

High Pressure Horizontal Multistage Centrifugal Pumps

## KMU SERIES (60 Hz)



## TECHNICAL MANUAL



# KMU Series

## High Pressure Horizontal Multistage Centrifugal Pumps

### General Specifications



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### 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 2 up to max. 14 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

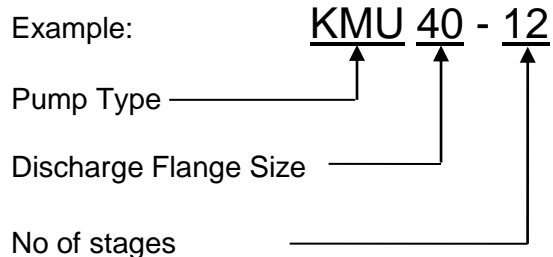
Pumps are supplied as standard soft packing. Lantern ring on suction side for water sealing and lubricating of packing. Sealing section of pump shaft are protected by Stainless Steel (1.4021/AISI 420) sleeves.

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

### Technical Data

- Suction Flange..... : DN 25...DN 50 (PN 40) (DIN 2535)
- Discharge Flange..... : DN 25...DN 50 (PN 40) (DIN 2535)
- Operating Pressure..... : 25 Bar
- No of Stages..... : 3-18
- Capacity Range..... : 1-16 m³ / h
- Head Range.... : 10-280 m
- Temp. Range..... : -10..110°C; Mech. Seal : -10..90°C; Soft Packing
- Speed up to..... : 3600 rpm

### Identification Code for Pump



# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

## Sectional Drawing and Part List (Soft Packing Design)



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### ATEX Codification

ATEX -95

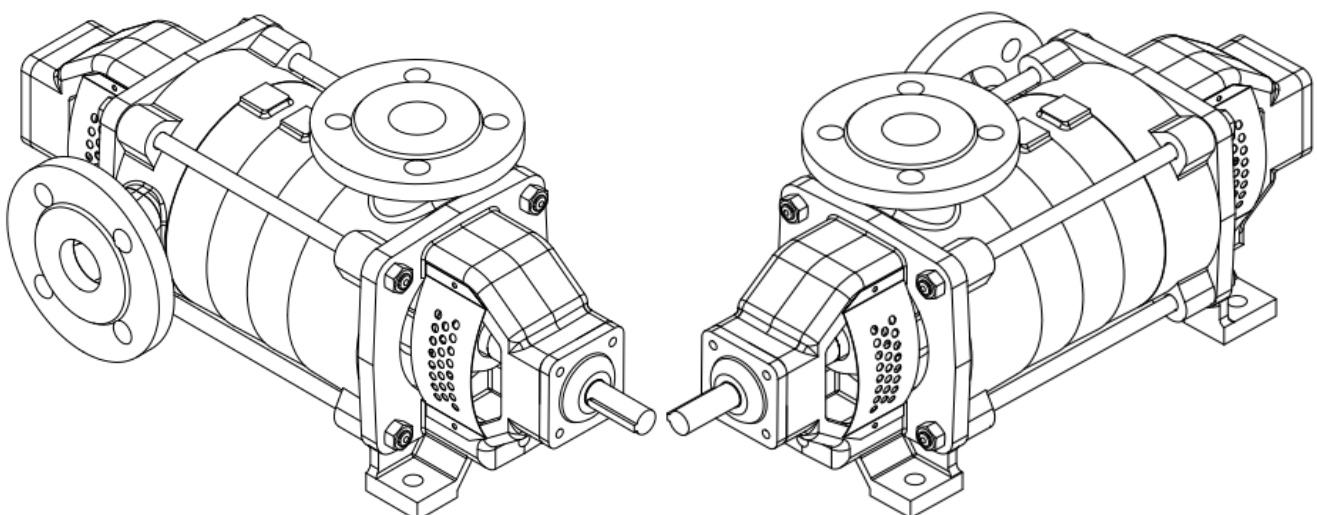


II 2G /D c Tx (85 °C – 200 °C)

Equipment Groups (Annex I of Directive 94/9/EC)							
Group I (mines, mine gas and dust)		Group II (other explosive atmospheres gas/dust)					
Category M 1	Category M 2	Category 1		Category 2		Category 3	
		G (gas) (Zone 0)	D (dust) (Zone 20)	G (gas) (Zone 1)	D (dust) (Zone 21)	G (gas) (Zone 2)	D (dust) (Zone 22)
For equipment providing a very high level of protection when endangered by an explosive atmosphere	For equipment providing a high level of protection when likely to be endangered by an explosive atmosphere	For equipment providing a very high level of protection when used in areas where an explosive atmosphere is very likely to occur		For equipment providing a high level of protection when used in areas where an explosive atmosphere is likely to occur		For equipment providing a normal level of protection when used in areas where an explosive atmosphere is less likely to occur	

TEMPERATURE CLASS		
Temperature class required by the area classification	Ignition temperature of gas or vapor	Allowable temperature classes of equipment
T1	> 450 °C	T1 - T6
T2	> 300 °C	T2 - T6
T3	> 200 °C	T3 - T6
T4	> 135 °C	T4 - T6
T5	> 100 °C	T5 - T6
T6	> 85 °C	T6

Code	Description
II	The Usage in other non-mining explosive atmospheres
2	2. Category: High level of protection
G	For potentially explosive environments due to gases or vapors
T	Temperature class
X	ATEX Marking of the motor manufacturer



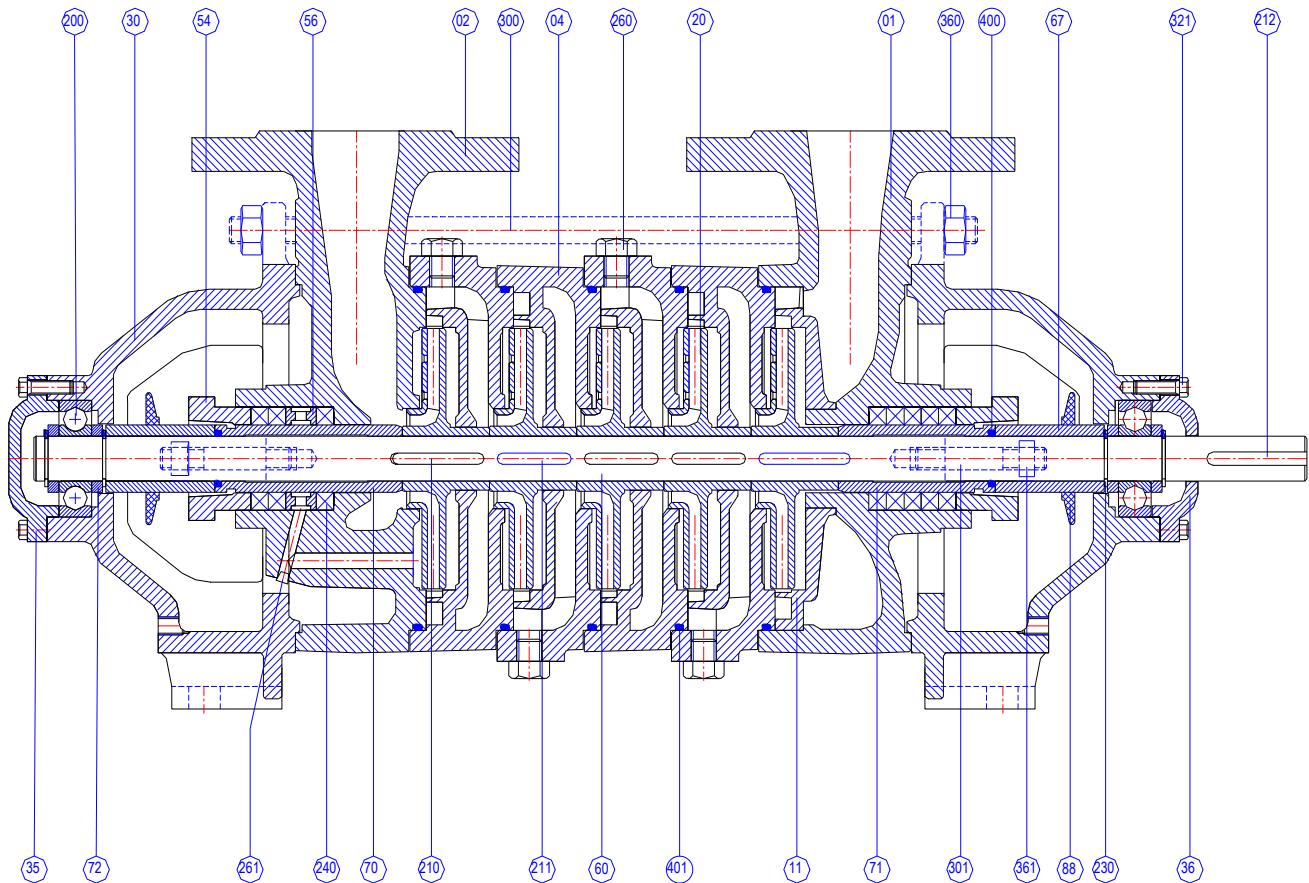
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

## Sectional Drawing and Part List (Soft Packing Design)



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### 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	

# KMU Series

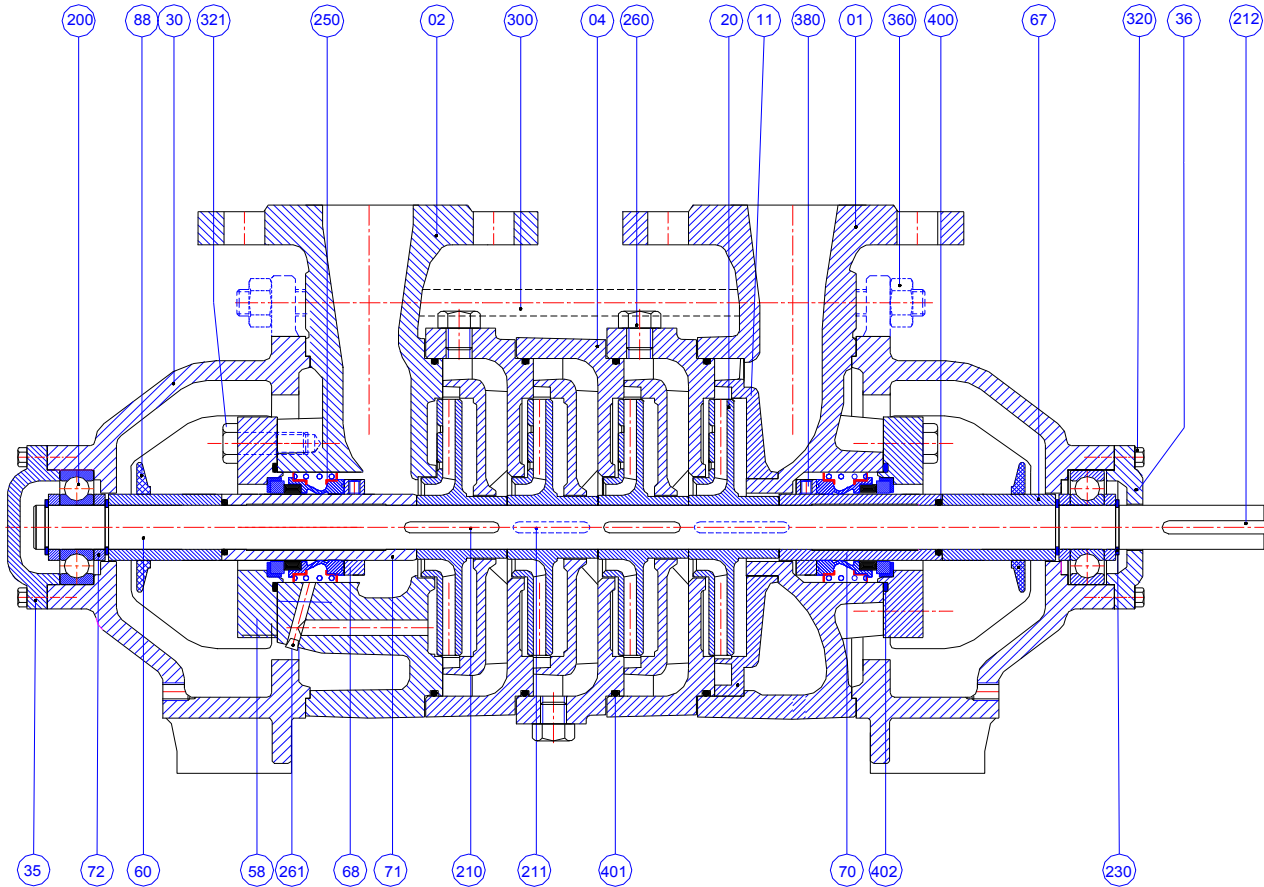
High Pressure Horizontal Multistage Centrifugal Pumps

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



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



### PART LIST

<b>No</b>	<b>No</b>	<b>No</b>
01 Discharge Casing	68 Mech. Seal Back Ring	250 Mechanical Seal
02 Suction Casing	70 Seal Sleeve, Discharge	260 Pipe Plug
04 Stage Casing	71 Seal Sleeve, Suction	261 Special Plug
11 Last Stage Diffuser	72 Ring For Roller Bearing	300 Stud For Casing
20 Impeller	88 Thrower	320 Hex Bolt
30 Bearing Housing	200 Roller Bearing	321 Hex Bolt
35 Bearing Cover, Suction Side	210 Key, First & Last Impeller	360 Nut
36 Bearing Cover, Discharge Side	211 Key, Standard Impeller	400 O-Ring, Seal Sleeve
60 Pump Shaft	212 Coupling Key	401 O-Ring, Stage Casing
67 Space Sleeve	230 Ring	402 O-Ring, Mech. Seal Cover

Options	Suction	Discharge
Mechanical Seal	MG1	MG1
	MG1	H12N
	H12N	H12N

# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

## Technical Data



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### Material Options

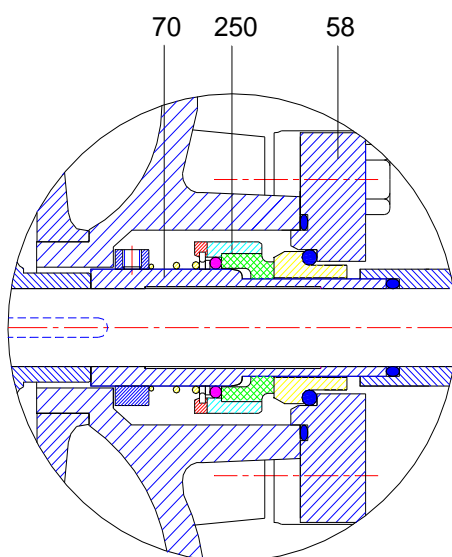
Components	Material. No						
		0.6025 GG 25	0.7040 GGG 40	2.1050.01 Bronz	1.4021 AISI 420	1.4301 AISI 304	1.4401 AISI 316
Suction & Discharge Casing		●	○	○		○	○
Stage Casing		●	○	○		○	○
Impeller		○	○	●		○	○
Last Stage Diffuser		●	○	○		○	○
Shaft					●	○	○
Shaft Sleeve					●	○	○
Mech. Seal Cover		●	○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

● - Standard Delivery  
○ - Optional

### Material Equivalent

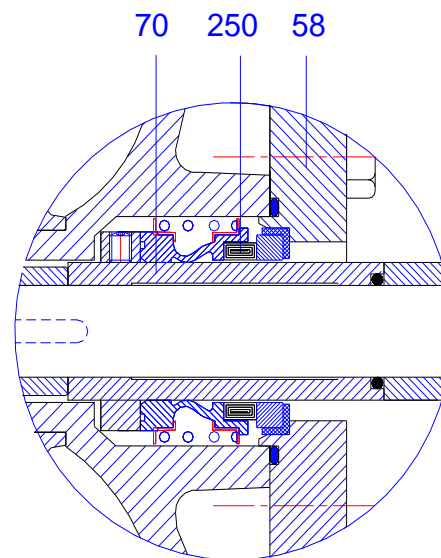
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG40)	A 536 Gr.60-40-18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel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

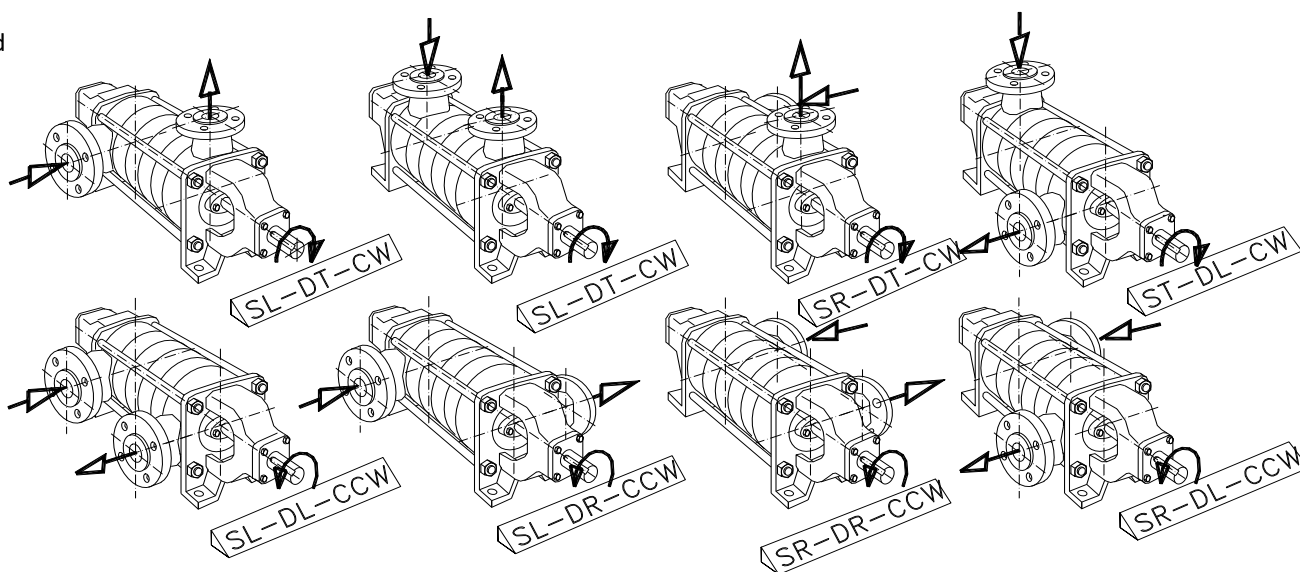
Pump Type	KMU 25	KMU 32	KMU 40	KMU 50
Suction Side	3 Soft Packing Ø30-(8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring	3 Soft Packing Ø30- (8x8) + 1 Lantern Ring
Discharge Side	5 Soft Packing (8x8)	5 Soft Packing (8x8)	5 Soft Packing (8x8)	5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

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High Pressure Horizontal Multistage Centrifugal Pumps

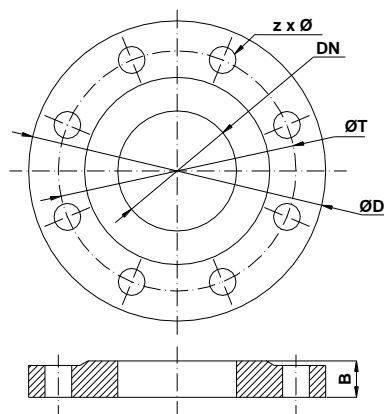
## Technical Data



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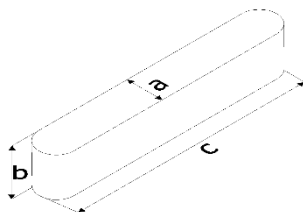
### Flange Dimensions (PN 40)

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



Pump Type	PN 40	
	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

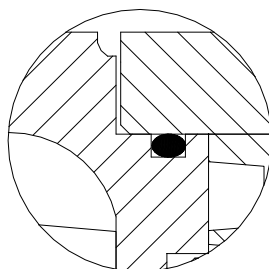
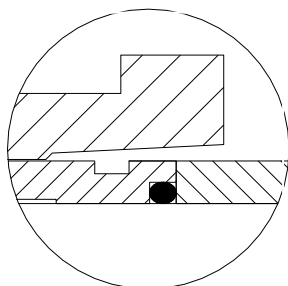
### Key Dimensions (DIN 6885-A)



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

i: Stage Number

### O-Ring Dimensions

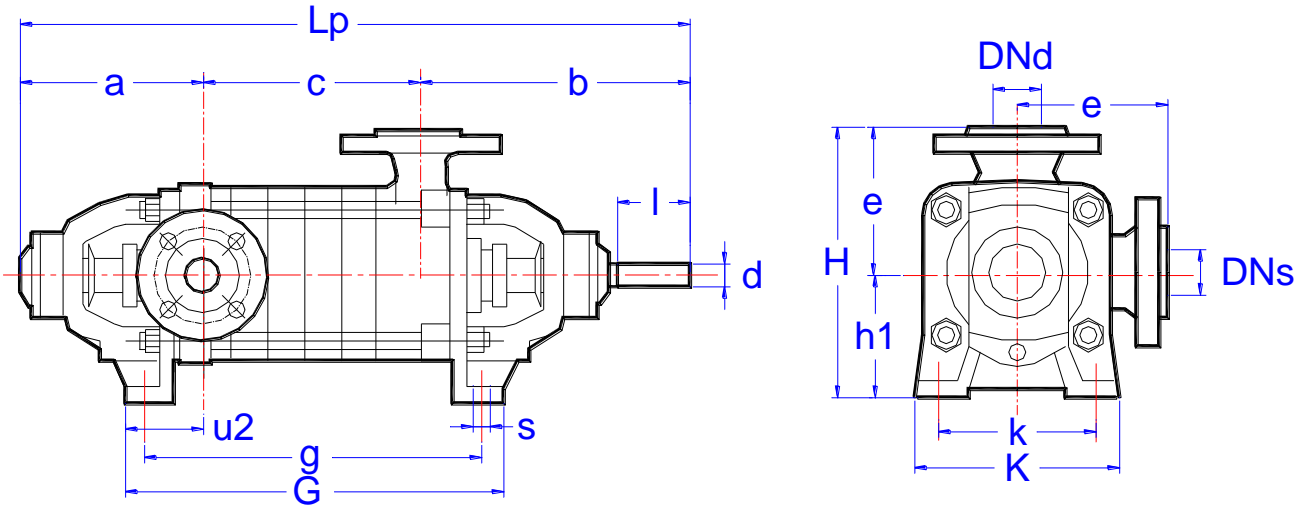


Seal Sleeve O-Ring

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





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**

Pompa Tipi	2	3	4	5	6	7	8	9	10	11	12	13	14
KMU 25	95	127	159	191	223	255	287	319	351	383	415	447	479
KMU 32	95	127	159	191	223	255	287	319	351	383	415	447	479
KMU 40	106	146	186	226	266	306	346	386	426	466	506	546	
KMU 50	106	146	186	226	266	306	346	386	426	466	506	546	

**Min. And Max. Stage Numbers for 3500 rpm**

Pump Type	Stage Number	
	Min.	Max.
KMU 25	2	14
KMU 32	2	14
KMU 40	2	13
KMU 50	2	13

# KMU Series

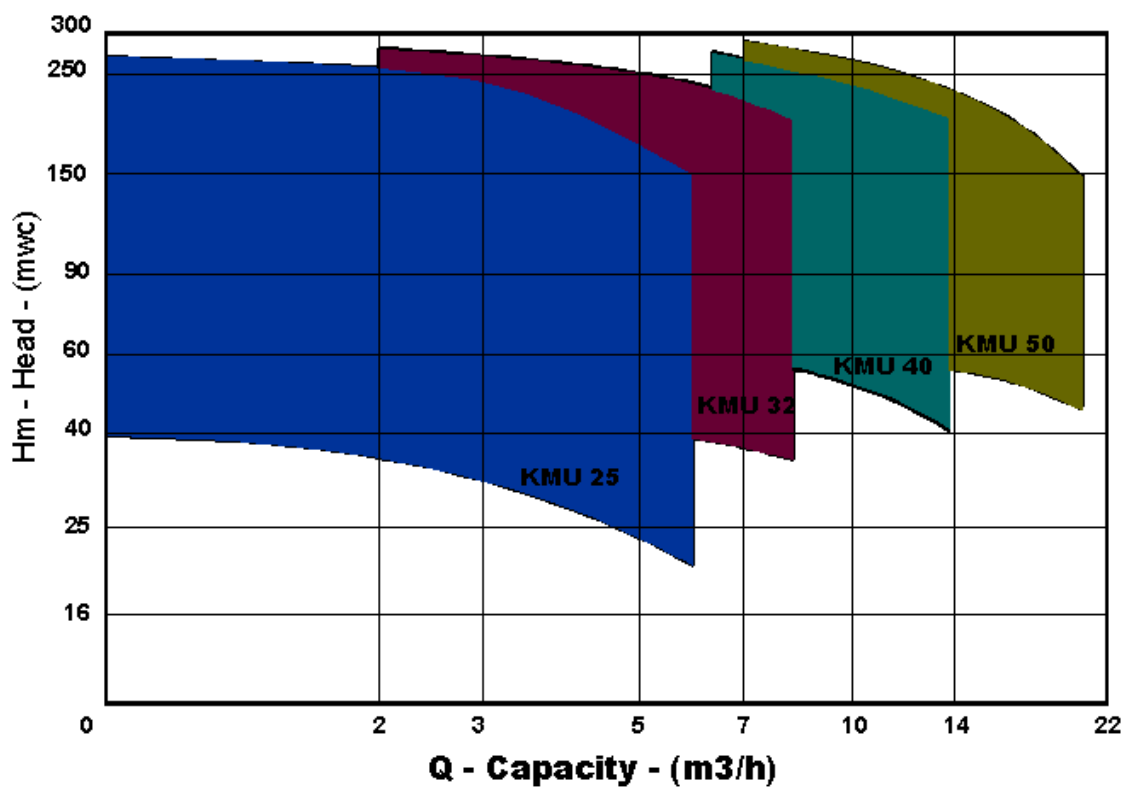
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Range



