temperature grease. Thrower on the shaft prevent leakage fluid from getting into bracket.

### Shaft Seal

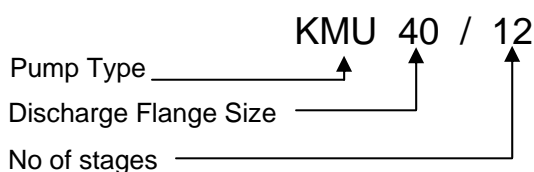
Pumps are supplied as standard soft packing. Lantern ring on suction side for water sealing and lubricating of packing. Sealing section of pump shaft are protected by Stainless Steel (1.4021/AISI 420) sleeves.

- Uncooled stuffing box is standard. (Up to 90 °C)
- Uncooled mechanical seal is optional. (Up To 110 ° C)

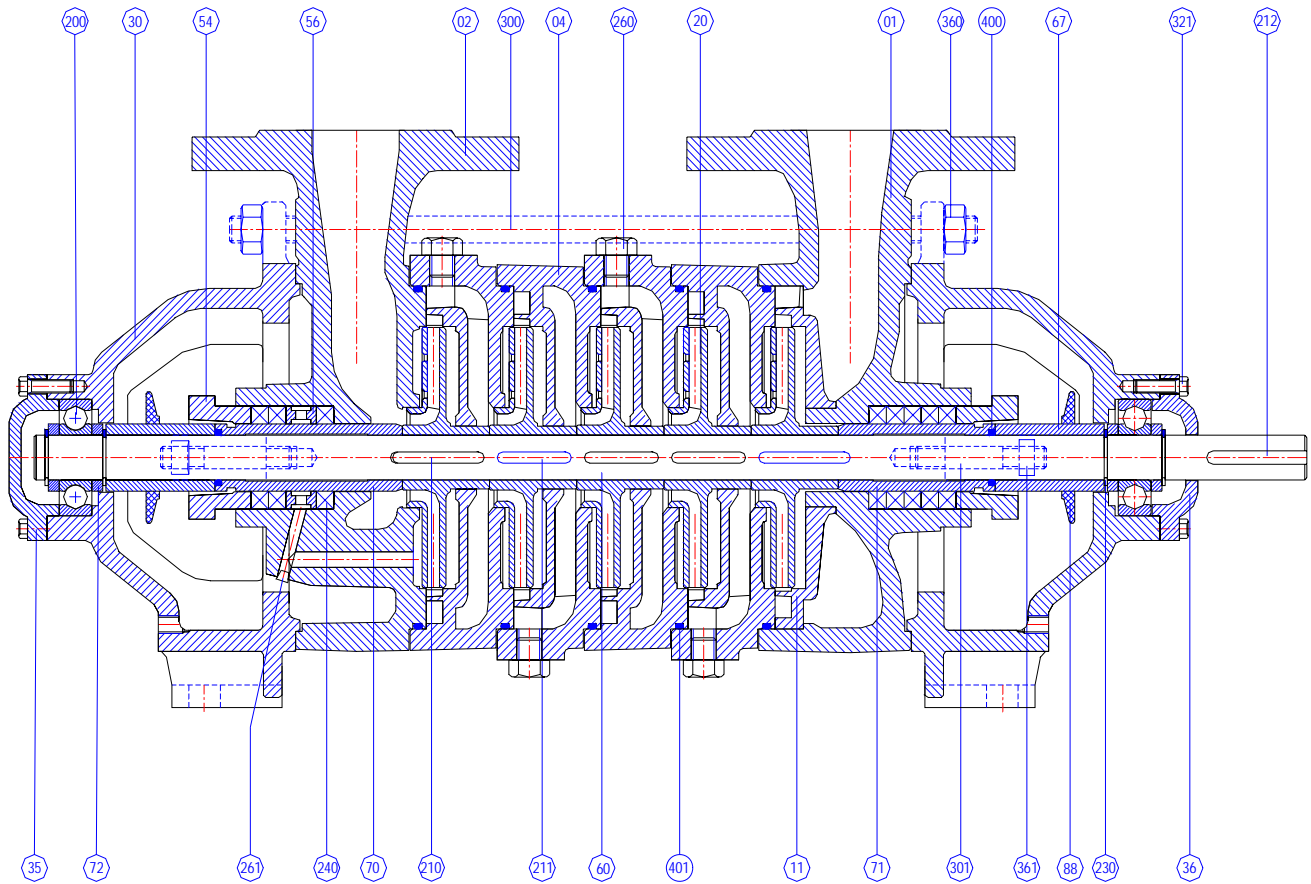
### Technical Data

- Suction Flanges..... : DN 25...DN 50 ( PN 40 ) (DIN 2535)
- Discharge Flanges... : DN 25...DN 50 ( PN 40 ) (DIN 2535)
- Operating Pressure.. : 25 Bar
- No of Stages..... : 3-18
- Capacity Range..... : 1-16 m<sup>3</sup>/ h
- Head Range..... : 40-250 m
- Temp. Range..... : -10..110 °C; Mech. Seal : -10..90 °C; Soft Packing
- Speed up to..... : 3600rpm

### Identification Code for Pump



# MAS KMU – High Pressure Multistage Pumps Sectional Drawing and Part List (Soft Packing Design)



## Part List

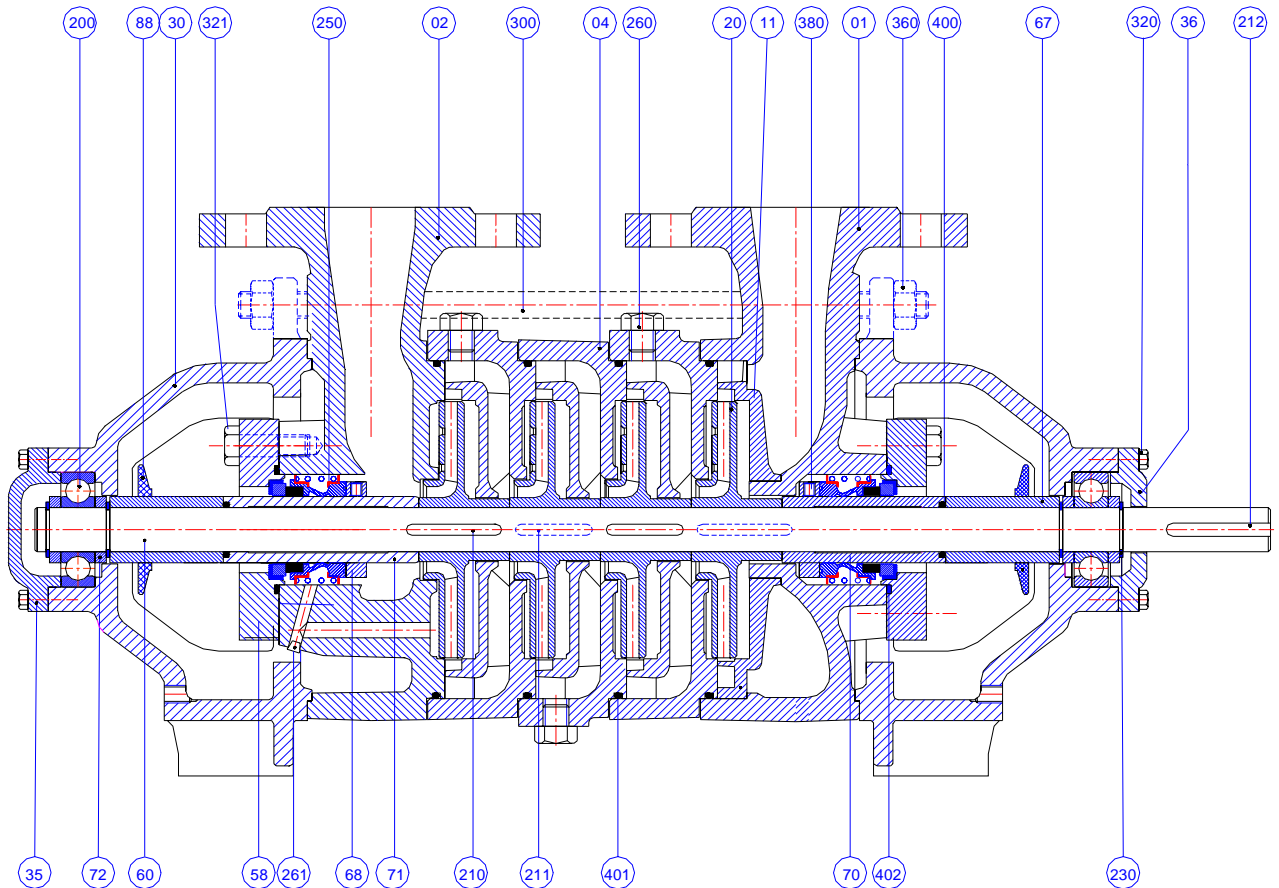
<b>No</b>	<b>No</b>	<b>No</b>
01 Discharge Casing	67 Space Sleeve	260 Pipe Plug
02 Suction Casing	70 Seal Sleeve, Suction	261 Plug
04 Stage Casing	71 Seal Sleeve, Discharge	300 Stud For Casing
11 Last Stage Diffuser	72 Ring	301 Gland Stud
20 Impeller	88 Thrower	321 Hex Bolt
30 Bearing Housing	200 Roller Bearing	360 Nut
35 Bearing Cover, Suction Side	210 Key, First & Last Impeller	361 Gland Nut
36 Bearing Cover, Discharge Side	211 Key, Standard Impeller	400 O-Ring, Seal Sleeve
54 Gland	212 Coupling Key	401 O-Ring, Stage Casing
56 Lantern Ring	230 Ring	
60 Pump Shaft	240 Soft Packing	

# MAS KMU – High Pressure Multistage Pumps

## Sectional Drawing and Part List (Mechanical Seal Design)



Mechanical Seal For Both Suction and Discharge are Burgmann MG1/G60



- |   |  |  |
|---|--|--|
| <p><b>No</b></p> <ul style="list-style-type: none"> <li>01 Discharge Casing</li> <li>02 Suction Casing</li> <li>04 Stage Casing</li> <li>11 Last Stage Diffuser</li> <li>20 Impeller</li> <li>30 Bearing Housing</li> <li>35 Bearing Cover, Suction Side</li> <li>36 Bearing Cover, Discharge Side</li> <li>60 Pump Shaft</li> <li>67 Space Sleeve</li> </ul> | <p><b>No</b></p> <ul style="list-style-type: none"> <li>68 Mech. Seal Back Ring</li> <li>70 Seal Sleeve, Discharge</li> <li>71 Seal Sleeve, Suction</li> <li>72 Ring For Roller Bearing</li> <li>88 Thrower</li> <li>200 Roller Bearing</li> <li>210 Key, First &amp; Last Impeller</li> <li>211 Key, Standard Impeller</li> <li>212 Coupling Key</li> <li>230 Ring</li> </ul> | <p><b>No</b></p> <ul style="list-style-type: none"> <li>250 Mechanical Seal</li> <li>260 Pipe Plug</li> <li>261 Special Plug</li> <li>300 Stud For Casing</li> <li>320 Hex Bolt</li> <li>321 Hex Bolt</li> <li>360 Nut</li> <li>400 O-Ring, Seal Sleeve</li> <li>401 O-Ring, Stage Casing</li> <li>402 O-Ring, Mech. Seal Cover</li> </ul> |
|---|--|--|

Options	Suction	Discharge
Mechanical Seal	MG1	MG1
	MG1	H12N
	H12N	H12N

**Material Options**

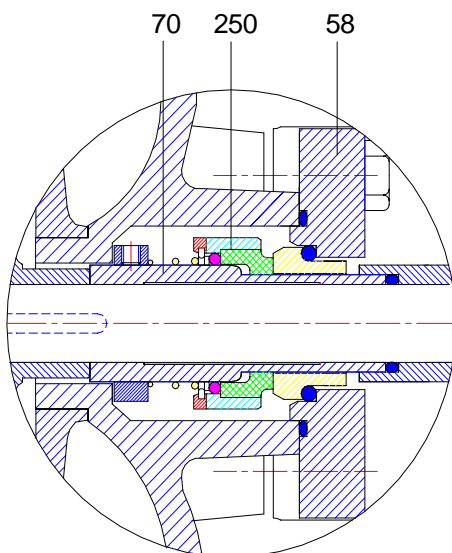
Components	Material. No	Material Options					
		0.6025 GG 25	0.7040 GGG 40	2.1050.01 Bronze	1.4021 AISI 420	1.4301 AISI 304	1.4401 AISI 316
Suction & Discharge Casing		●	○	○		○	○
Stage Casing		●	○	○		○	○
Impeller		○	○	●		○	○
Last Stage Diffuser		●	○	○		○	○
Shaft					●	○	○
Shaft Sleeve					●	○	○
Mech. Seal Cover		●	○	○		○	○

● - Standard Delivery  
 ○ - Optional

**Material Equivalent**

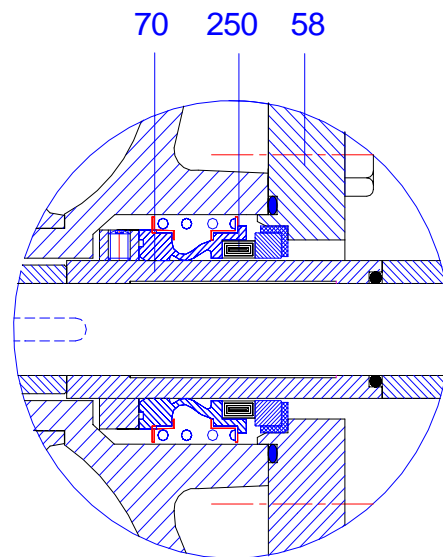
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG40)	A 536 Gr.60-40-18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel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

**Mechanical Seal Applications**



Burgmann H12N - up to 25 Bar  
 (Dependent on direction of rotation)

Part No	Part Name
58	Mech. Seal Cover
70	Seal Sleeve
250	Mechanical Seal



Burgmann MG1 - up to 12 Bar  
 (Independent on direction of rotation)

Part No	Part Name
58	Mech. Seal Cover
70	Seal Sleeve
250	Mechanical Seal

**Mechanical Seal Types**

Pump Type	KMU 25	KMU 32	KMU 40	KMU 50
Unbalanced Mech.Seal For Suction and Discharge Side	Ø30 MG1-G60	Ø30 MG1-G60	Ø30 MG1-G60	Ø30 MG1-G60
Balanced Mech.Seal For Suction and Discharge Side	Ø30 H12N	Ø30 H12N	Ø30 H12N	Ø30 H12N

Recommendation: For head below 100 mwc, MG1 type mechanical seal can be used both for suction and discharge side of the pump. For head over 100 mwc, the discharge side mechanical seal should be H12N.

**Soft Packing Dimensions**

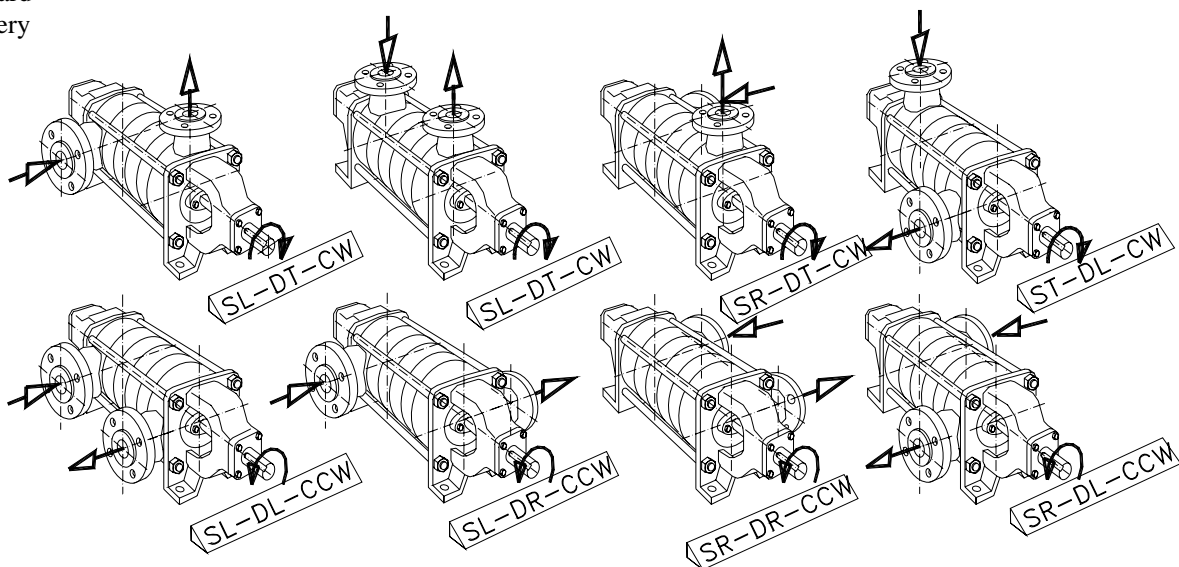
Pump Type	KMU 25	KMU 32	KMU 40	KMU 50
Suction Side	3 Soft Packing Ø30-(8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring
Discharge Side	5 Soft Packing (8x8)	5 Soft Packing (8x8)	5 Soft Packing (8x8)	5 Soft Packing (8x8)

**Ball Bearing Types**

Pump Type	KMU 25	KMU 32	KMU 40	KMU 50
Suction Side	6304 2RS - C3	6304 2RS - C3	6304 2RS - C3	6304 2RS - C3
Discharge Side	6304 2RS - C3	6304 2RS - C3	6304 2RS - C3	6304 2RS - C3

**Different Mounting Arrangements**

Standard  
 Delivery



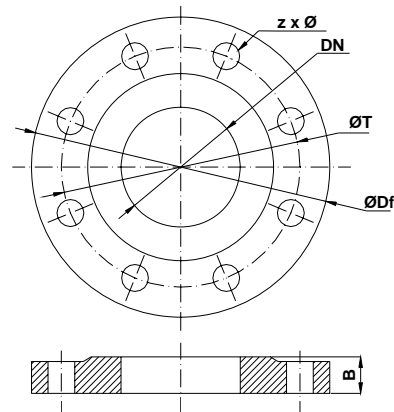
Example: **SL-DT-CW**

(**SL**: Suction Left - **DT**: Discharge Top - **CW**: Rotation Clock Wise)

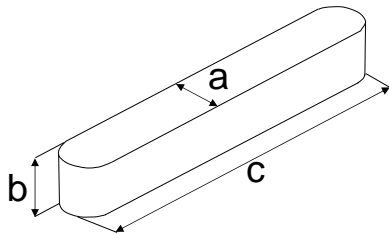
**Flange Dimensions (PN 40)**

DN mm ø	Df mm ø	T mm ø	Z Each	ø mm ø	B mm
DN 25	115	85	4	14	18
DN 32	140	100	4	18	20
DN 40	150	110	4	18	20
DN 50	165	125	4	18	22

PN 40		
Pump Type	Suction Flange	Discharge Flange
KMU 25	DN 25	DN 25
KMU 32	DN 32	DN 32
KMU 40	DN 40	DN 40
KMU 50	DN 50	DN 50



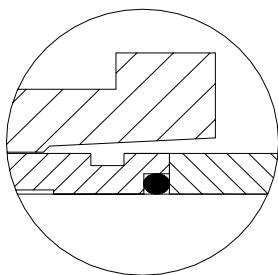
**Key Dimensions (DIN 6885-A)**



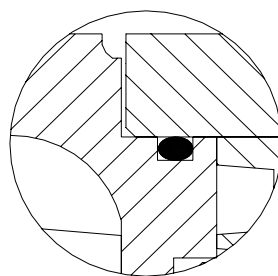
	(a x b x c)			
	KMU 25	KMU-32	KMU 40	KMU 50
Standard Impeller Key	5x5x25 (i-2 pcs)	5x5x25 (i-2 pcs)	5x5x34 (i-2 pcs)	5x5x34 (i-2 pcs)
First And Last Impeller Key	5x5x36 (2 pcs)	5x5x36 (2 pcs)	5x5x42 (2 pcs)	5x5x42 (2 pcs)
Coupling Key	6x6x45 (1 pcs)	6x6x45 (1 pcs)	6x6x45 (1 pcs)	6x6x45 (1 pcs)

i: Stage Number

**O-Ring Dimensions**



**Seal Sleeve O-Ring**



**Stage Casing O-Ring**

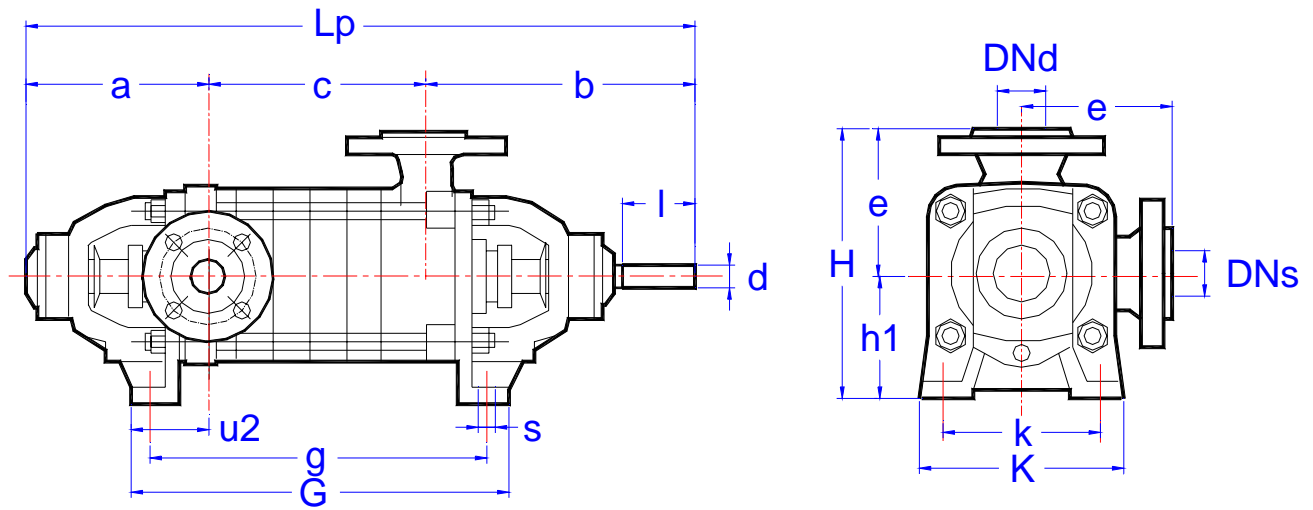


Pump Type	O-Ring For Stage Casing				O-Ring For Seal Sleeve			
	Material	ød	b	Qty	Material	ød	b	Qty
KMU 25	NBR	ø128	3	1	Silikon	ø19	3	2
KMU 32	NBR	ø128	3	1	Silikon	ø19	3	2
KMU 40	NBR	ø145	3	1	Silikon	ø19	3	2
KMU 50	NBR	ø145	3	1	Silikon	ø19	3	2



# AS KMU – High Pressure Multistage Pumps

## Pump Dimension Table



Pump Type	DNs	DNd	a	b	g-C	G-C	u2	h1	e	d	l	k	K	s
KMU 25	25	25	160	218	135	160	78	100	125	20	50	125	158	14
KMU 32	32	32	160	218	135	160	78	100	125	20	50	125	158	14
KMU 40	40	40	160	210	140	170	85	112	145	20	50	139	170	14
KMU 50	50	50	160	210	140	170	85	112	145	20	50	139	170	14

### “C” according to stage number

Pump Size	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
KMU 25	95	127	159	191	223	255	287	319	351	383	415	447	479	511	543	575	607
KMU 32	95	127	159	191	223	255	287	319	351	383	415	447	479	511	543	575	607
KMU 40	106	146	186	226	266	306	346	386	426	466	506	546	586				
KMU 50	106	146	186	226	266	306	346	386	426	466	506	546	586				

### Min. And Max. Stage Numbers for 2900 rpm, 1450 rpm and 1750 rpm

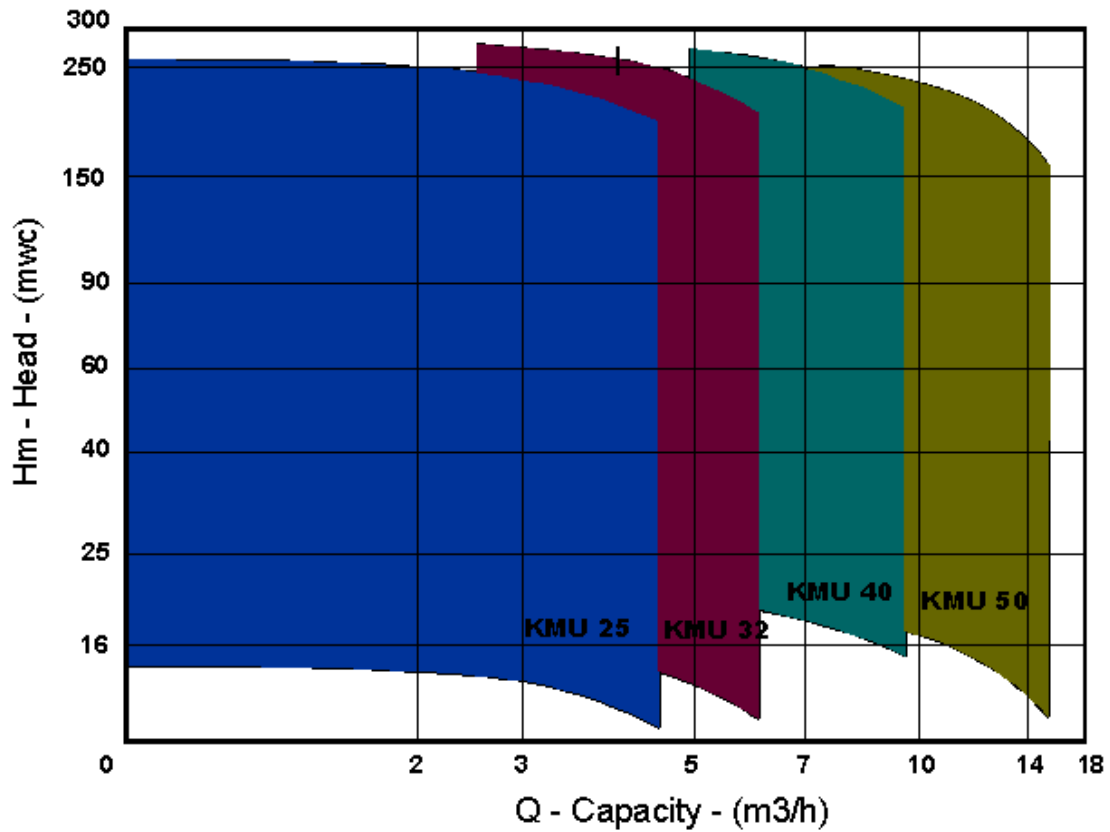
Pump Type	Stage Number	
	Min.	Max.
KMU 25	3	18
KMU 32	3	18
KMU 40	3	14
KMU 50	3	14