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60 Hz – 3500 RPM



# KMU Series

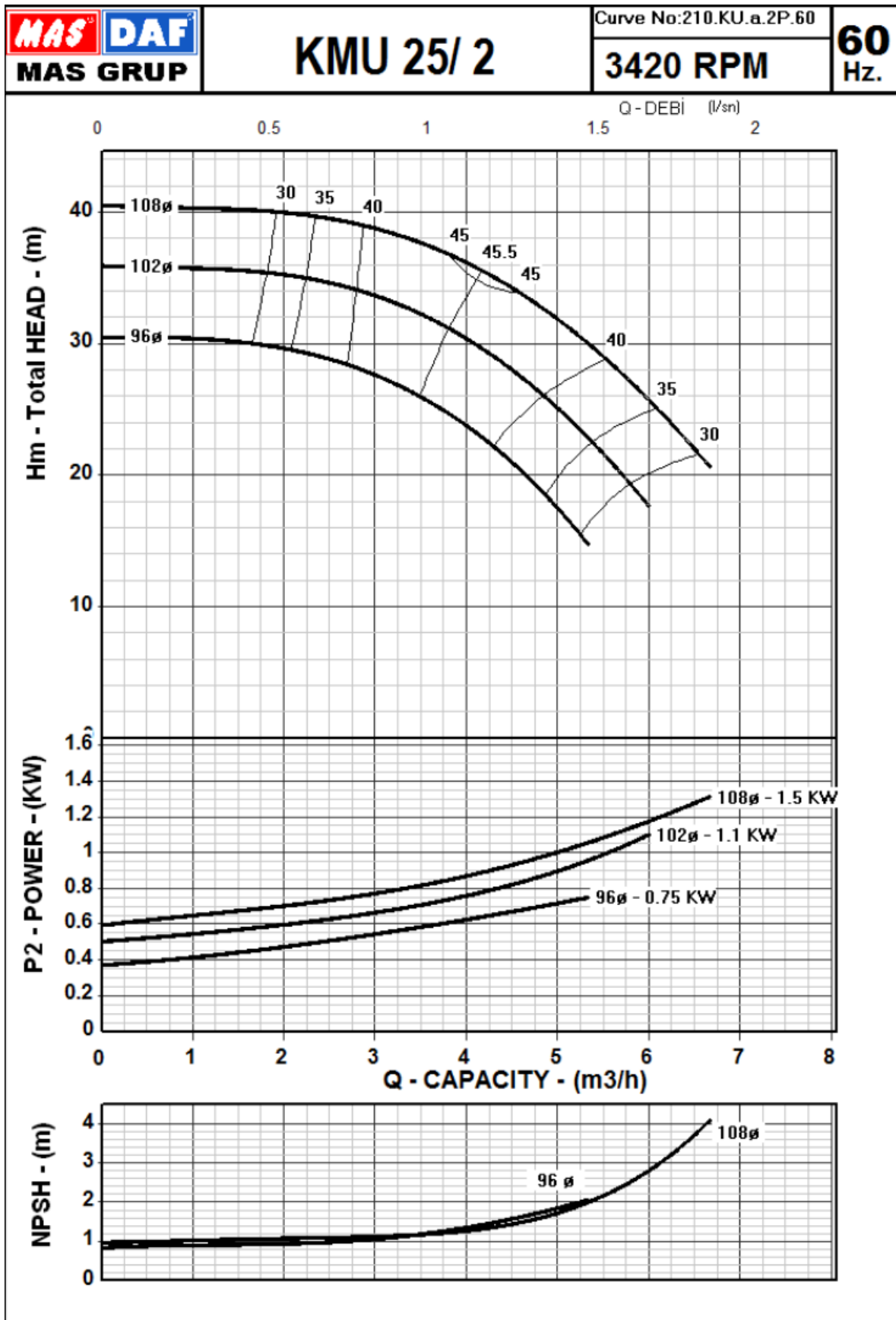
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/2 3500 RPM



Mas Grup



# KMU Series

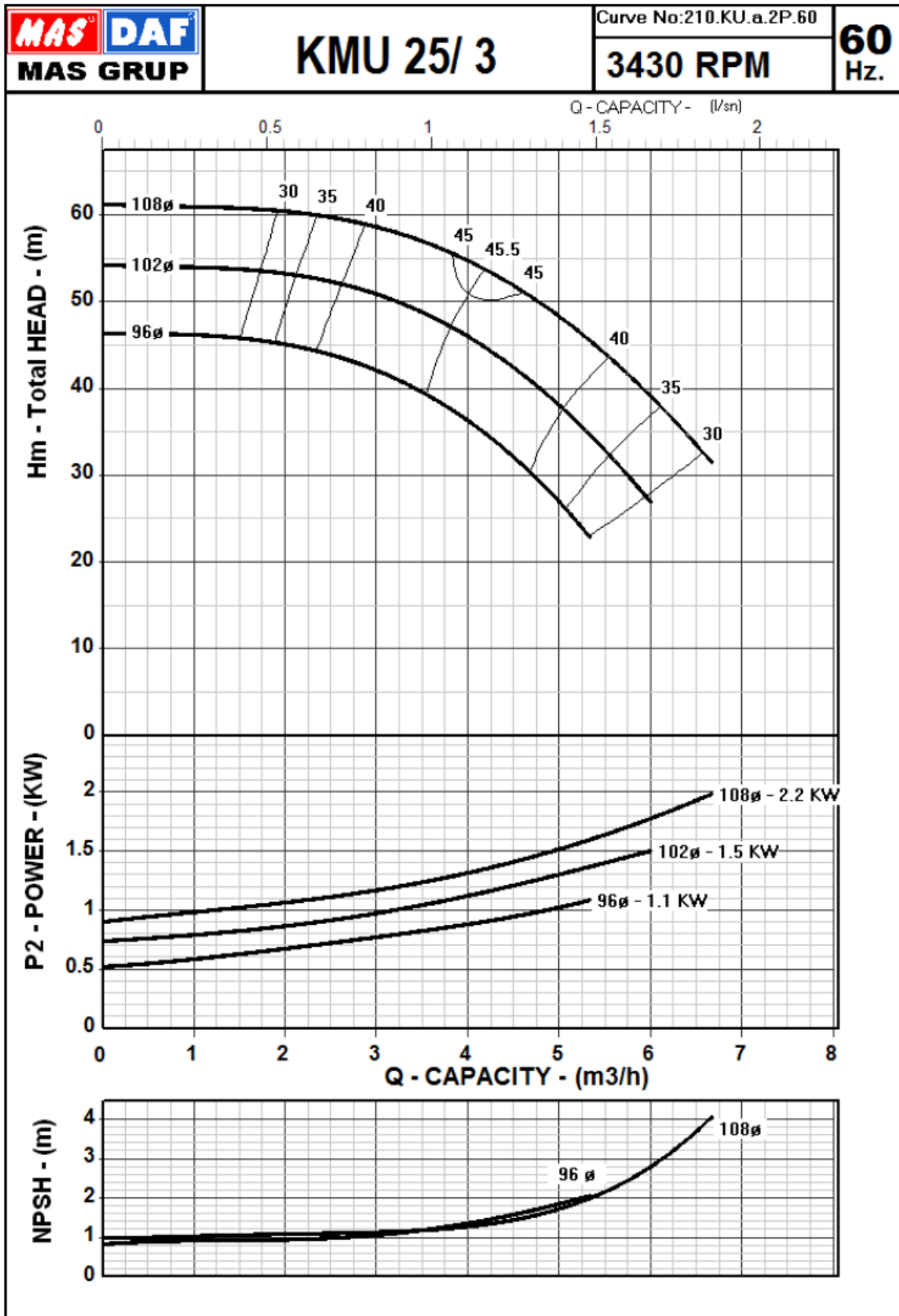
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/3 3500 RPM



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# KMU Series

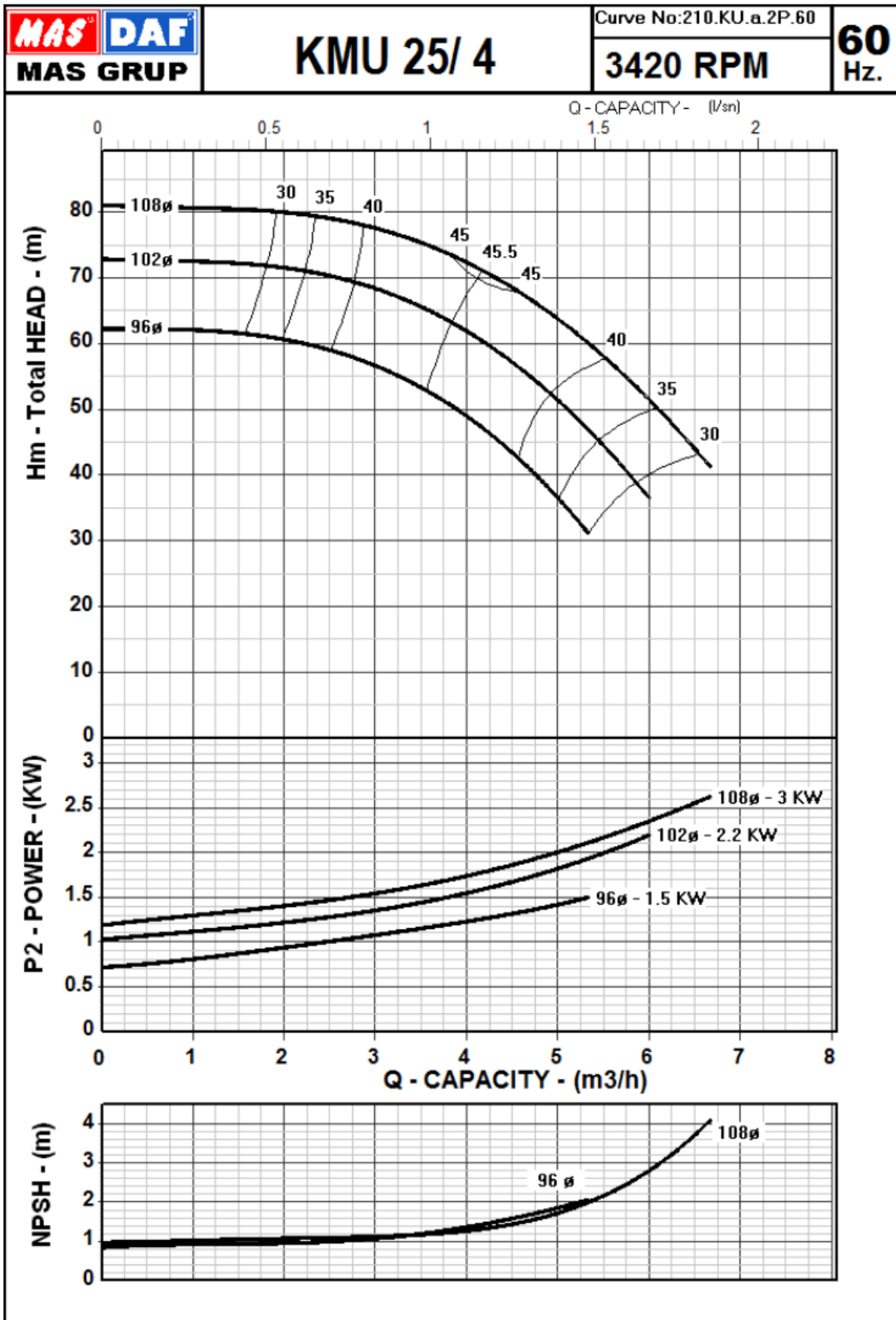
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/5 3500 RPM



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# KMU Series

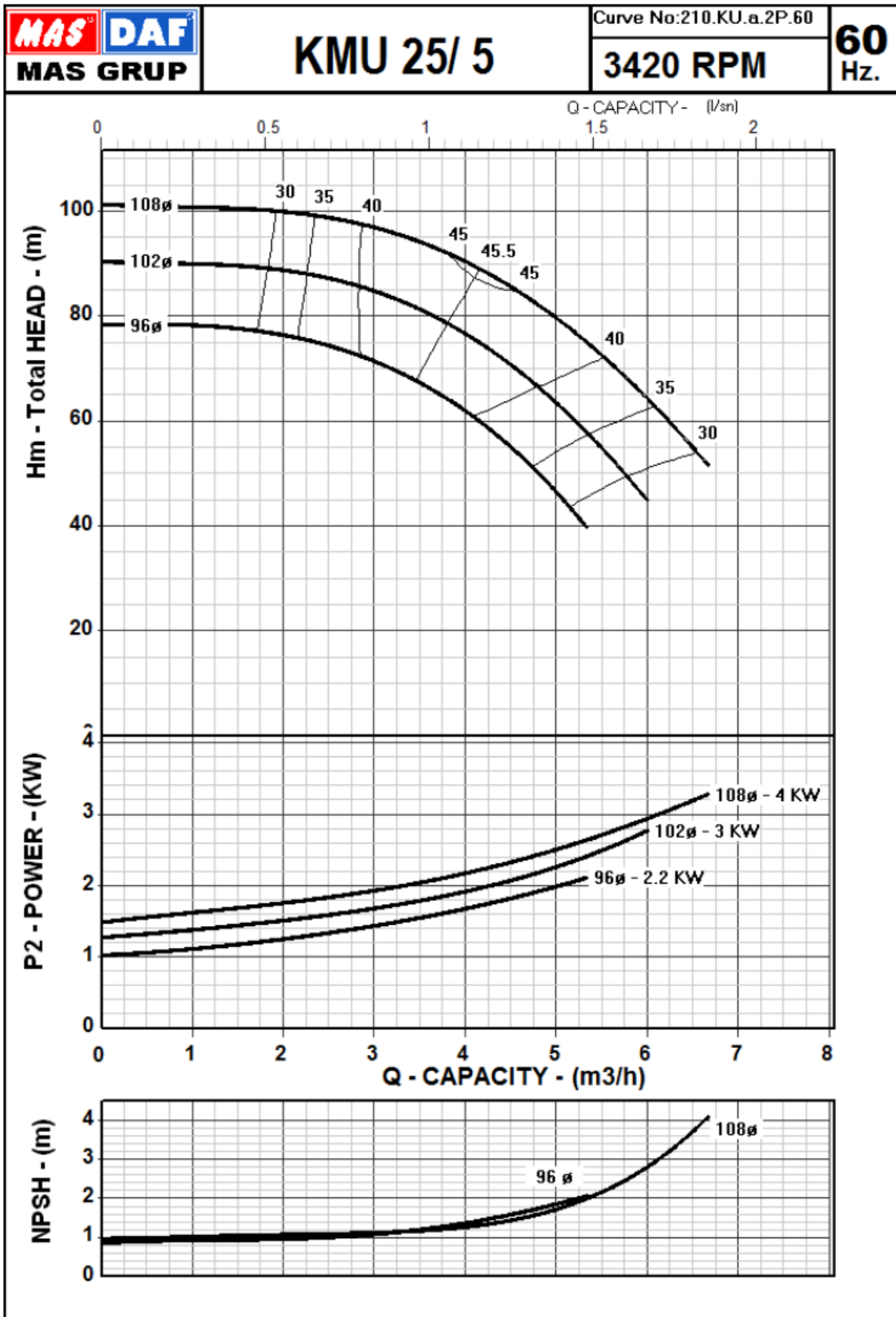
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/5 3500 RPM



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# KMU Series

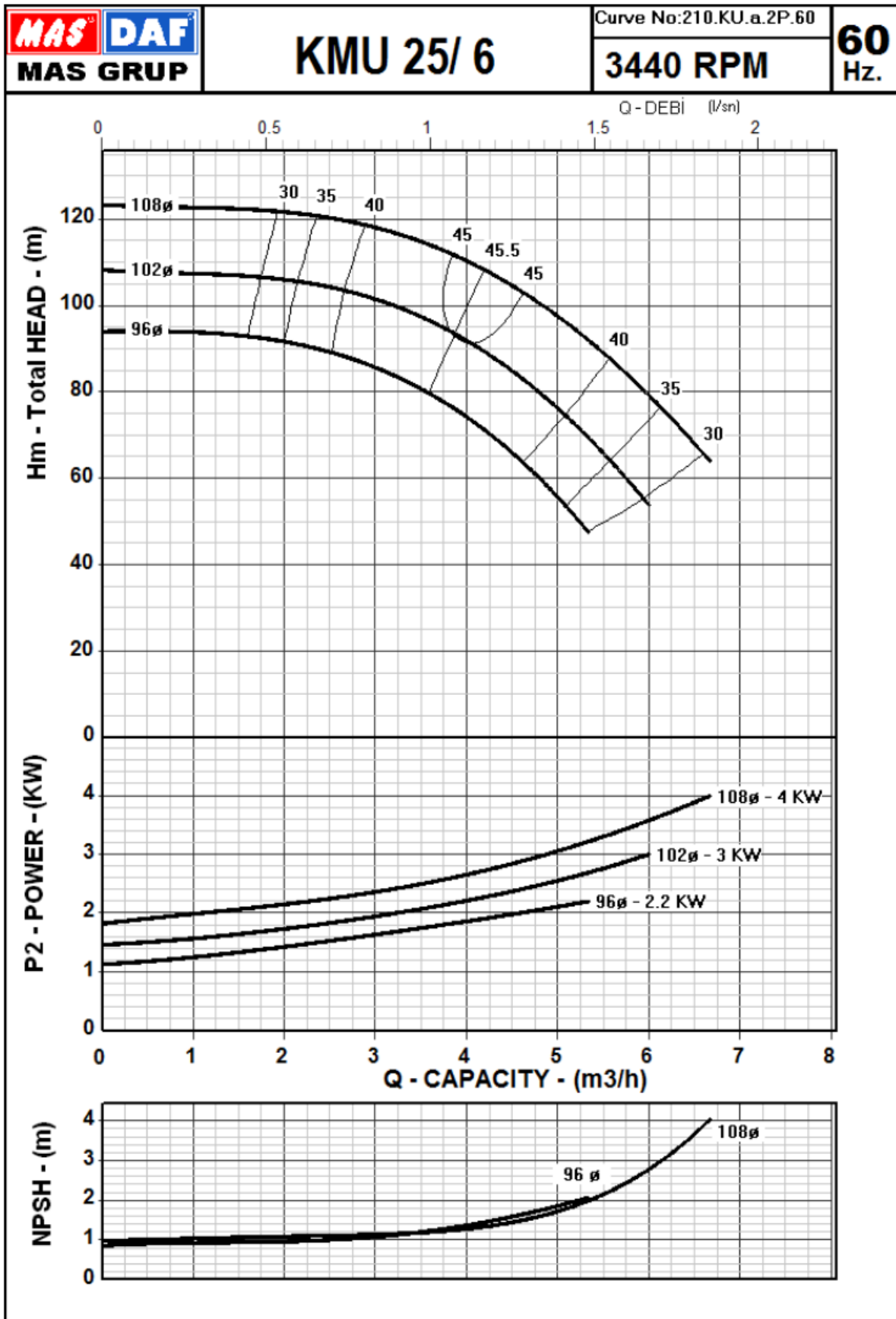
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/6 3500 RPM



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# KMU Series

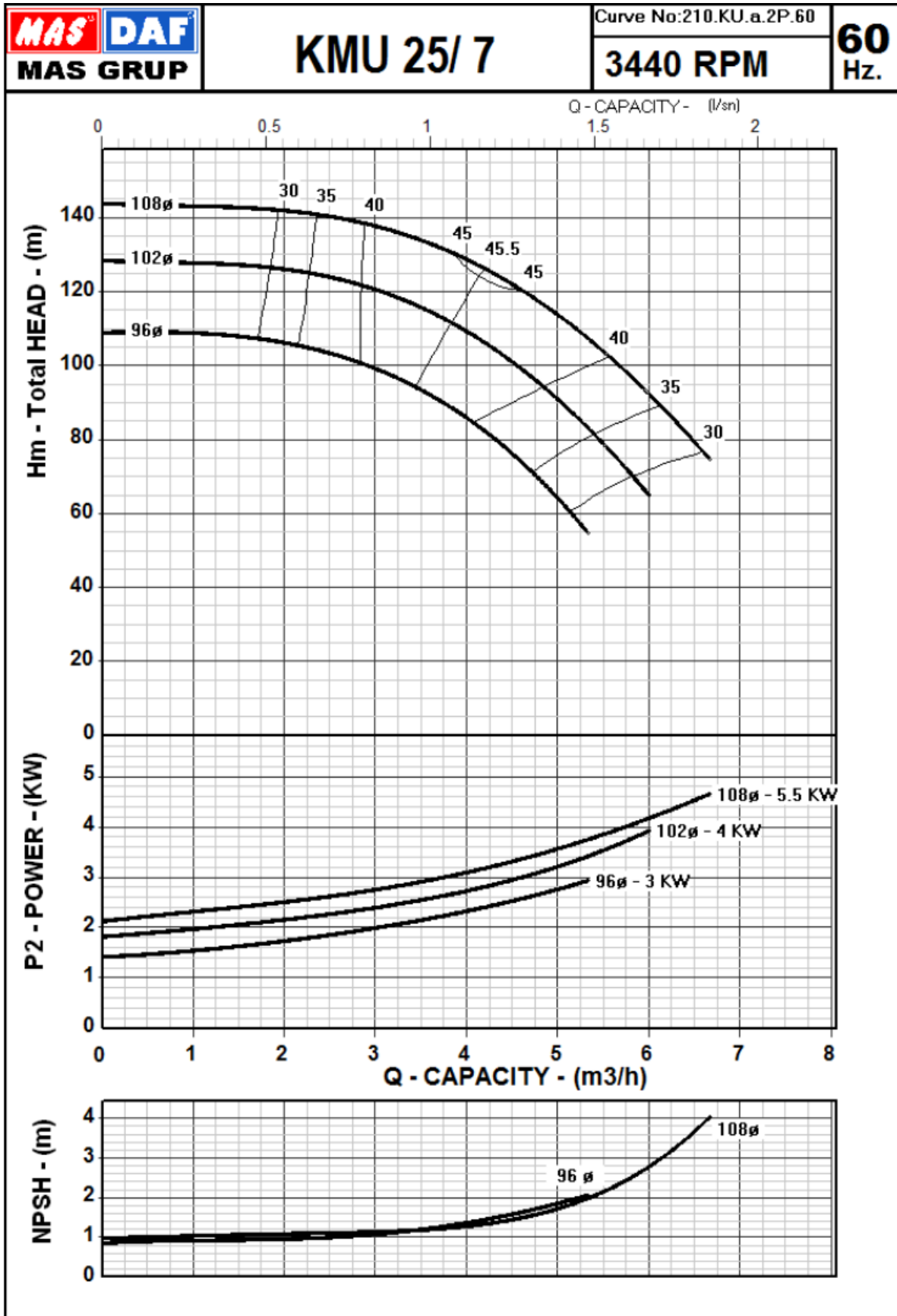
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/7 3500 RPM



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# KMU Series

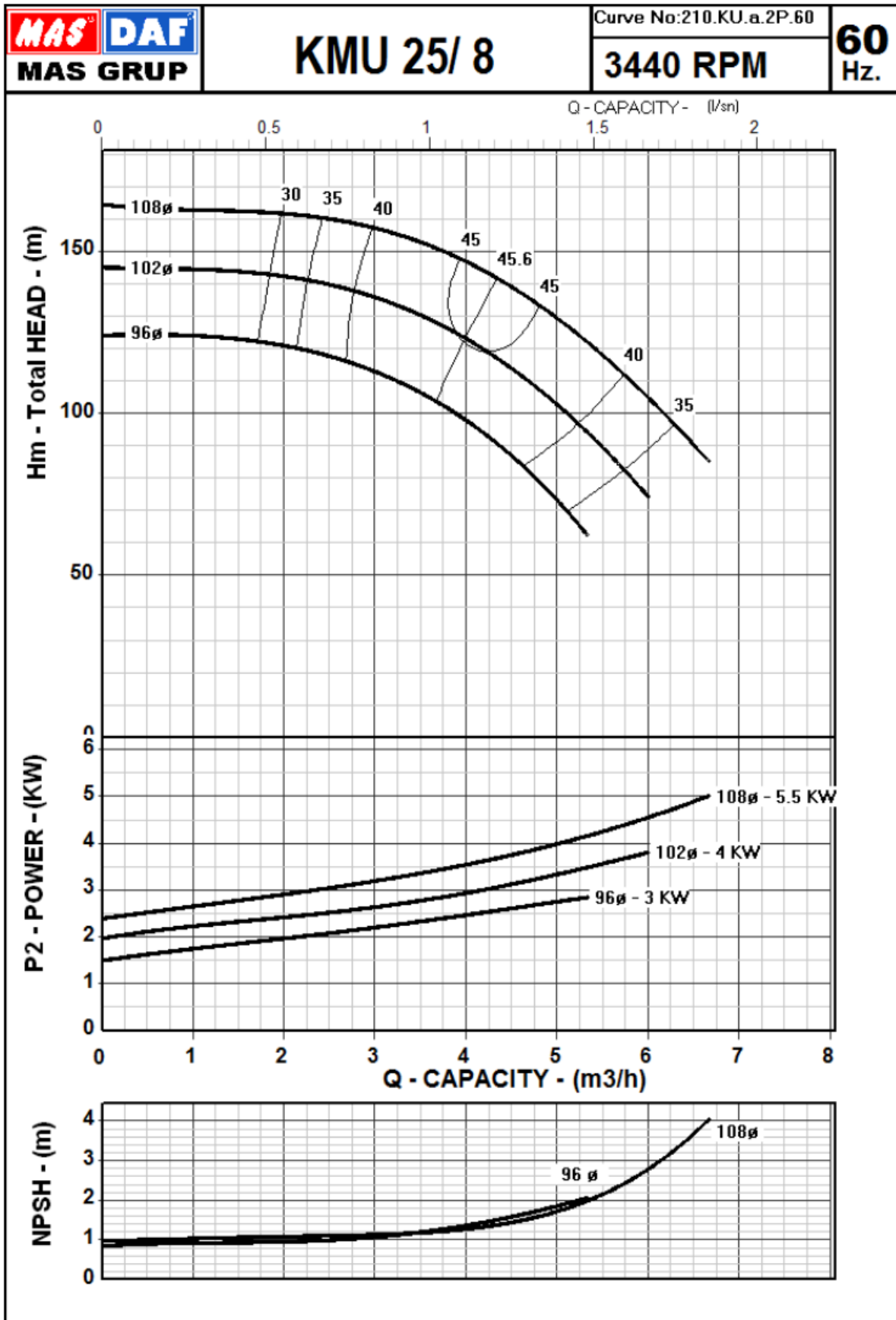
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/8 3500 RPM



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# KMU Series

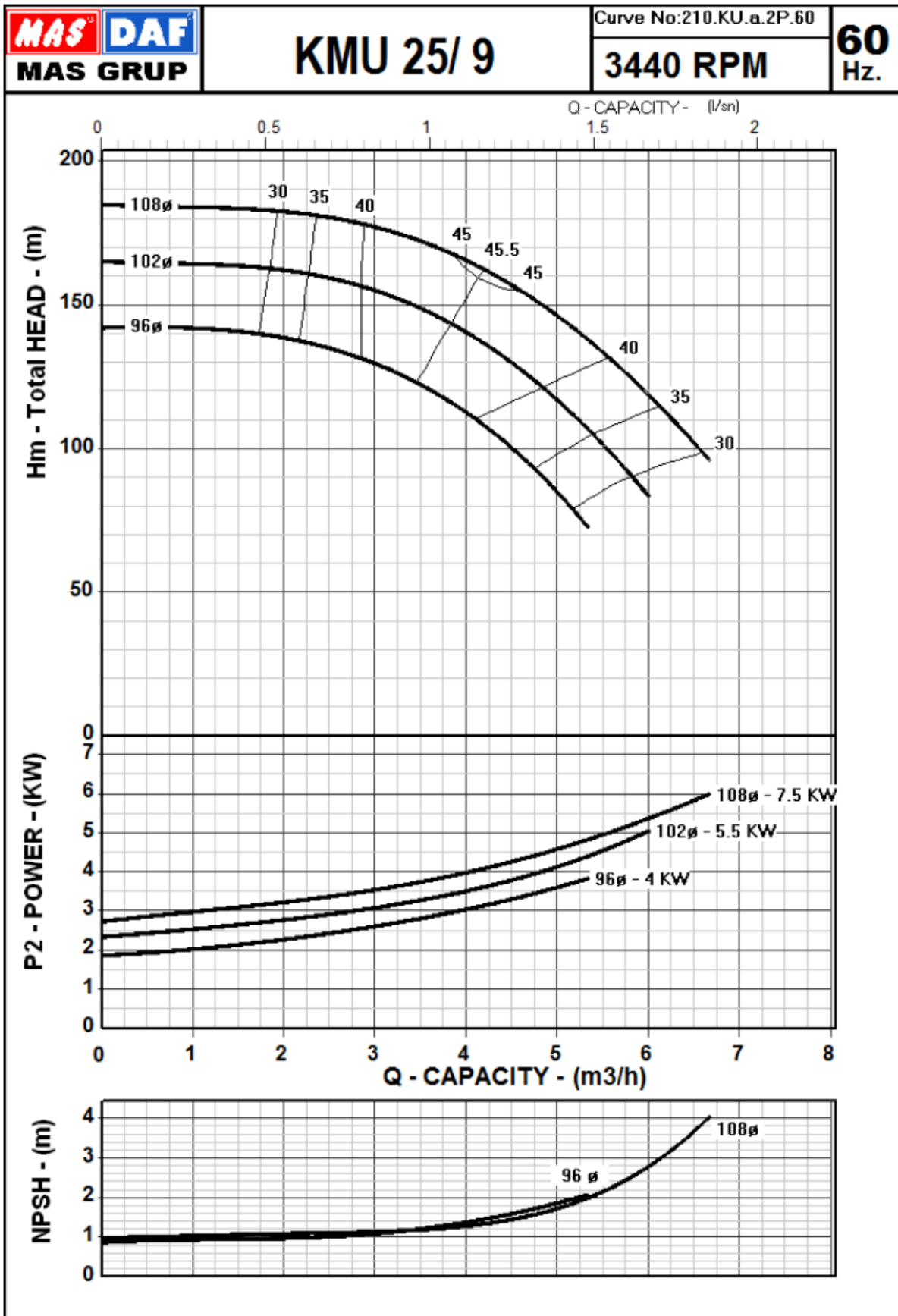
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/9 3500 RPM



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# KMU Series

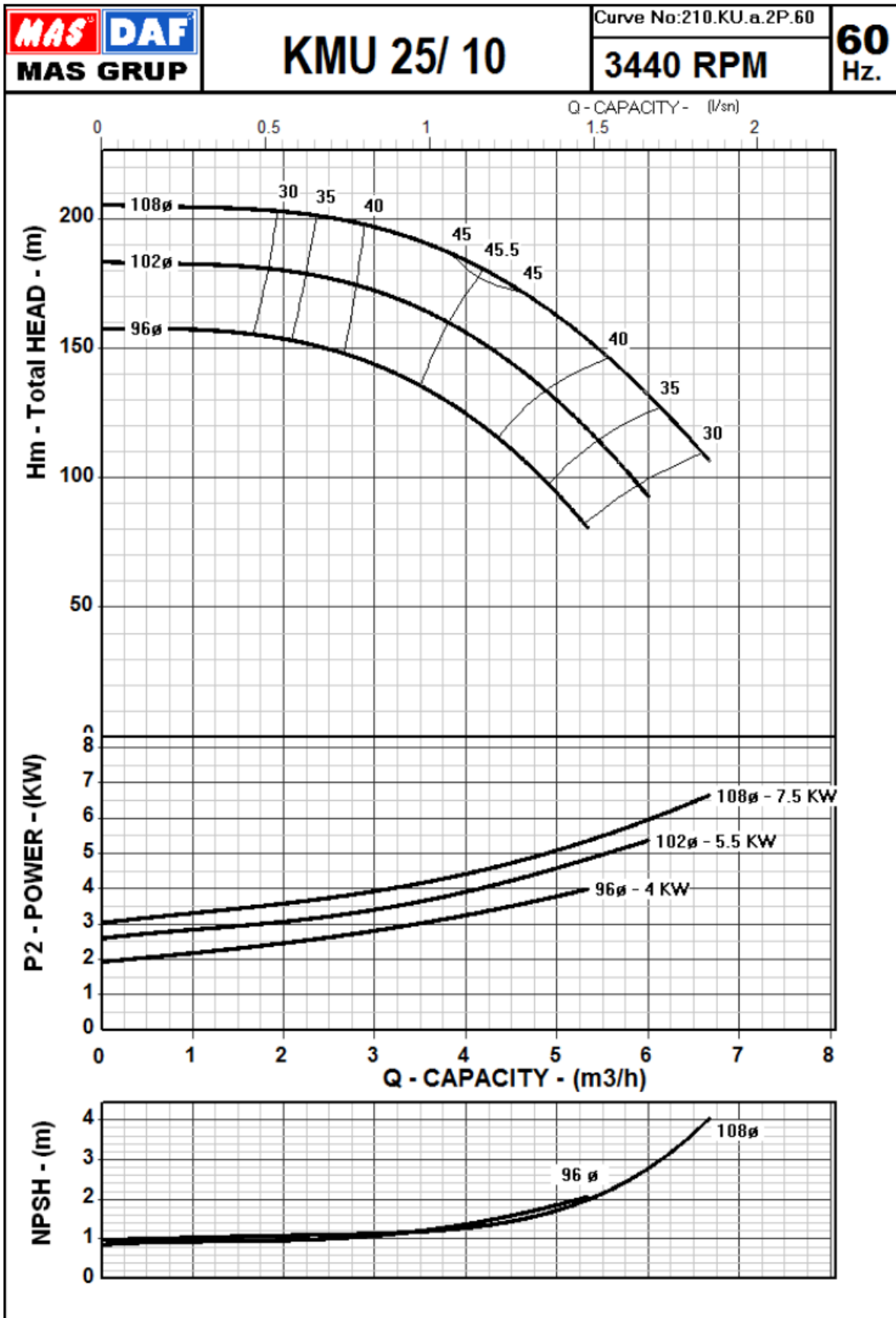
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/10 3500 RPM



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# KMU Series

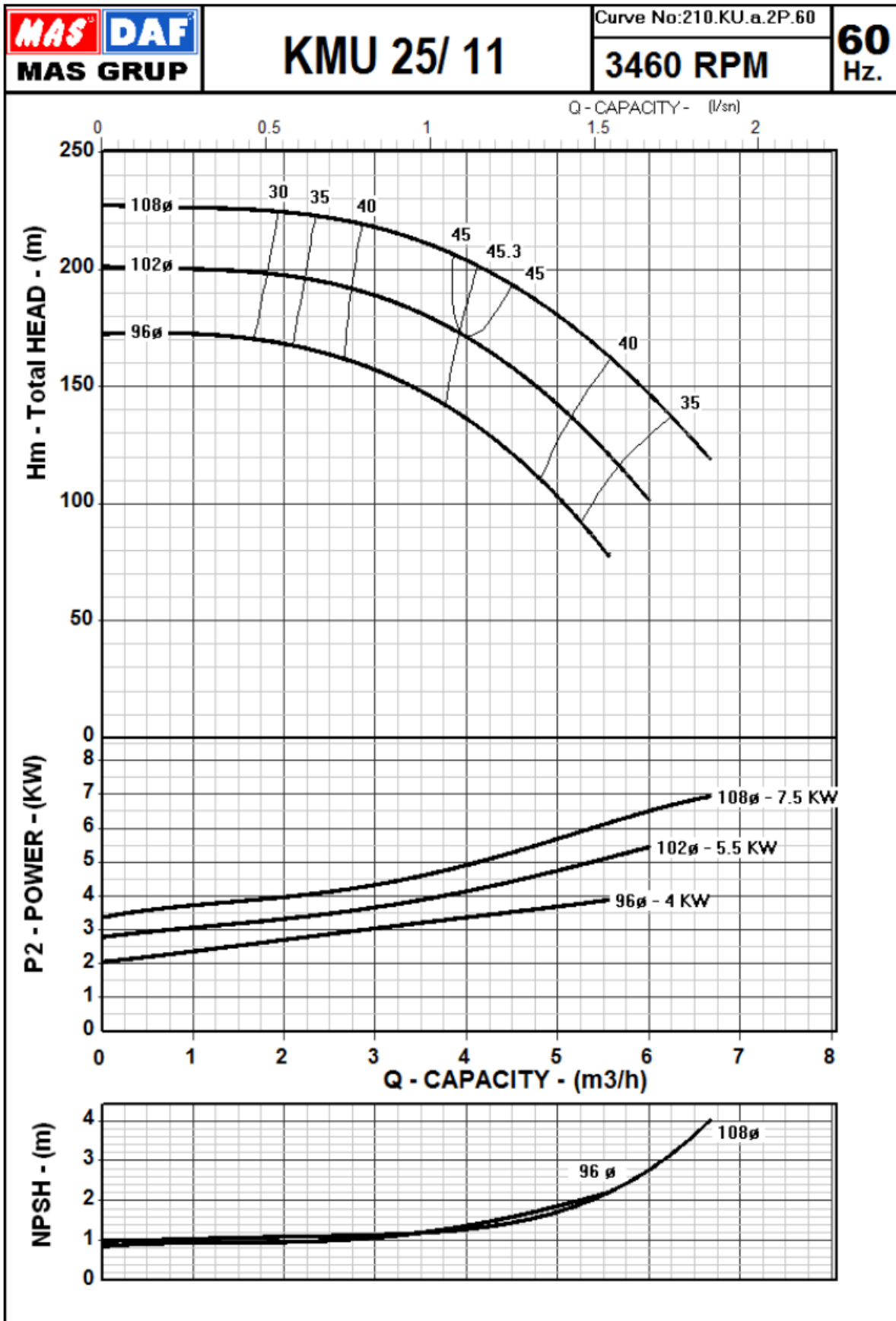
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/11 3500 RPM



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# KMU Series

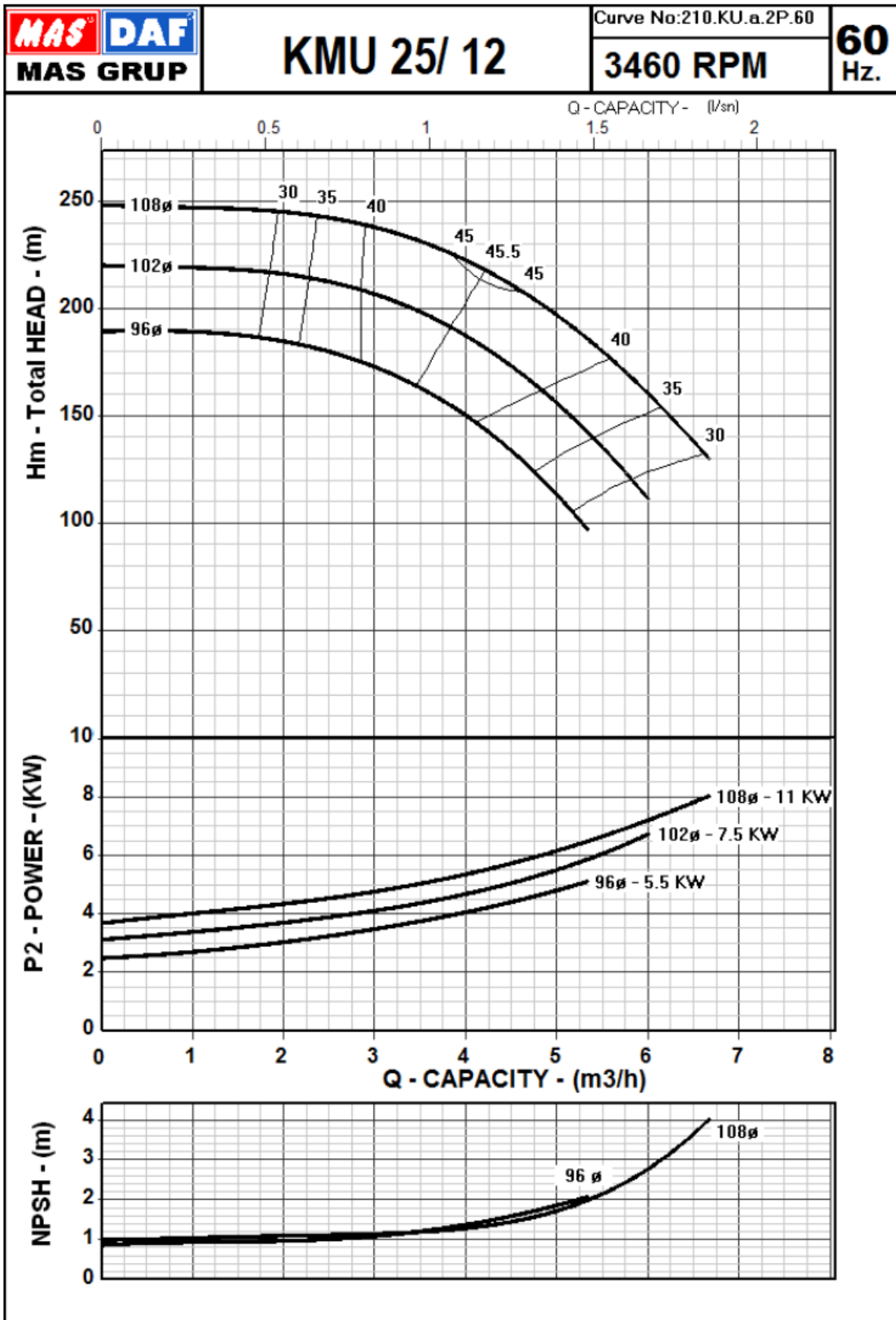
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/12 3500 RPM



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# KMU Series

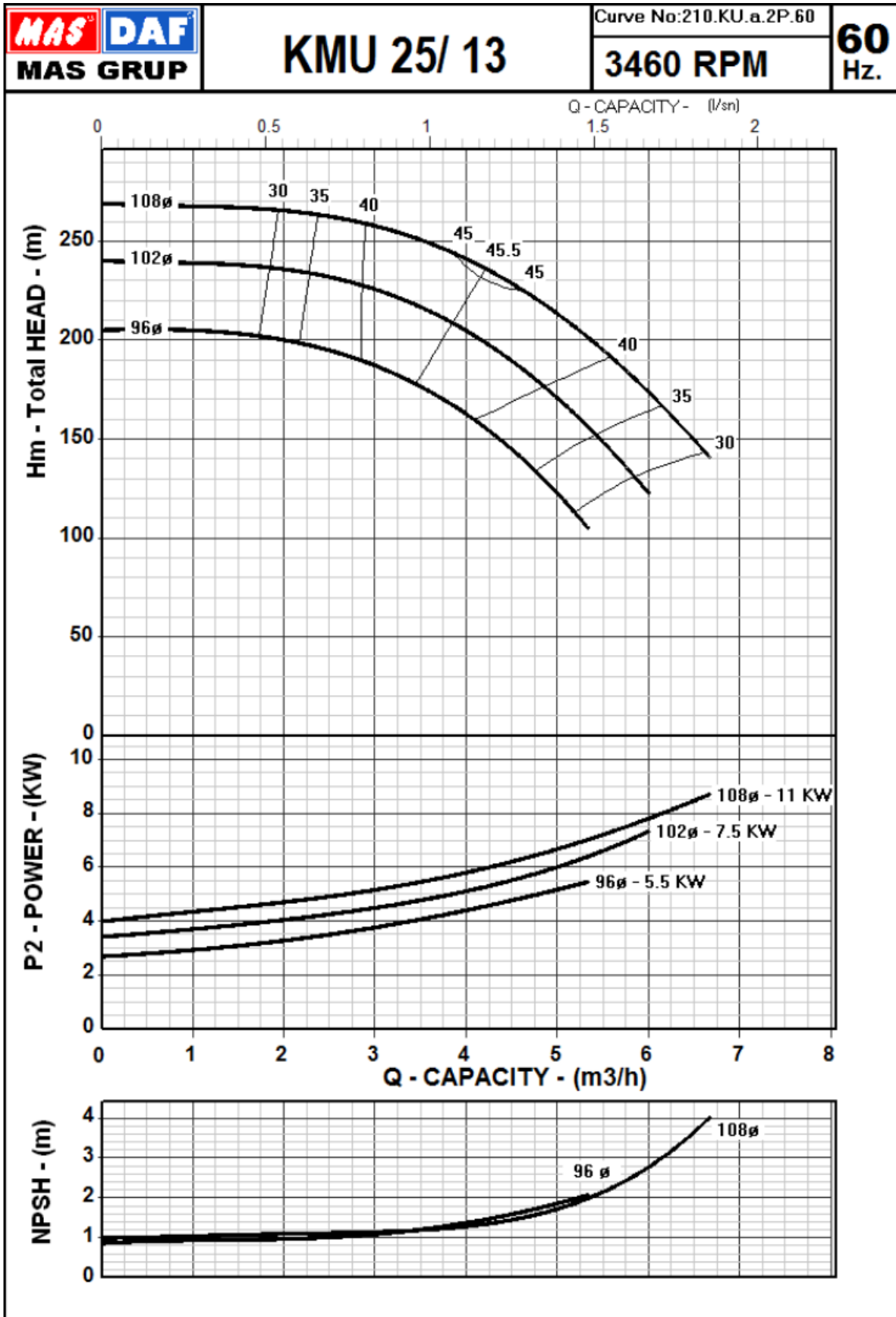
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/13 3500 RPM



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# KMU Series

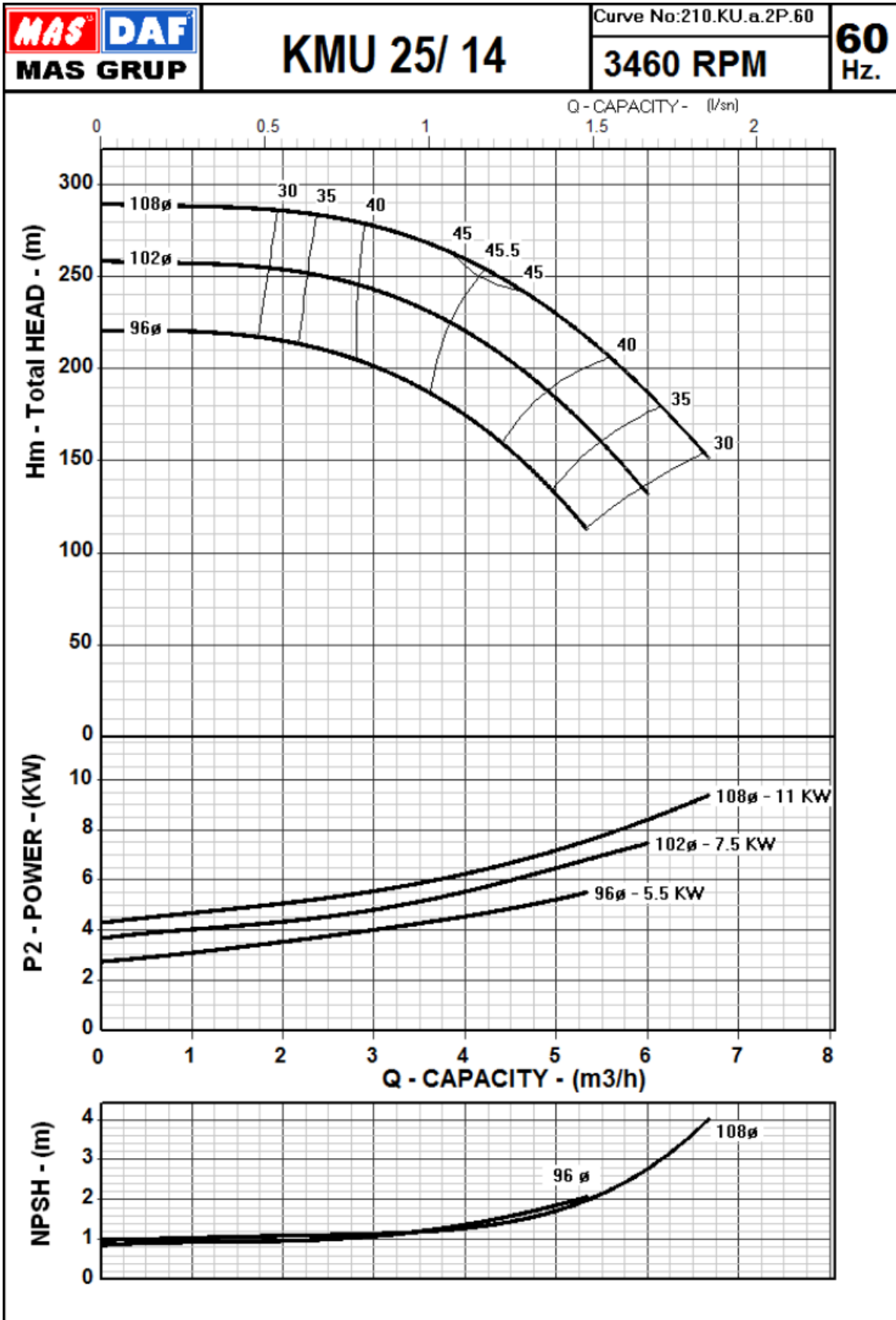
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 25/14 3500 RPM



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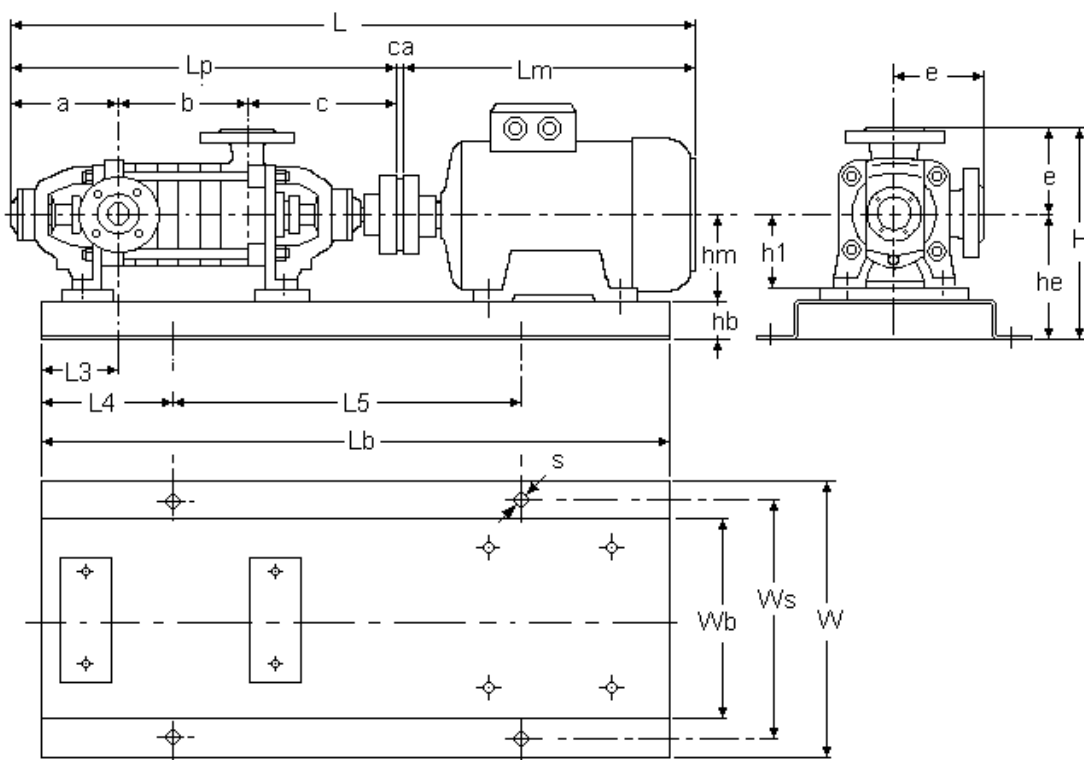
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

Dimension Table for KMU 25 – 3500 rpm – 60 Hz



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## 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