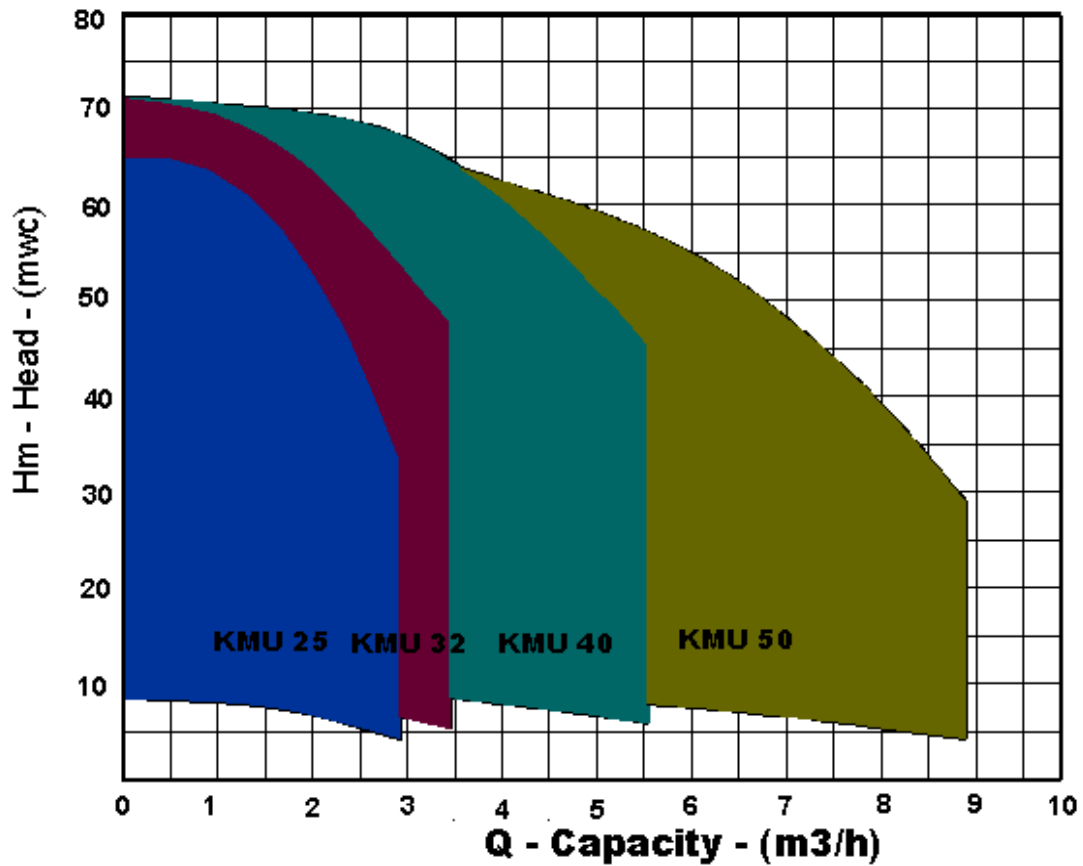
**MAS KMU – High Pressure Multistage Pumps**  
**Performance Range**



50 Hz - 2900 RPM



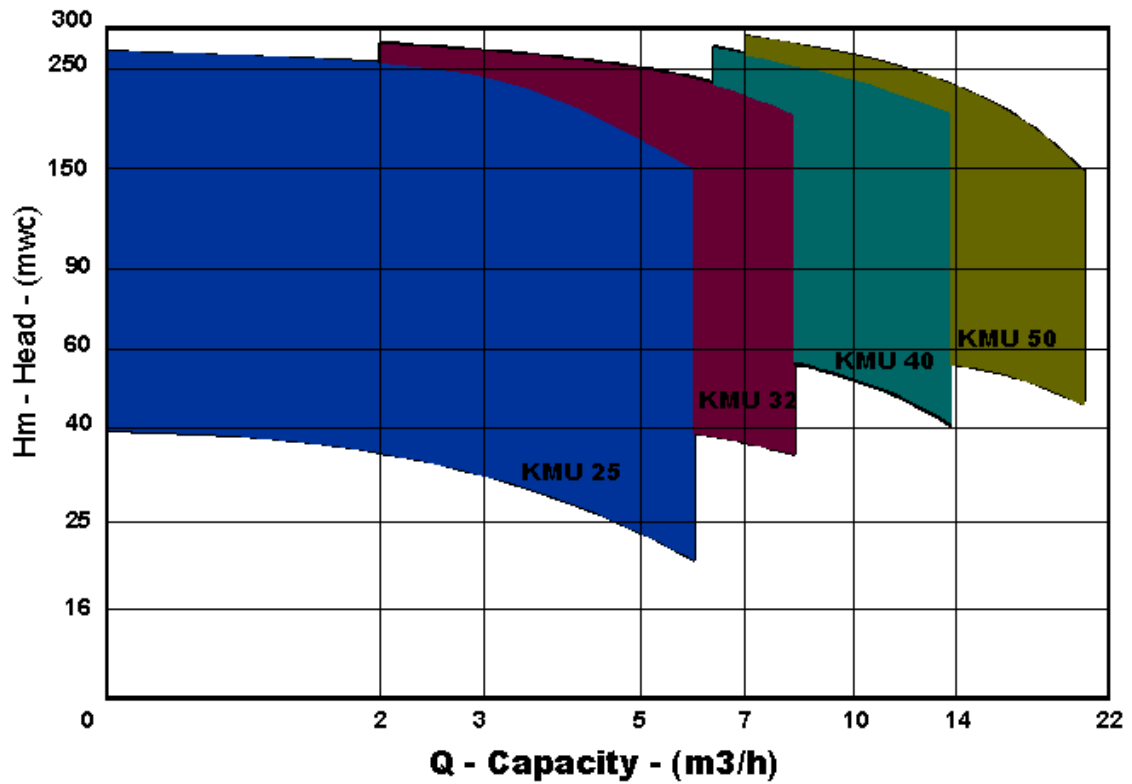
50 Hz - 1450 RPM



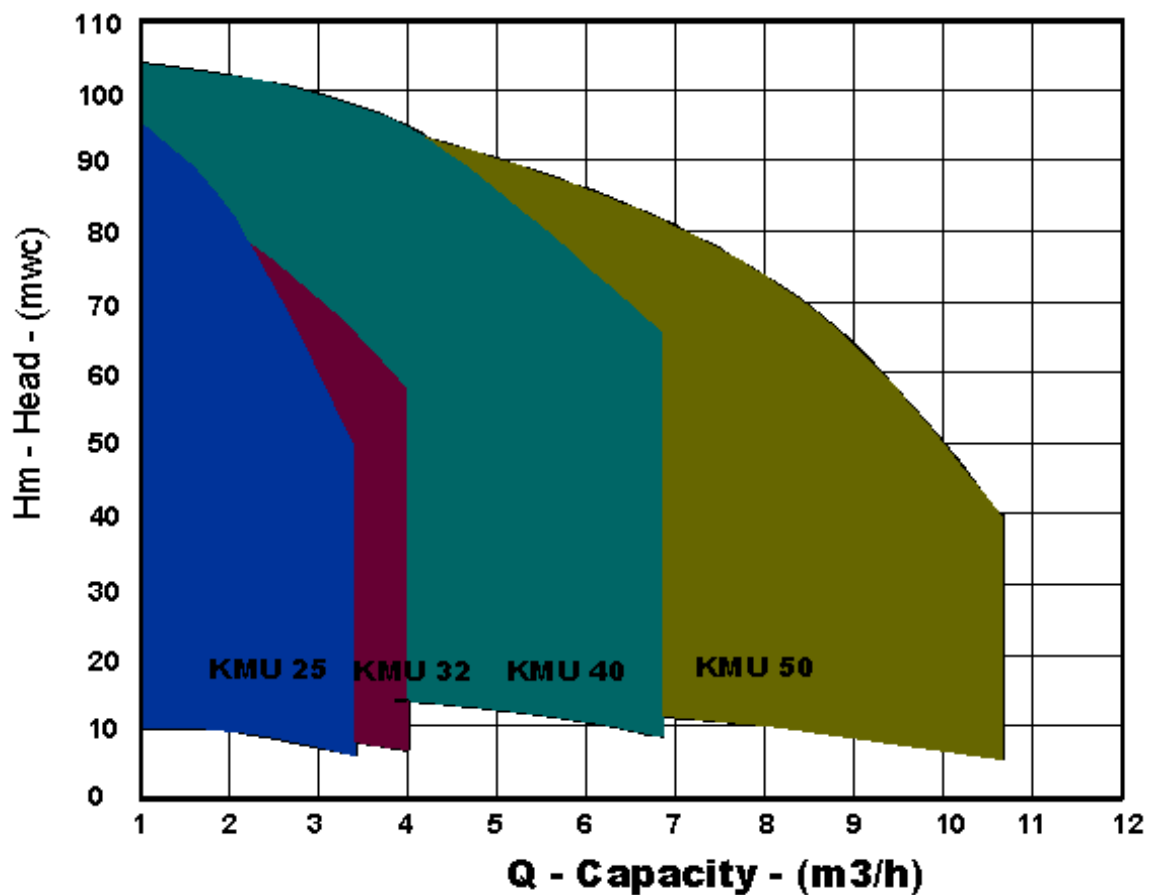
**MAS KMU – High Pressure Multistage Pumps**  
**Performance Range**



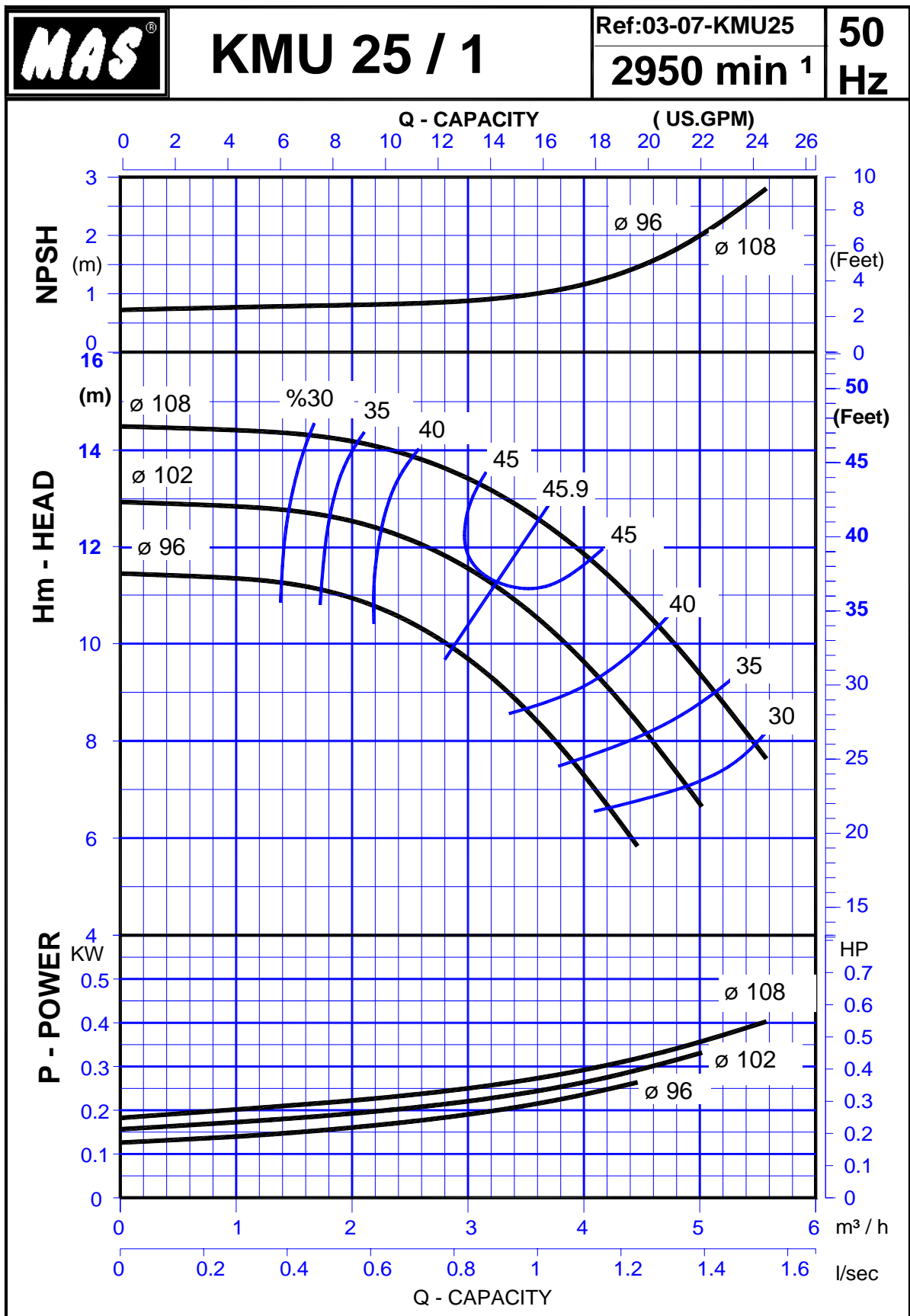
60 Hz - 3500 RPM



60 Hz - 1750 RPM

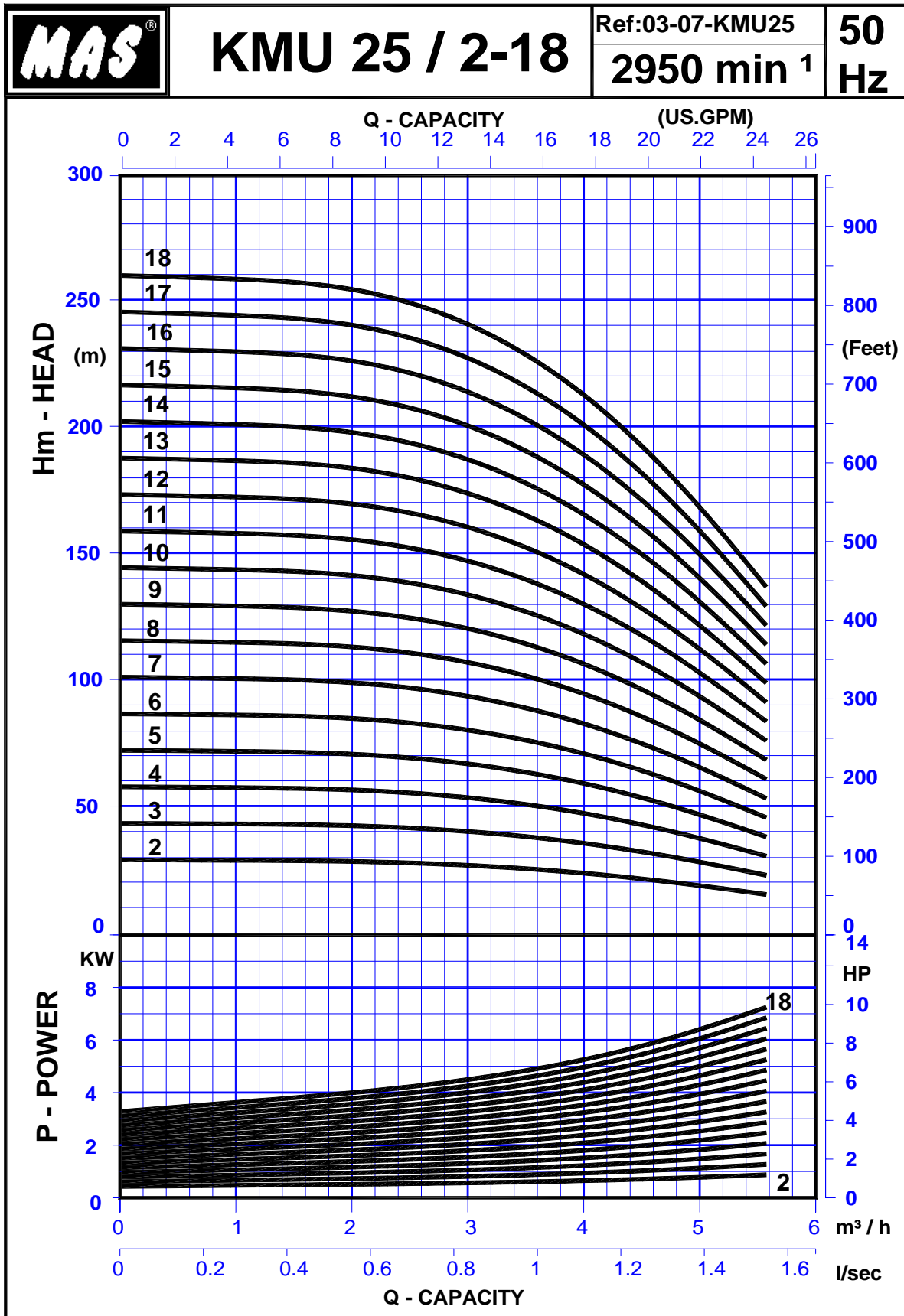


**MAS KMU – High Pressure Multistage Pumps**  
**Performance Curve for KMU 25 – 2900 rpm – 50 Hz**

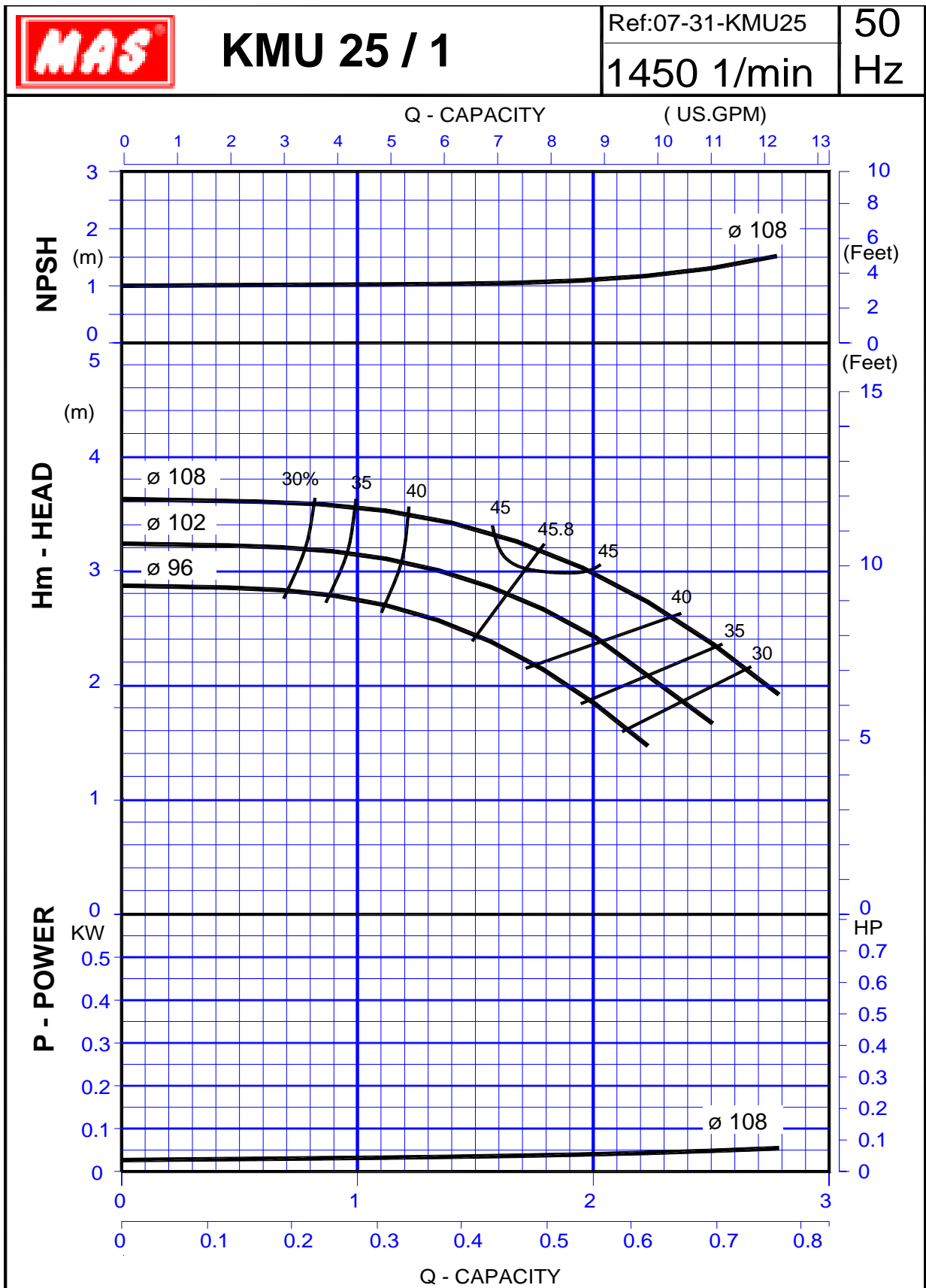


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

MAS KMU – High Pressure Multistage Pumps  
 Stage Performance Curve for KMU 25 – 2900 rpm – 50 Hz

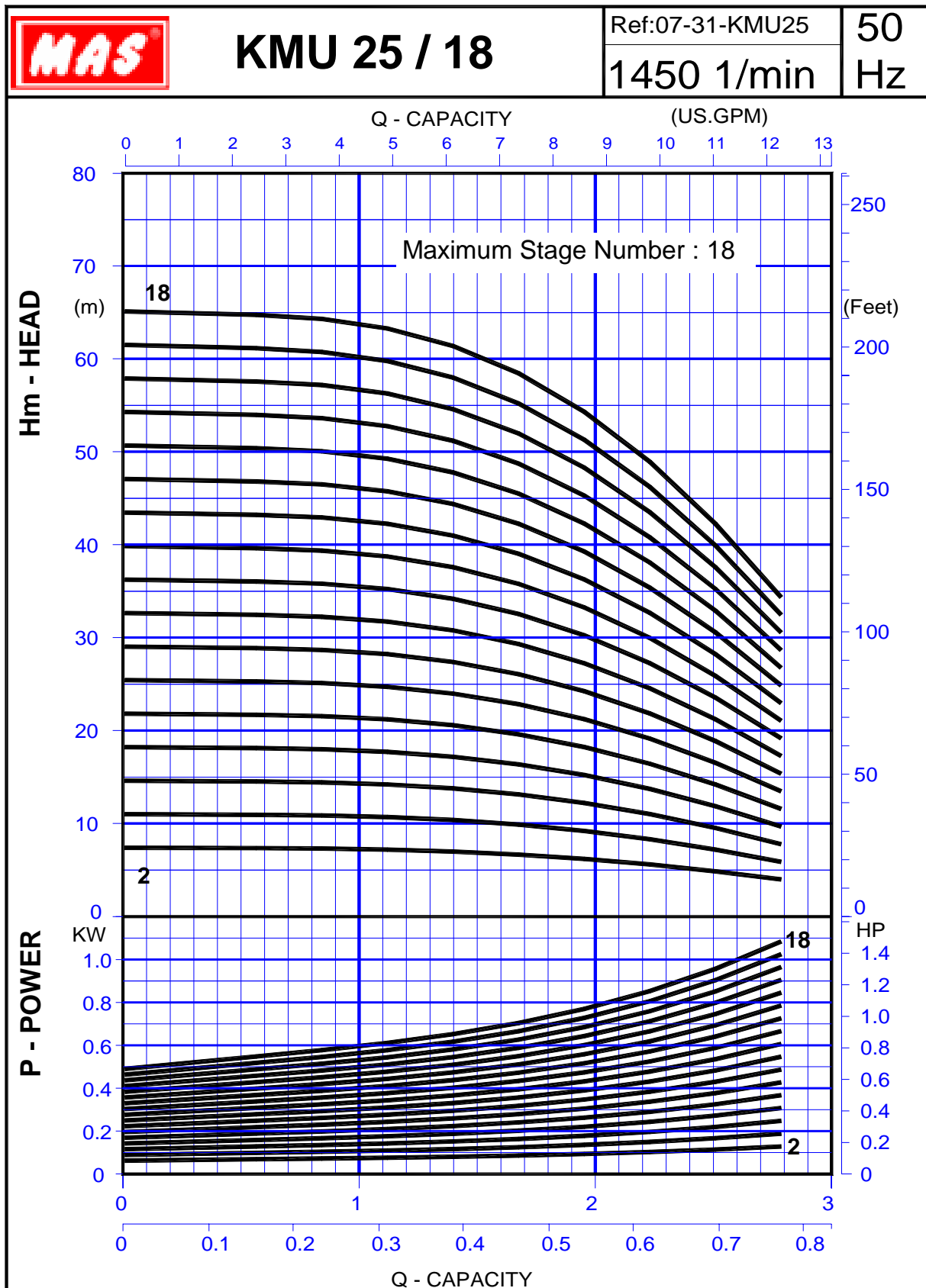


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

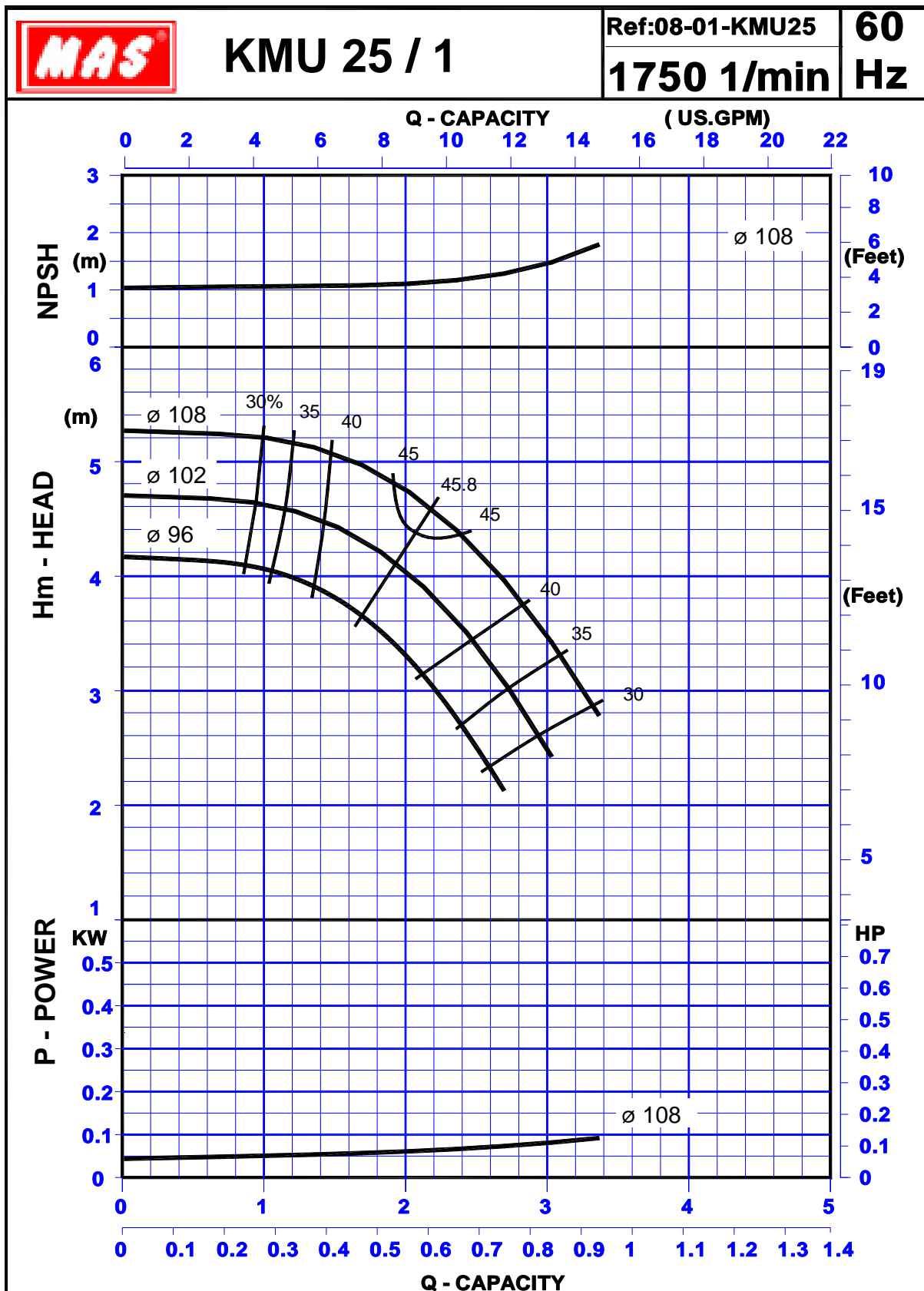


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

**MAS KMU – High Pressure Multistage Pumps**  
**Stage Performance Curve for KMU 25 – 1450 rpm – 50 Hz**

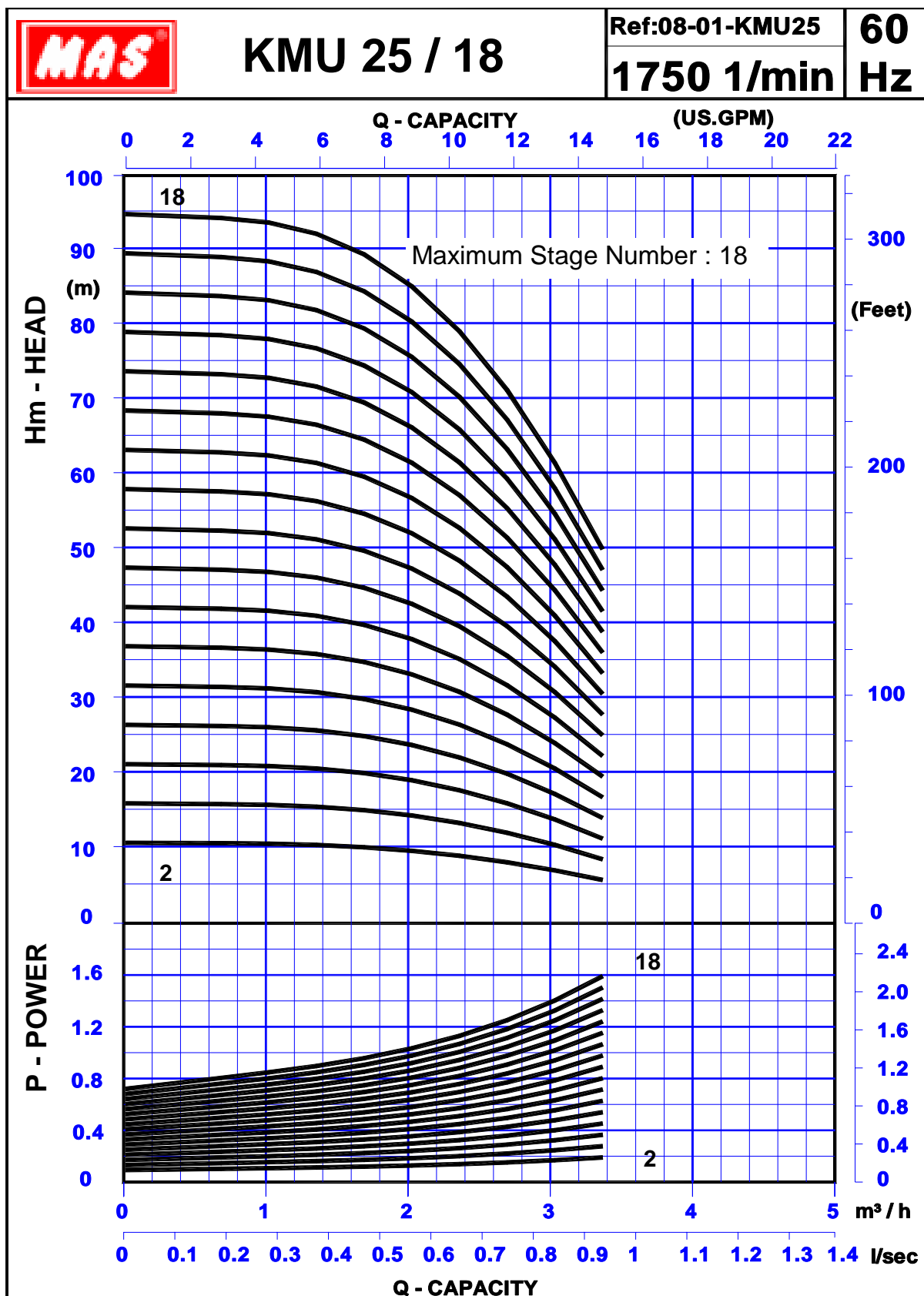


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

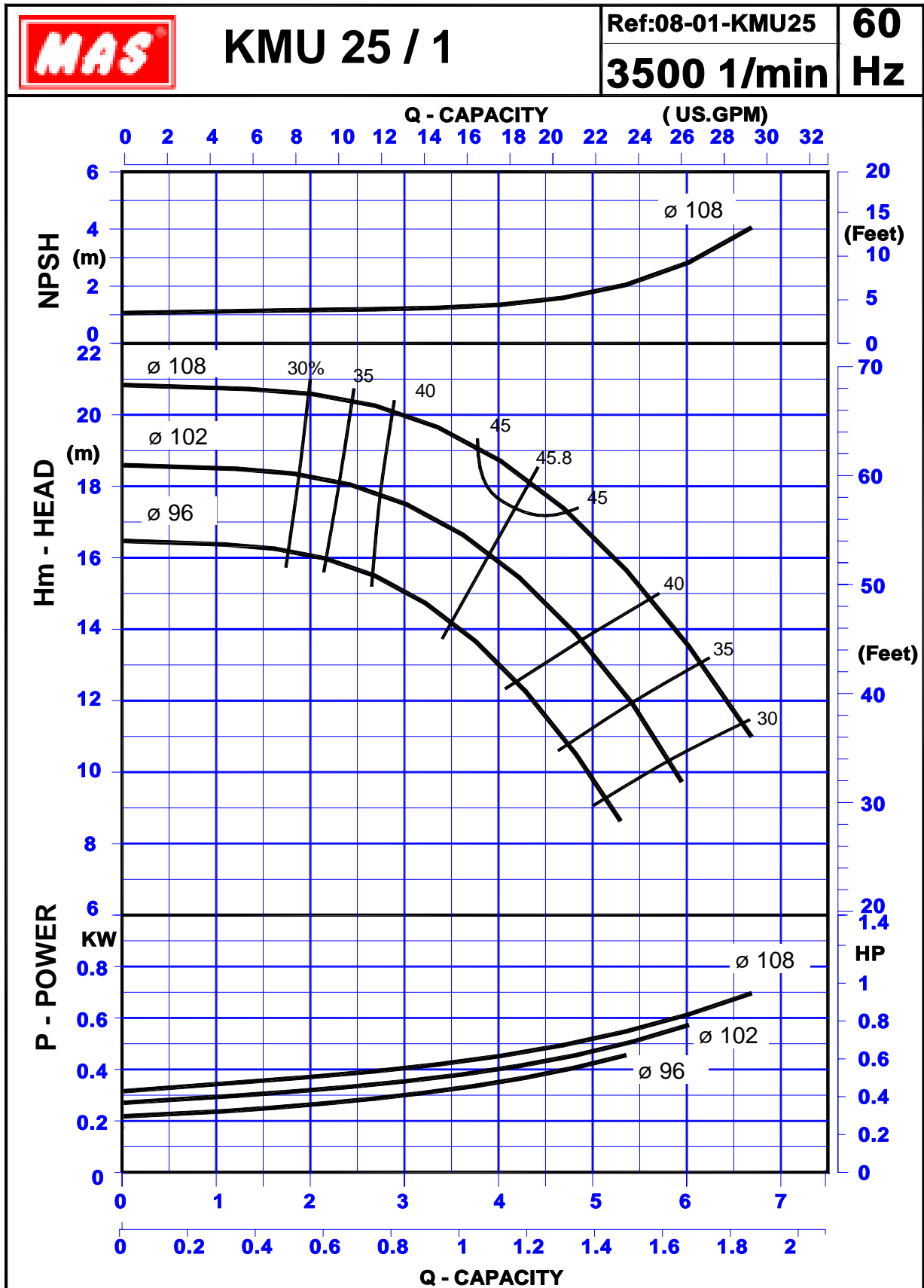


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

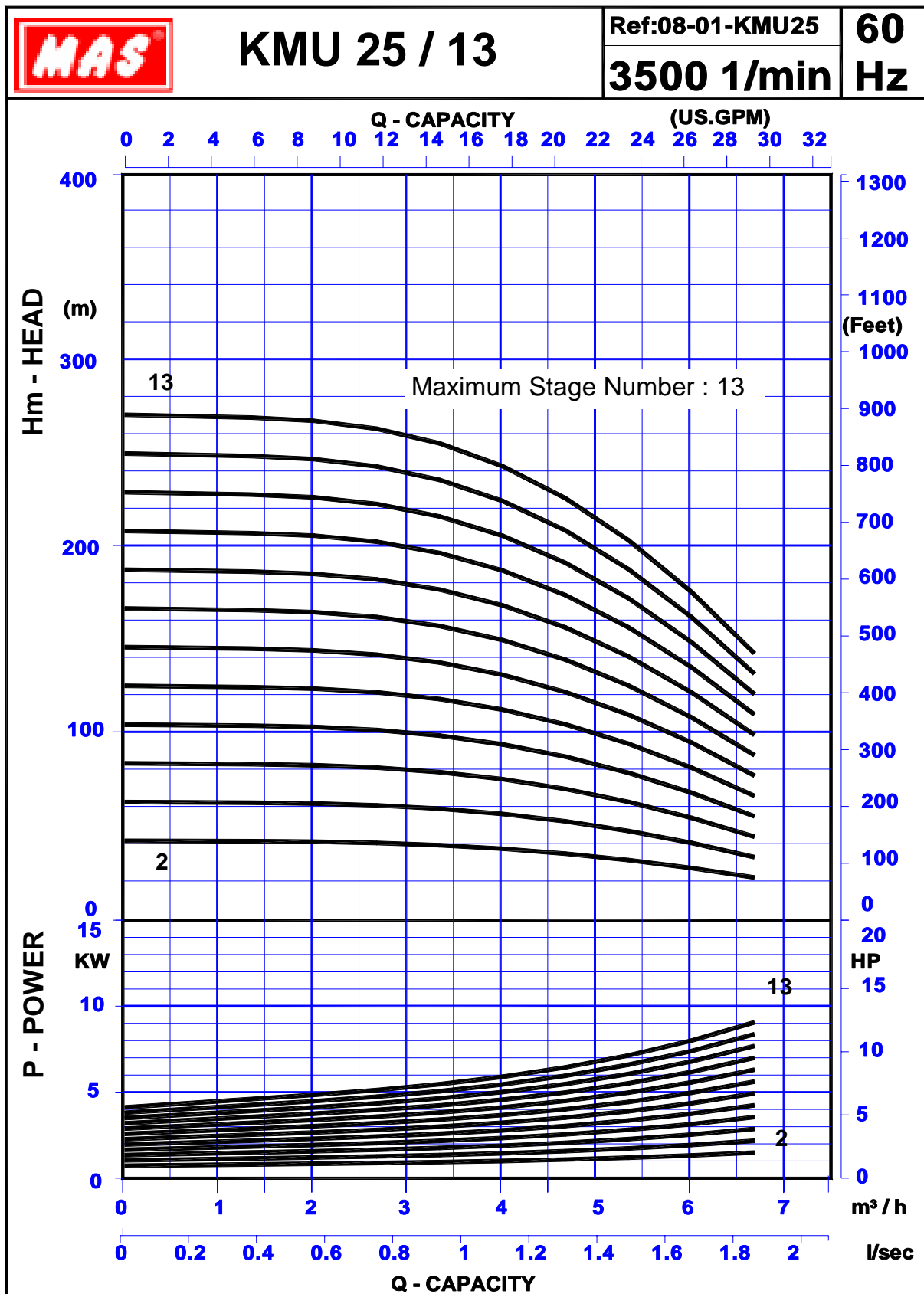




The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



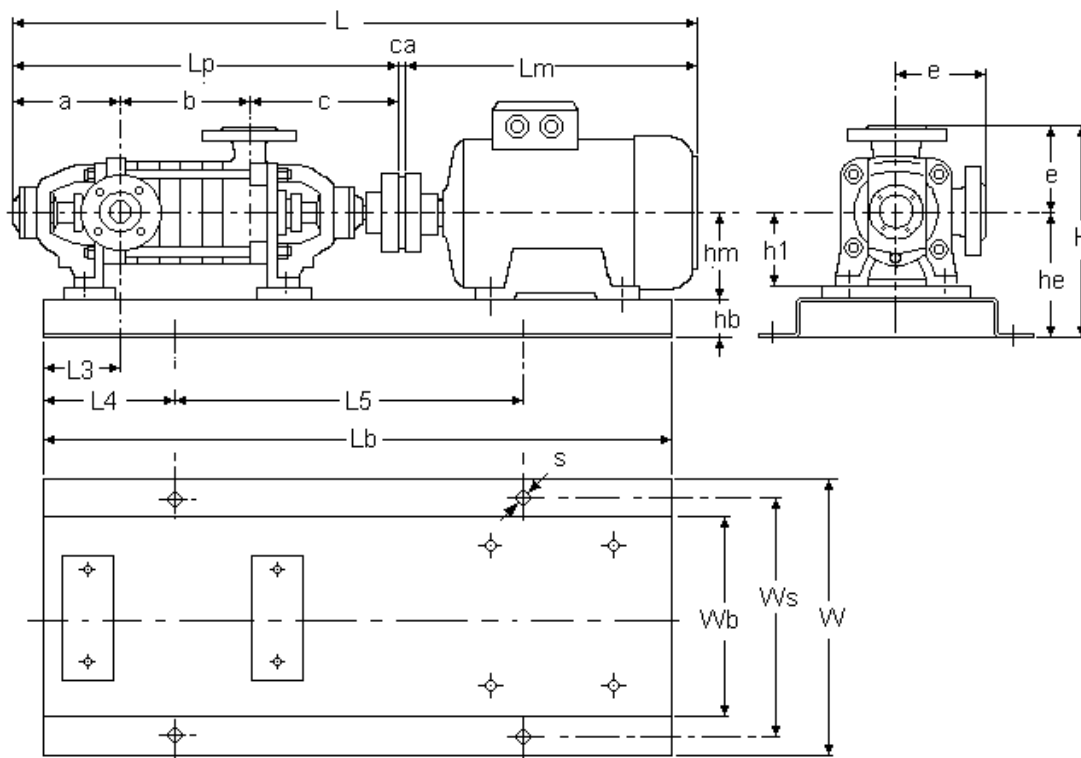
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 25 – 1450 rpm - 50 Hz

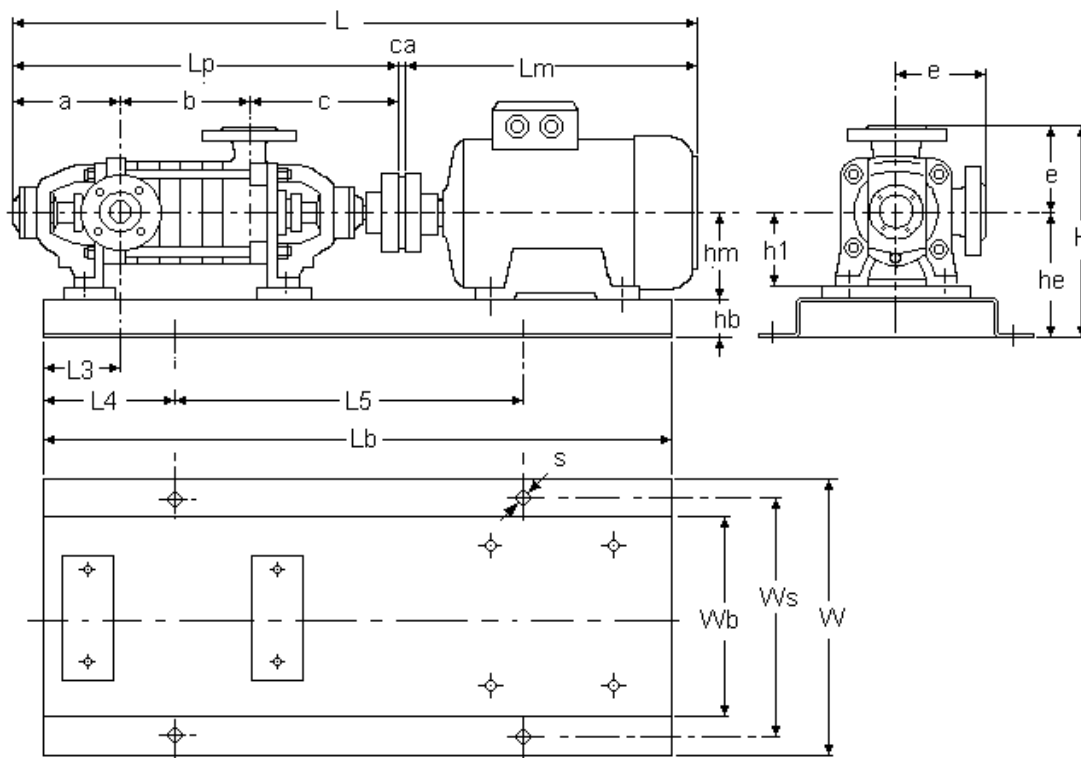


### Dimensions- 1450 RPM-50 Hz

Pump Type	Motor				Pump		Overall			Foundation Dimension									
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 25/2	0.25	71	247	71	473	16	736	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/3	0.37	71	247	71	505	16	768	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/4	0.37	71	247	71	537	16	800	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/5	0.37	71	247	71	569	16	832	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/6	0.55	80	278	80	601	16	895	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/7	0.55	80	278	80	633	16	927	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/8	0.55	80	278	80	665	16	959	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/9	0.75	80	278	80	697	16	991	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/10	0.75	80	278	80	729	16	1023	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/11	0.75	80	278	80	761	16	1055	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/12	1.1	90S	308	90	793	16	1117	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/13	1.1	90S	308	90	825	16	1149	300	290	1120	210	65	165	88	190	740	260	19	1.06
KMU 25/14	1.1	90S	308	90	857	16	1181	300	290	1120	210	65	165	88	190	740	260	19	1.06
KMU 25/15	1.1	90S	308	90	889	16	1213	300	290	1120	210	65	165	88	170	660	260	19	1.05
KMU 25/16	1.1	90S	308	90	921	16	1245	300	290	1250	210	65	165	88	205	840	260	19	1.07
KMU 25/17	1.1	90S	308	90	953	16	1277	300	290	1250	210	65	165	88	205	840	260	19	1.07
KMU 25/18	1.1	90S	308	90	958	16	1282	300	290	1250	210	65	165	88	205	840	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 25 – 2900 rpm - 50 Hz

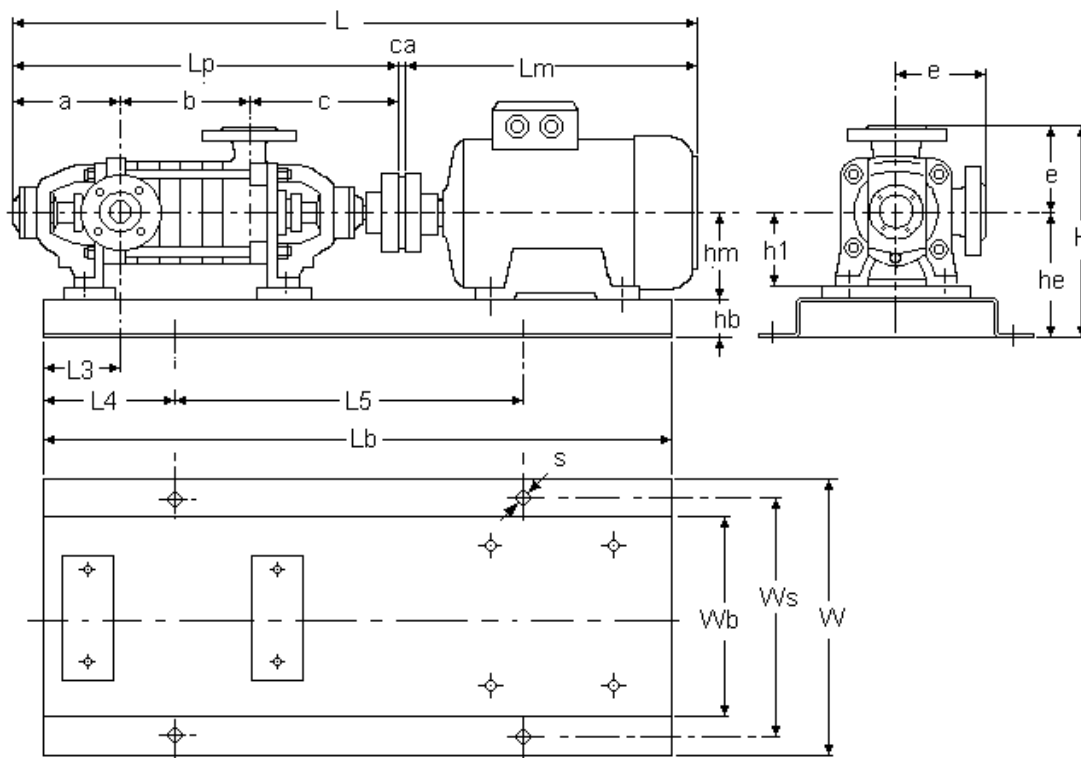


### Dimensions- 2900 RPM-50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 25/2	1.1	80	273	80	473	16	762	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/3	1.5	90S	300	90	505	16	821	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/4	2.2	90L	325	90	537	20	882	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/5	2.2	90L	325	90	569	20	914	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/6	3	100L	365	100	601	20	986	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/7	3	100L	365	100	633	20	1018	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/8	4	112M	384	112	665	20	1069	330	302	1000	240	65	177	88	170	660	290	19	2.05
KMU 25/9	4	112M	384	112	697	20	1101	330	302	1000	240	65	177	88	170	660	290	19	2.05
KMU 25/10	4	112M	384	112	729	20	1133	330	302	1000	240	65	177	88	170	660	290	19	2.05
KMU 25/11	5.5	132S	455	132	761	21	1237	360	322	1120	270	65	197	88	190	740	320	19	3.06
KMU 25/12	5.5	132S	455	132	793	21	1269	360	322	1120	270	65	197	88	190	740	320	19	3.06
KMU 25/13	5.5	132S	455	132	825	21	1301	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 25/14	7.5	132S	455	132	857	21	1333	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 25/15	7.5	132S	455	132	889	21	1365	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 25/16	7.5	132S	455	132	921	21	1397	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 25/17	7.5	132S	455	132	953	21	1429	360	322	1400	270	65	197	88	230	940	320	19	3.08
KMU 25/18	7.5	132S	455	132	958	21	1461	360	322	1400	270	65	197	88	230	940	320	19	3.08

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 25 – 1750 rpm - 60 Hz

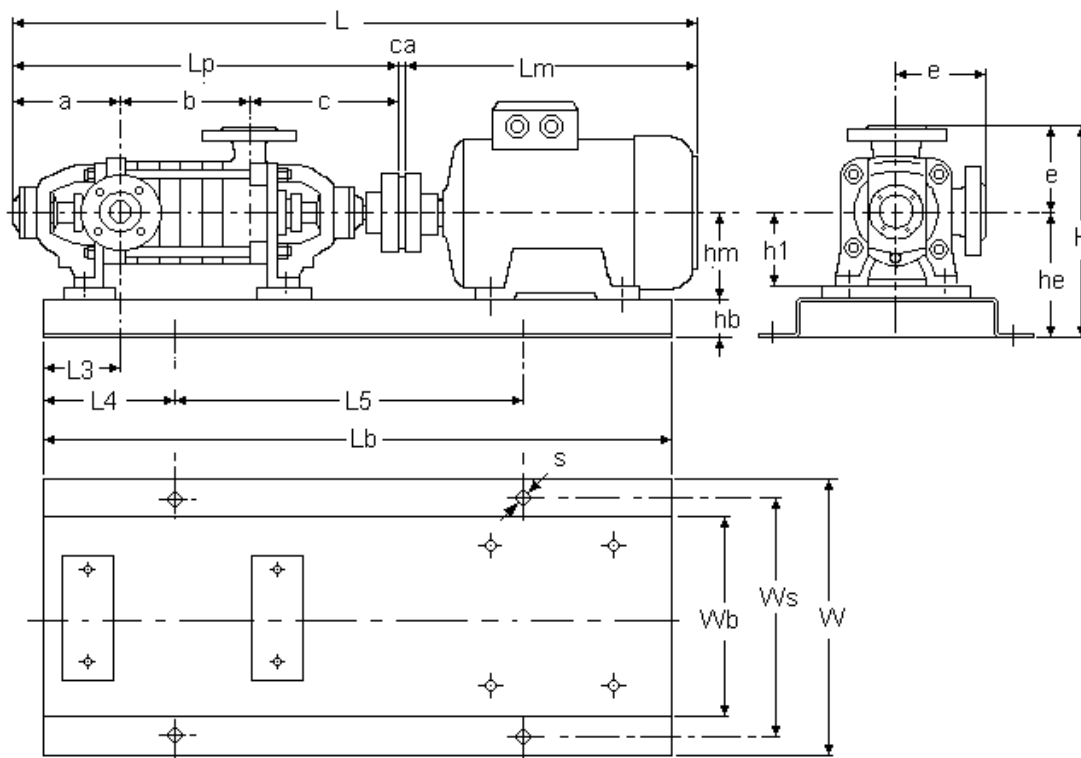


### Dimensions- 1750 RPM-60 Hz

Pump Type	Motor				Pump		Overall			Foundation Dimension									
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 25/2	0.25	71	247	71	473	16	736	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/3	0.37	71	247	71	505	16	768	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 25/4	0.37	71	247	71	537	16	800	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/5	0.55	80	278	80	569	16	863	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/6	0.55	80	278	80	601	16	895	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 25/7	0.75	80	278	80	633	16	927	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/8	0.75	80	278	80	665	16	959	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/9	1.1	90S	308	90	697	16	1021	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 25/10	1.1	90S	308	90	729	16	1053	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/11	1.1	90S	308	90	761	16	1085	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/12	1.1	90S	308	90	793	16	1117	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 25/13	1.5	90L	333	90	825	16	1174	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 25/14	1.5	90L	333	90	857	16	1206	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 25/15	1.5	90L	333	90	889	16	1238	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 25/16	1.5	90L	333	90	921	16	1270	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 25/17	1.5	90L	333	90	953	16	1302	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 25/18	1.5	90L	333	90	958	16	1307	300	290	1250	210	65	165	88	170	660	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

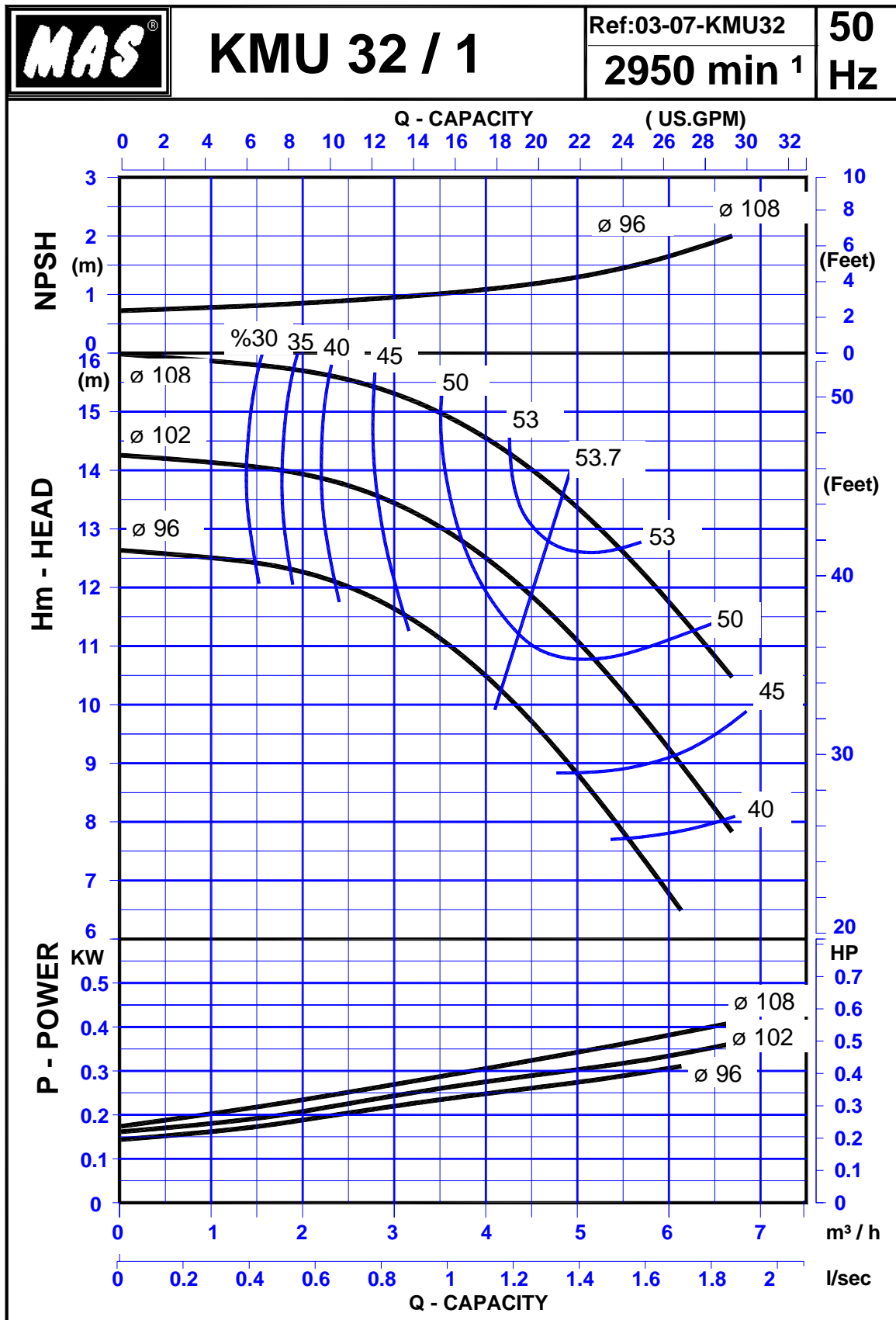
## Dimension Table for KMU 25 – 3500 rpm - 60 Hz