# KMU Series

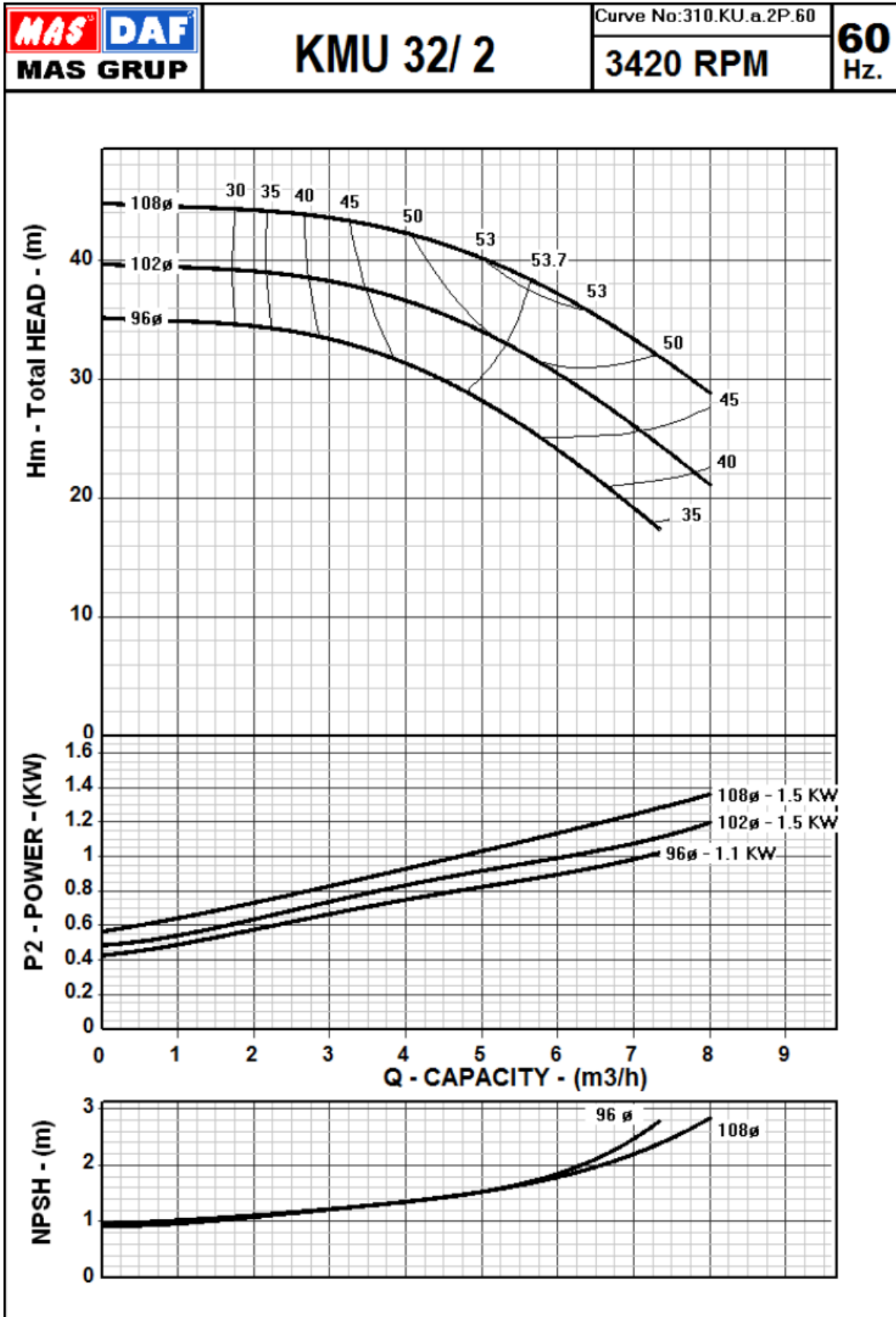
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/2 3500 RPM



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# KMU Series

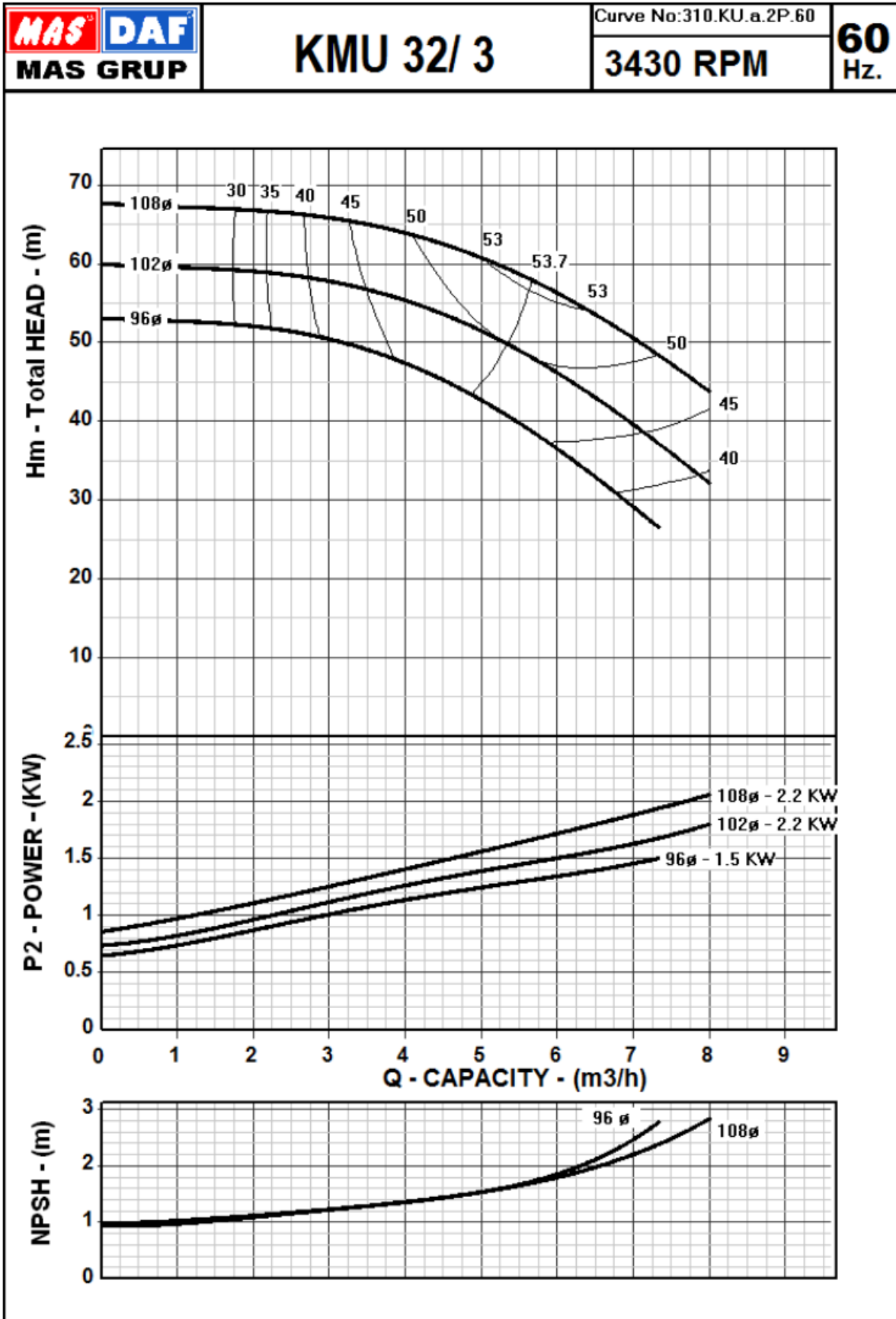
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/3 3500 RPM



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# KMU Series

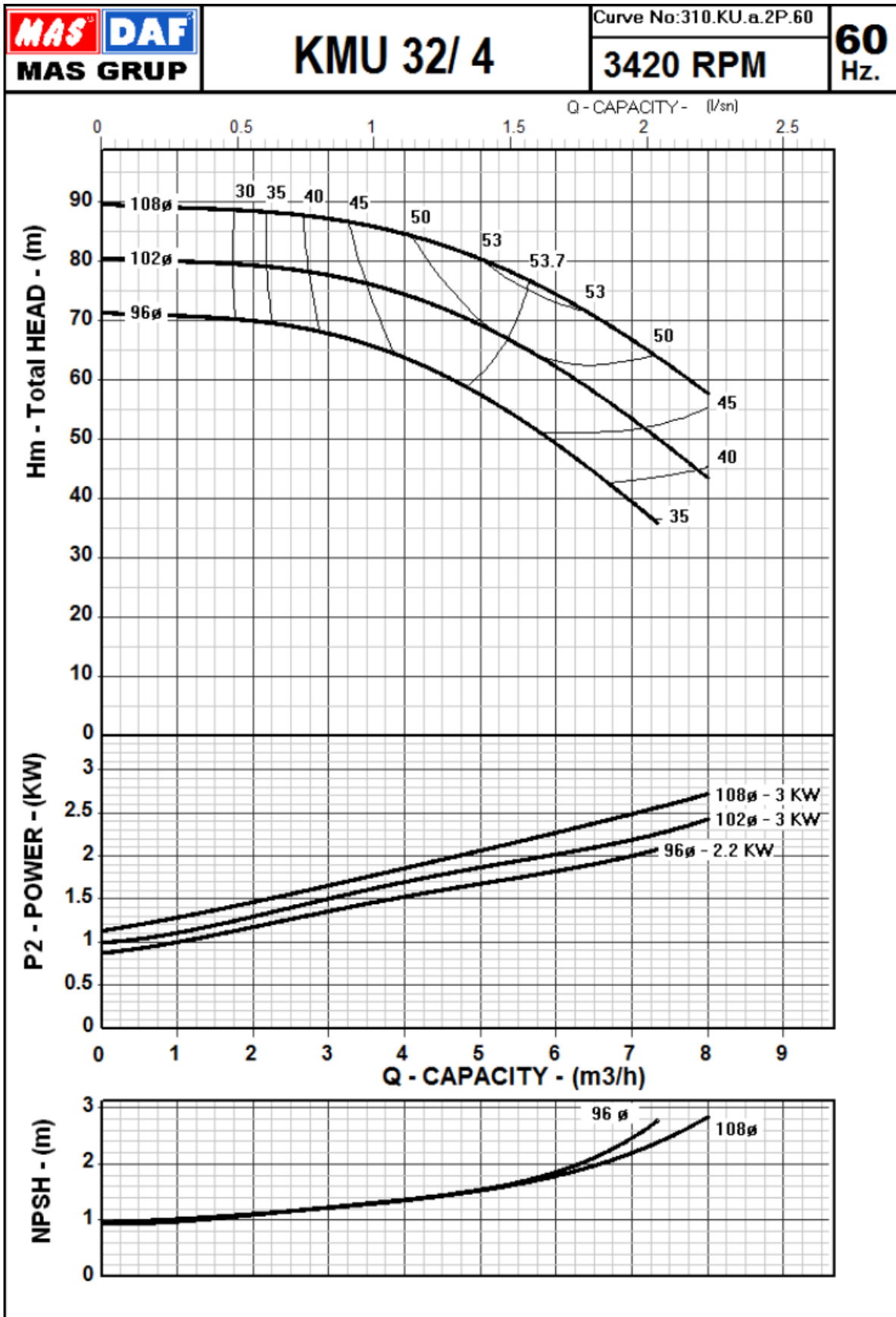
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/4 3500 RPM



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# KMU Series

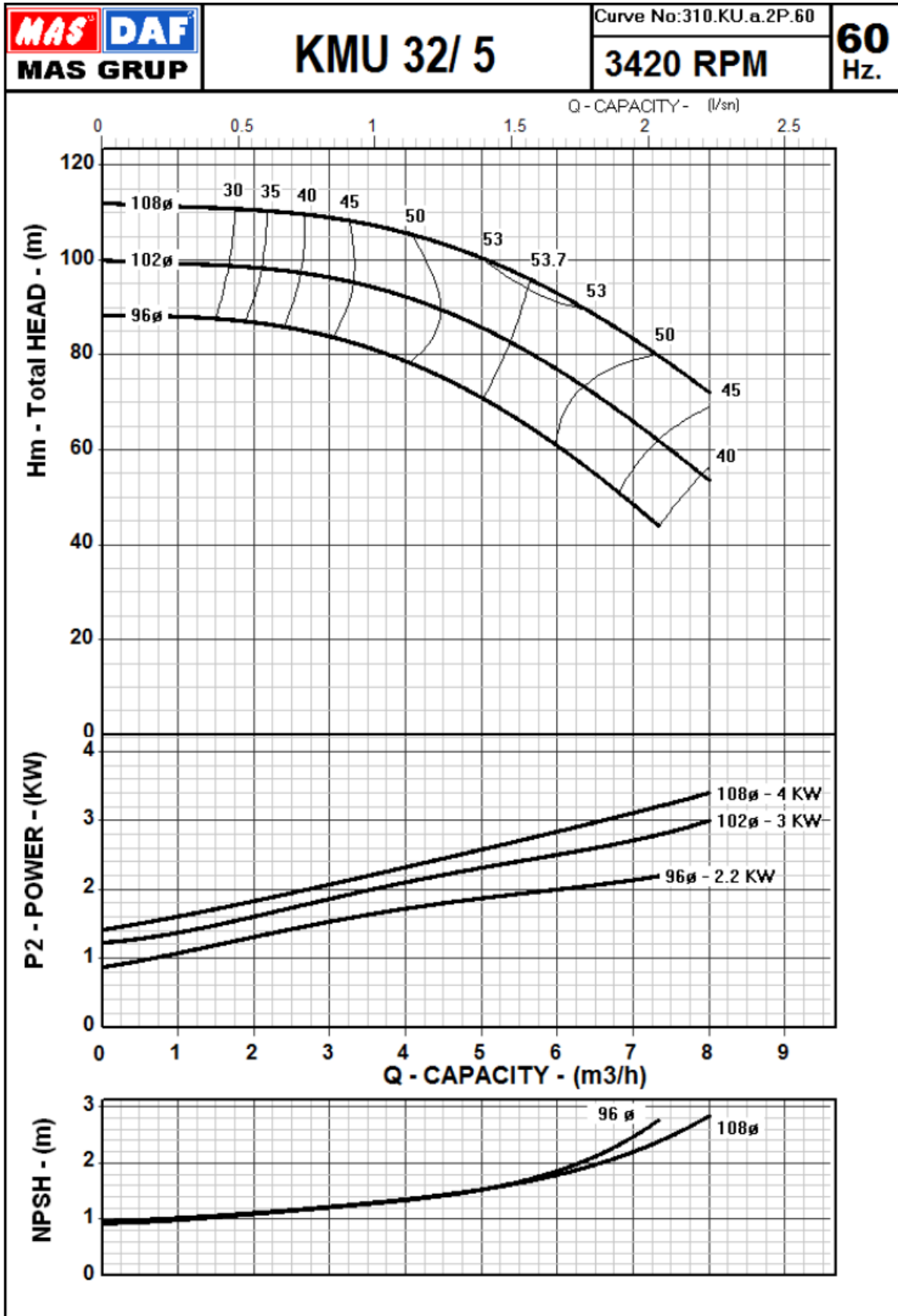
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/5 3500 RPM



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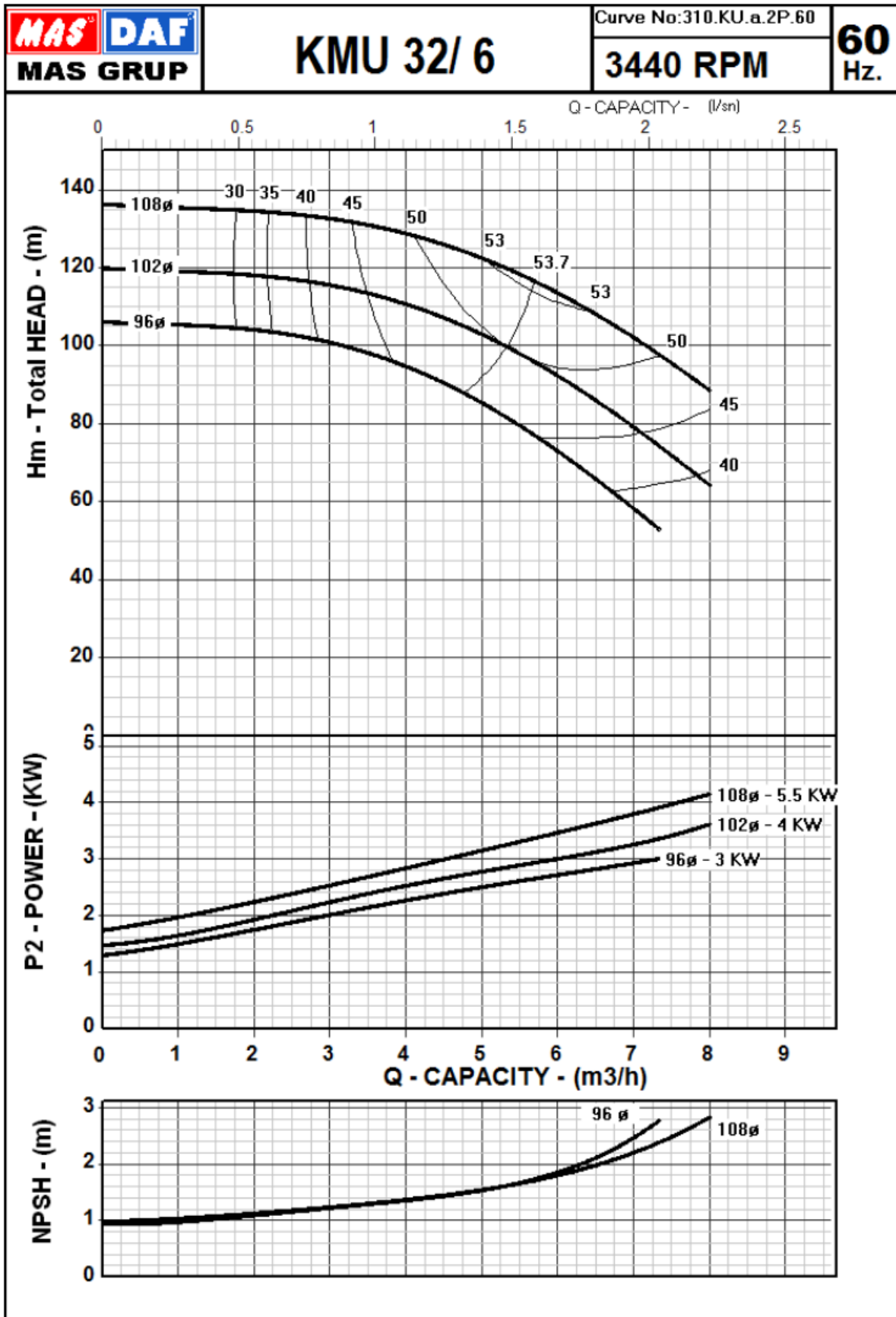
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/6 3500 RPM



Mas Grup



# KMU Series

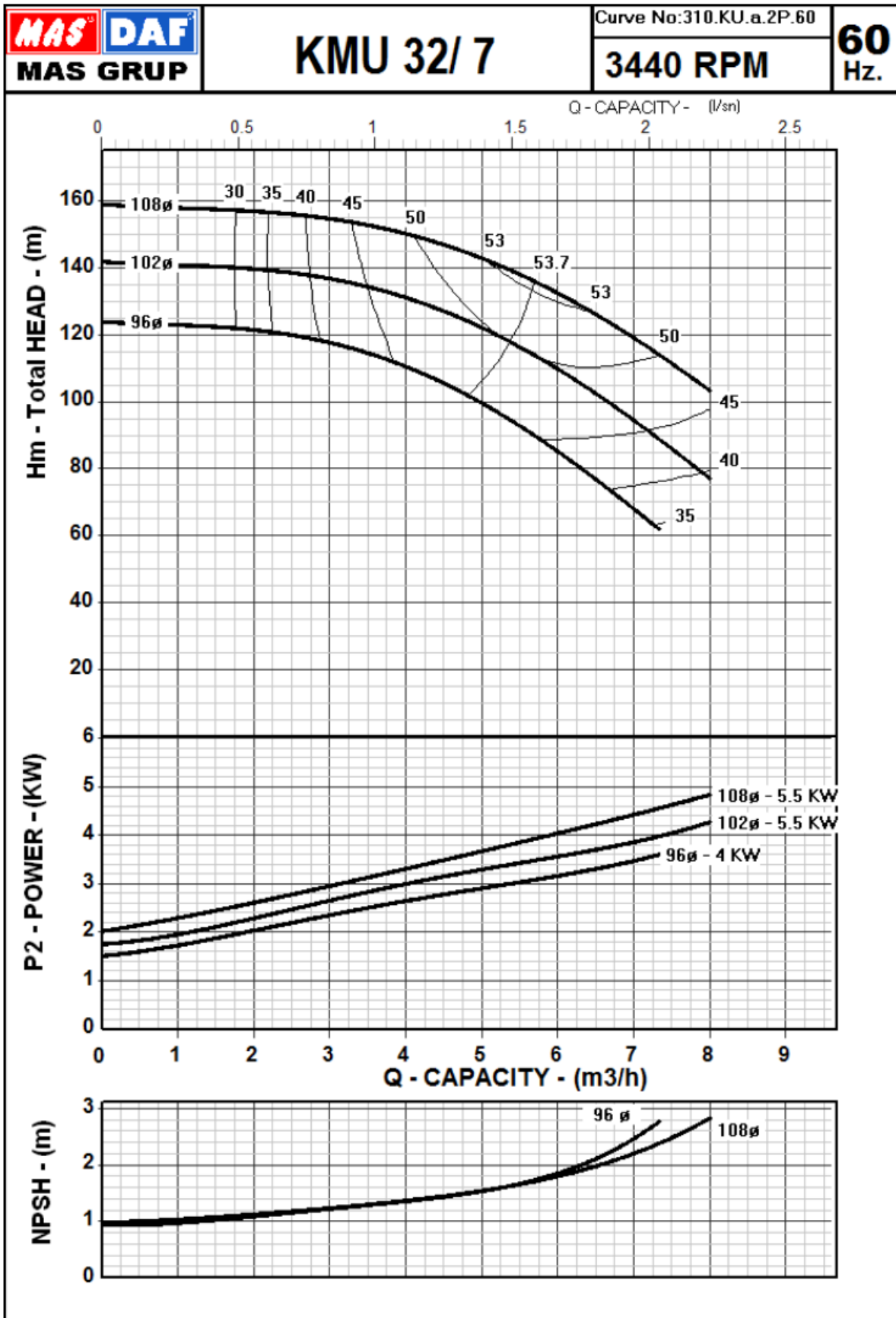
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/7 3500 RPM



Mas Grup



# KMU Series

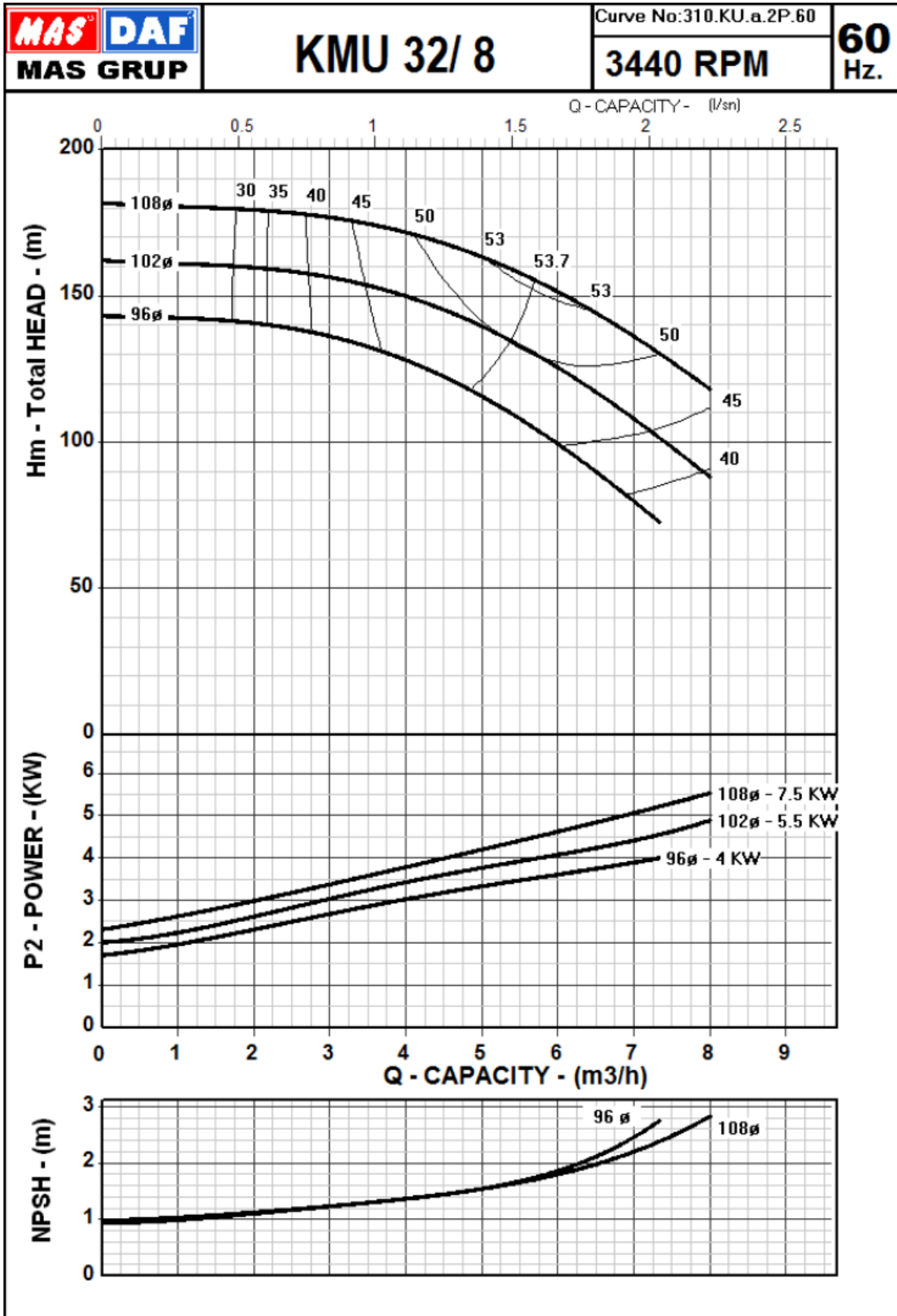
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/8 3500 RPM