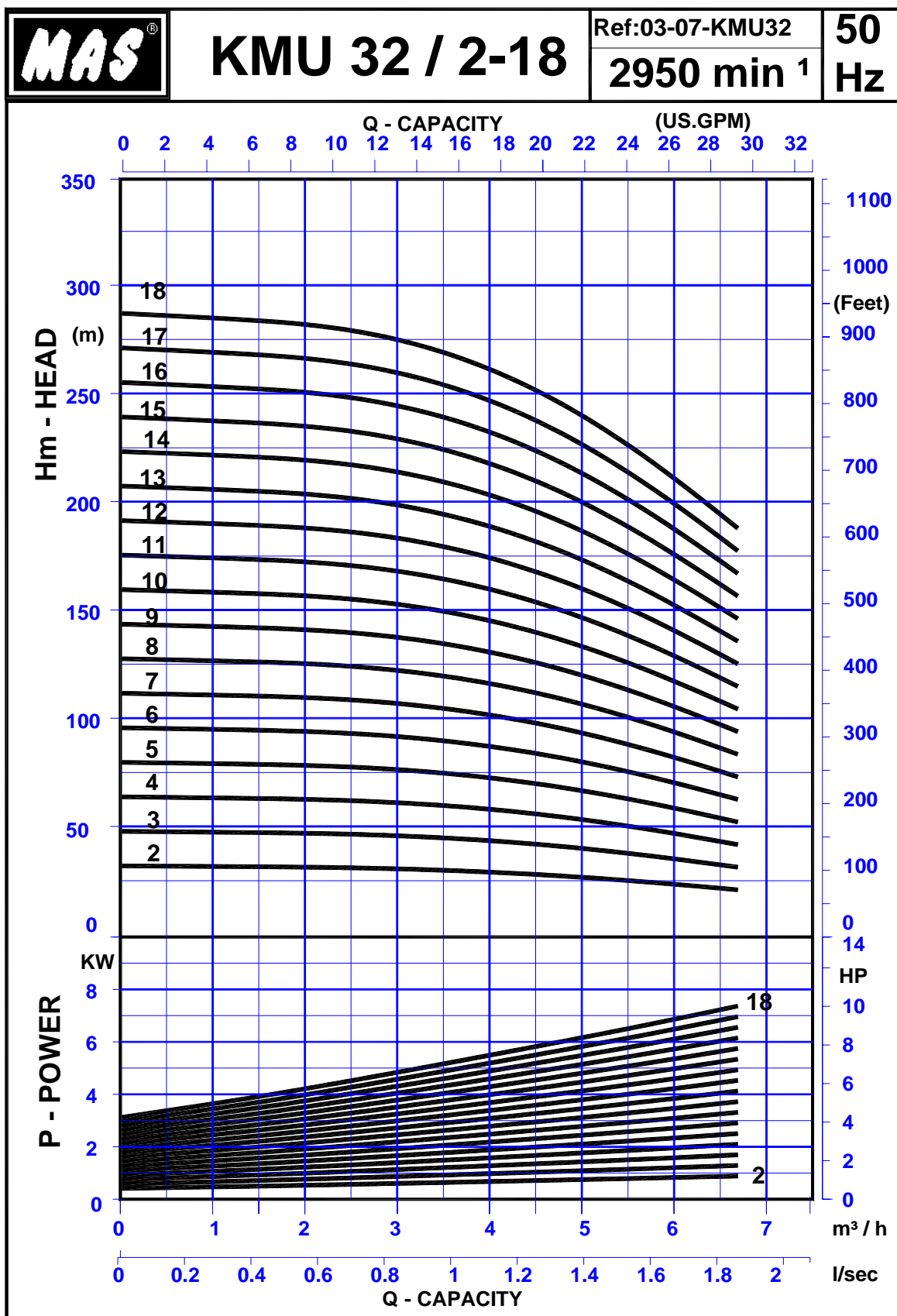
### Dimensions- 3500 RPM-60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 25/2	1.5	90S	300	90	460	16	776	300	290	710	210	65	165	70	115	480	260	19	1.02
KMU 25/3	2.5	90L	325	90	492	20	837	300	290	710	210	65	165	70	115	480	260	19	1.02
KMU 25/4	3	100L	365	100	534	20	909	300	290	800	210	65	165	70	130	540	260	19	1.03
KMU 25/5	4	112M	384	112	556	20	960	330	302	800	240	65	177	70	130	540	290	19	2.03
KMU 25/6	5.5	132S	455	132	588	21	1064	360	322	900	270	65	197	70	150	600	320	19	3.04
KMU 25/7	5.5	132S	455	132	620	21	1096	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 25/8	5.5	132S	455	132	652	21	1128	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 25/9	7.5	132S	455	132	684	21	1160	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 25/10	7.5	132S	455	132	716	21	1192	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 25/11	7.5	132S	455	132	748	21	1124	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 25/12	11	132S	455	132	780	21	1256	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 25/13	11	132S	455	132	812	21	1288	360	322	1120	270	65	197	70	190	740	320	19	3.06

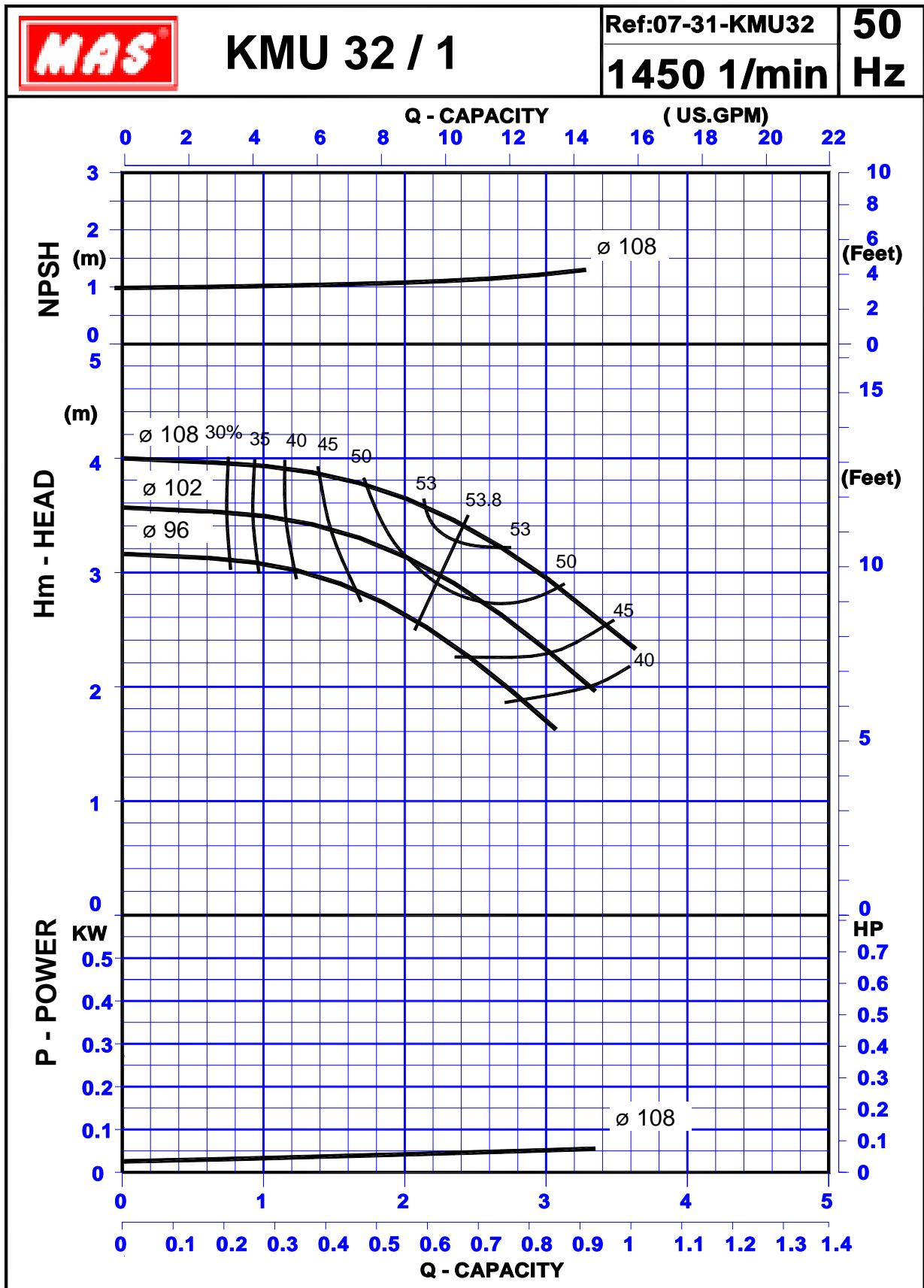




The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

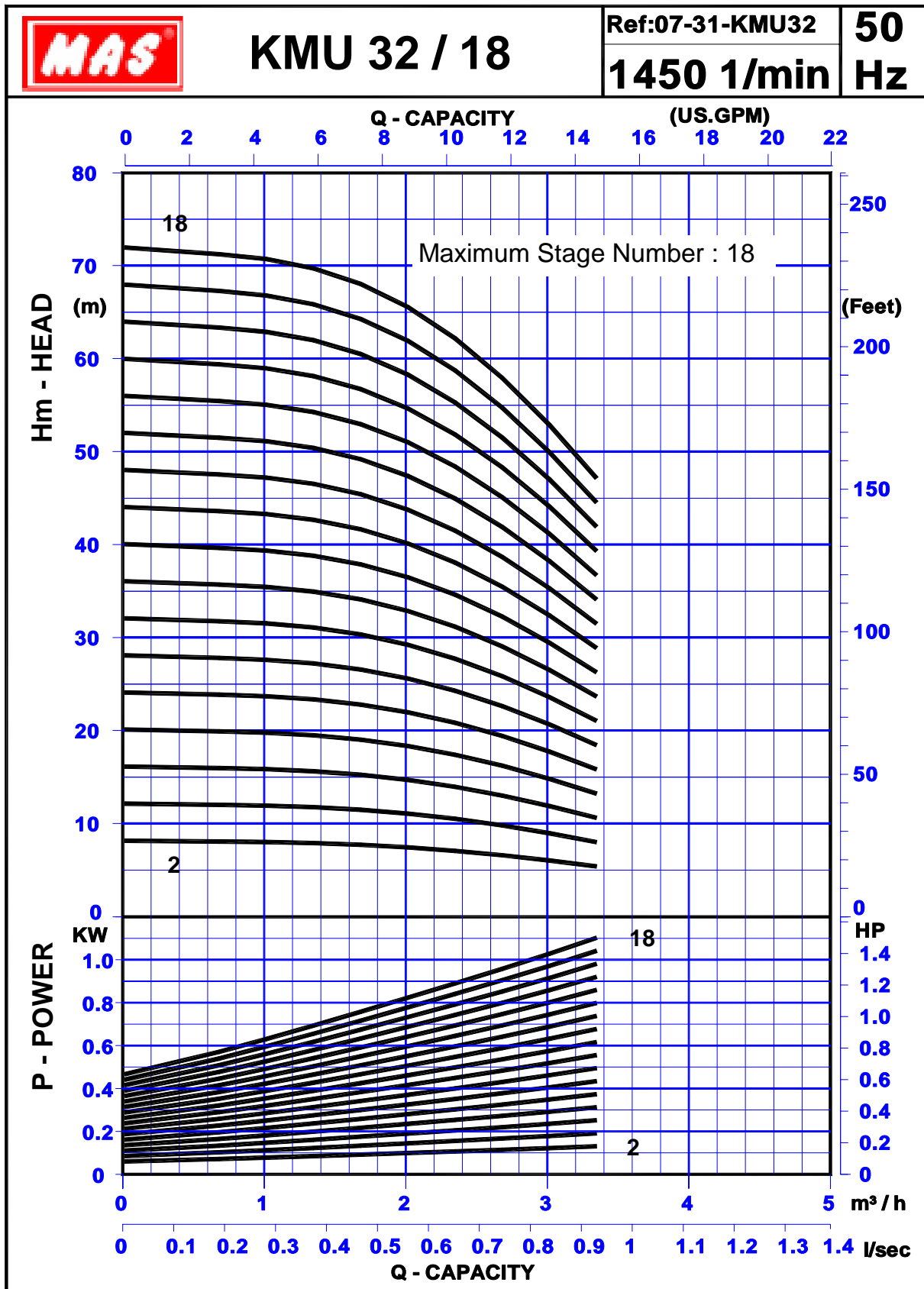


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

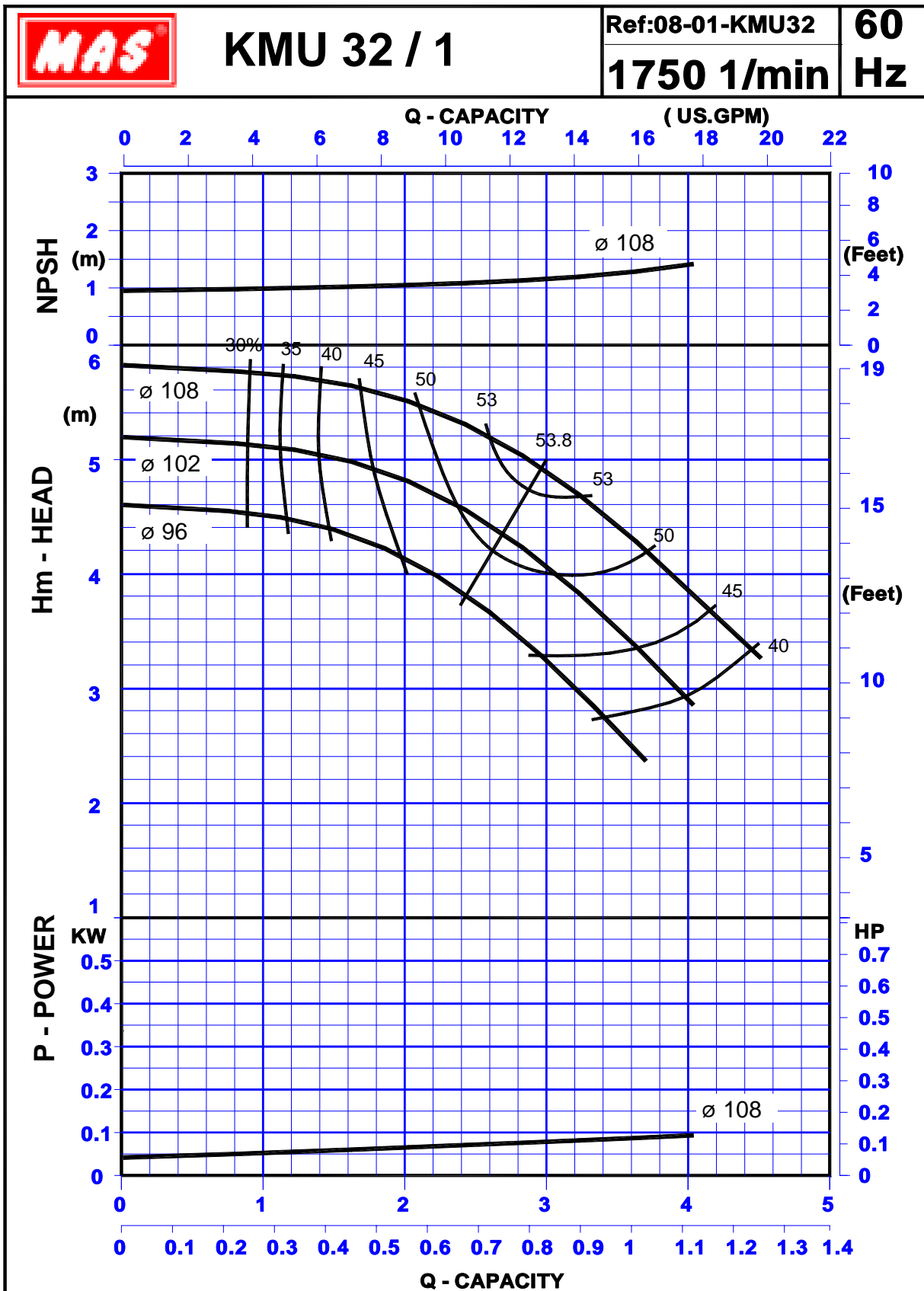


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

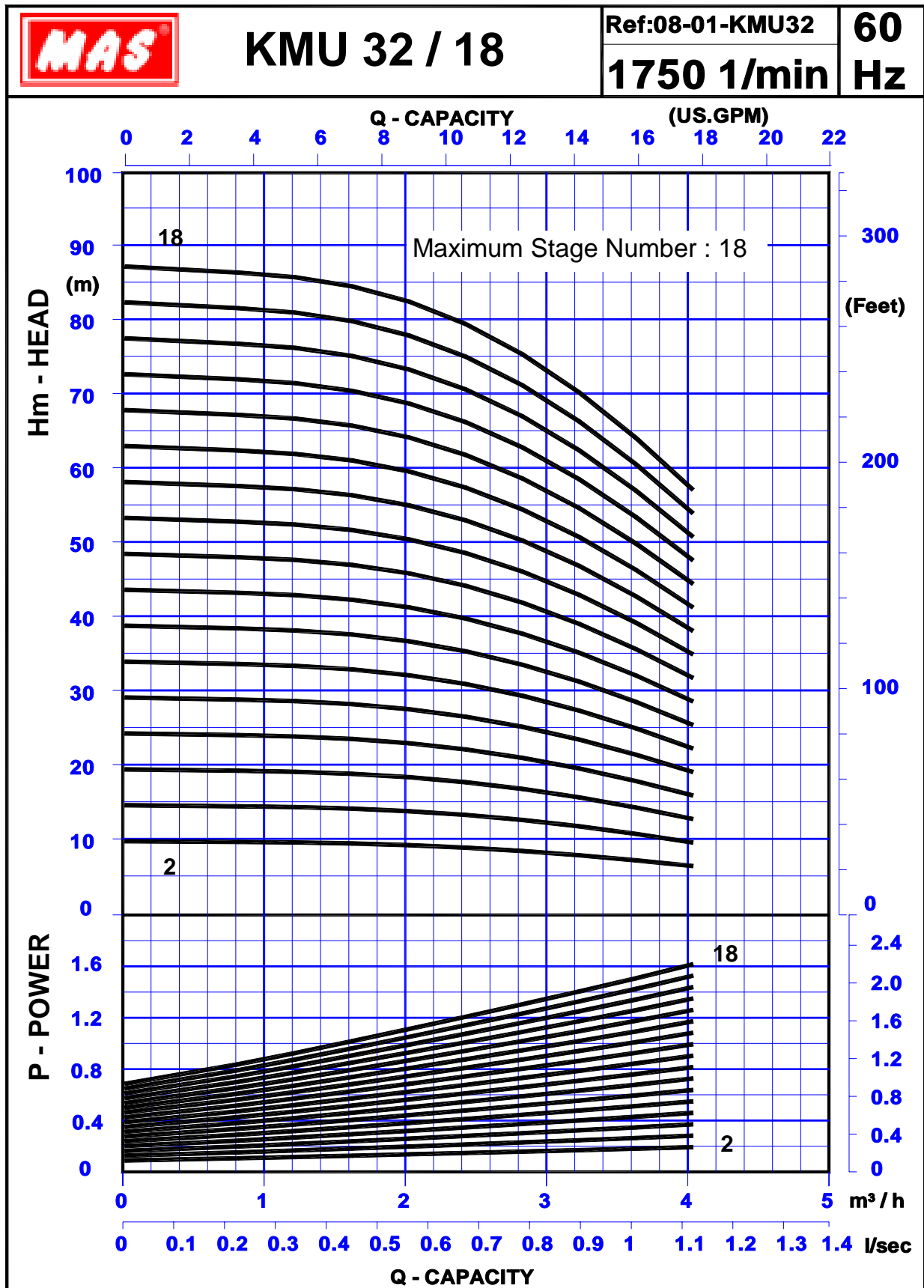
MAS KMU – High Pressure Multistage Pumps  
 Stage Performance Curve for KMU 32 – 1450 rpm – 50 Hz



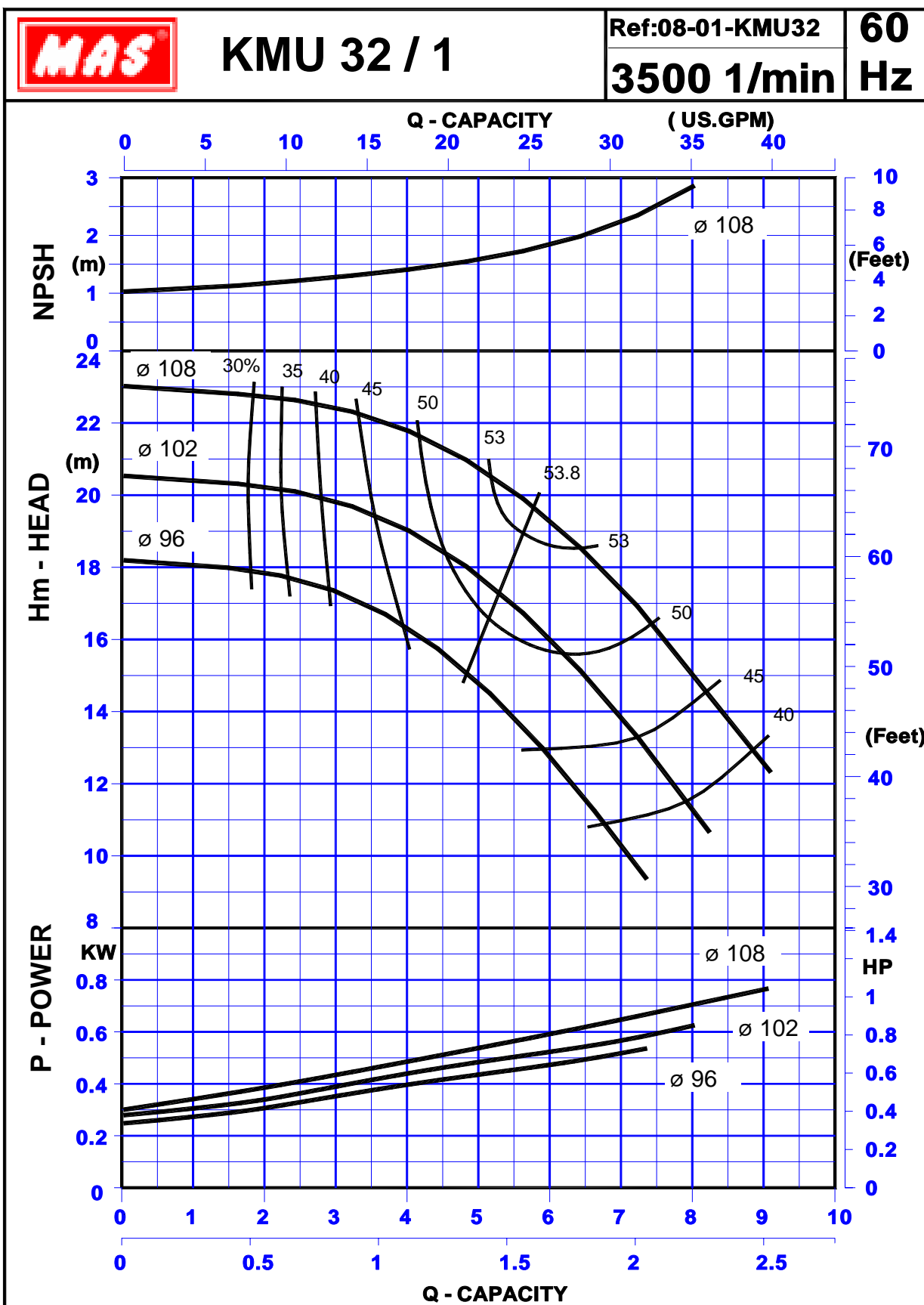
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