Mas Grup



# KMU Series

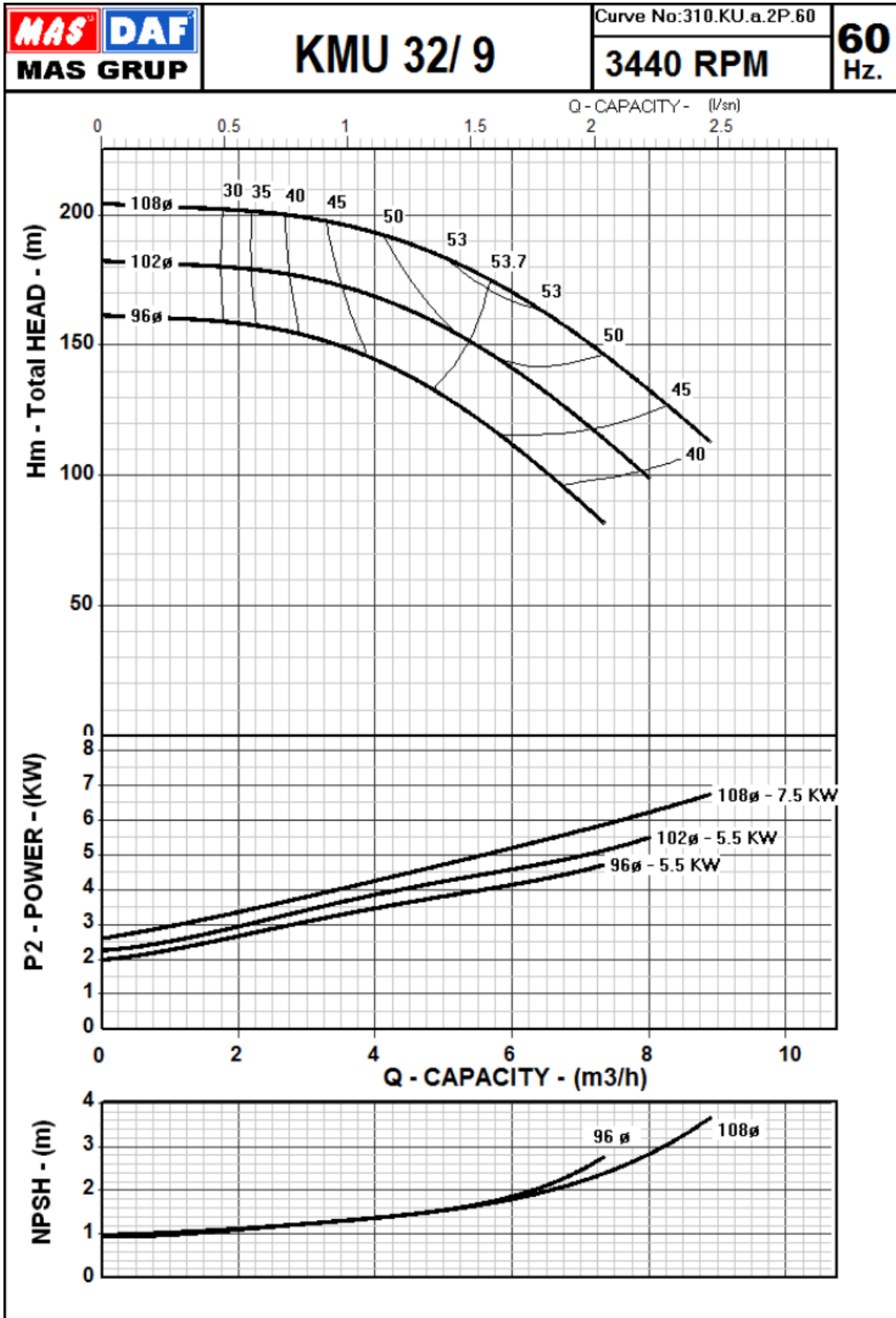
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/9 3500 RPM



Mas Grup





# KMU Series

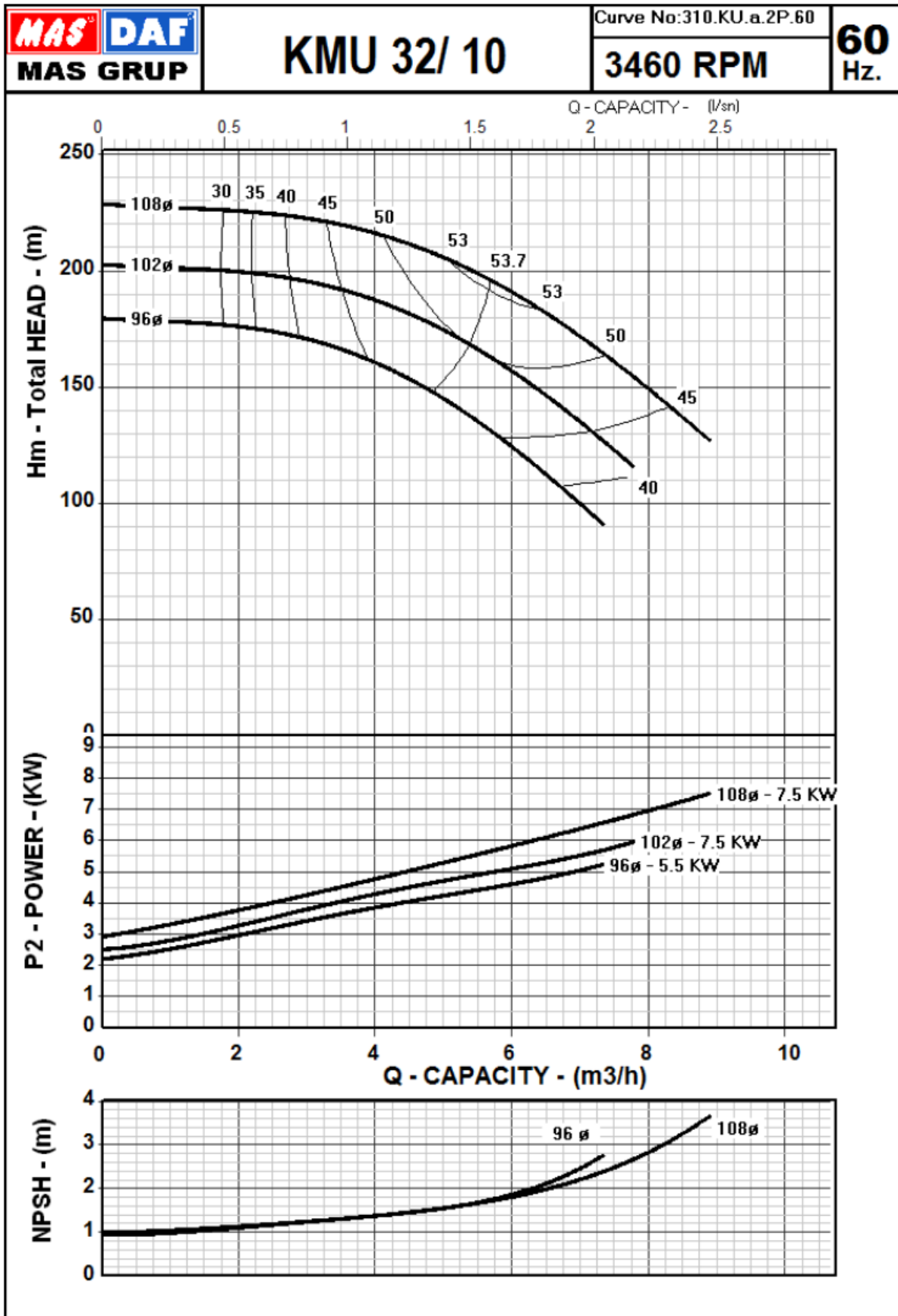
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/10 3500 RPM



Mas Grup



# KMU Series

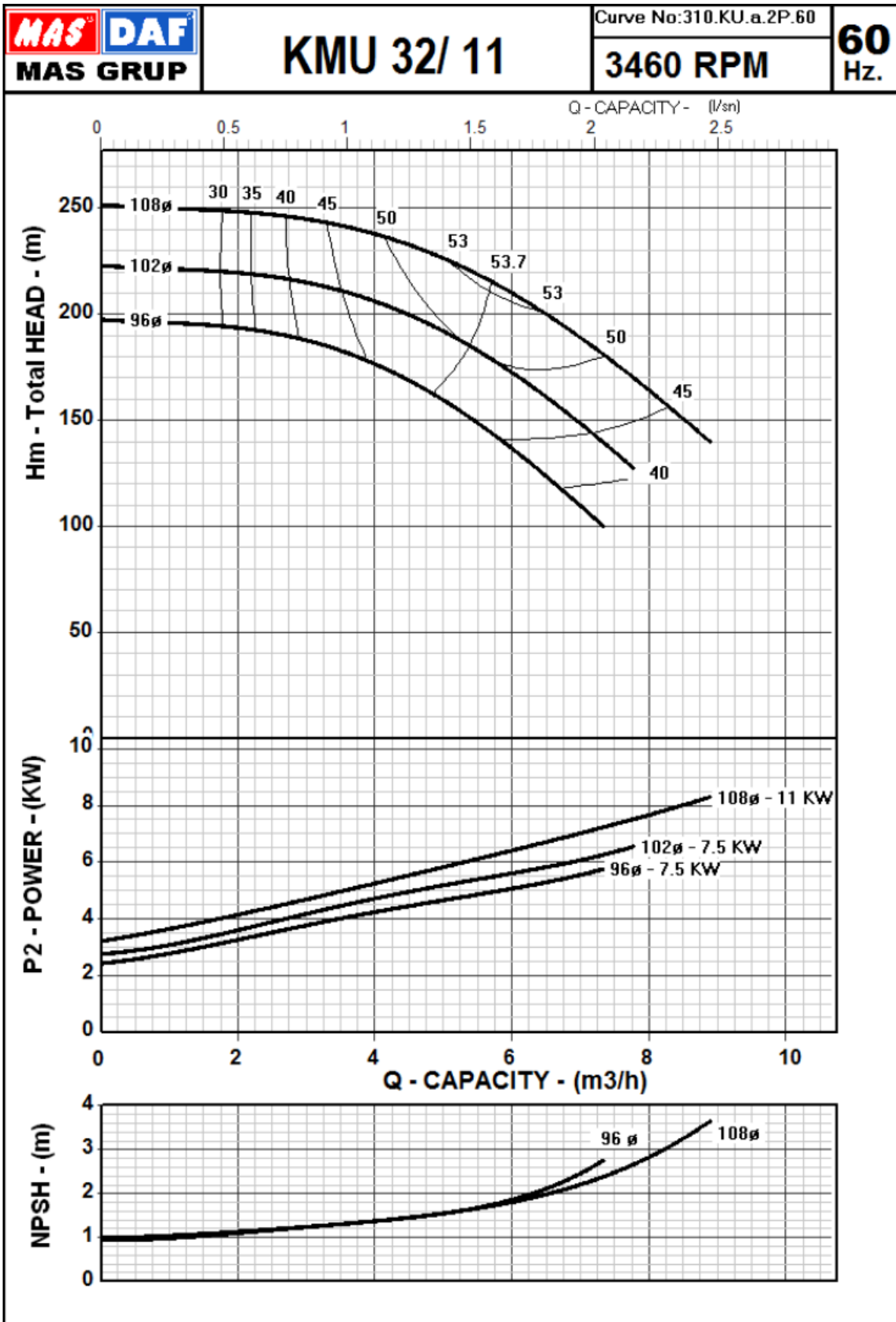
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/11 3500 RPM



Mas Grup



# KMU Series

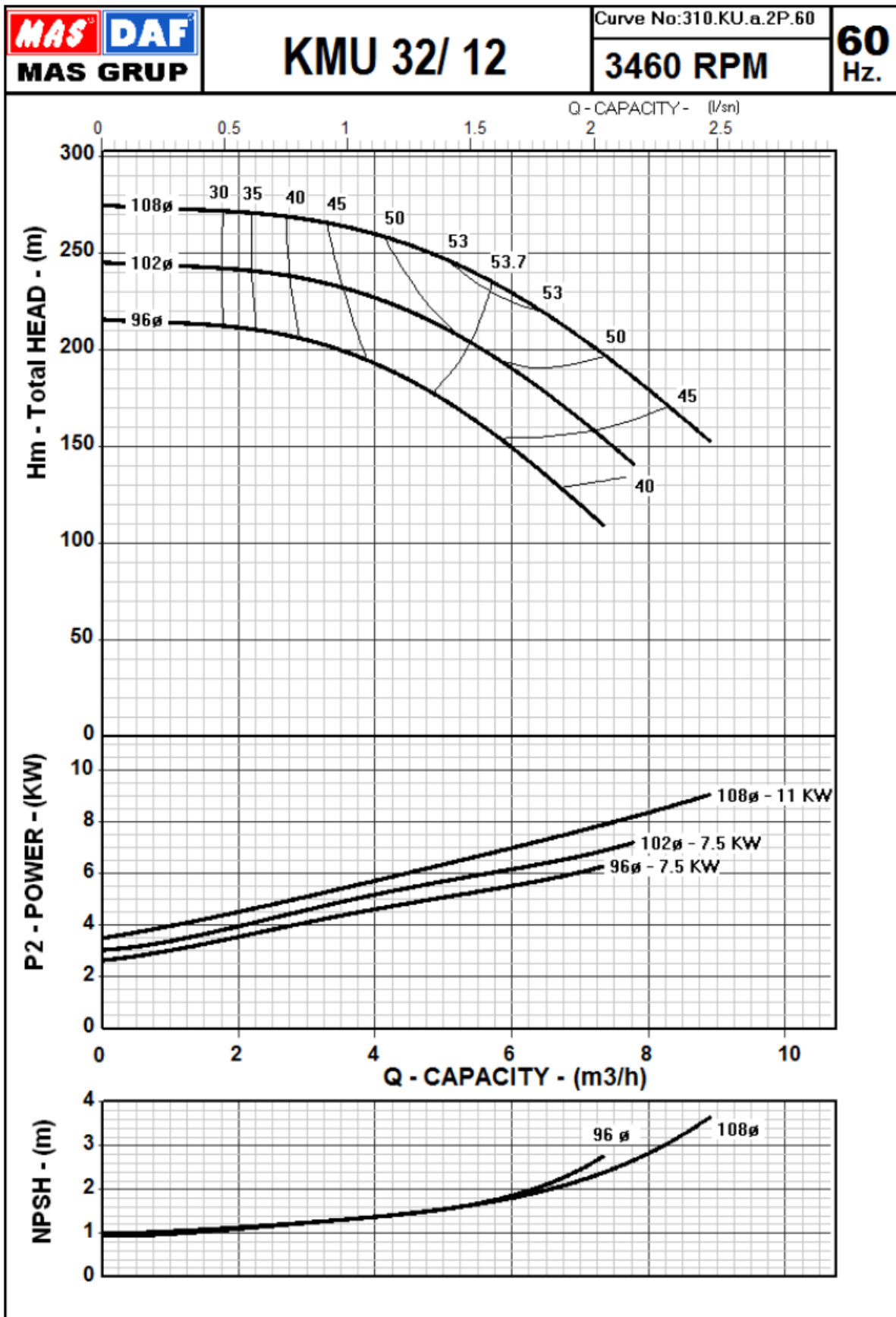
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/12 3500 RPM



Mas Grup



# KMU Series

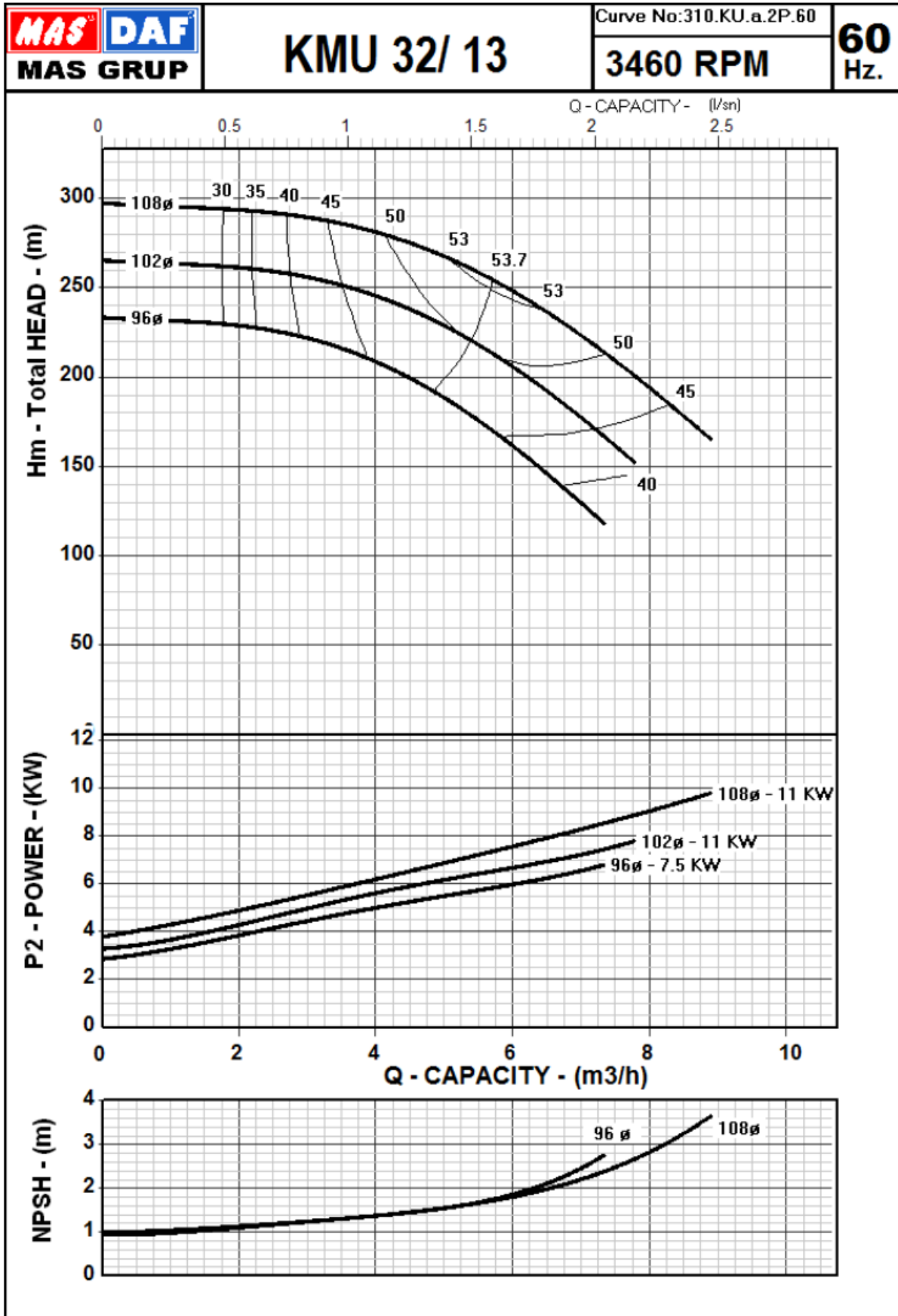
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/13 3500 RPM



Mas Grup



# KMU Series

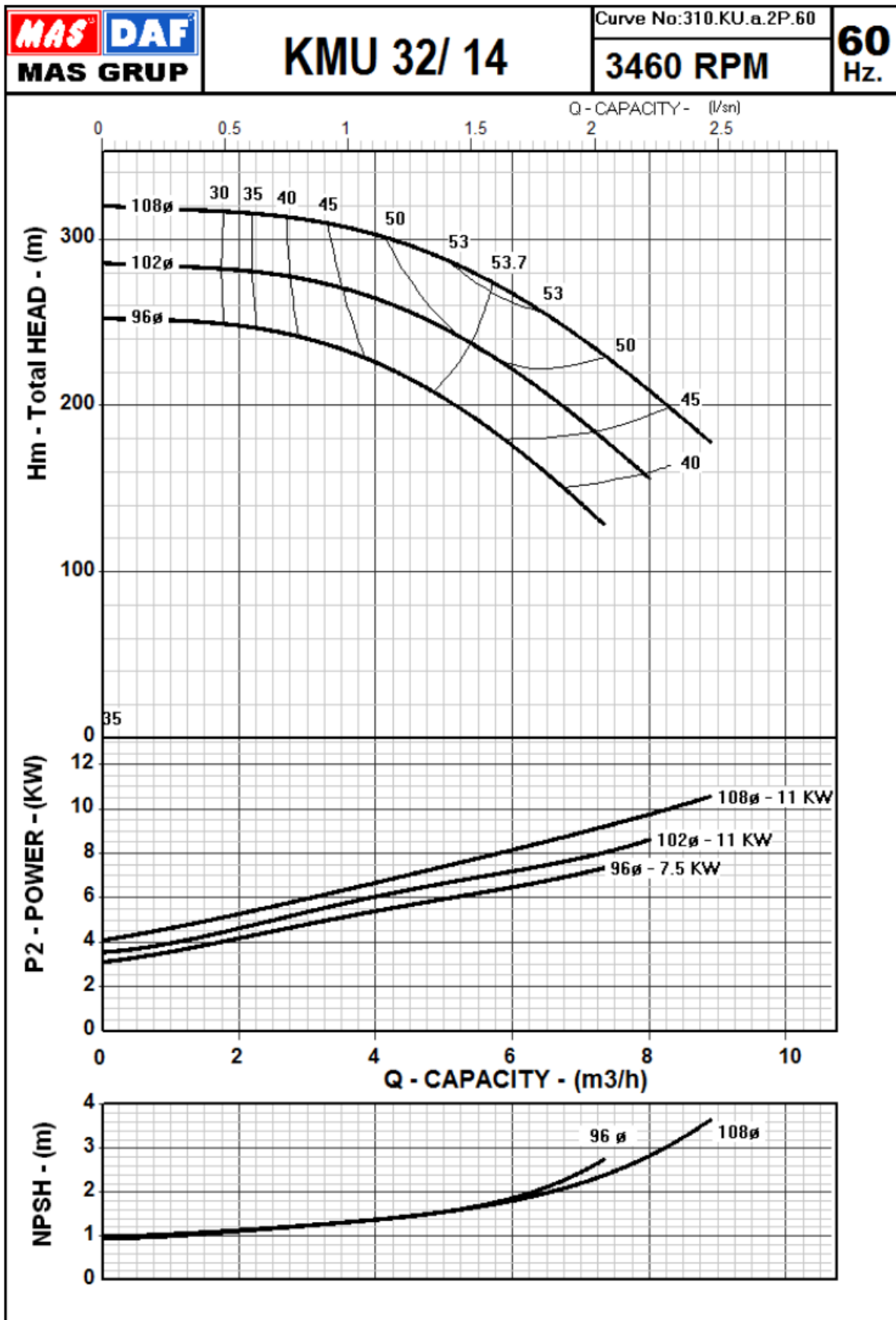
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 32/14 3500 RPM



Mas Grup



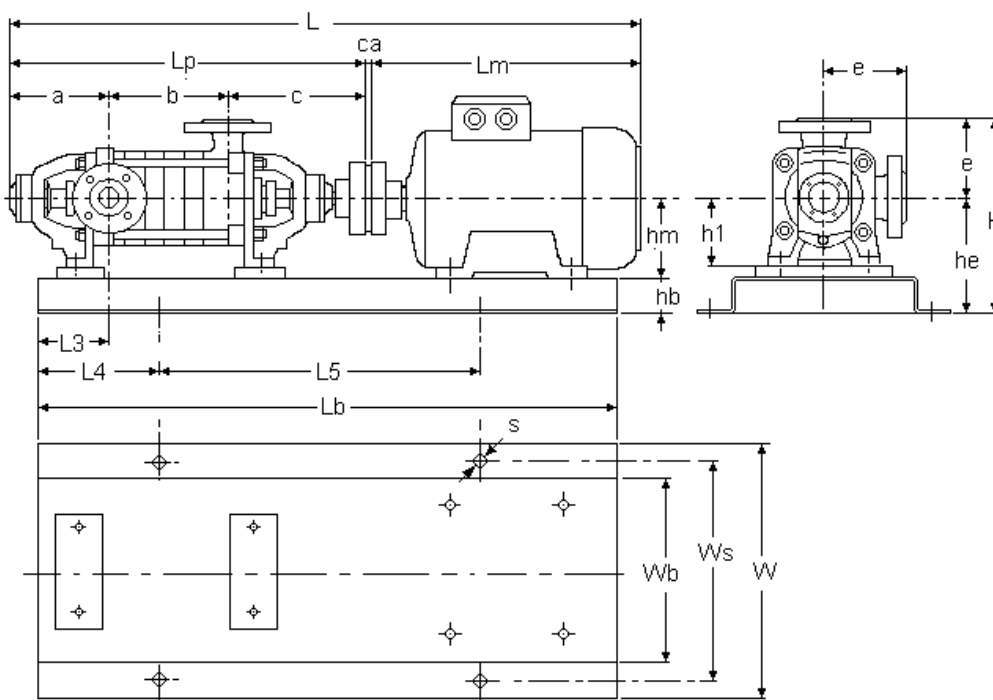
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

Dimension Table for KMU 32 – 3500 rpm – 60 Hz



Mas Grup



## 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 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
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# KMU Series

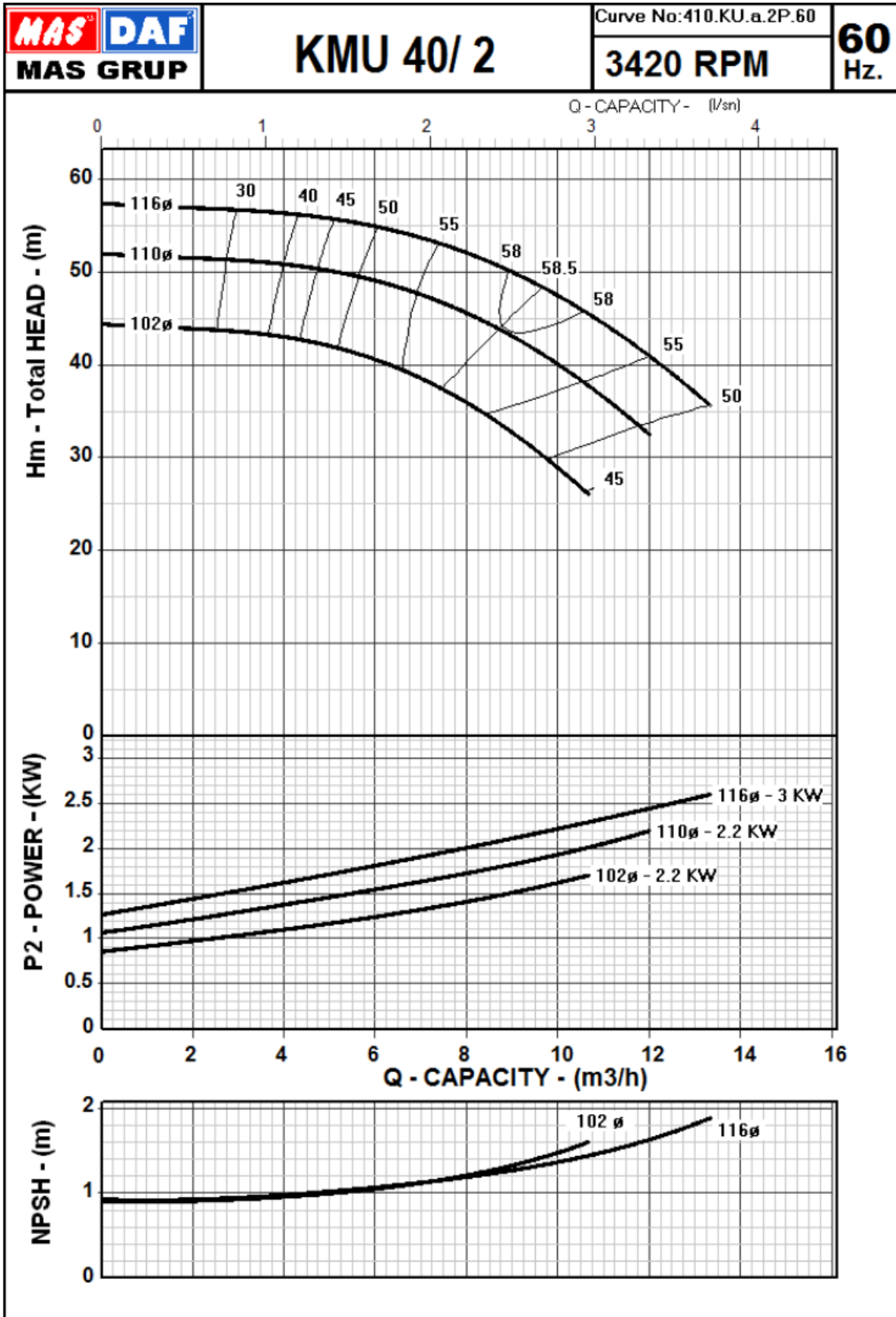
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/2 3500 RPM



Mas Grup



# KMU Series

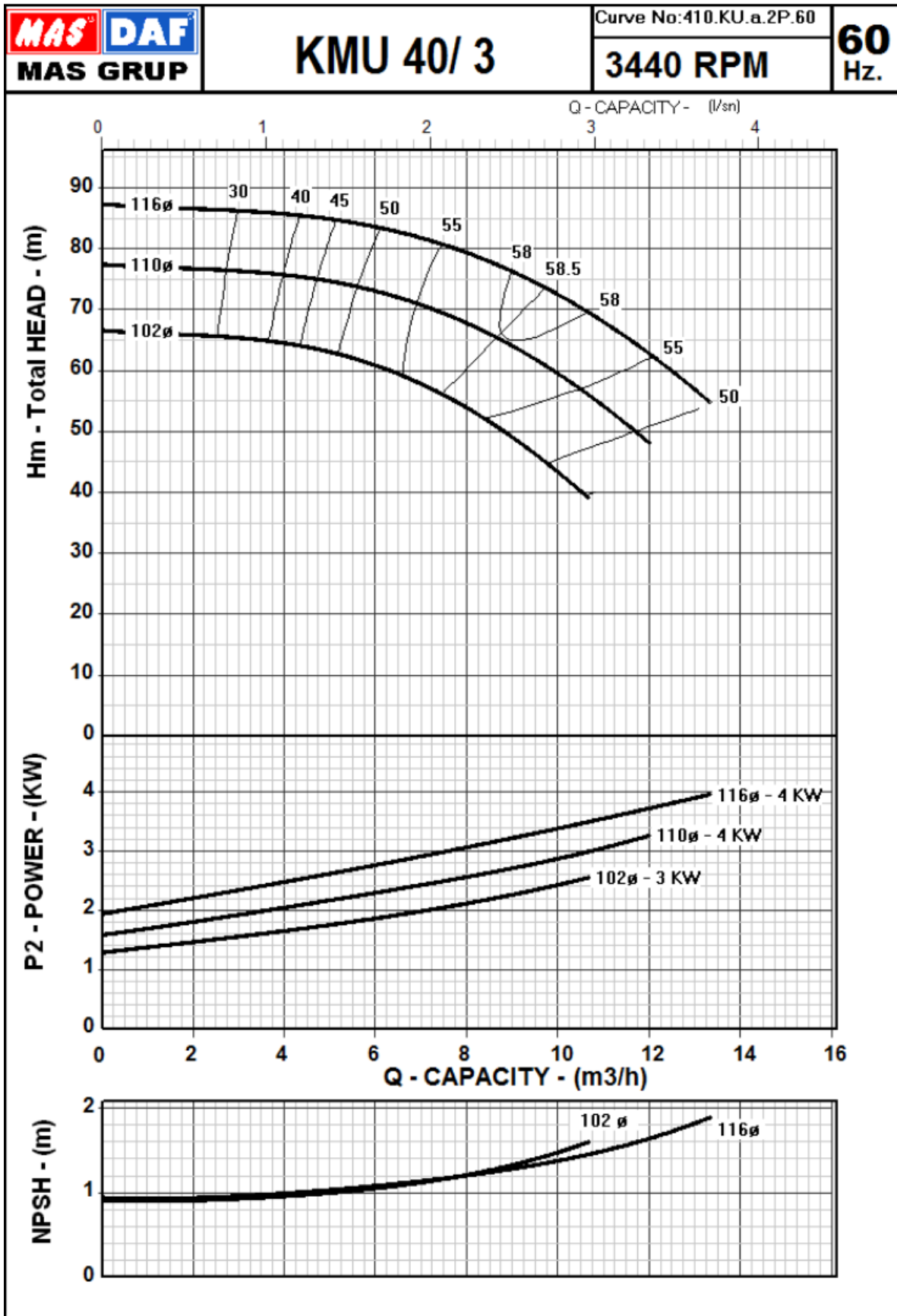
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/3 3500 RPM



Mas Grup





# KMU Series

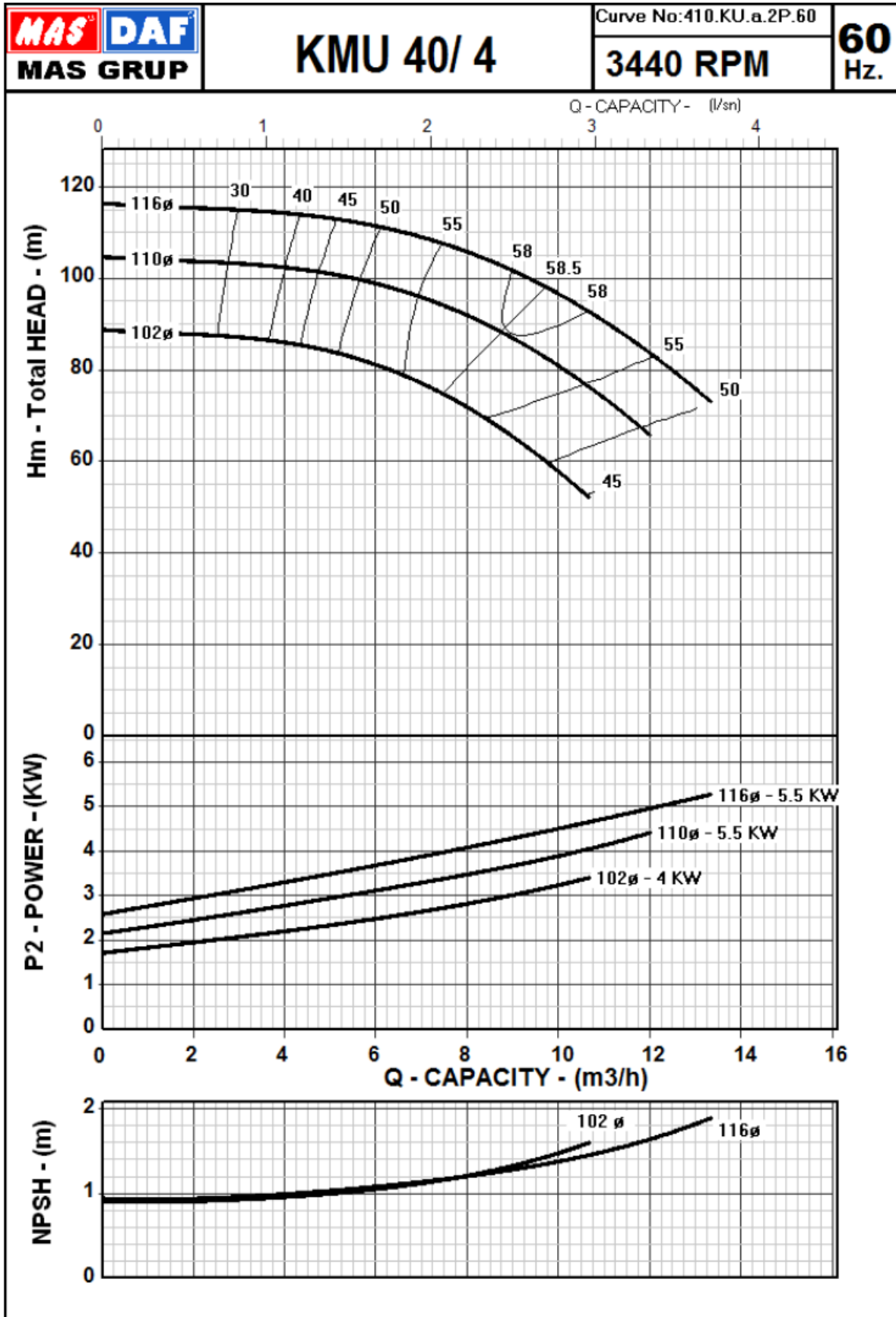
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/4 3500 RPM



Mas Grup



# KMU Series

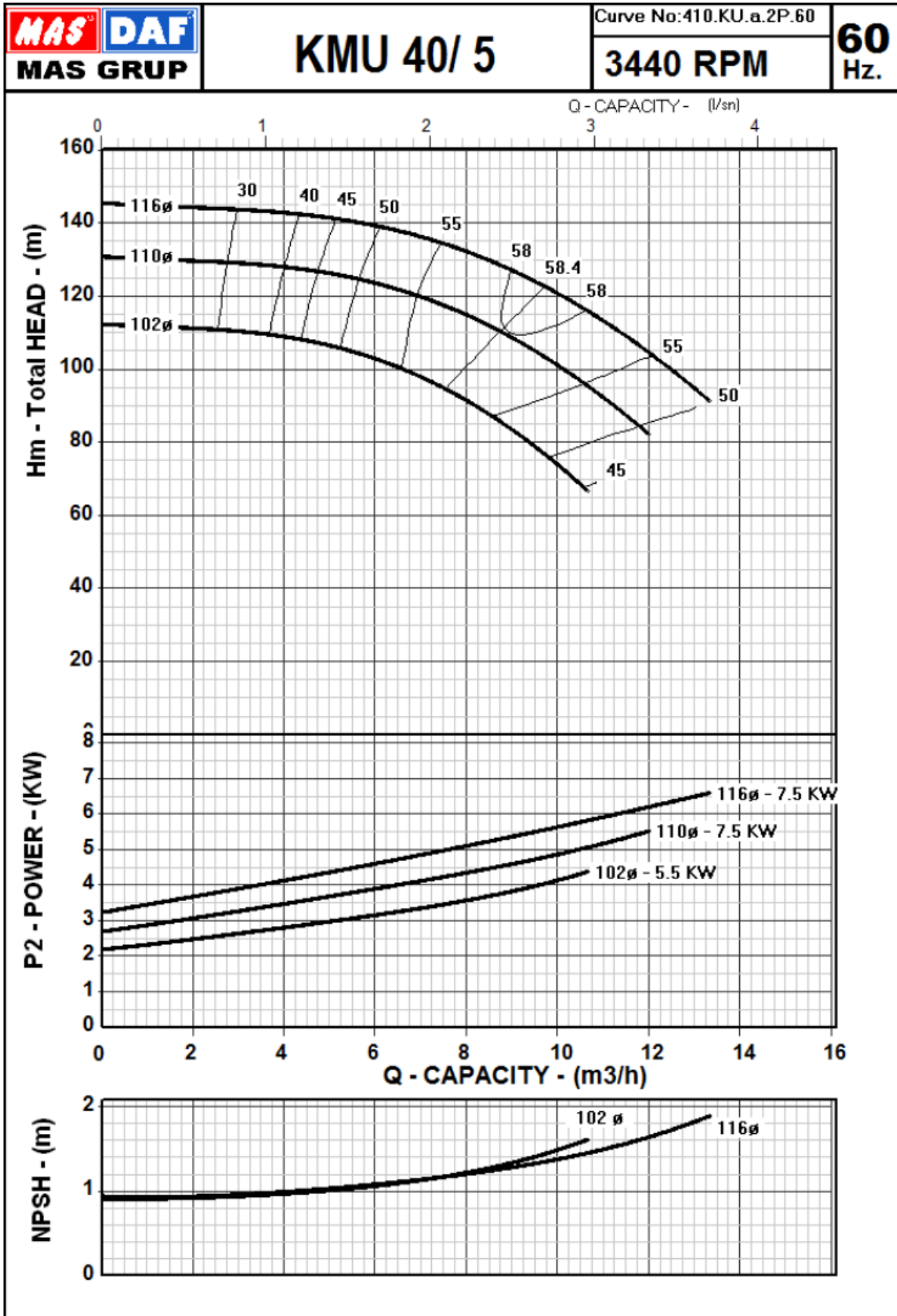
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/5 3500 RPM



Mas Grup



# KMU Series

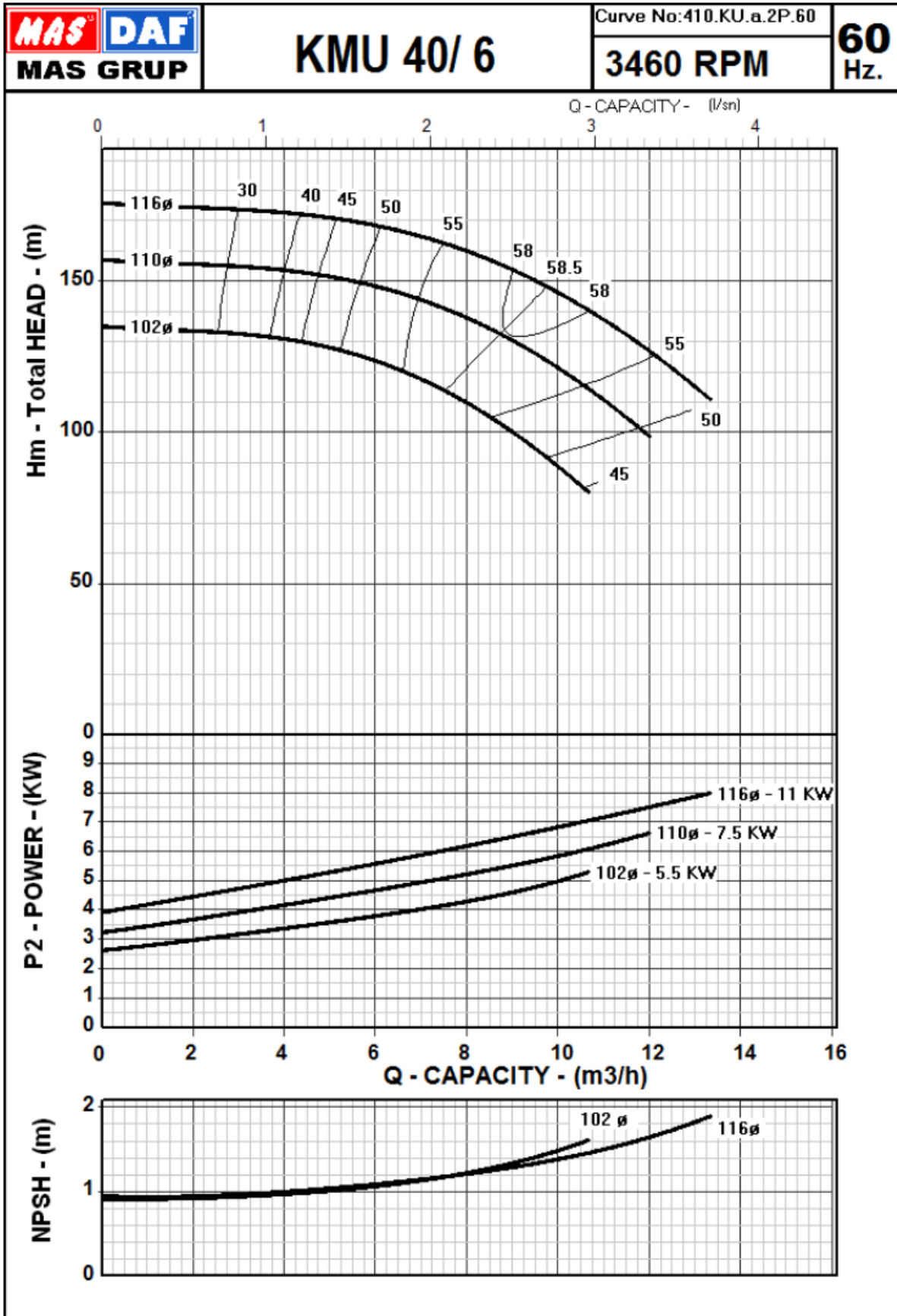
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/6 3500 RPM



Mas Grup



# KMU Series

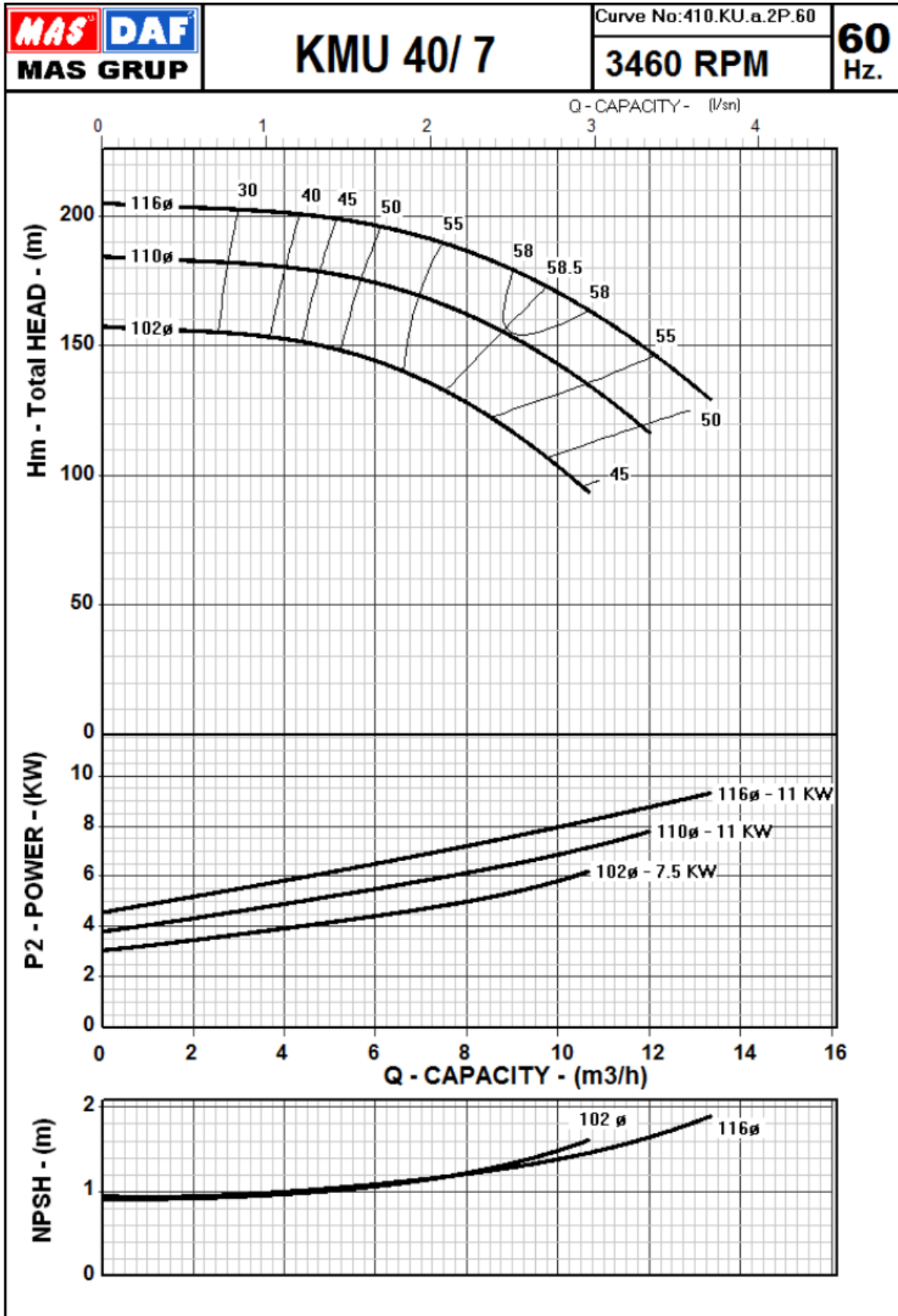
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/7 3500 RPM



Mas Grup



# KMU Series

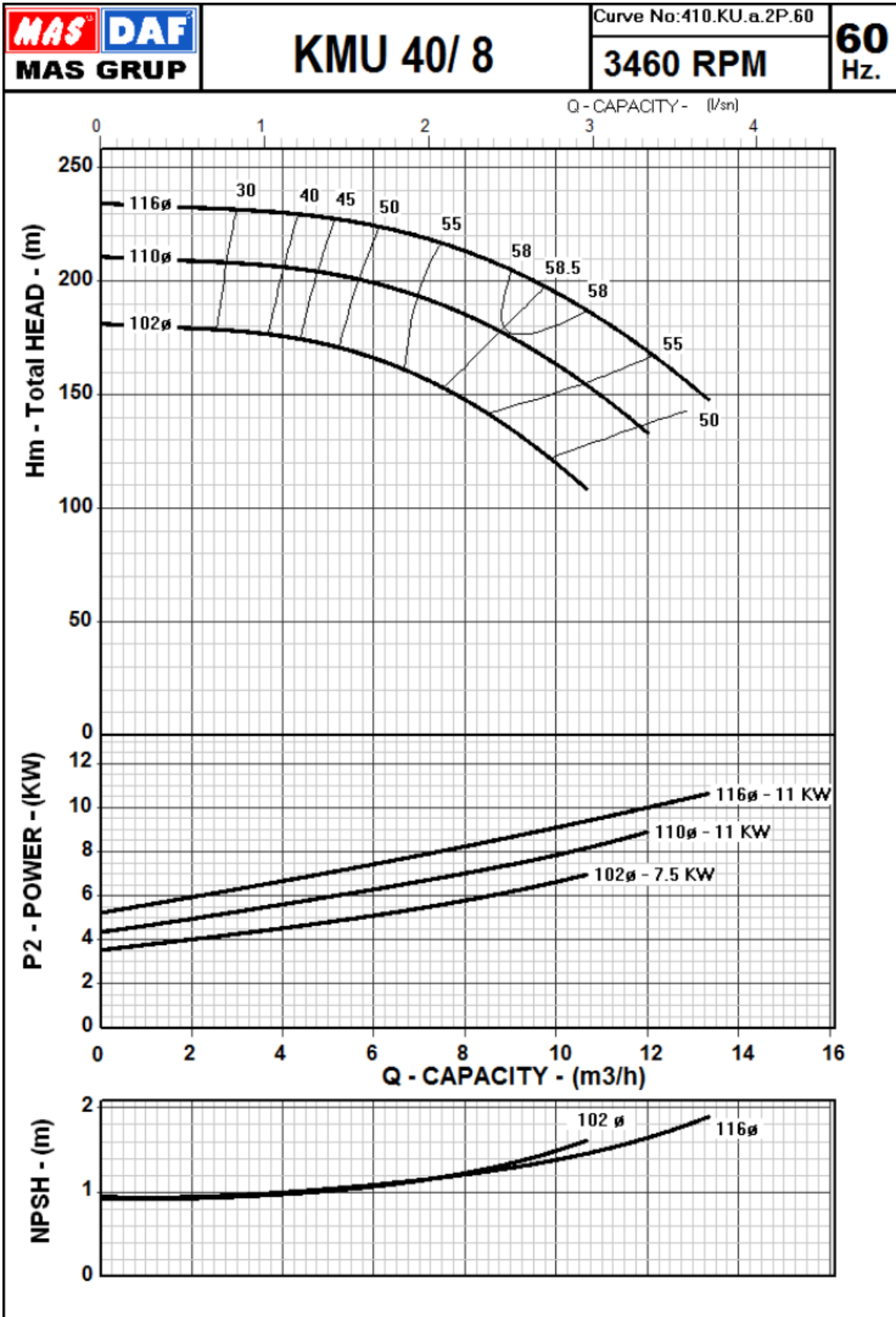
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/9 3500 RPM



Mas Grup



# KMU Series

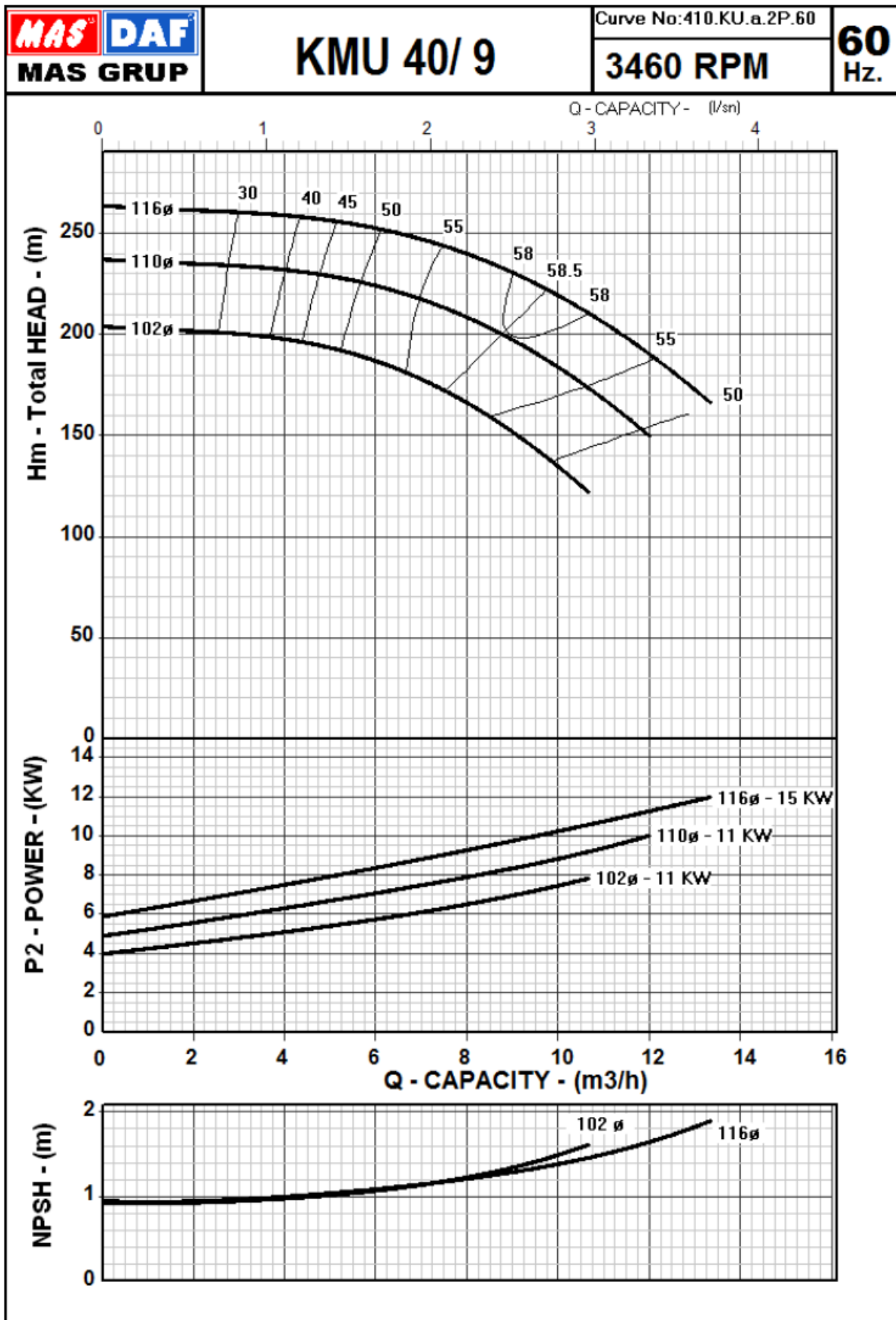
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/9 3500 RPM