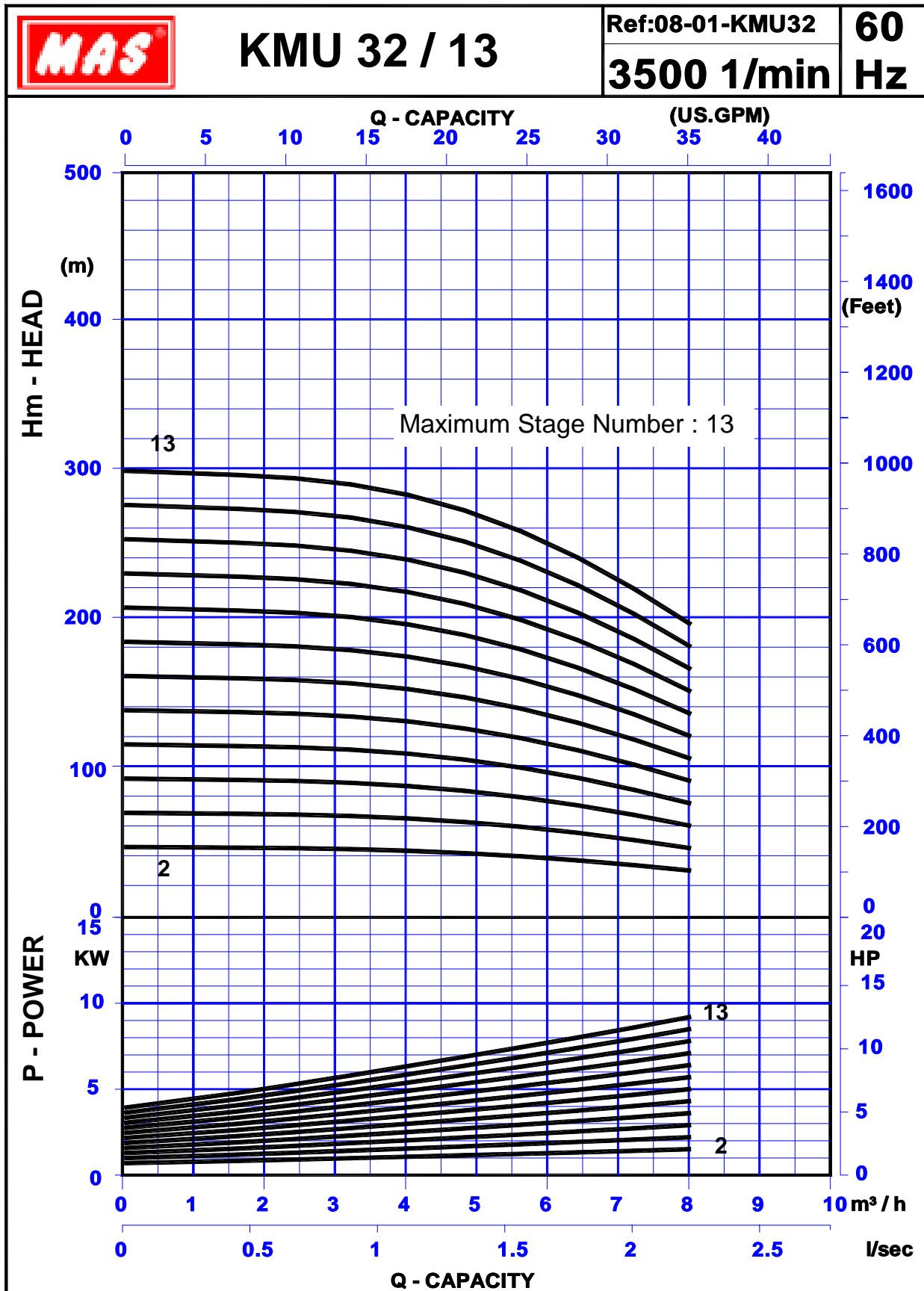


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

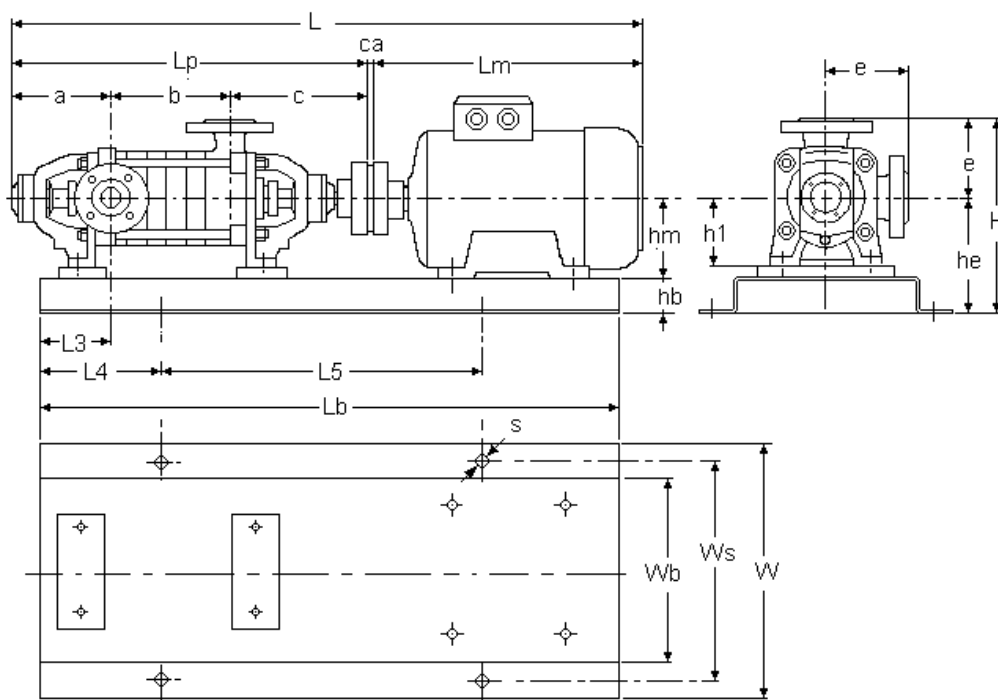




The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 32 – 1450 rpm – 50 Hz

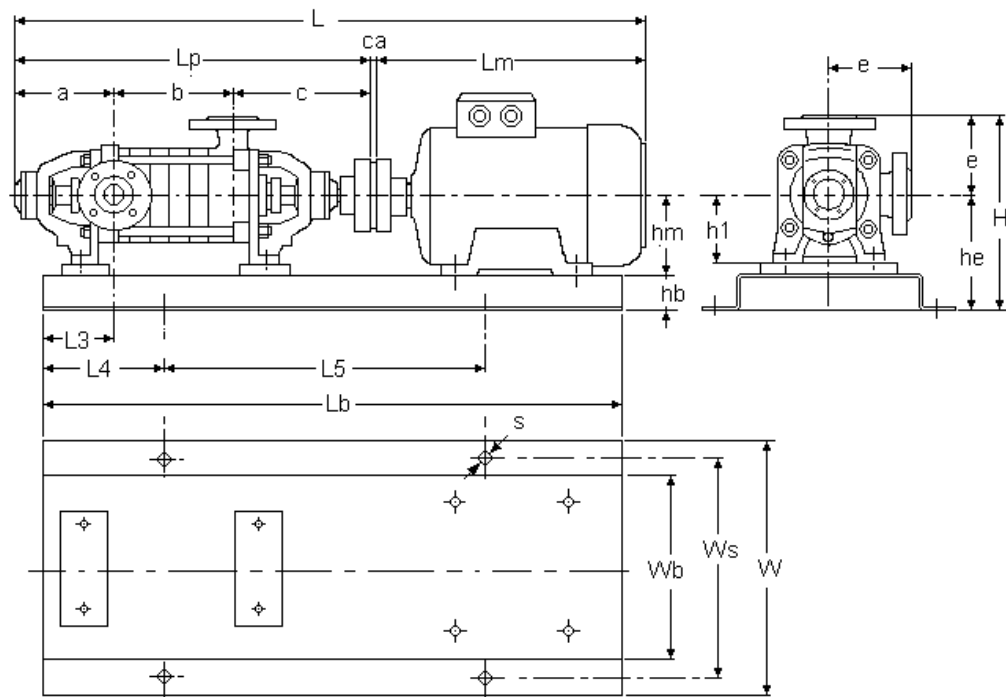


### Dimensions- 1450 RPM – 50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 32/2	0.25	71	247	71	473	16	736	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/3	0.25	71	247	71	505	16	768	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/4	0.37	71	247	71	537	16	800	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/5	0.37	71	247	71	569	16	832	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/6	0.37	71	247	71	601	16	864	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/7	0.55	80	278	80	633	16	927	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/8	0.55	80	278	80	665	16	959	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/9	0.75	80	278	80	697	16	991	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/10	0.75	80	278	80	729	16	1023	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/11	0.75	80	278	80	761	16	1055	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/12	0.75	80	278	80	793	16	1087	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/13	1.1	90S	308	90	825	16	1149	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/14	1.1	90S	308	90	857	16	1181	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/15	1.1	90S	308	90	889	16	1213	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/16	1.1	90S	308	90	921	16	1245	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/17	1.1	90S	308	90	953	16	1277	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/18	1.1	90S	308	90	985	16	1309	300	290	1250	210	65	165	88	170	660	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 32 – 2900 rpm – 50 Hz

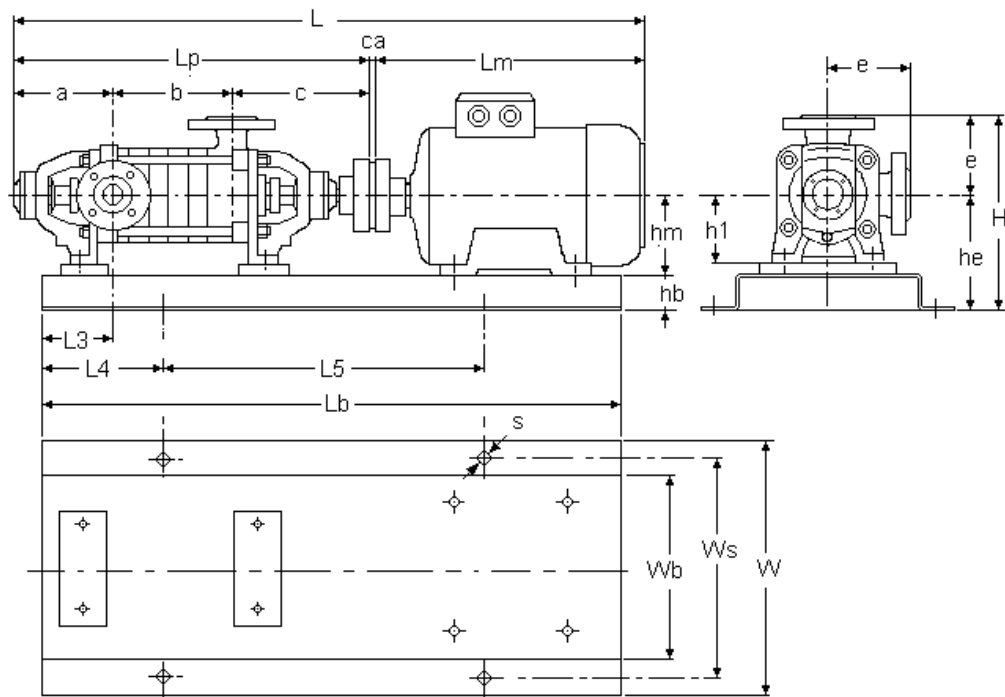


### Dimensions- 2900 RPM – 50 Hz

Pump Type	Motor		Pump		Overall			Foundation Dimension											
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 32/2	1.1	80	273	80	473	16	762	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/3	1.5	90S	300	90	505	16	821	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/4	2.2	90L	325	90	537	20	882	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/5	2.2	90L	325	90	569	20	914	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/6	3	100L	365	100	601	20	986	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/7	3	100L	365	100	633	20	1018	300	290	900	210	65	165	88	150	600	290	19	1.04
KMU 32/8	4	112M	384	112	665	20	1069	330	302	1000	240	65	177	88	170	660	290	19	2.05
KMU 32/9	4	112M	384	112	697	20	1101	330	302	1000	240	65	177	88	170	660	290	19	2.05
KMU 32/10	5.5	132S	455	132	729	21	1205	360	322	1120	270	65	197	88	190	740	320	19	3.06
KMU 32/11	5.5	132S	455	132	761	21	1237	360	322	1120	270	65	197	88	190	740	320	19	3.06
KMU 32/12	5.5	132S	455	132	793	21	1269	360	322	1120	270	65	197	88	190	740	320	19	3.06
KMU 32/13	5.5	132S	455	132	825	21	1301	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 32/14	7.5	132S	455	132	857	21	1333	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 32/15	7.5	132S	455	132	889	21	1365	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 32/16	7.5	132S	455	132	921	21	1397	360	322	1250	270	65	197	88	205	840	320	19	3.07
KMU 32/17	7.5	132S	455	132	953	21	1429	360	322	1400	270	65	197	88	230	940	320	19	3.08
KMU 32/18	11	160M	594	160	985	26	1605	450	365	1600	340	80	240	88	270	1060	400	24	5.09

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 32 – 1750 rpm – 60 Hz

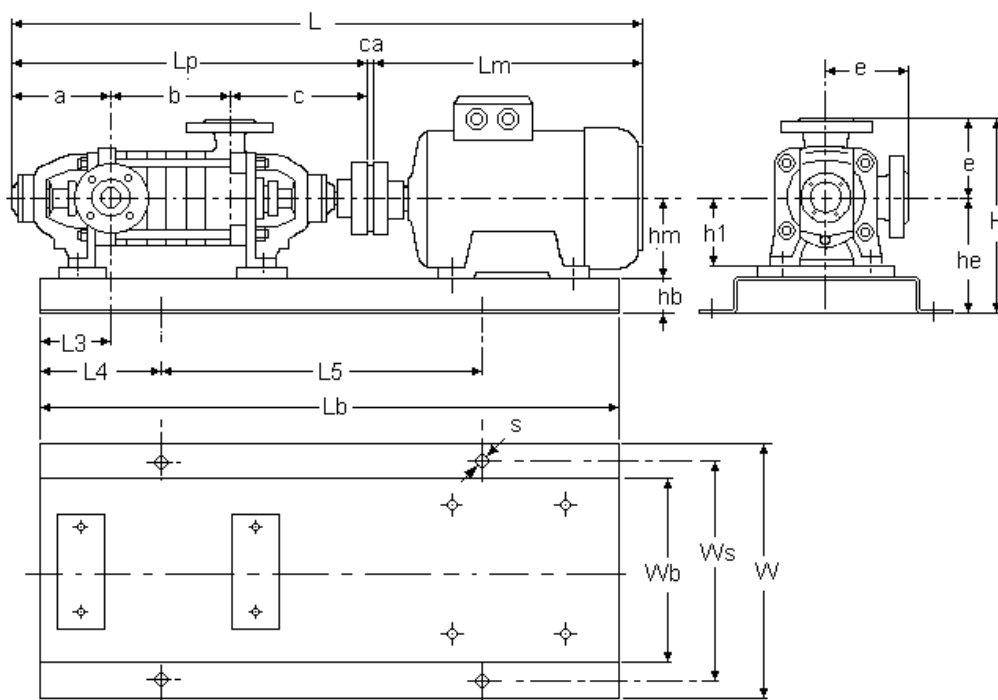


### Dimensions- 1750 RPM – 60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 32/2	0.25	71	247	71	473	16	736	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/3	0.37	71	247	71	505	16	768	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/4	0.55	80	278	80	537	16	831	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 32/5	0.55	80	278	80	569	16	863	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/6	0.55	80	278	80	601	16	895	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/7	0.75	80	278	80	633	16	927	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 32/8	0.75	80	278	80	665	16	959	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/9	1.1	90S	308	90	697	16	1021	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 32/10	1.1	90S	308	90	729	16	1053	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/11	1.1	90S	308	90	761	16	1085	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/12	1.1	90S	308	90	793	16	1117	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/13	1.1	90S	308	90	825	16	1149	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 32/14	1.5	90L	333	90	857	16	1206	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/15	1.5	90L	333	90	889	16	1238	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/16	1.5	90L	333	90	921	16	1270	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 32/17	1.5	90L	333	90	953	16	1302	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 32/18	2.2	100L	375	100	985	16	1376	300	290	1250	210	65	165	88	170	660	260	19	1.07

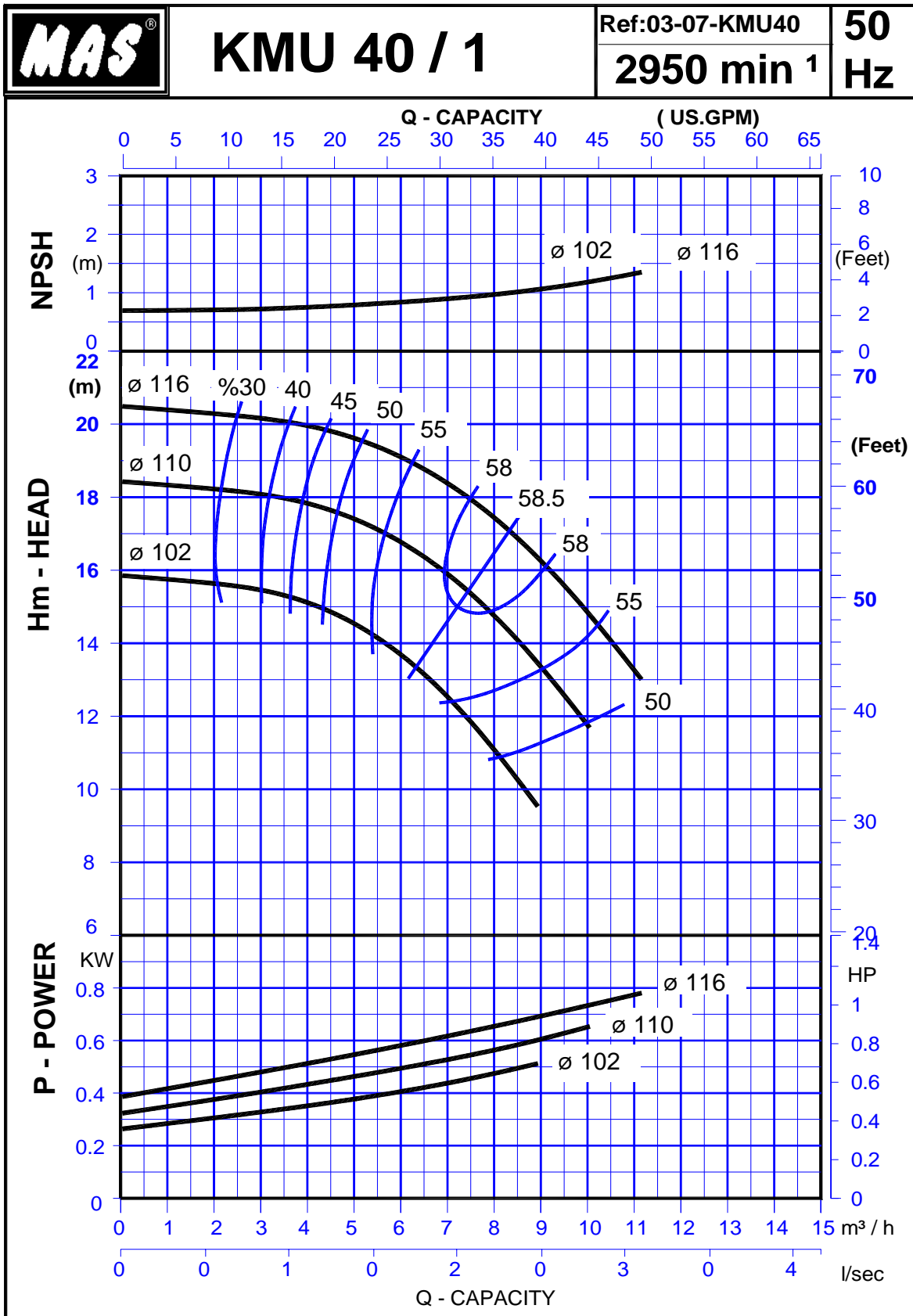
# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 32 – 3500 rpm – 60 Hz



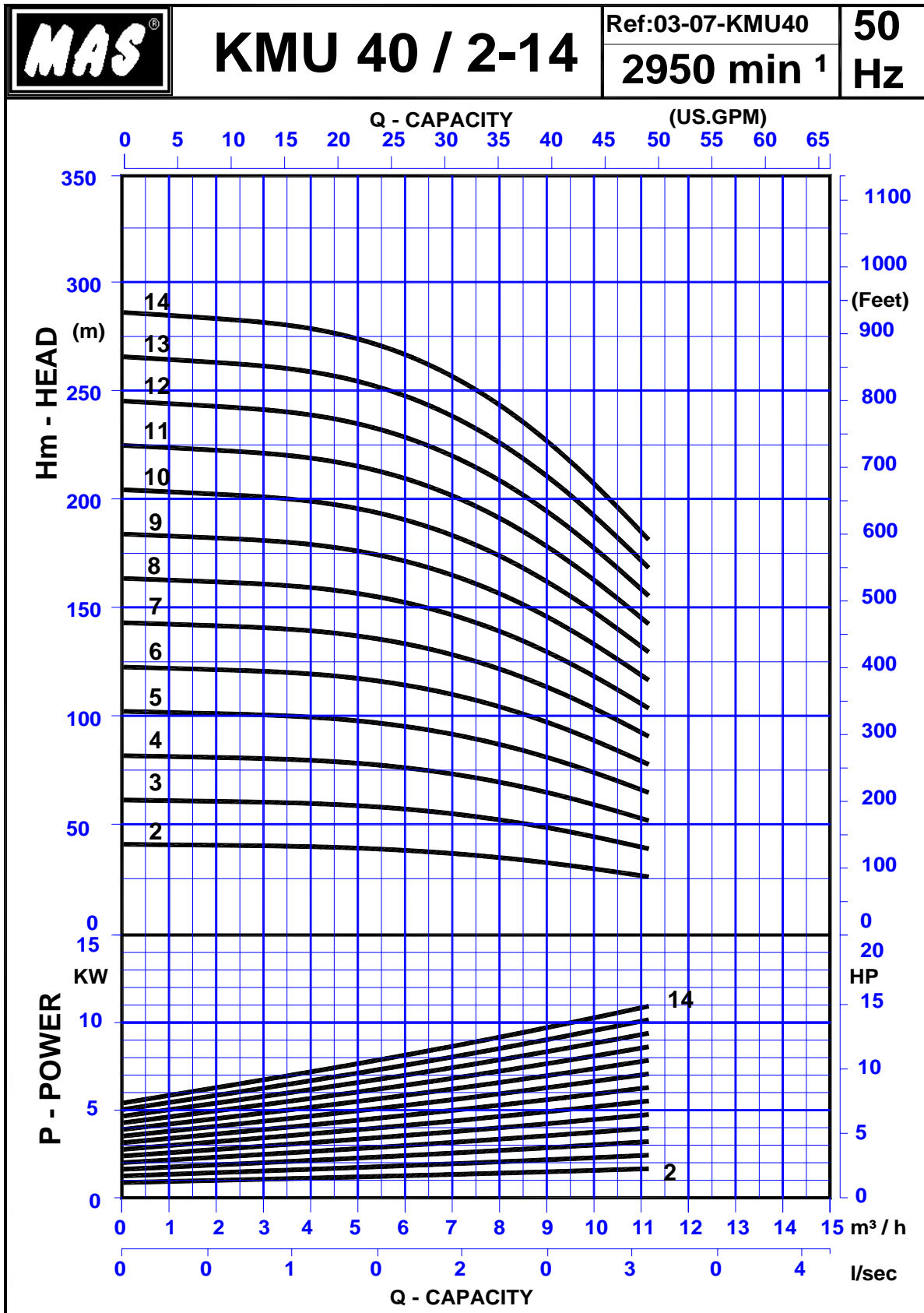
### Dimensions- 3500 RPM – 60 Hz

Pump Type	Motor			Pump	Overall					Foundation Dimension									
	KW	IEC	Lm		hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s
KMU 32/2	1.5	90S	300	90	460	16	776	300	290	710	210	65	165	70	115	480	260	19	1.02
KMU 32/3	2.2	90L	325	90	492	20	637	300	290	710	210	65	165	70	115	480	260	19	1.02
KMU 32/4	3	100L	365	100	524	20	909	300	290	800	210	65	165	70	130	540	260	19	1.03
KMU 32/5	4	112M	384	112	556	20	960	330	302	800	240	65	177	70	130	540	290	19	2.03
KMU 32/6	5.5	132S	455	132	588	21	1064	360	322	900	270	65	197	70	150	600	320	19	3.04
KMU 32/7	5.5	132S	455	132	620	21	1096	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 32/8	7.5	132S	455	132	652	21	1128	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 32/9	7.5	132S	455	132	684	21	1160	360	322	1000	270	65	197	70	170	660	320	19	3.05
KMU 32/10	7.5	132S	455	132	716	21	1192	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 32/11	11	132S	455	132	748	21	1124	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 32/12	11	132S	455	132	780	21	1256	360	322	1120	270	65	197	70	190	740	320	19	3.06
KMU 32/13	11	132S	455	132	812	21	1288	360	322	1120	270	65	197	70	190	740	320	19	3.06



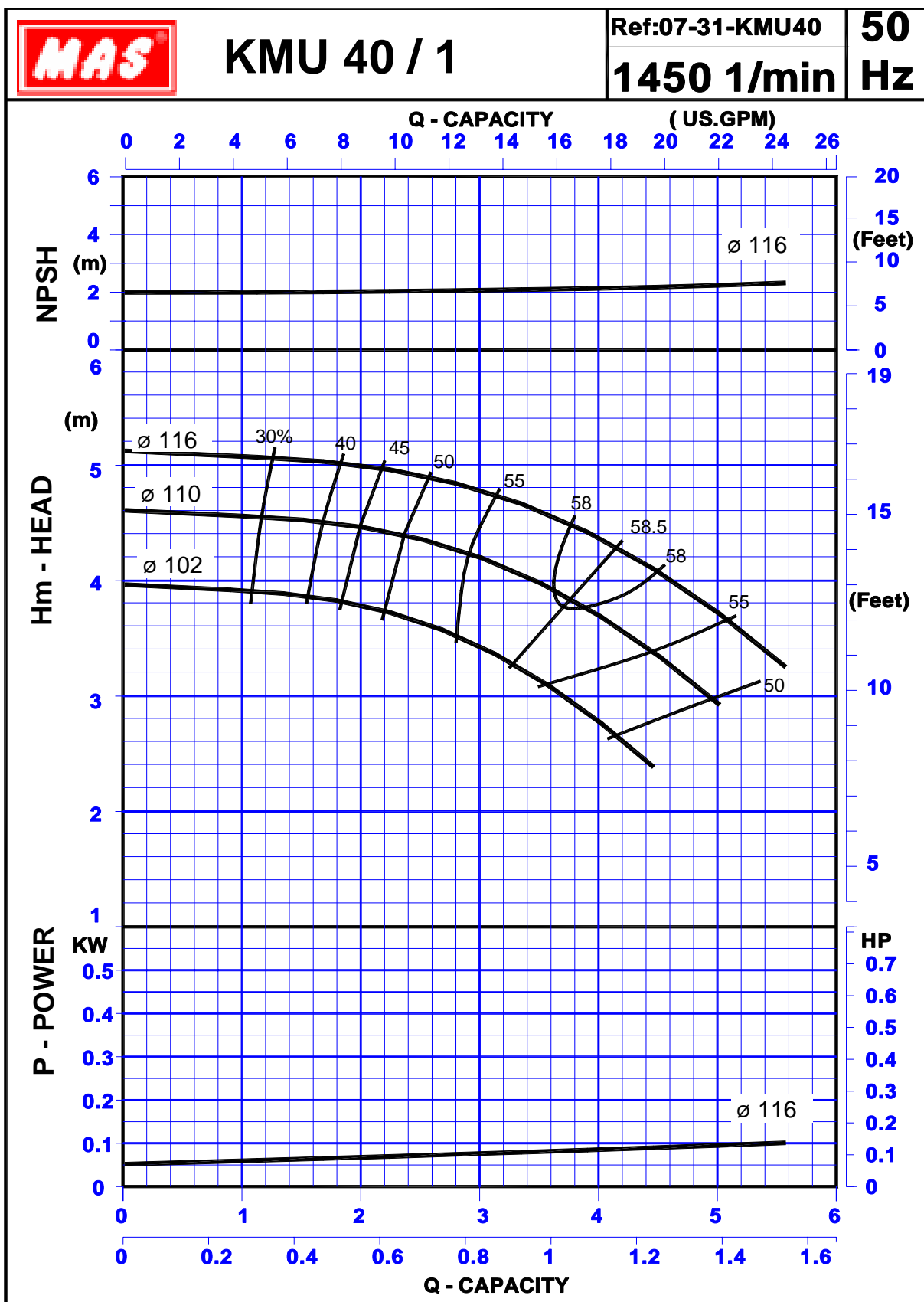
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