Mas Grup



# KMU Series

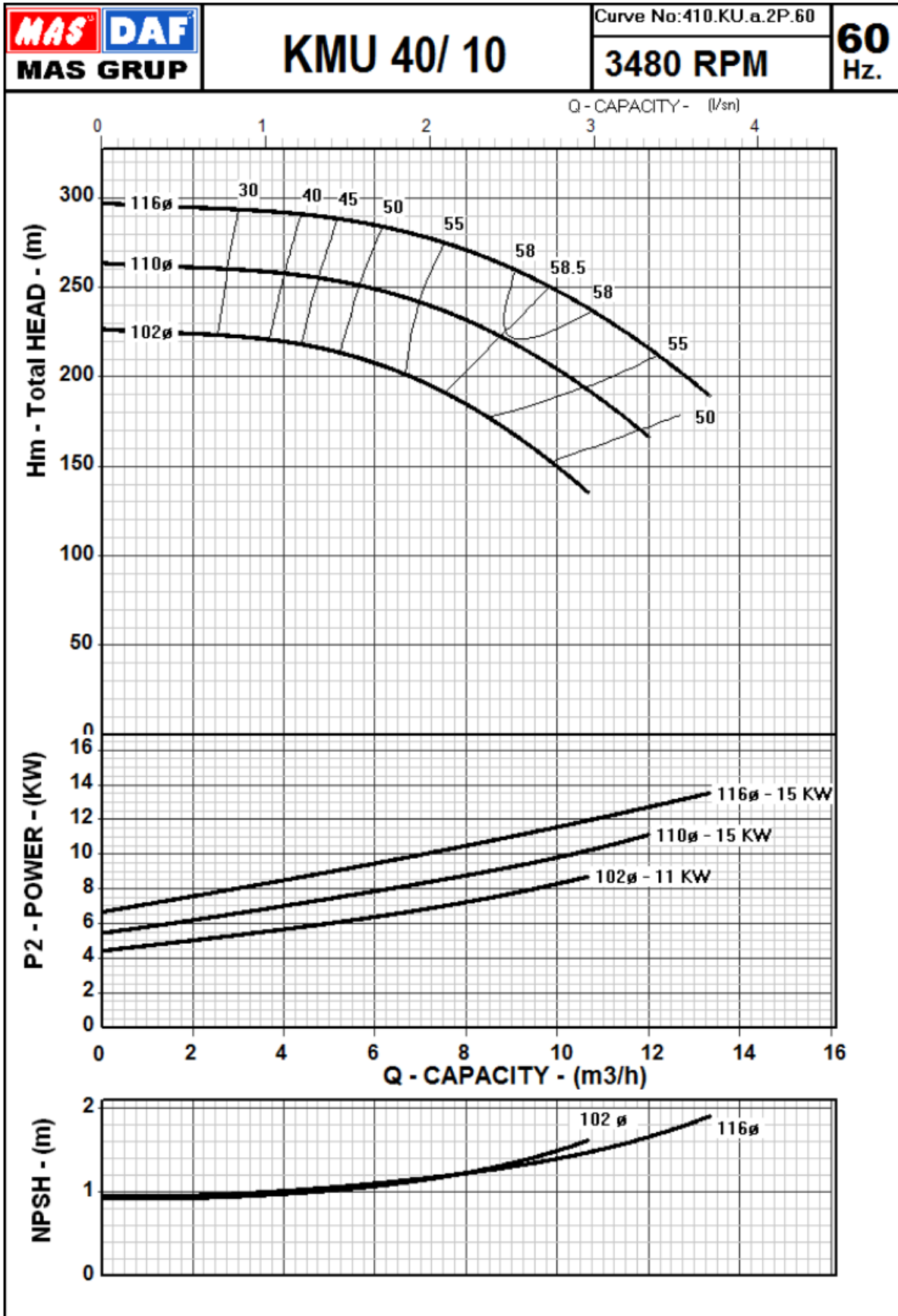
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/10 3500 RPM



Mas Grup



# KMU Series

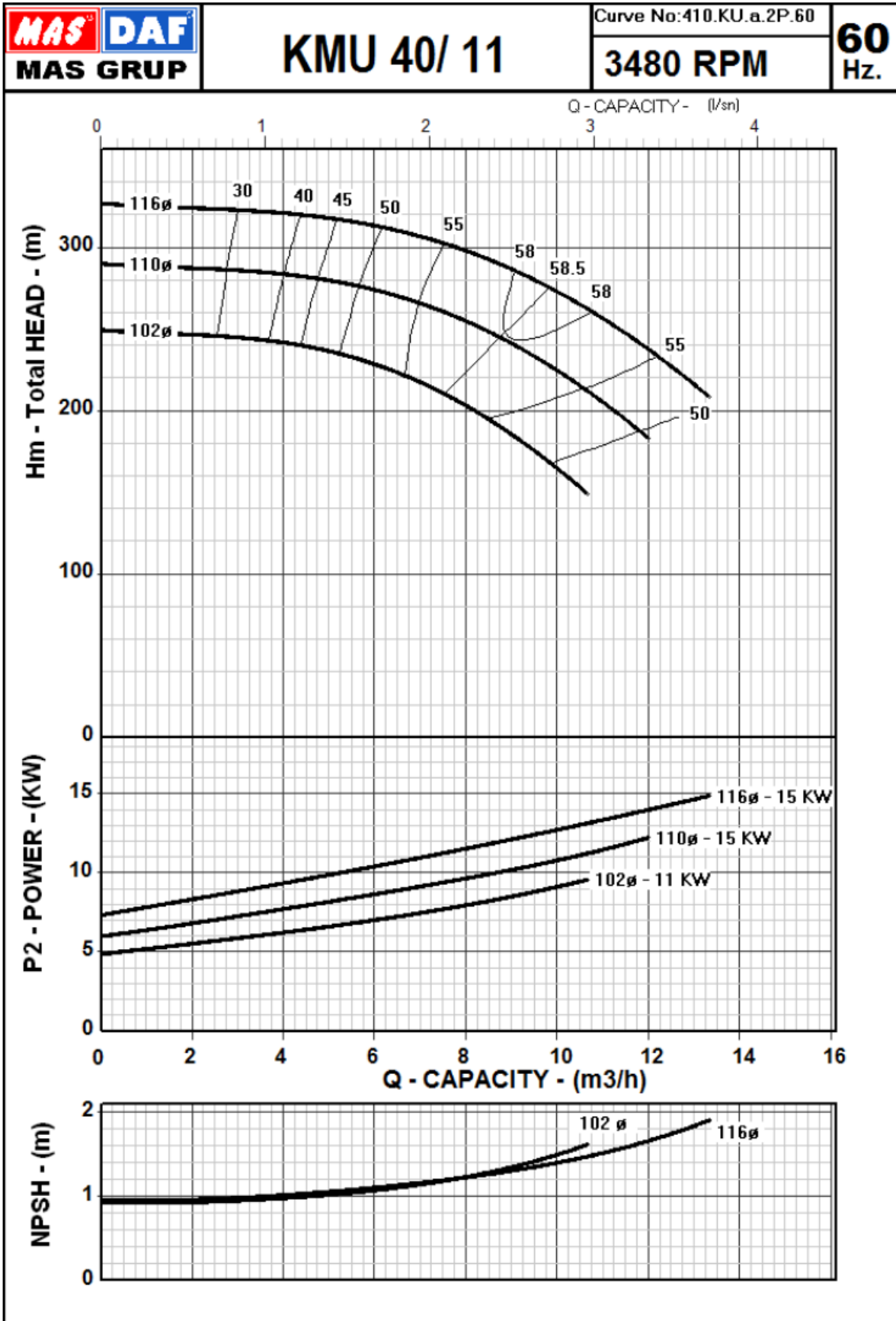
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/11 3500 RPM



Mas Grup





# KMU Series

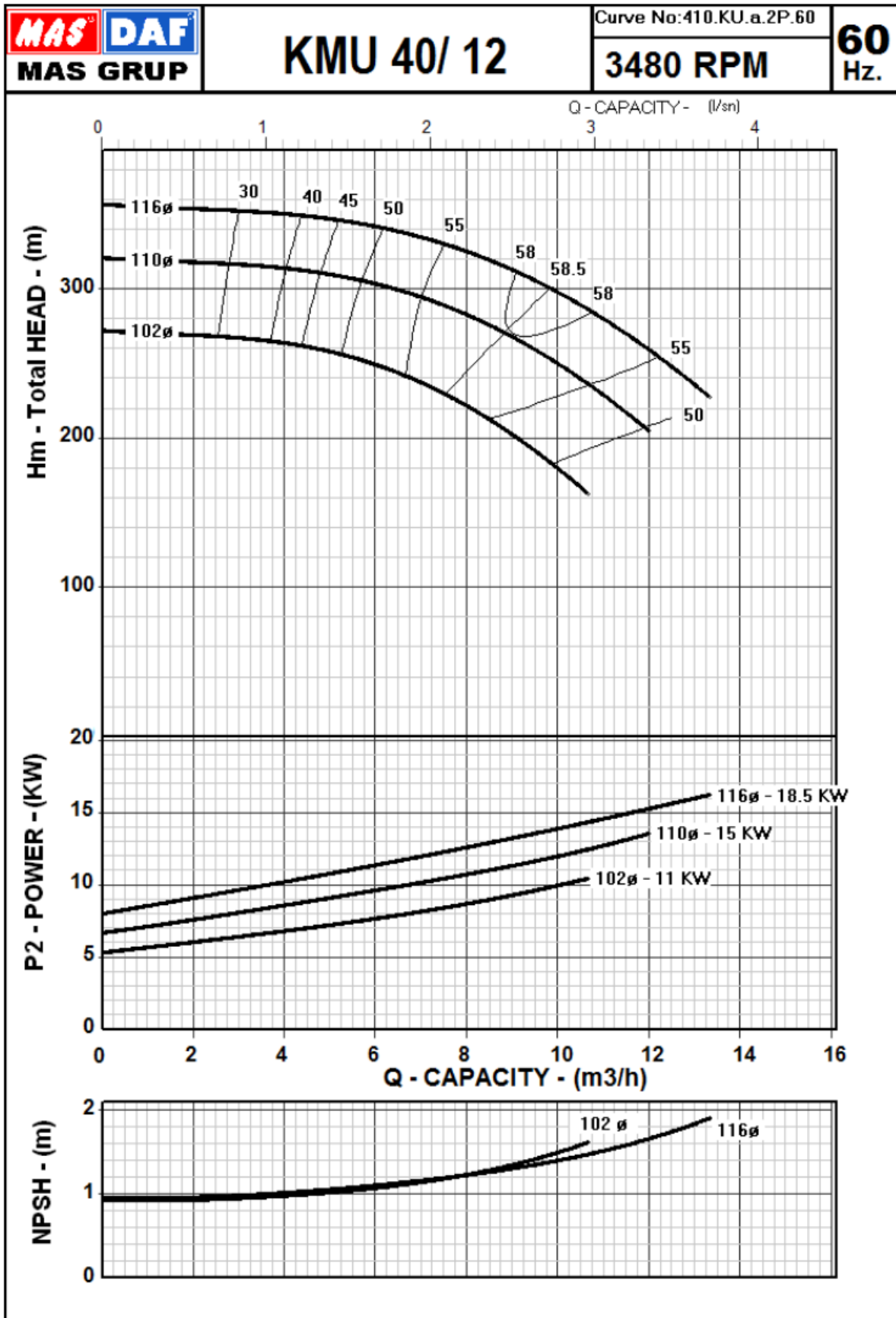
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/12 3500 RPM



Mas Grup



# KMU Series

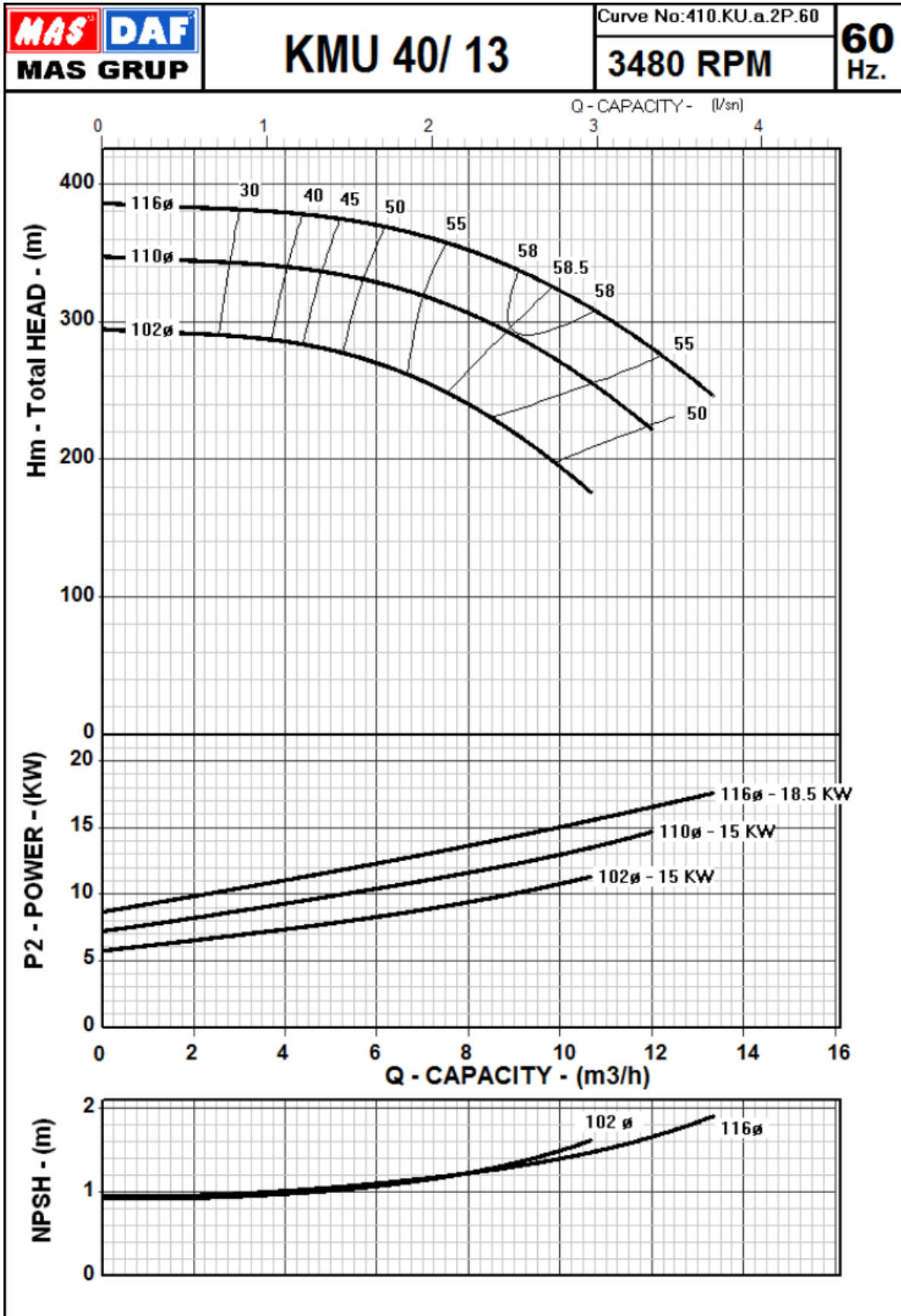
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 40/13 3500 RPM



Mas Grup



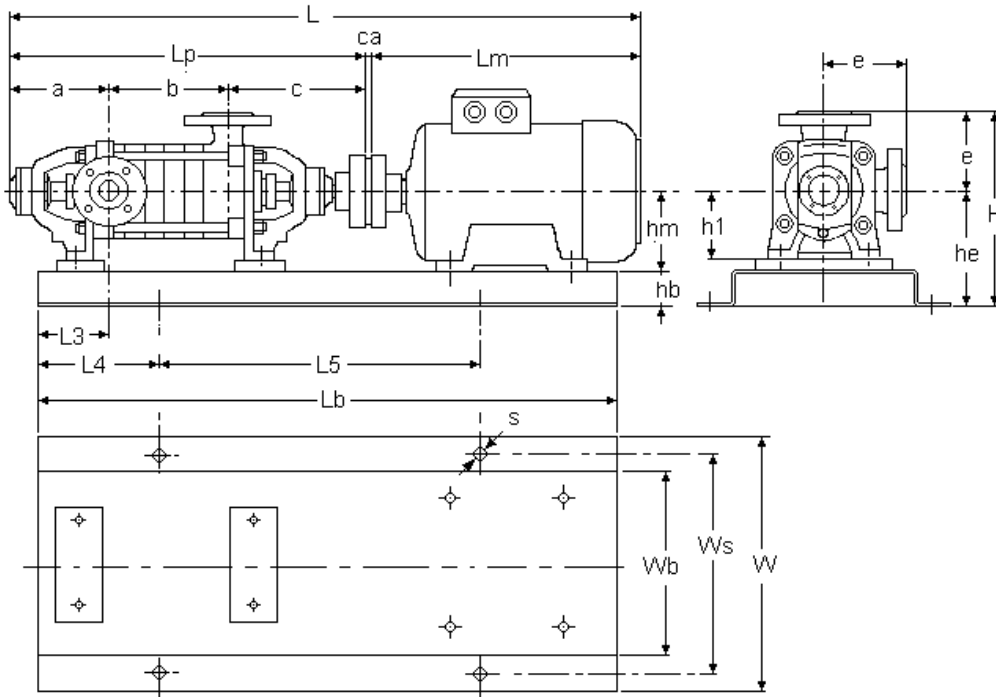
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

Dimension Table for KMU 40 – 3500 rpm – 60 Hz



Mas Grup



## 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

# KMU Series

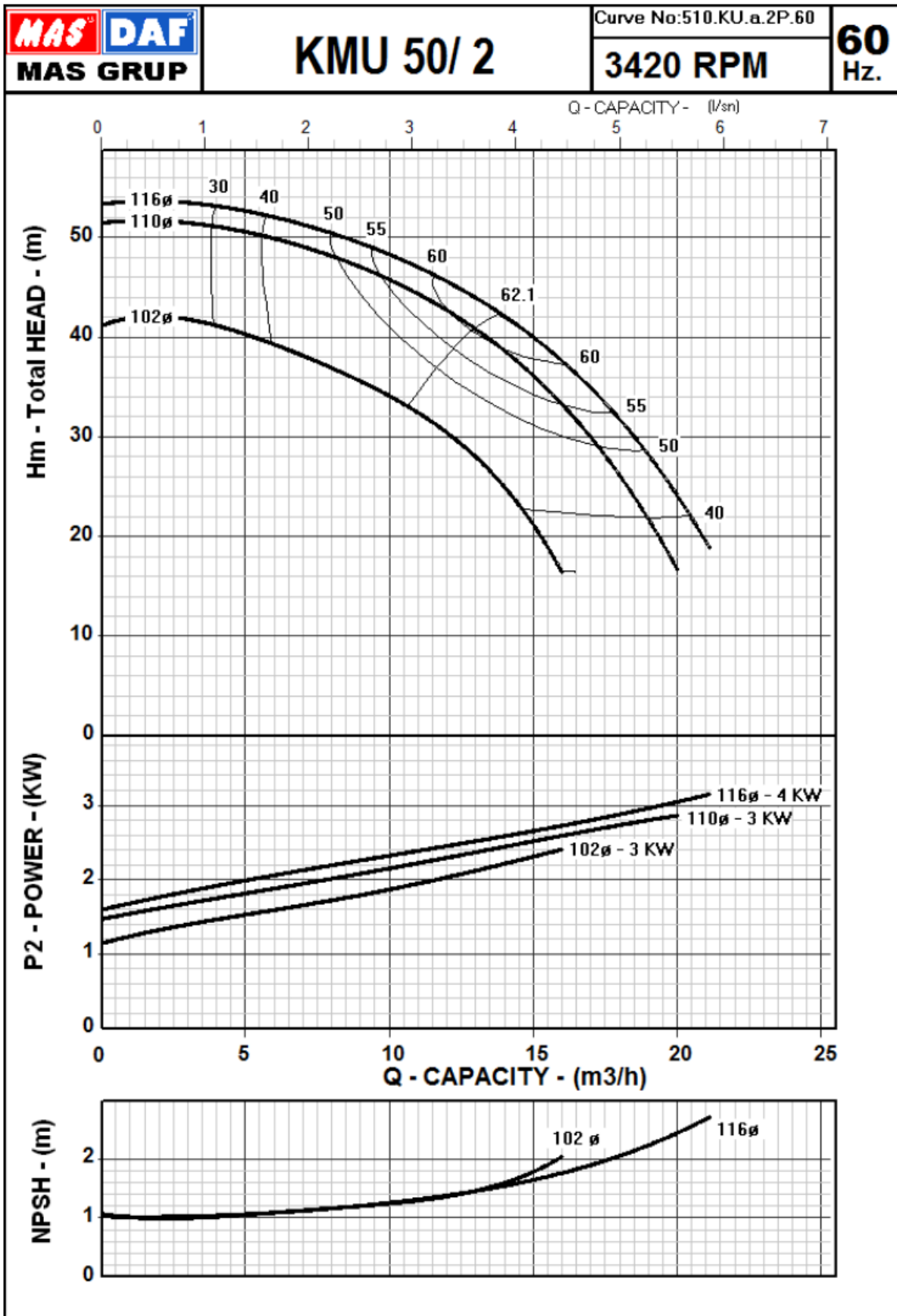
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/2 3500 RPM



Mas Grup



# KMU Series

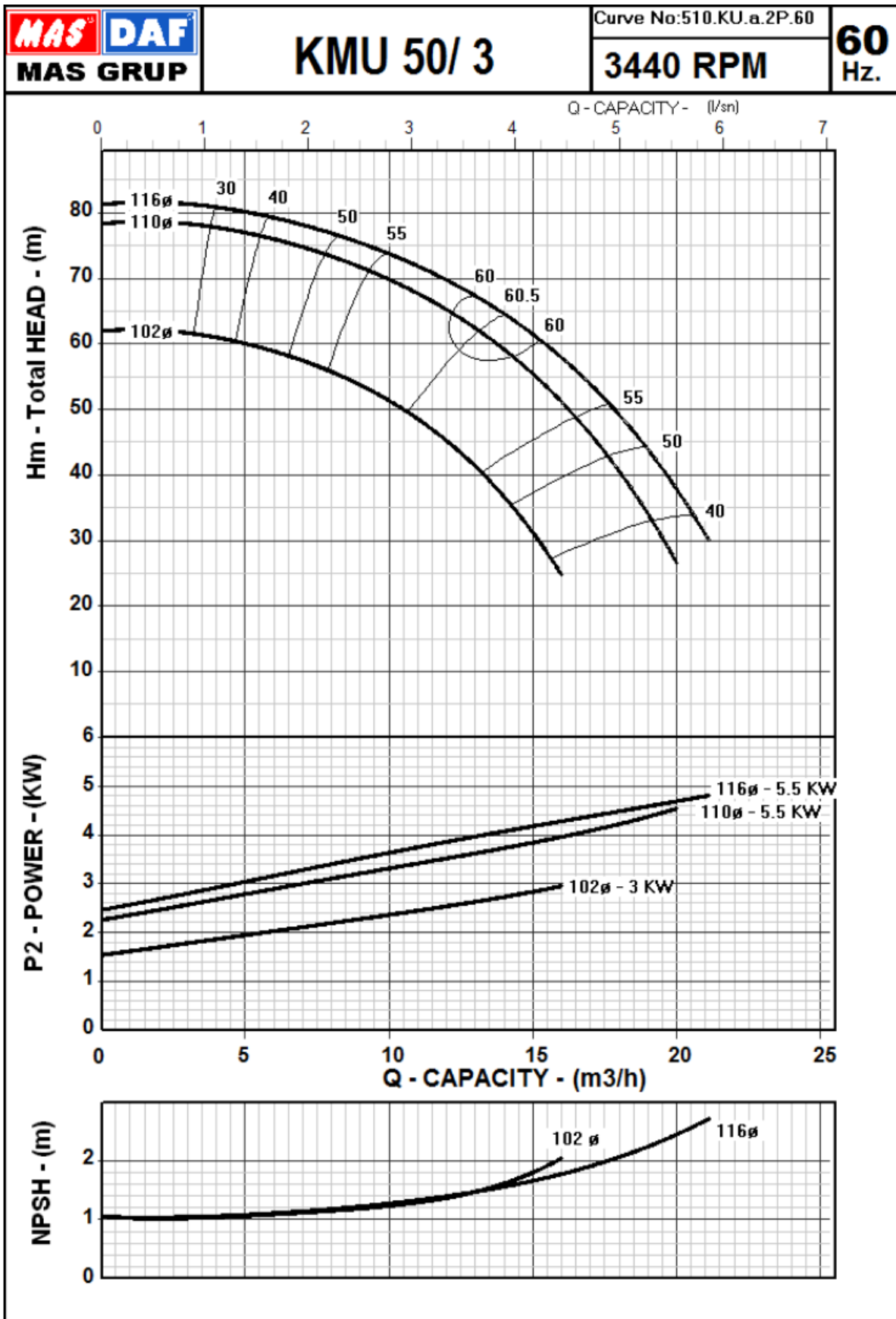
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/3 3500 RPM