**MAS KMU – High Pressure Multistage Pumps**  
 Stage Performance Curve for KMU 40 – 2900 rpm – 50 Hz

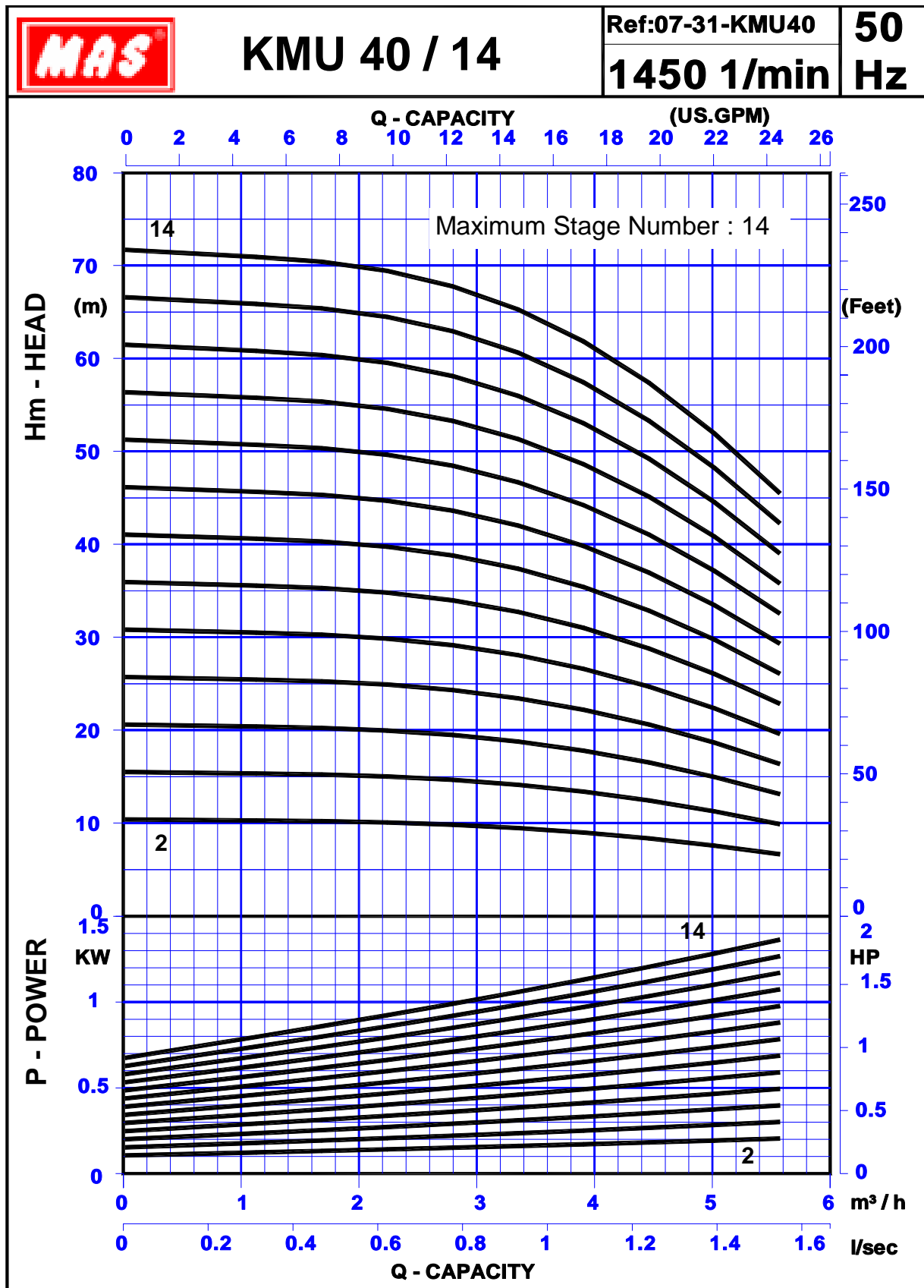


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

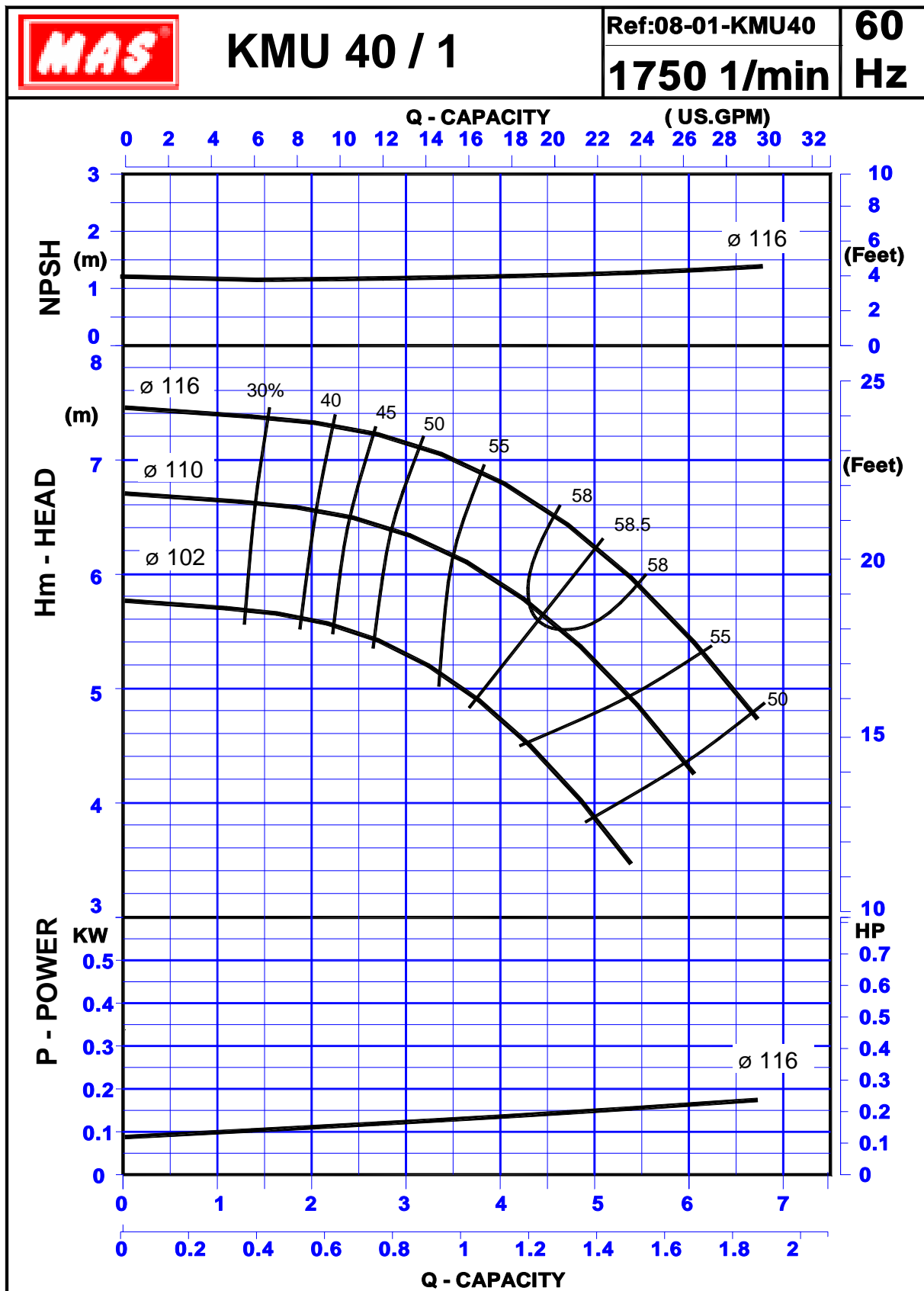




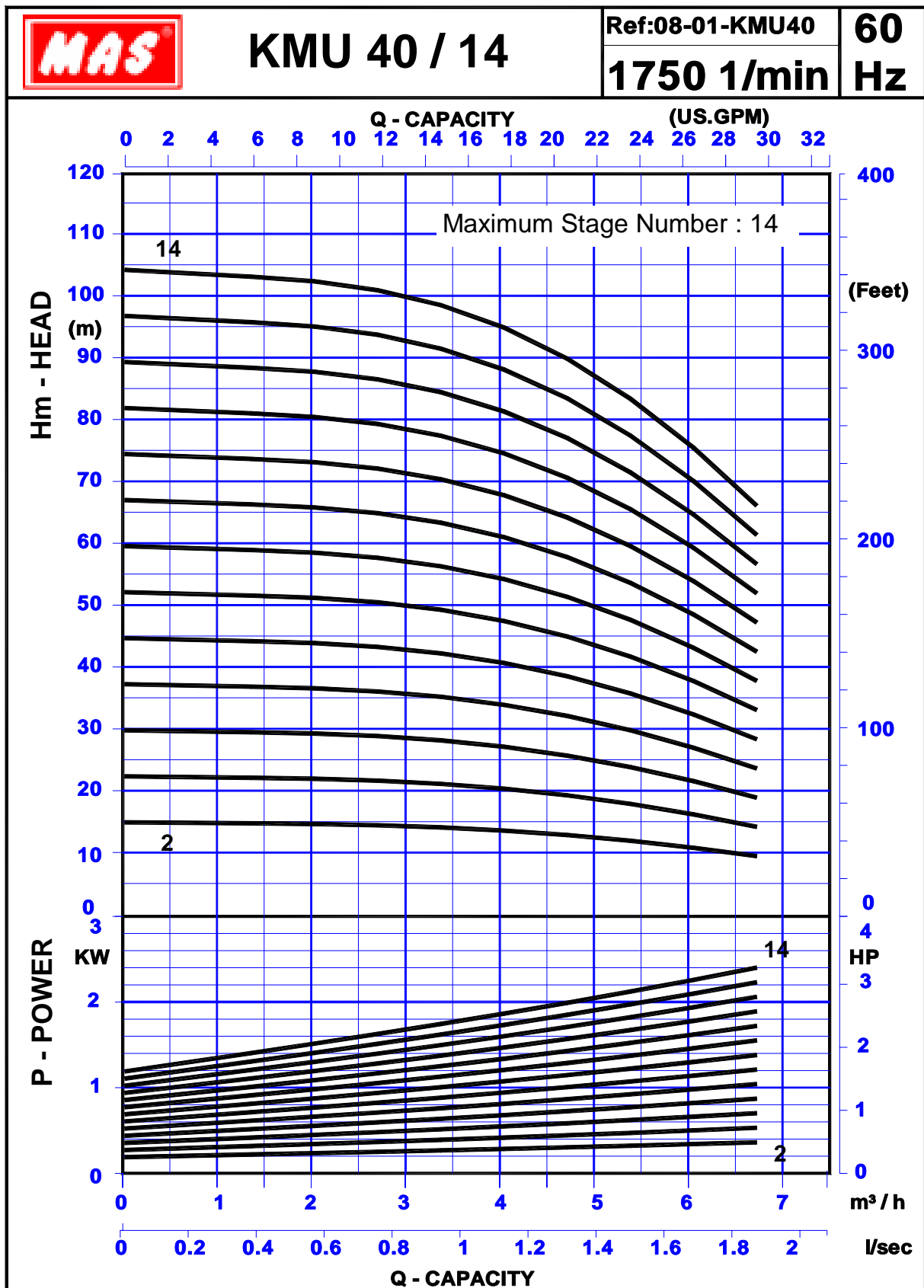
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



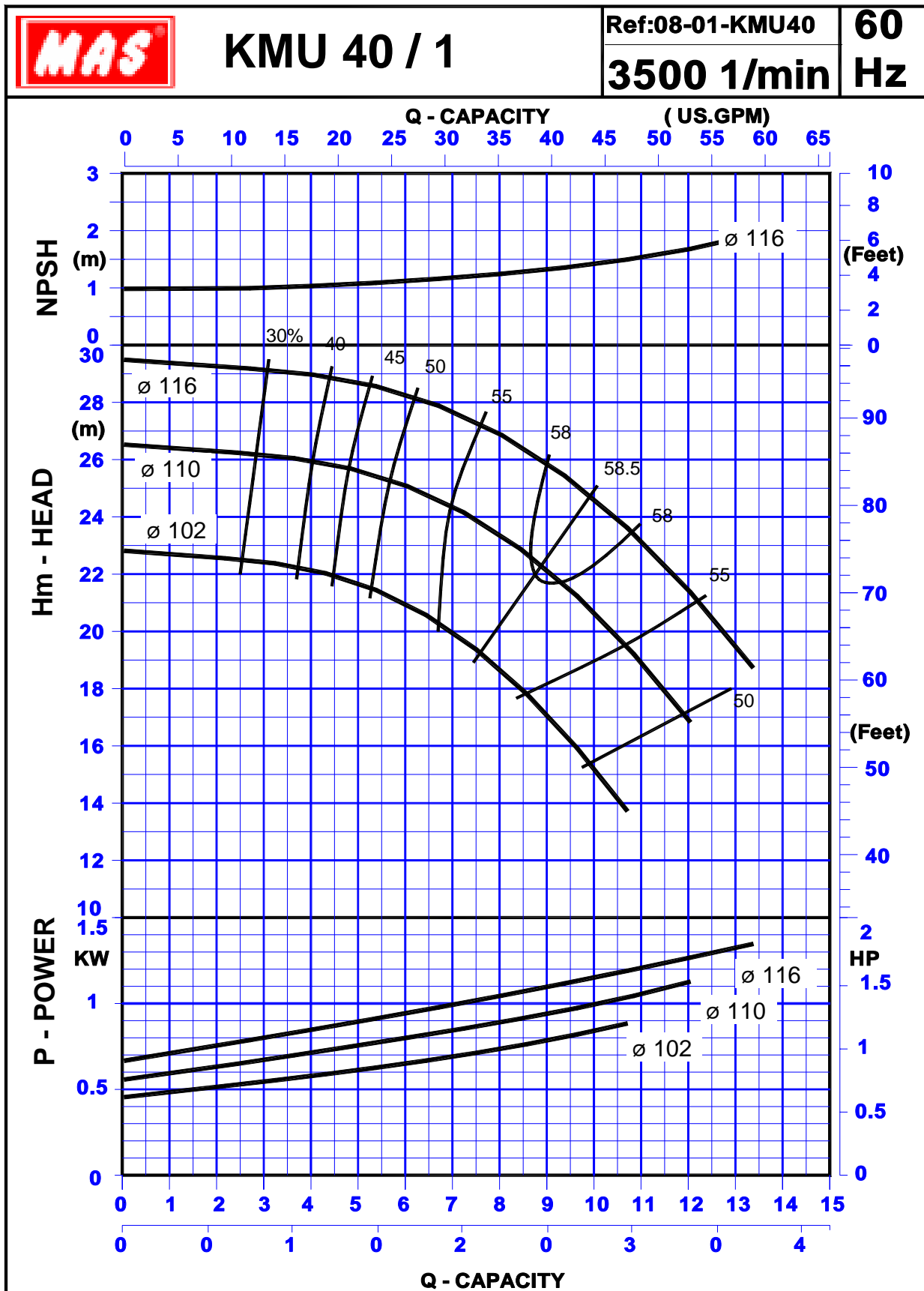
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



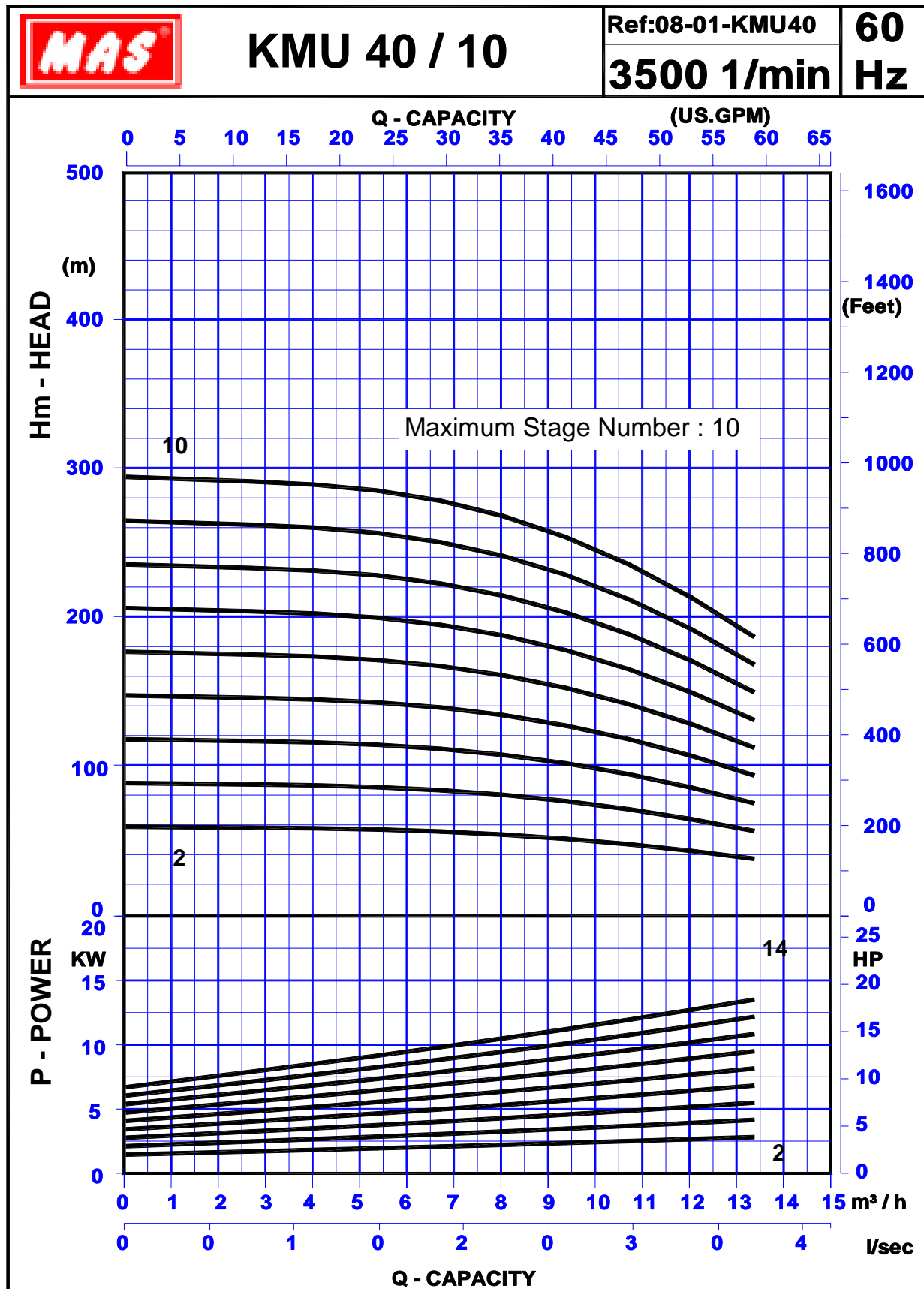
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



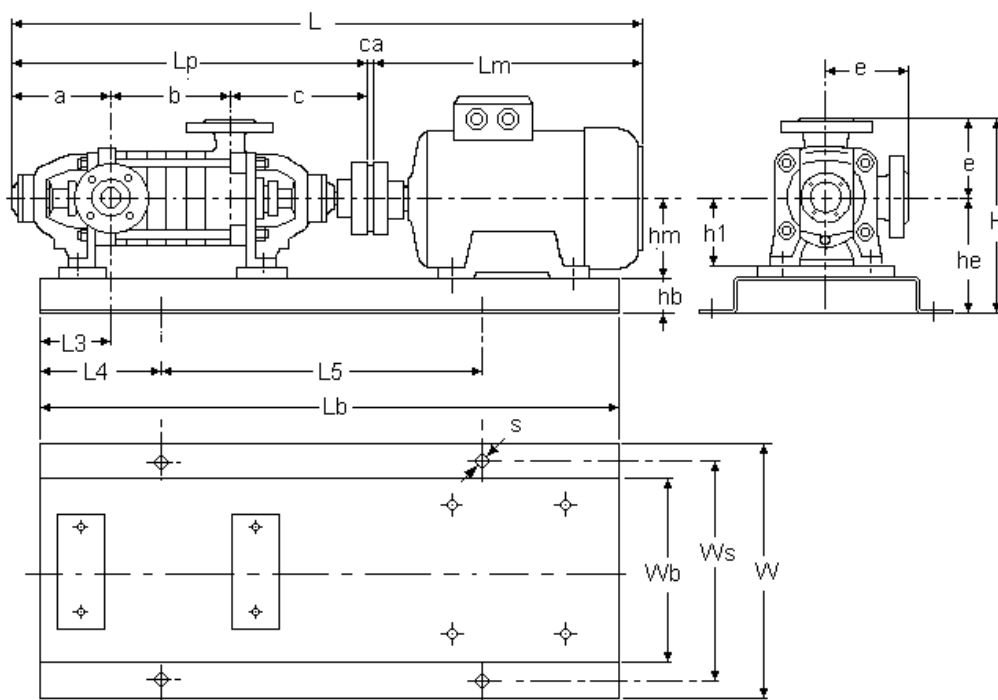
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 40 – 1450 rpm – 50 Hz

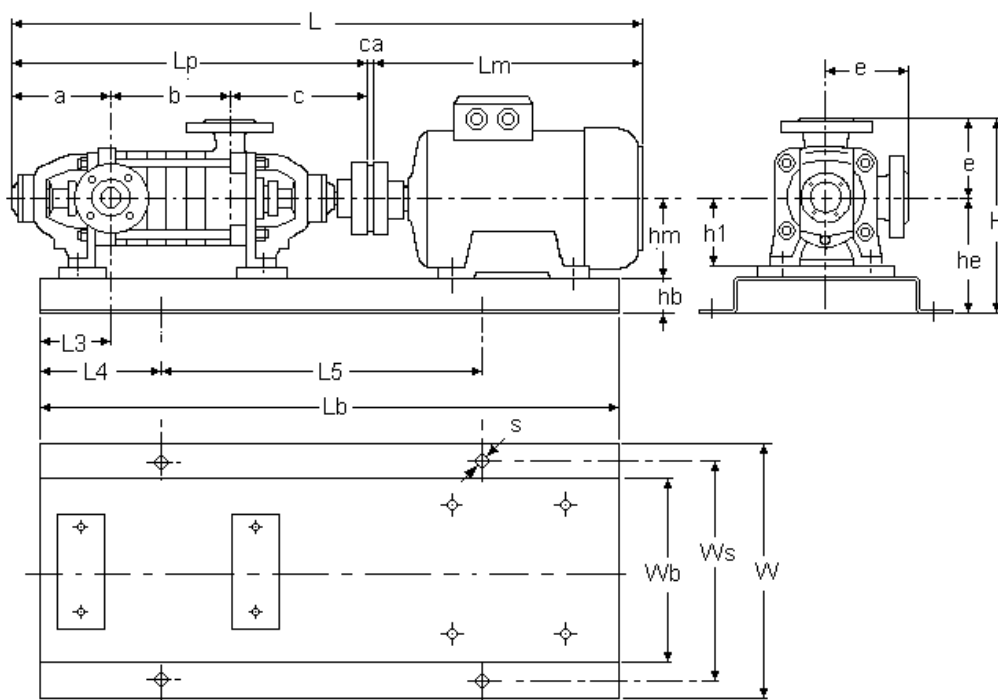


### Dimensions- 1450 RPM – 50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 40/2	0.37	71	247	71	476	16	739	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 40/3	0.37	71	247	71	516	16	779	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 40/4	0.55	80	278	80	556	16	850	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 40/5	0.55	80	278	80	596	16	890	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 40/6	0.75	80	278	80	636	16	930	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 40/7	0.75	80	278	80	676	16	970	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 40/8	1.1	90S	308	90	716	16	1040	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 40/9	1.1	90S	308	90	756	16	1080	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 40/10	1.1	90S	308	90	796	16	1120	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 40/11	1.1	90S	308	90	836	16	1160	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 40/12	1.1	90S	308	90	876	16	1200	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 40/13	1.5	90L	333	90	916	16	1265	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 40/14	1.5	90L	333	90	956	16	1305	300	290	1250	210	65	165	88	170	660	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 40 – 2900 rpm – 50 Hz



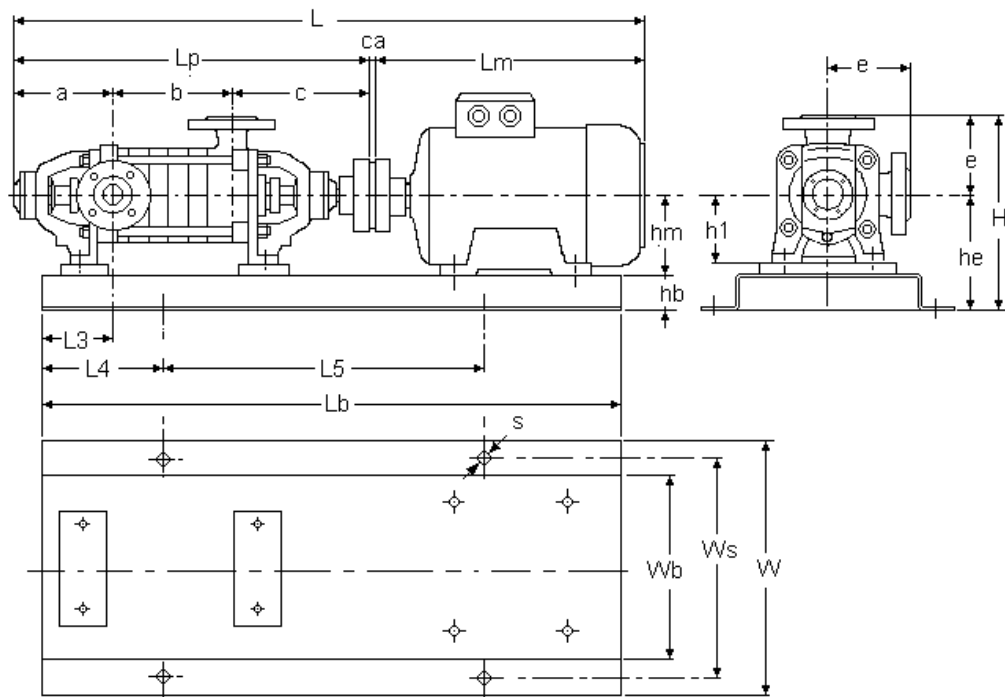
### Dimensions- 2900 RPM – 50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 40/2	1.5	90S	300	90	476	16	792	300	322	710	210	65	177	95	115	480	260	19	1.02
KMU 40/3	3	100L	365	100	516	20	901	300	322	800	210	65	177	95	130	540	260	19	1.03
KMU 40/4	4	112M	384	112	556	20	960	330	322	900	240	65	177	95	150	600	290	19	2.04
KMU 40/5	4	112M	384	112	596	20	1000	330	322	900	240	65	177	95	150	600	290	19	2.04
KMU 40/6	5.5	132S	455	132	636	21	1112	360	342	1000	270	65	197	95	170	660	320	19	3.05
KMU 40/7	5.5	132S	455	132	676	21	1152	360	342	1000	270	65	197	95	170	660	320	19	3.05
KMU 40/8	7.5	132S	455	132	716	21	1192	360	342	1120	270	65	197	95	190	740	320	19	3.06
KMU 40/9	7.5	132S	455	132	756	21	1232	360	342	1120	270	65	197	95	190	740	320	19	3.06
KMU 40/10	11	160M	594	160	796	26	1416	450	385	1250	340	80	240	95	205	840	400	24	5.07
KMU 40/11	11	160M	594	160	836	26	1456	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 40/12	11	160M	594	160	876	26	1496	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 40/13	11	160M	594	160	916	26	1536	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 40/14	11	160M	594	160	956	23	1576	450	385	1400	340	80	240	95	230	940	400	24	5.08



# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 40 – 1750 rpm – 60 Hz

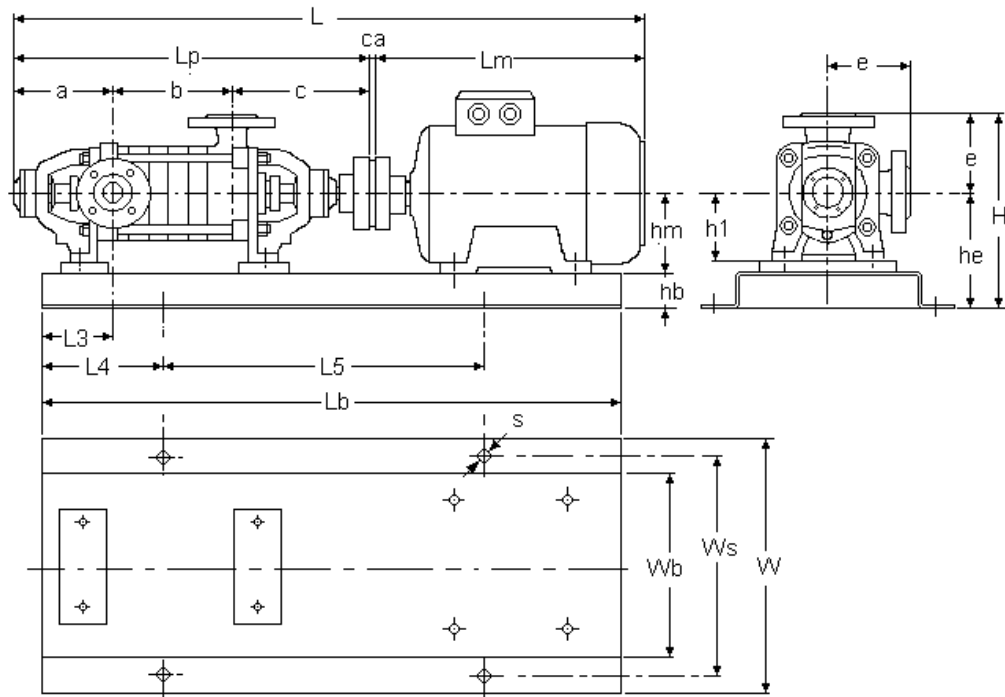


### Dimensions- 1750 RPM – 60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 40/2	0.55	80	278	80	476	16	770	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 40/3	0.75	80	278	80	516	16	810	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 40/4	1.1	90S	308	90	556	16	880	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 40/5	1.1	90S	308	90	596	16	920	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 40/6	1.1	90S	308	90	636	16	960	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 40/7	1.1	90S	308	90	676	16	1000	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 40/8	1.5	90L	333	90	716	16	1065	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 40/9	2.2	100L	375	100	756	16	1147	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 40/10	2.2	100L	375	100	796	16	1187	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 40/11	2.2	100L	375	100	836	16	1227	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 40/12	2.2	100L	375	100	876	16	1267	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 40/13	2.2	100L	375	100	916	16	1307	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 40/14	3	100L	375	100	956	20	1351	300	290	1250	210	65	165	88	170	660	260	19	1.07

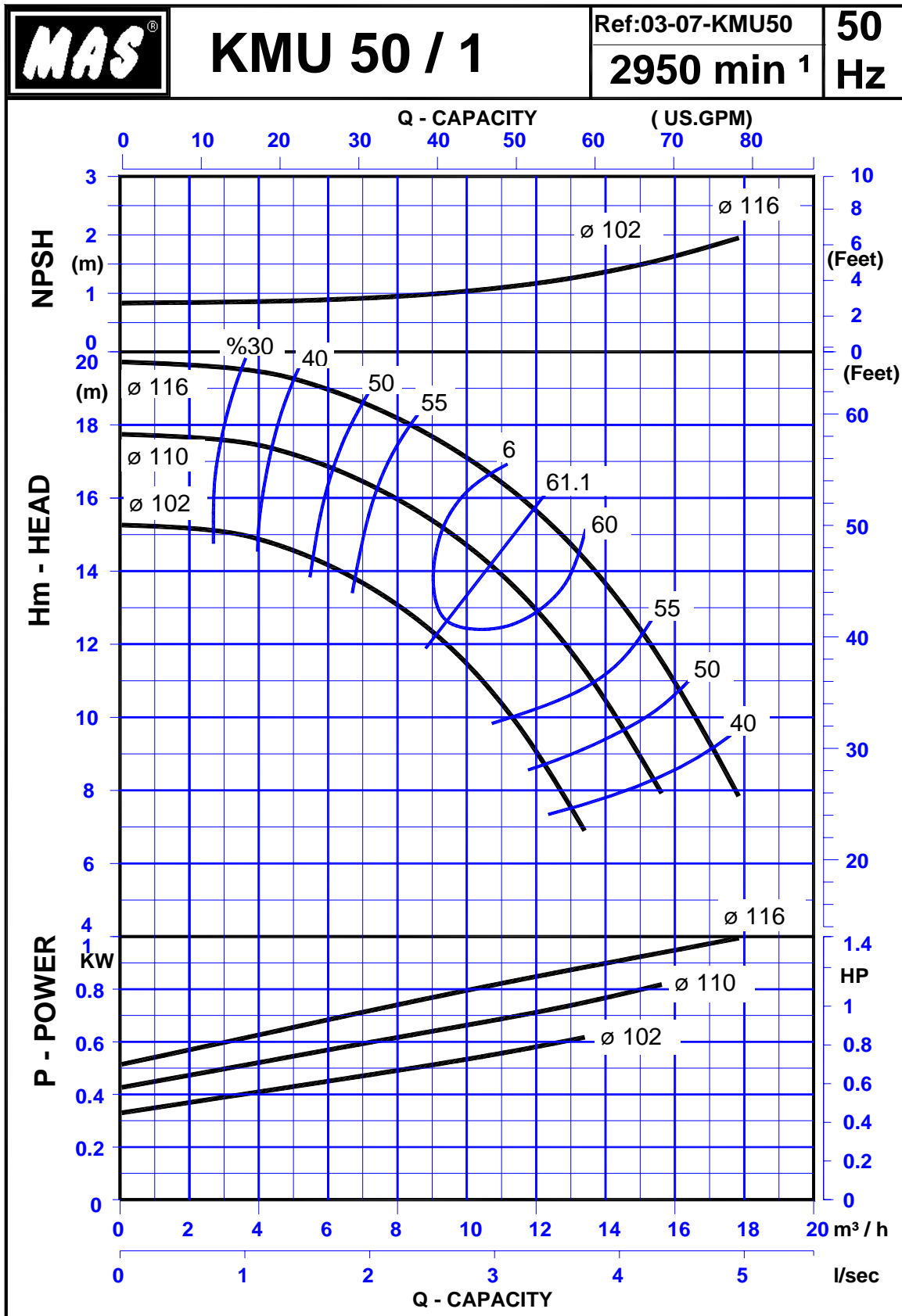
# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 40 – 3500 rpm – 60 Hz



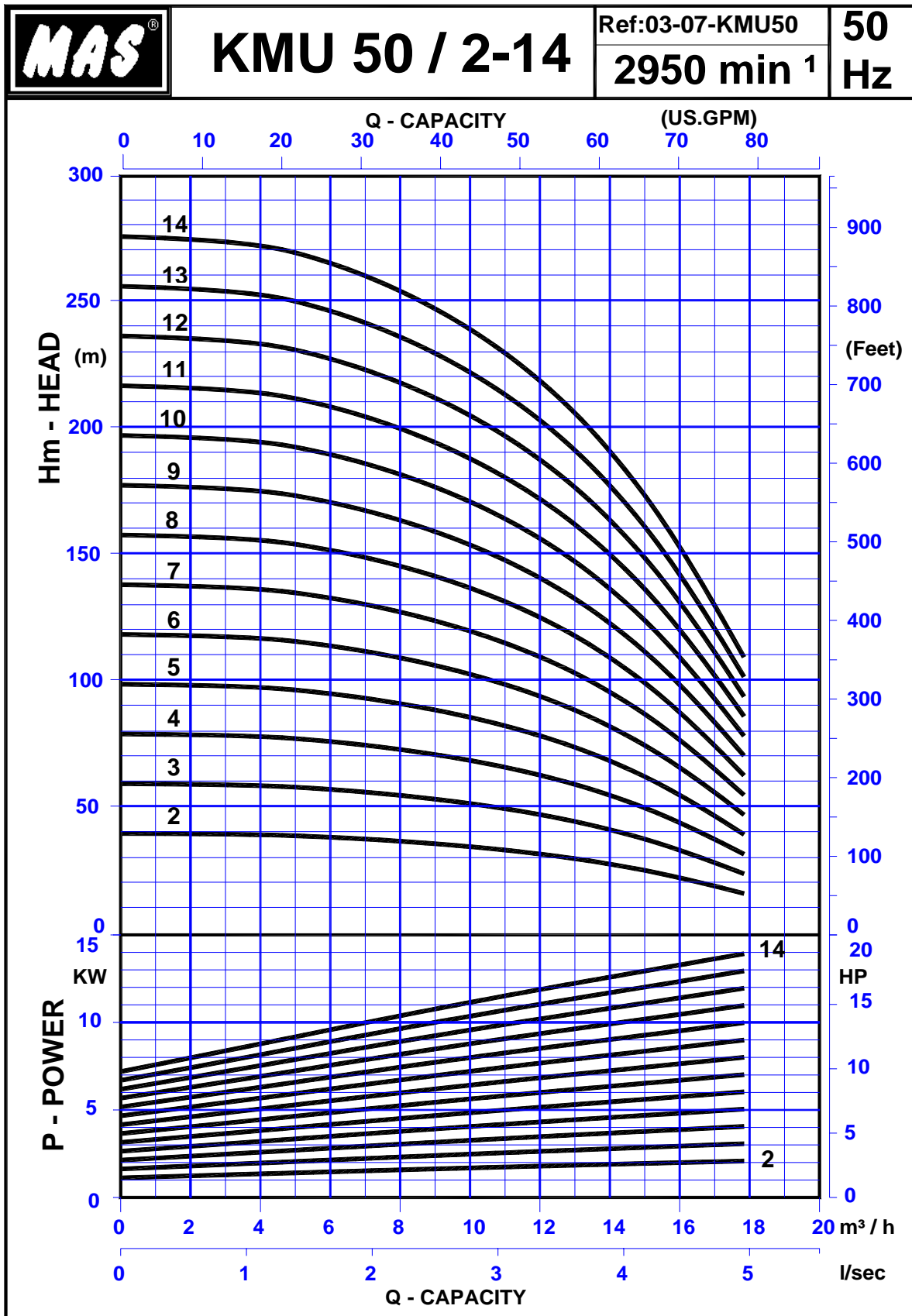
### Dimensions- 3500 RPM – 60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 40/2	3	100L	365	100	476	20	861	300	322	710	210	65	177	72	115	480	260	19	1.02
KMU 40/3	4	112M	384	112	516	20	920	330	322	800	240	65	177	72	130	540	290	19	2.03
KMU 40/4	5.5	132S	455	132	556	21	1032	360	342	900	270	65	197	72	150	600	320	19	3.04
KMU 40/5	7.5	132S	455	132	596	21	1072	360	342	900	270	65	197	72	150	600	320	19	3.04
KMU 40/6	11	160M	594	160	636	26	1256	450	385	1120	340	80	240	72	190	740	400	24	5.06
KMU 40/7	11	160M	594	160	676	26	1296	450	385	1120	340	80	240	72	190	740	400	24	5.06
KMU 40/8	11	160M	594	160	716	26	1336	450	385	1250	340	80	240	72	205	840	400	24	5.07
KMU 40/9	15	160M	594	160	756	26	1376	450	385	1250	340	80	240	72	205	840	400	24	5.07
KMU 40/10	15	160M	594	160	796	26	1416	450	385	1250	340	80	240	72	205	840	400	24	5.07

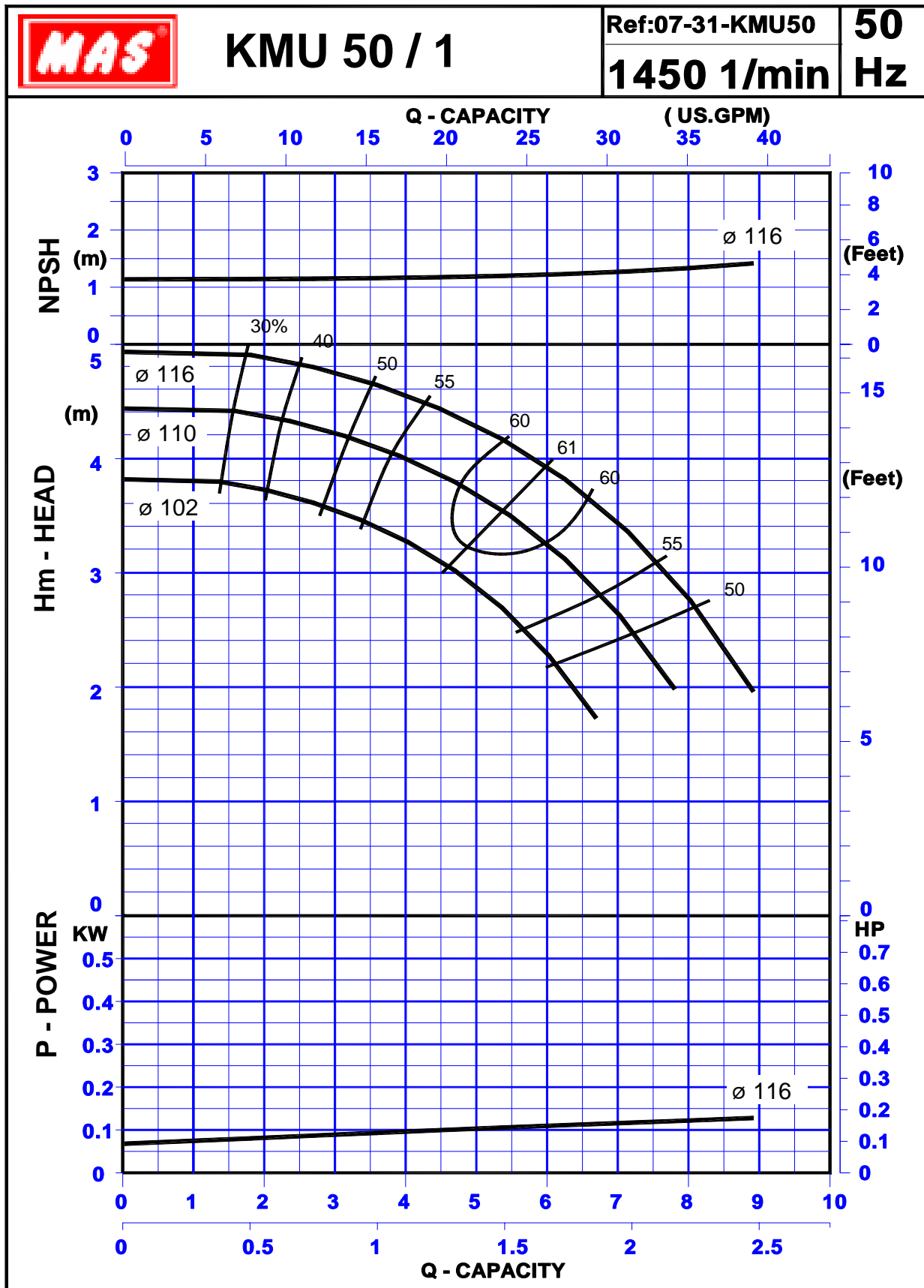


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

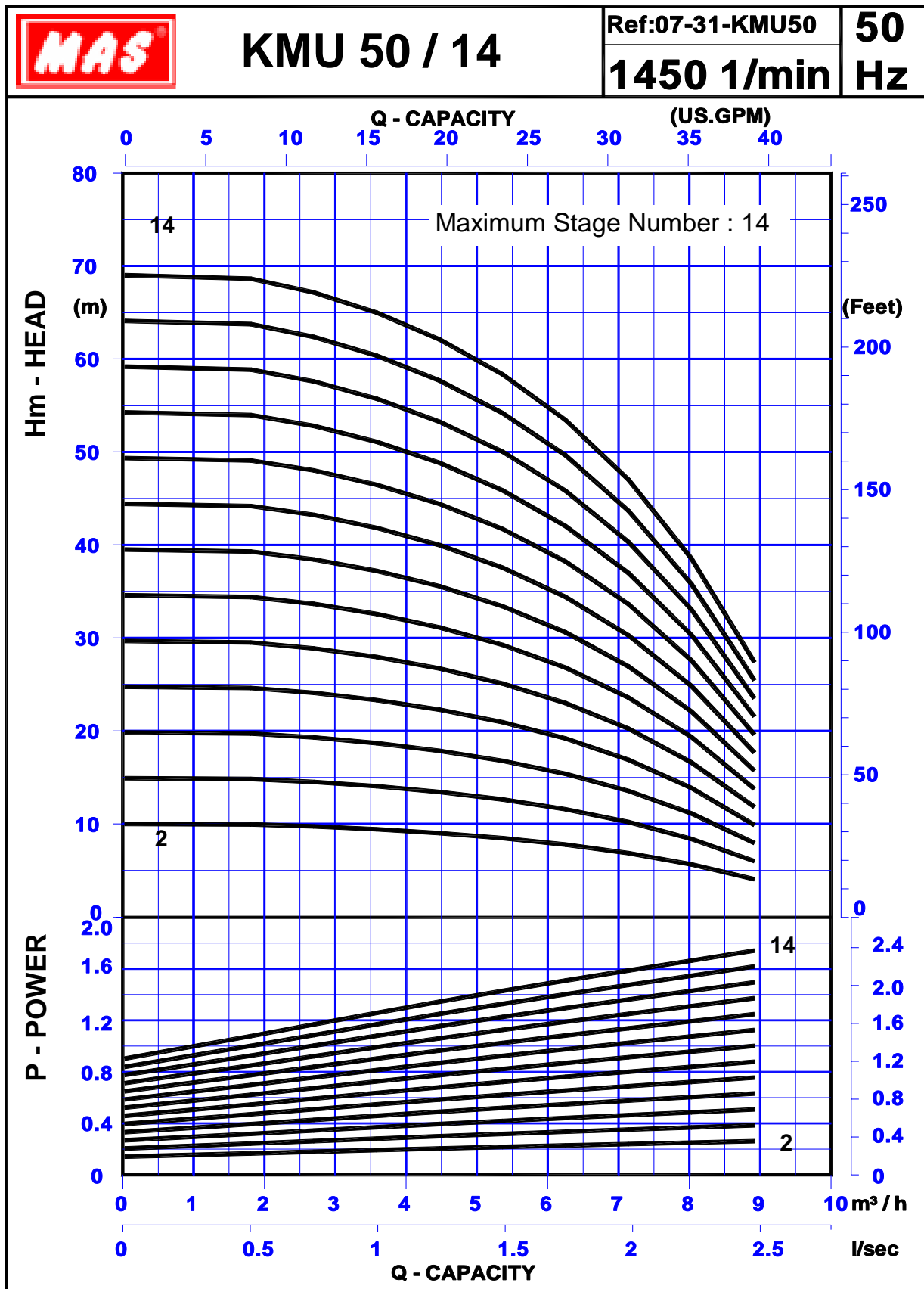
**MAS KMU – High Pressure Multistage Pumps**  
 Stage Performance Curve for KMU 50 – 2900 rpm – 50 Hz



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

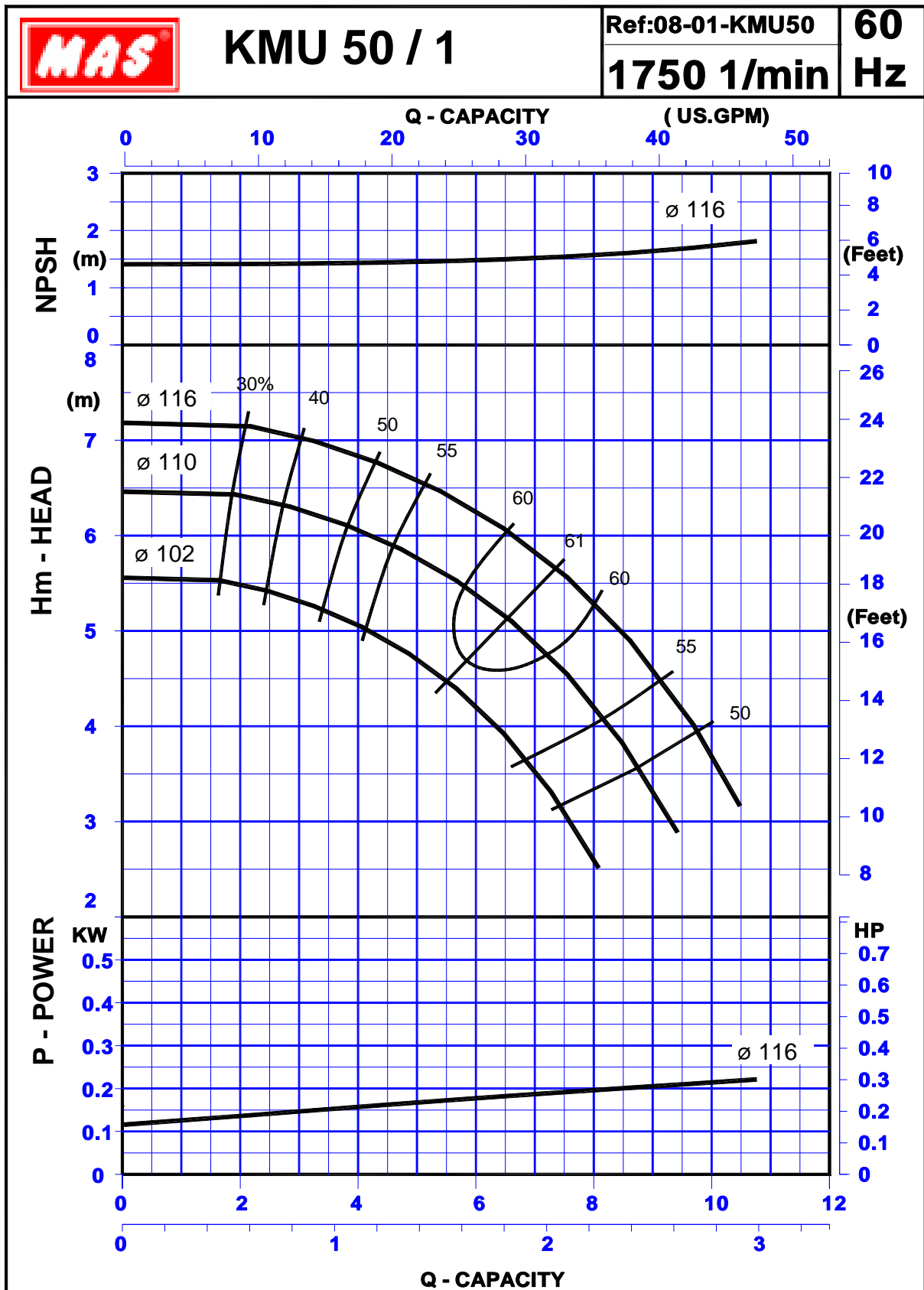


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

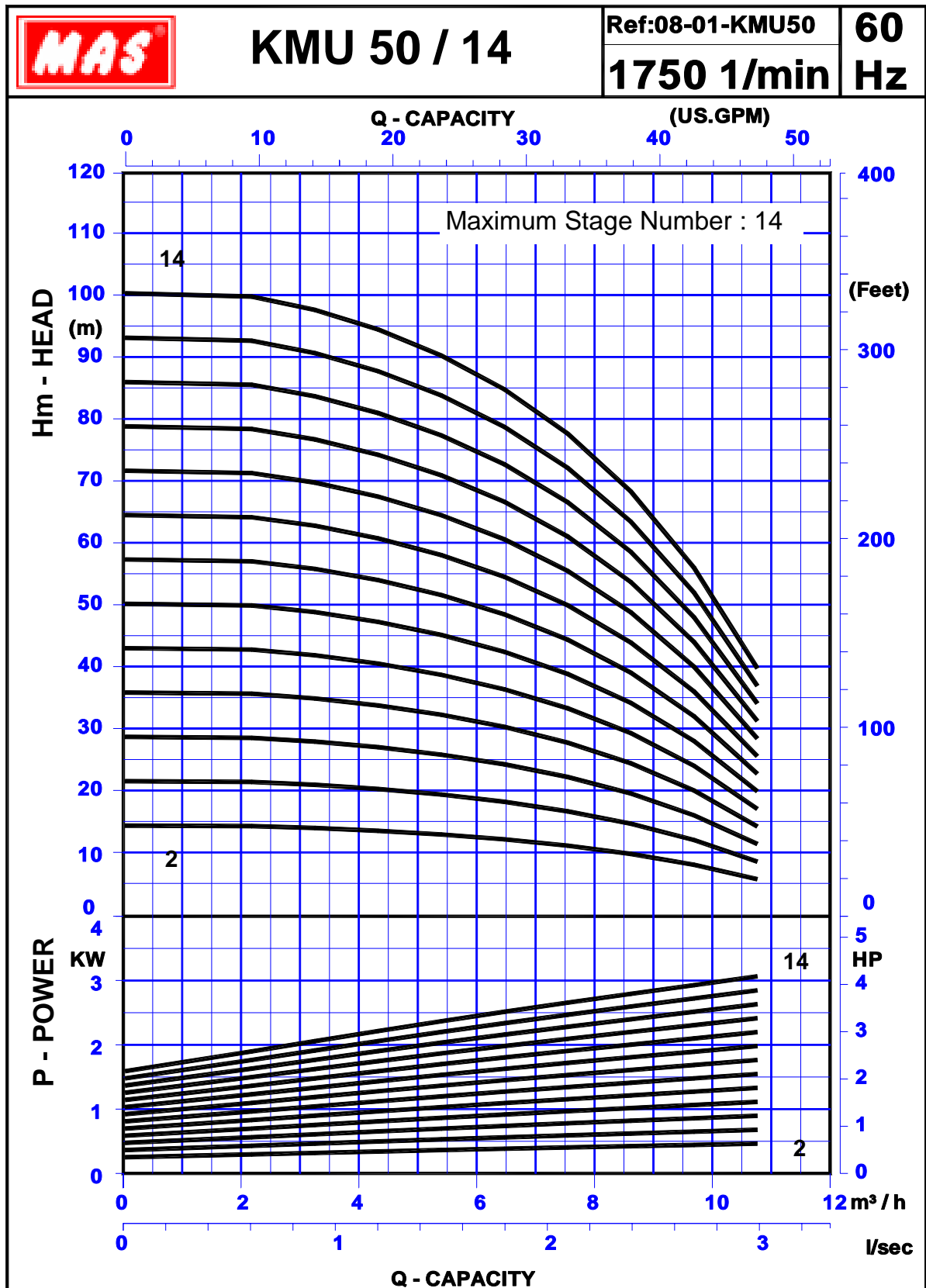


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

MAS KMU – High Pressure Multistage Pumps  
 Performance Curve for KMU 50 – 1750 rpm – 60 Hz

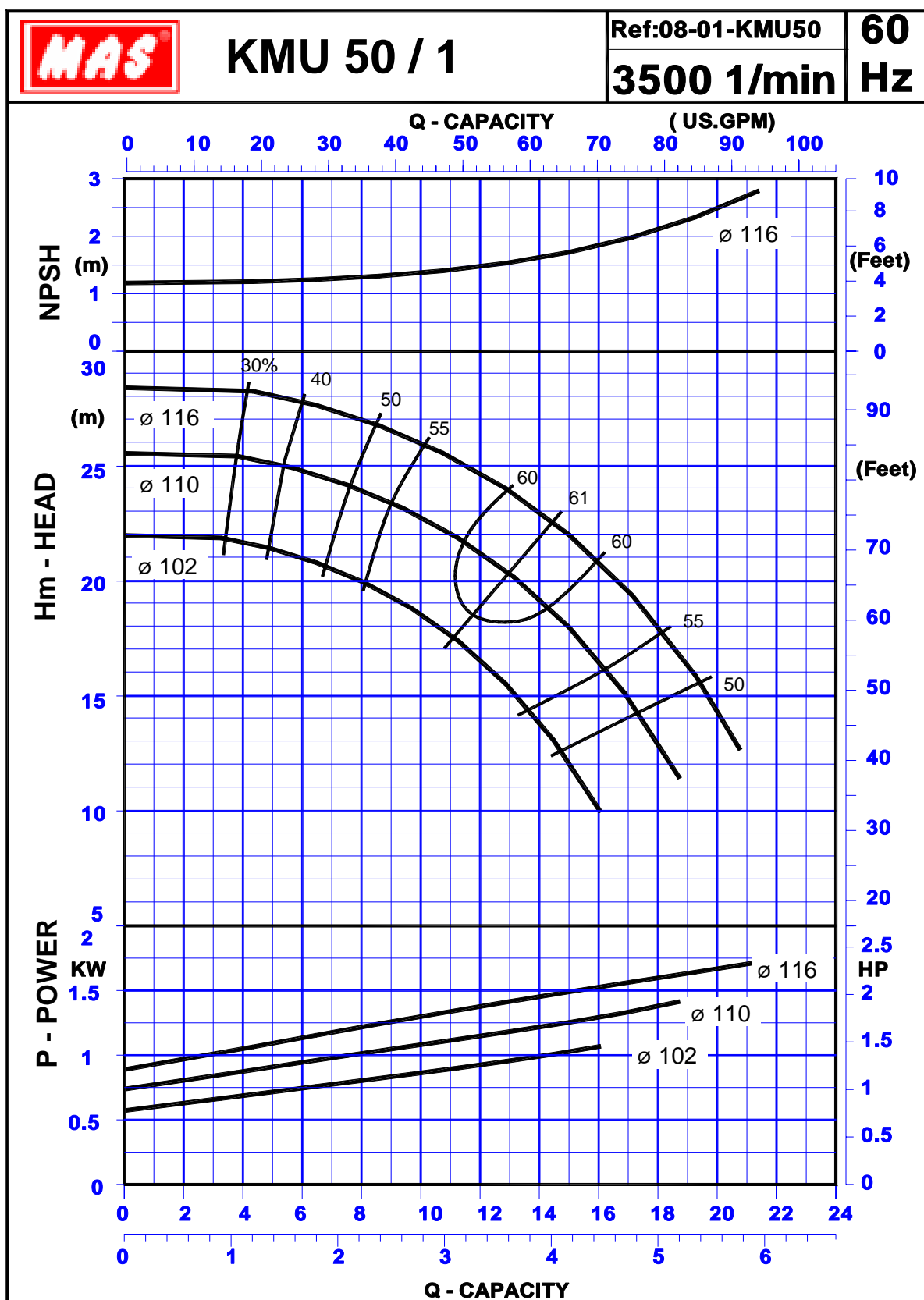


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

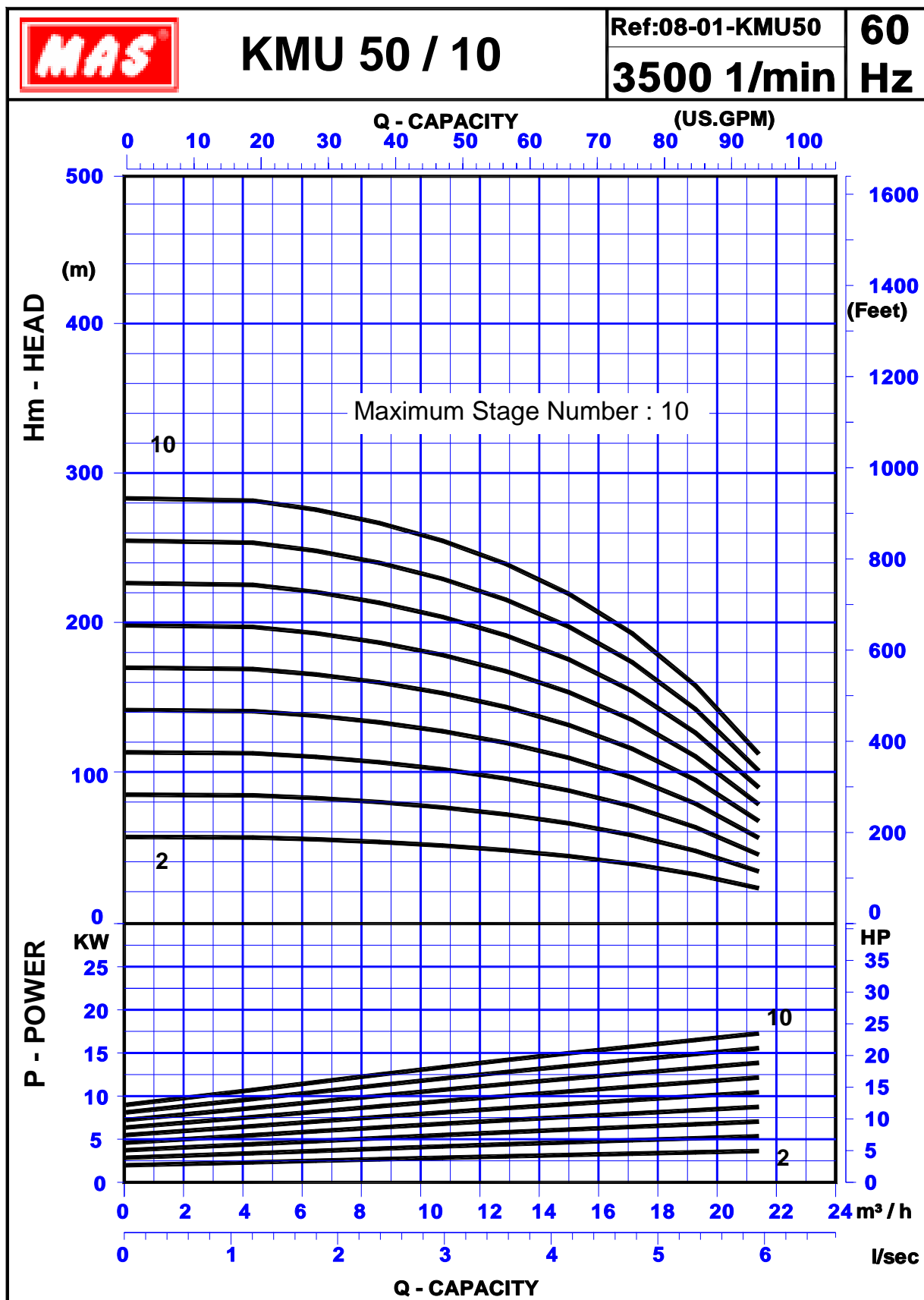


The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.





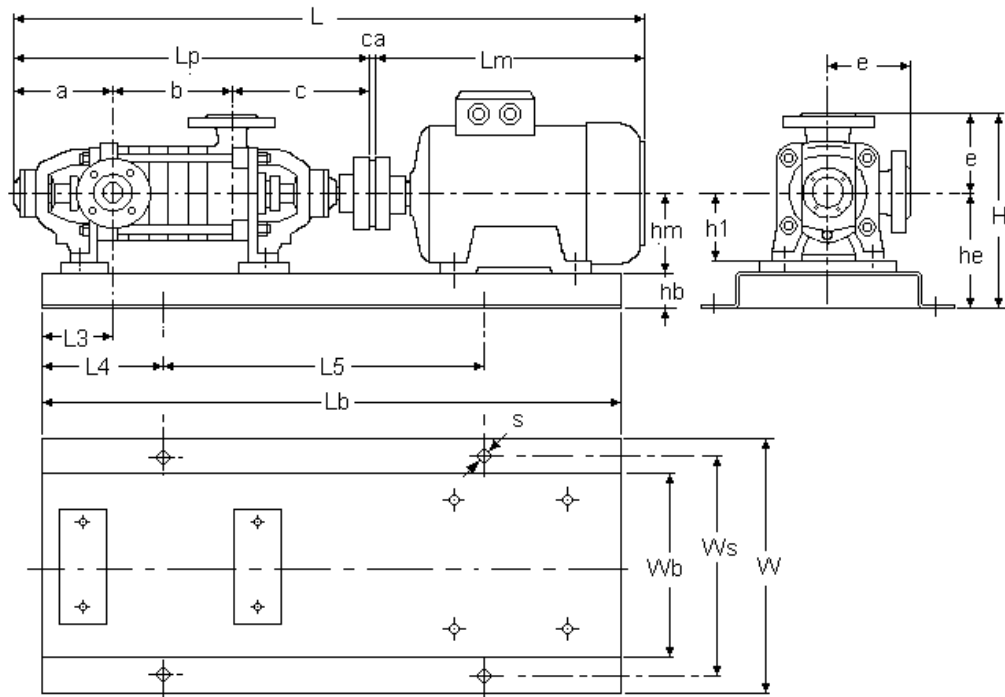
The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.



The performance curves are based on kinematic viscosity 1 mm<sup>2</sup>/s and density 1 g/cm<sup>3</sup>. Tolerances are according to ISO 9906 Annex A.

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 50 – 1450 rpm- 50 Hz

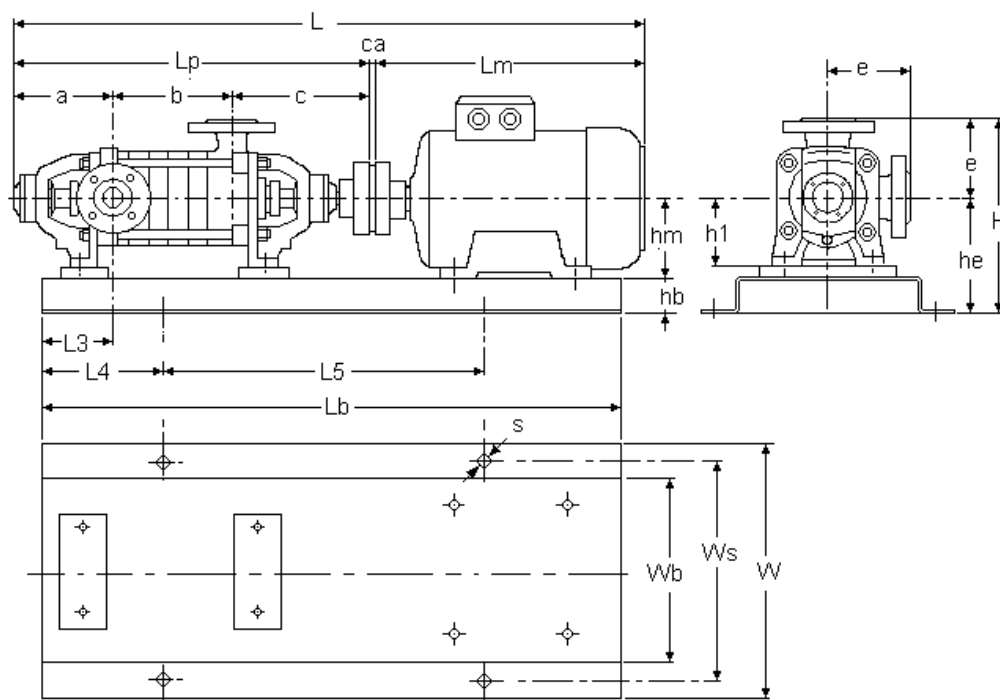


### Dimensions- 1450 RPM – 50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 50/2	0.37	71	247	71	476	16	739	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 50/3	0.55	80	278	80	516	16	810	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 50/4	0.55	80	278	80	556	16	850	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 50/5	0.75	80	278	80	596	16	890	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 50/6	0.75	80	278	80	636	16	930	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 50/7	1.1	90S	308	90	676	16	1000	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 50/8	1.1	90S	308	90	716	16	1040	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 50/9	1.1	90S	308	90	756	16	1080	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 50/10	1.5	90L	333	90	796	16	1145	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/11	1.5	90L	333	90	836	16	1185	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/12	1.5	90L	333	90	876	16	1225	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/13	2.2	100L	375	100	916	16	1307	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 50/14	2.2	100L	375	100	956	16	1347	300	290	1250	210	65	165	88	170	660	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 50 – 2900 rpm- 50 Hz

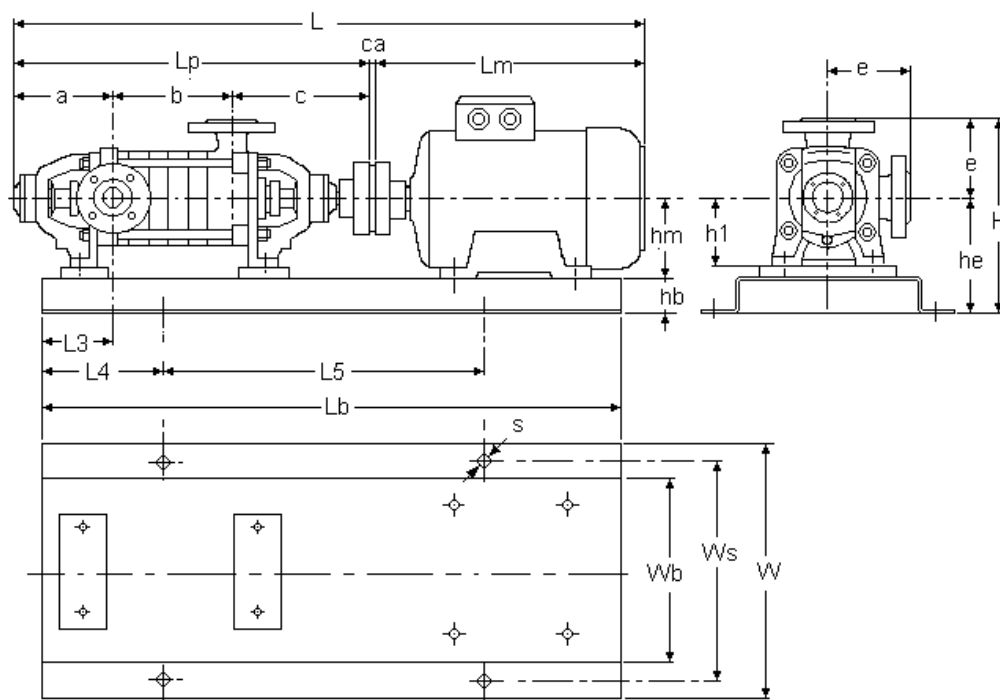


### Dimensions- 2900 RPM – 50 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 50/2	2.2	90L	325	90	476	20	821	300	322	710	210	65	177	95	115	480	260	19	1.02
KMU 50/3	3	100L	365	100	516	20	901	300	322	800	210	65	177	95	130	540	260	19	1.03
KMU 50/4	4	112M	384	112	556	20	960	330	322	900	240	65	177	95	150	600	290	19	2.04
KMU 50/5	5.5	132S	455	132	596	21	1072	360	342	1000	270	65	197	95	170	660	320	19	3.05
KMU 50/6	7.5	132S	455	132	636	21	1112	360	342	1000	270	65	197	95	170	660	320	19	3.05
KMU 50/7	7.5	132S	455	132	676	21	1152	360	342	1000	270	65	197	95	170	660	320	19	3.05
KMU 50/8	11	160M	594	160	716	26	1336	450	385	1250	340	80	240	95	205	840	400	24	5.07
KMU 50/9	11	160M	594	160	756	26	1376	450	385	1250	340	80	240	95	205	840	400	24	5.07
KMU 50/10	11	160M	594	160	796	23	1416	450	385	1250	340	80	240	95	205	840	400	24	5.07
KMU 50/11	15	160M	594	160	836	26	1456	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 50/12	15	160M	594	160	876	26	1496	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 50/13	15	160M	594	160	916	26	1536	450	385	1400	340	80	240	95	230	940	400	24	5.08
KMU 50/14	15	160M	594	160	956	26	1576	450	385	1400	340	80	240	95	230	940	400	24	5.08

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 50 – 1750 rpm- 60 Hz

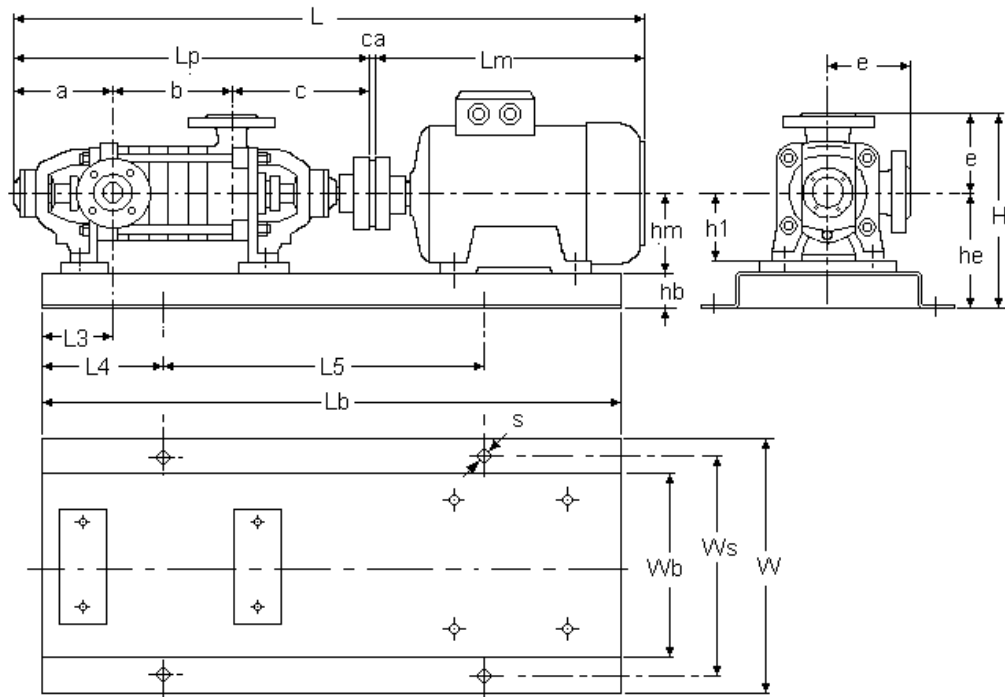


### Dimensions- 1750 RPM – 60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 50/2	0.55	80	278	80	476	16	770	300	290	710	210	65	165	88	115	480	260	19	1.02
KMU 50/3	0.75	80	278	80	516	16	810	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 50/4	1.1	90S	308	90	556	16	880	300	290	800	210	65	165	88	130	540	260	19	1.03
KMU 50/5	1.1	90S	308	90	596	16	920	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 50/6	1.5	90L	333	90	636	16	985	300	290	900	210	65	165	88	150	600	260	19	1.04
KMU 50/7	1.5	90L	333	90	676	16	1025	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 50/8	2.2	100L	375	100	716	16	1107	300	290	1000	210	65	165	88	170	660	260	19	1.05
KMU 50/9	2.2	100L	375	100	756	16	1147	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/10	2.2	100L	375	100	796	16	1187	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/11	2.2	100L	375	100	836	16	1227	300	290	1120	210	65	165	88	170	660	260	19	1.06
KMU 50/12	3	100L	375	100	876	20	1271	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 50/13	3	100L	375	100	916	20	1311	300	290	1250	210	65	165	88	170	660	260	19	1.07
KMU 50/14	3	100L	375	100	956	20	1351	300	290	1250	210	65	165	88	170	660	260	19	1.07

# MAS KMU – High Pressure Multistage Pumps

## Dimension Table for KMU 50 – 3500 rpm- 60 Hz



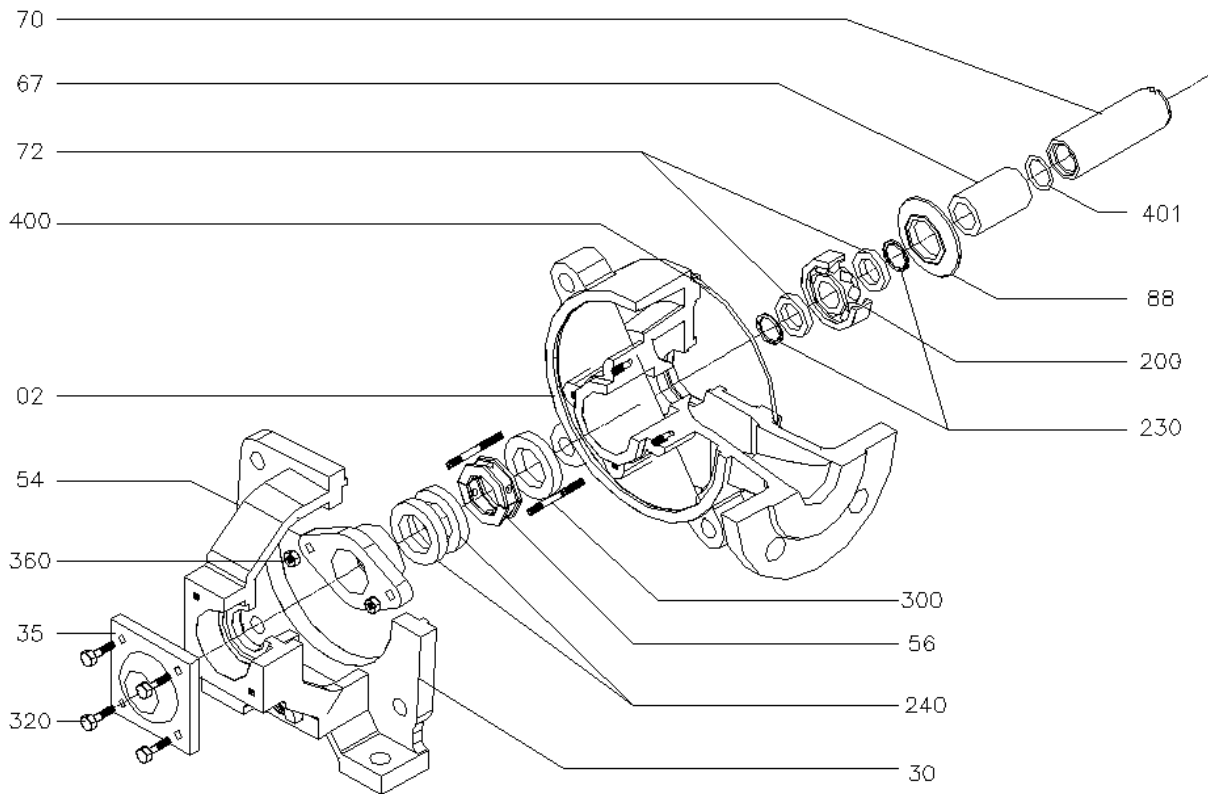
### Dimensions- 3500 RPM – 60 Hz

Pump Type	Motor			Pump		Overall			Foundation Dimension										
	KW	IEC	Lm	hm	Lp	Ca	L	W	H	Lb	Wb	hb	he	L3	L4	L5	Ws	s	No
KMU 50/2	4	112M	384	112	476	20	880	330	322	800	240	65	177	72	130	540	290	19	2.03
KMU 50/3	5.5	132S	455	132	516	21	992	360	342	800	270	65	197	72	130	540	320	19	3.03
KMU 50/4	7.5	132S	455	132	556	21	1032	360	342	900	270	65	197	72	150	600	320	19	3.04
KMU 50/5	11	160M	594	160	596	26	1216	450	385	1120	340	80	240	72	190	740	400	24	5.06
KMU 50/6	11	160M	594	160	636	26	1256	450	385	1120	340	80	240	72	190	740	400	24	5.06
KMU 50/7	15	160M	594	160	676	26	1296	450	385	1120	340	80	240	95	190	740	400	24	5.06
KMU 50/8	15	160M	594	160	716	26	1336	450	385	1250	340	80	240	72	205	840	400	24	5.07
KMU 50/9	15	160M	594	160	756	26	1376	450	385	1250	340	80	240	72	205	840	400	24	5.07
KMU 50/10	18.5	160L	638	160	796	30	1464	450	385	1400	340	80	240	72	230	940	400	24	5.08

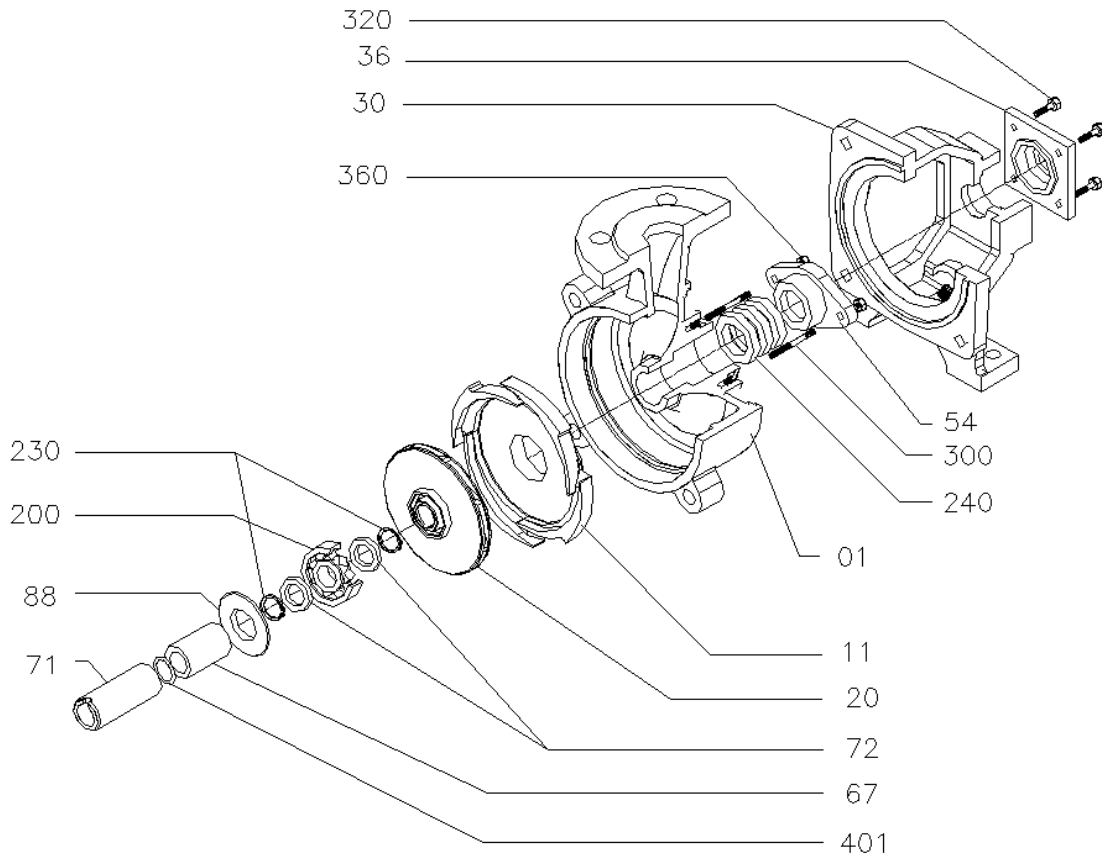
# MAS KMU – High Pressure Multistage Pumps Exploded Drawings



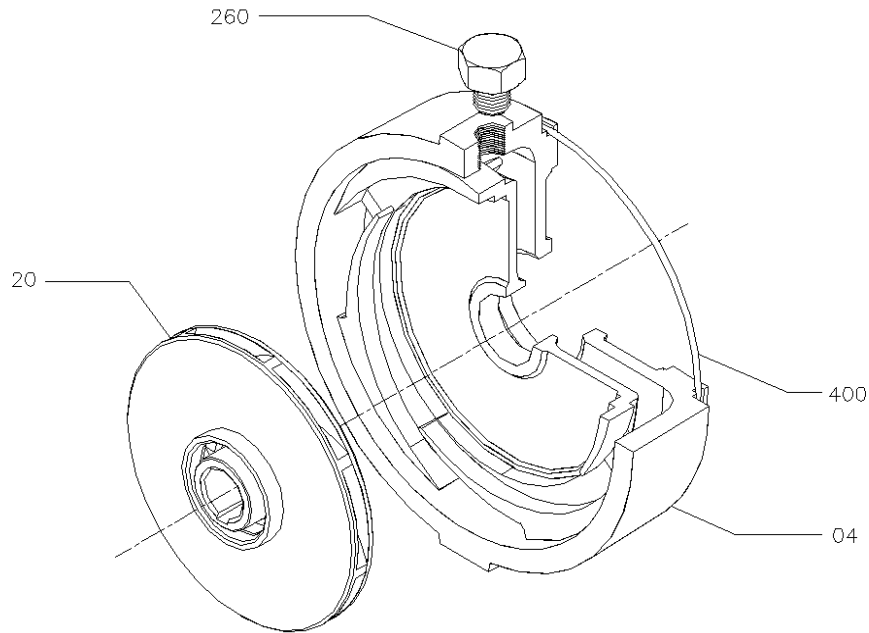
## Suction Side



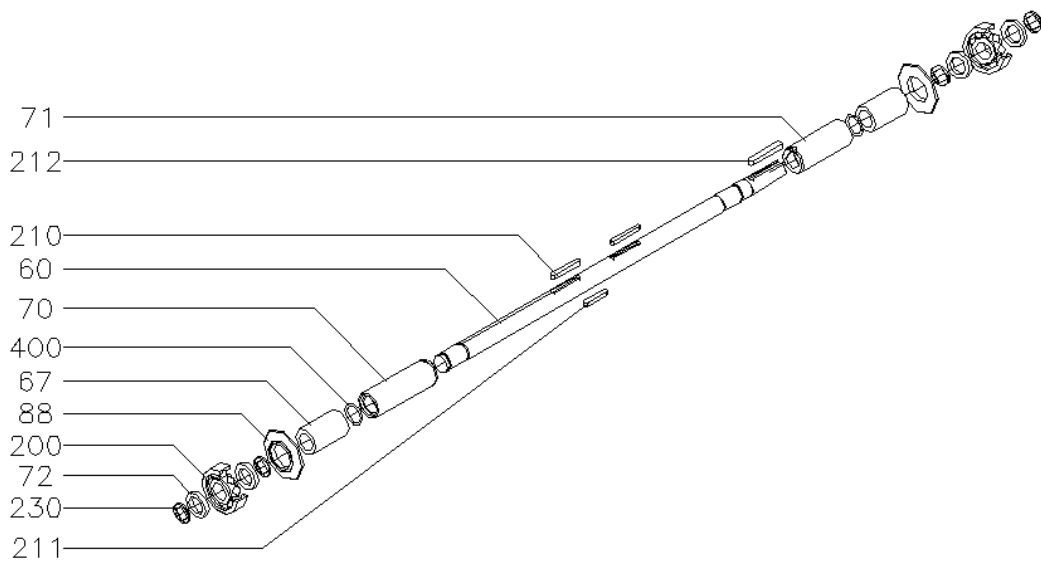
## Discharge Side



**Stage Casing**



**Pump Shaft**



<b>No</b>	<b>No</b>	<b>No</b>
01 Discharge Casing	60 Pump Shaft	230 Ring
02 Suction Casing	67 Space Sleeve	240 Soft Packing
04 Stage Casing	70 Seal Sleeve, Suction	260 Pipe Plug
11 Last Stage Diffuser	71 Seal Sleeve, Discharge	300 Gland Stud
20 Impeller	72 Ring	320 Hex Bolt
30 Bearing Housing	88 Thrower	360 Gland Nut
35 Bearing Cover, Suction Side	200 Roller Bearing	400 O-Ring, Stage Casing
36 Bearing Cover, Discharge Side	210 Key, First & Last Impeller	401 O-Ring, Seal Sleeve
54 Gland	211 Key, Standard Impeller	
56 Lantern Ring	212 Coupling Key	



# MAS KMU – High Pressure Multistage Pumps

## Exploded Drawings