Mas Grup



# KMU Series

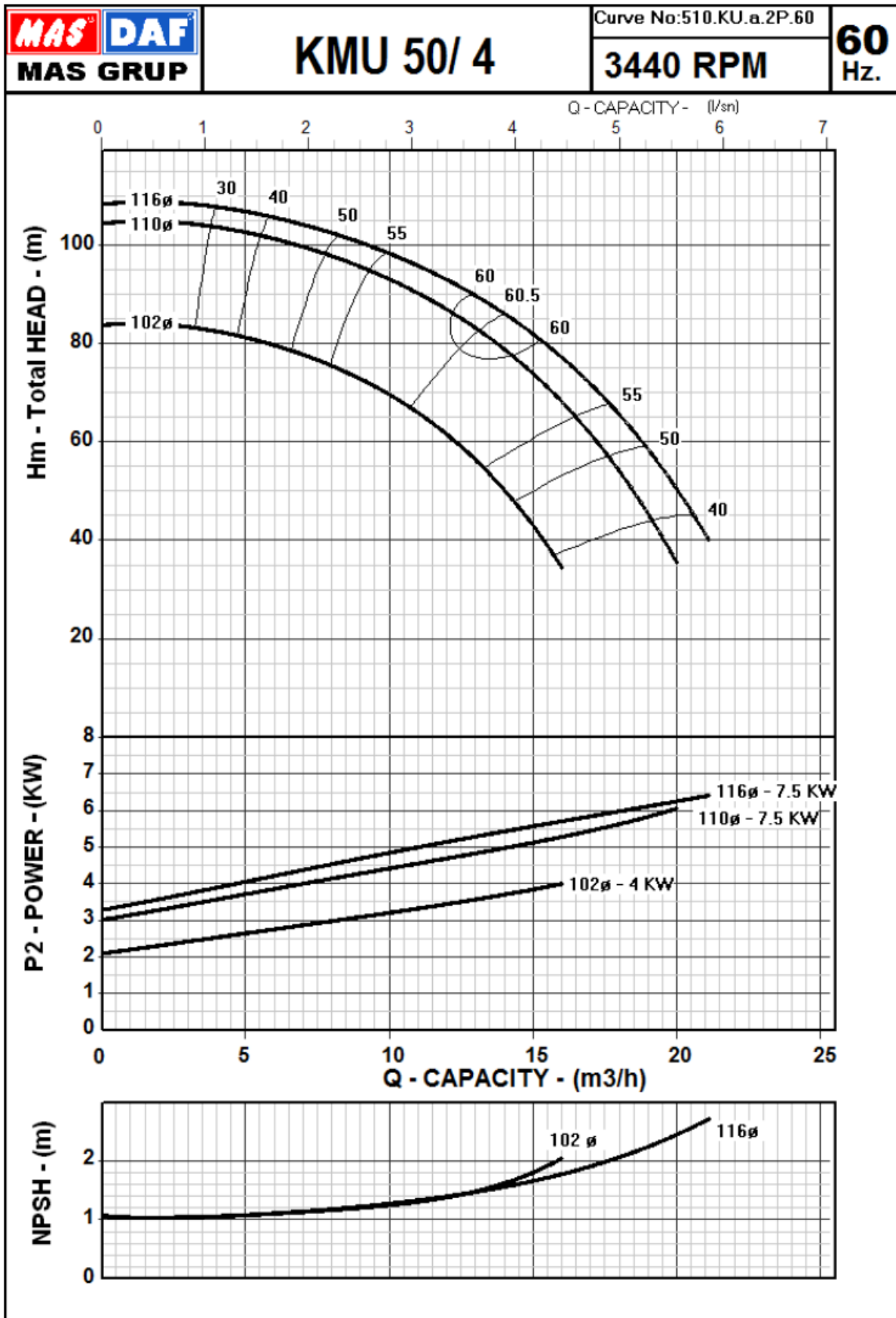
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/4 3500 RPM



Mas Grup



# KMU Series

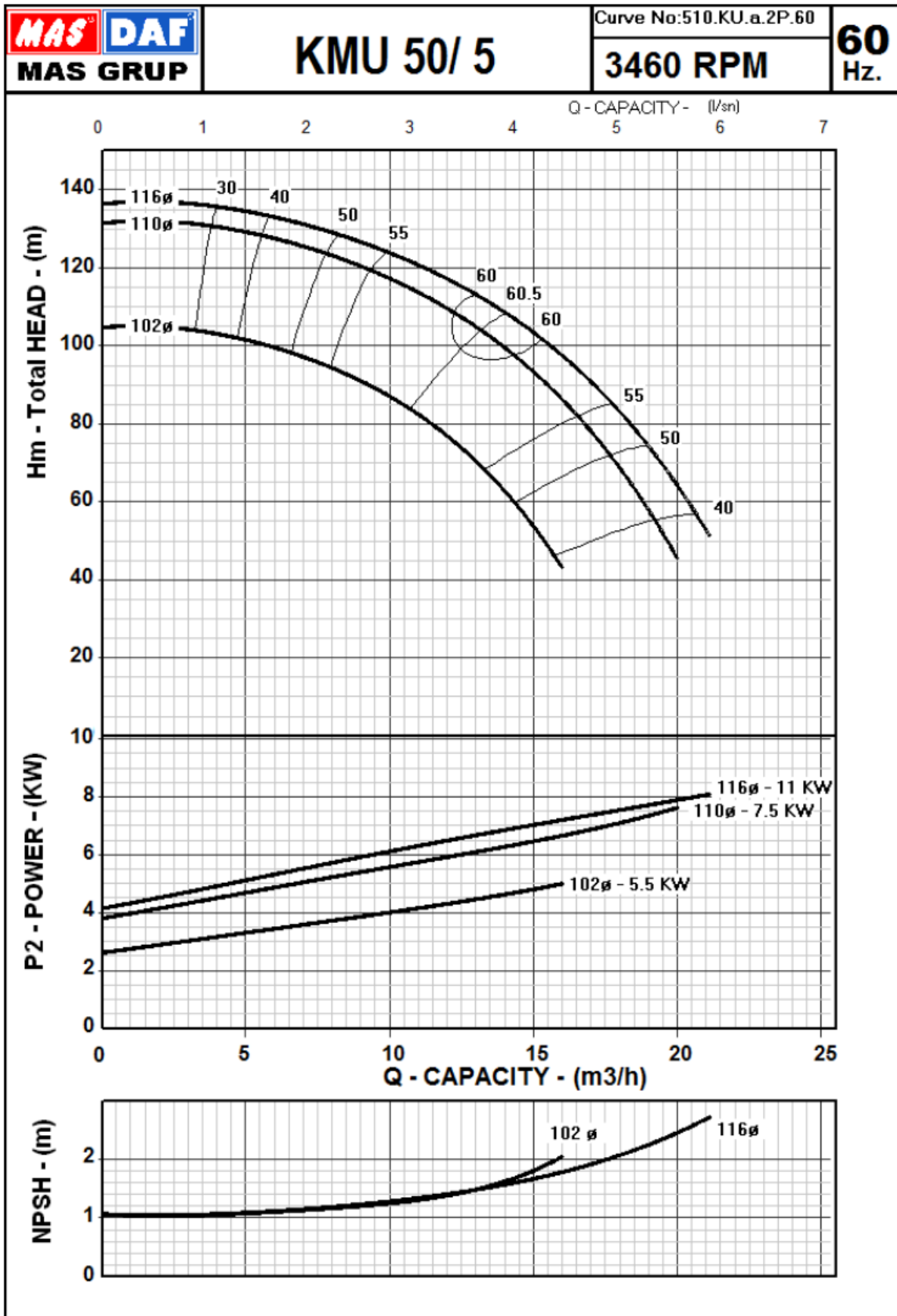
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/5 3500 RPM



Mas Grup



# KMU Series

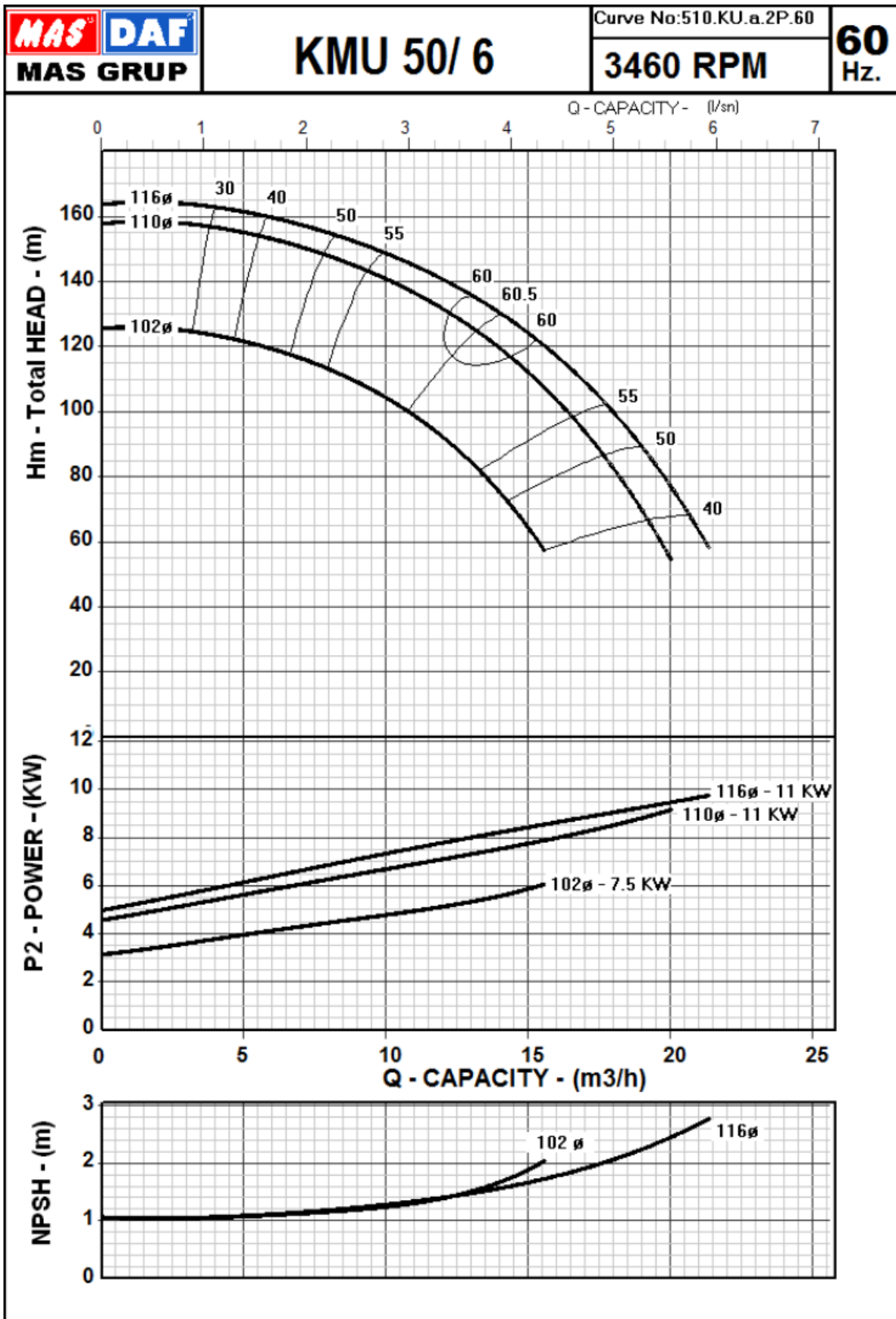
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/6 3500 RPM



Mas Grup





# KMU Series

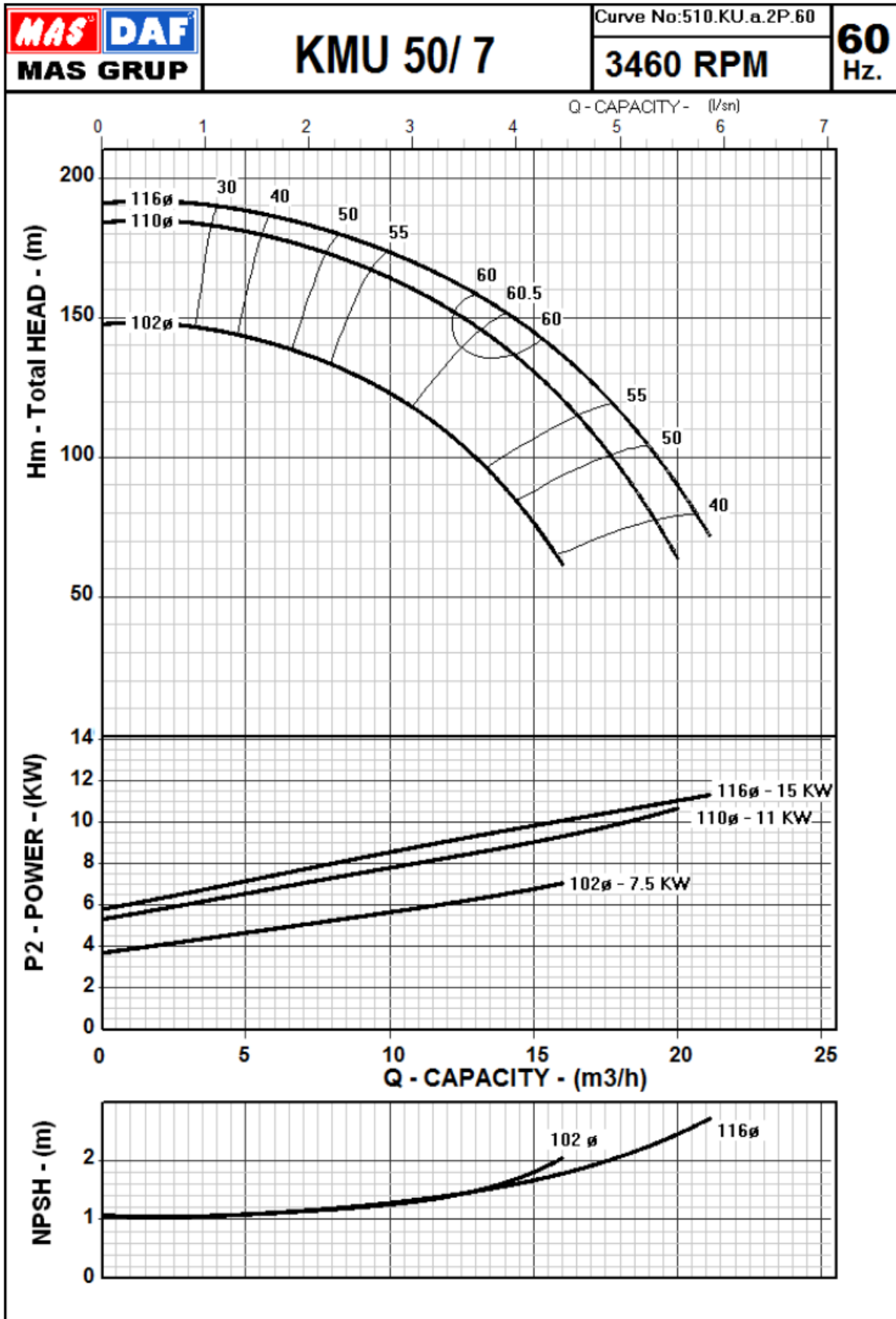
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/7 3500 RPM



Mas Grup



# KMU Series

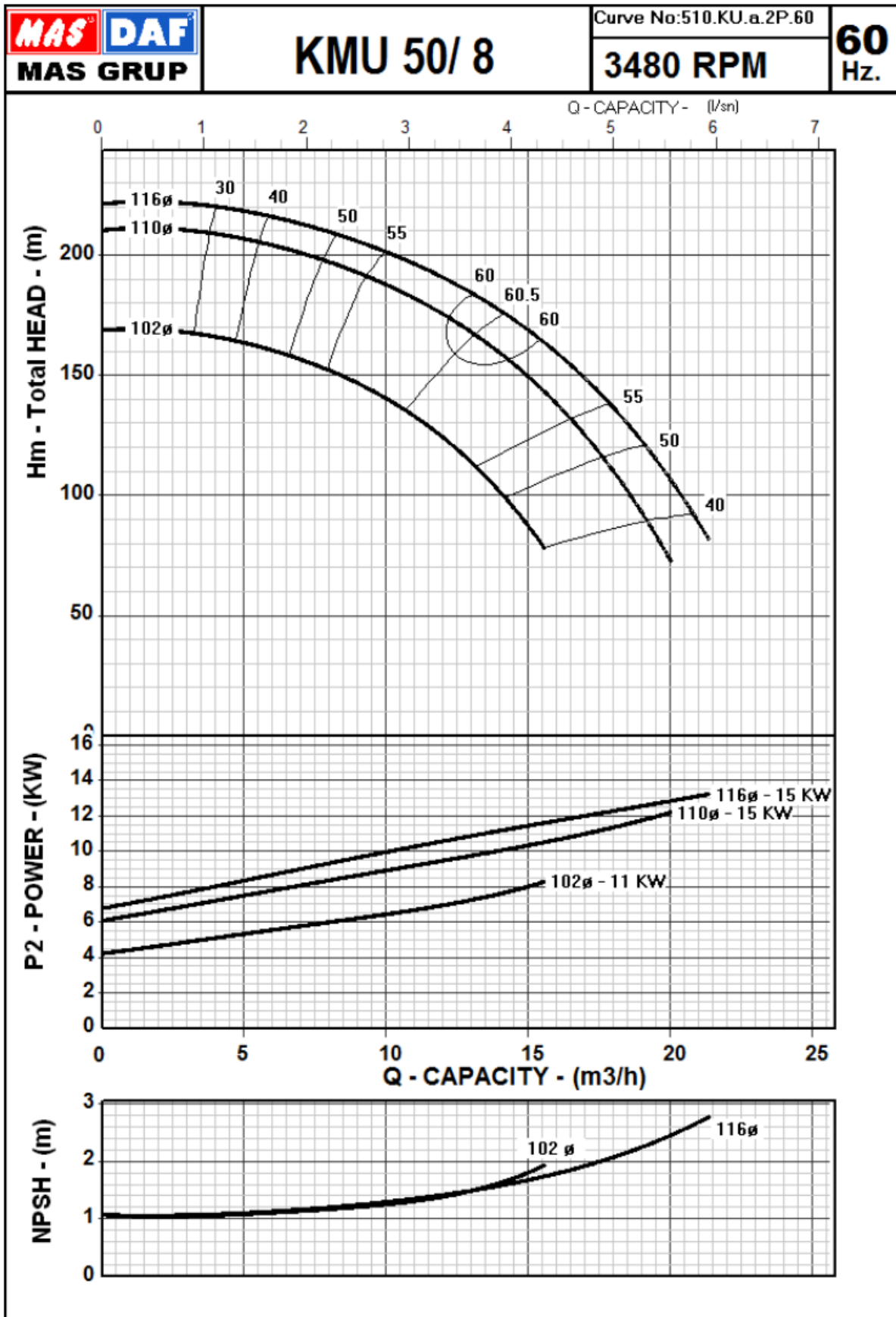
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/8 3500 RPM



Mas Grup



# KMU Series

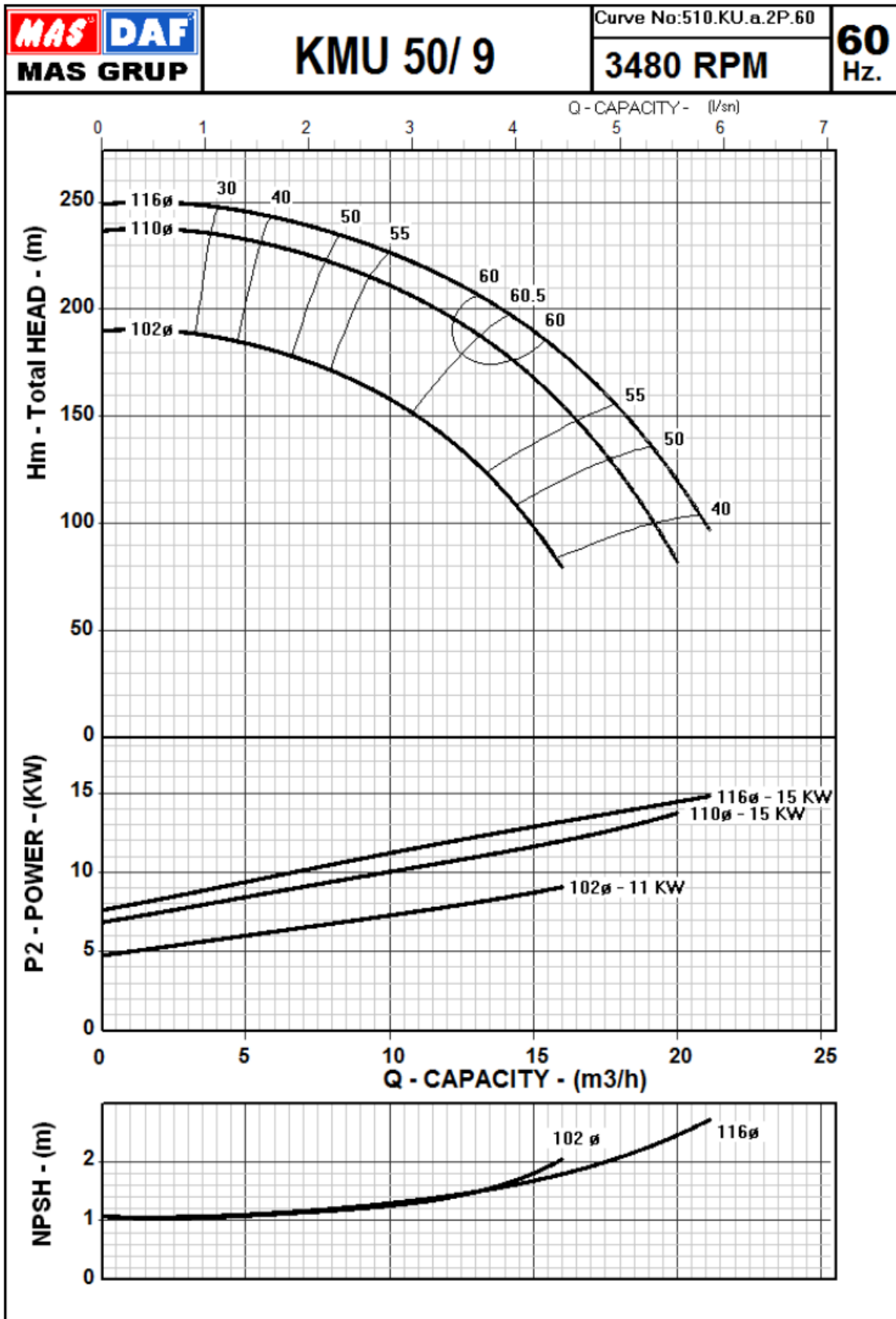
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/9 3500 RPM



Mas Grup



# KMU Series

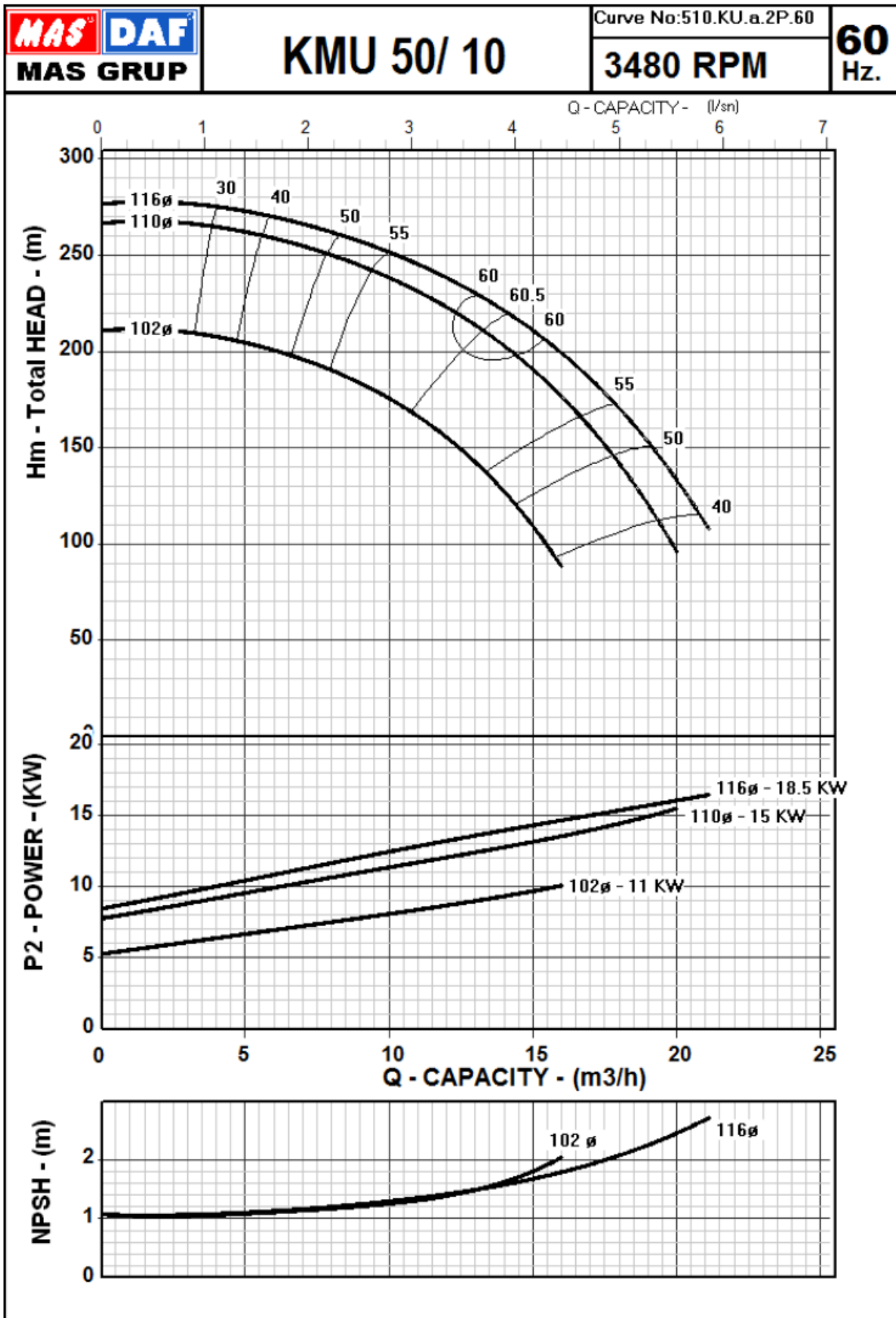
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/10 3500 RPM



Mas Grup



# KMU Series

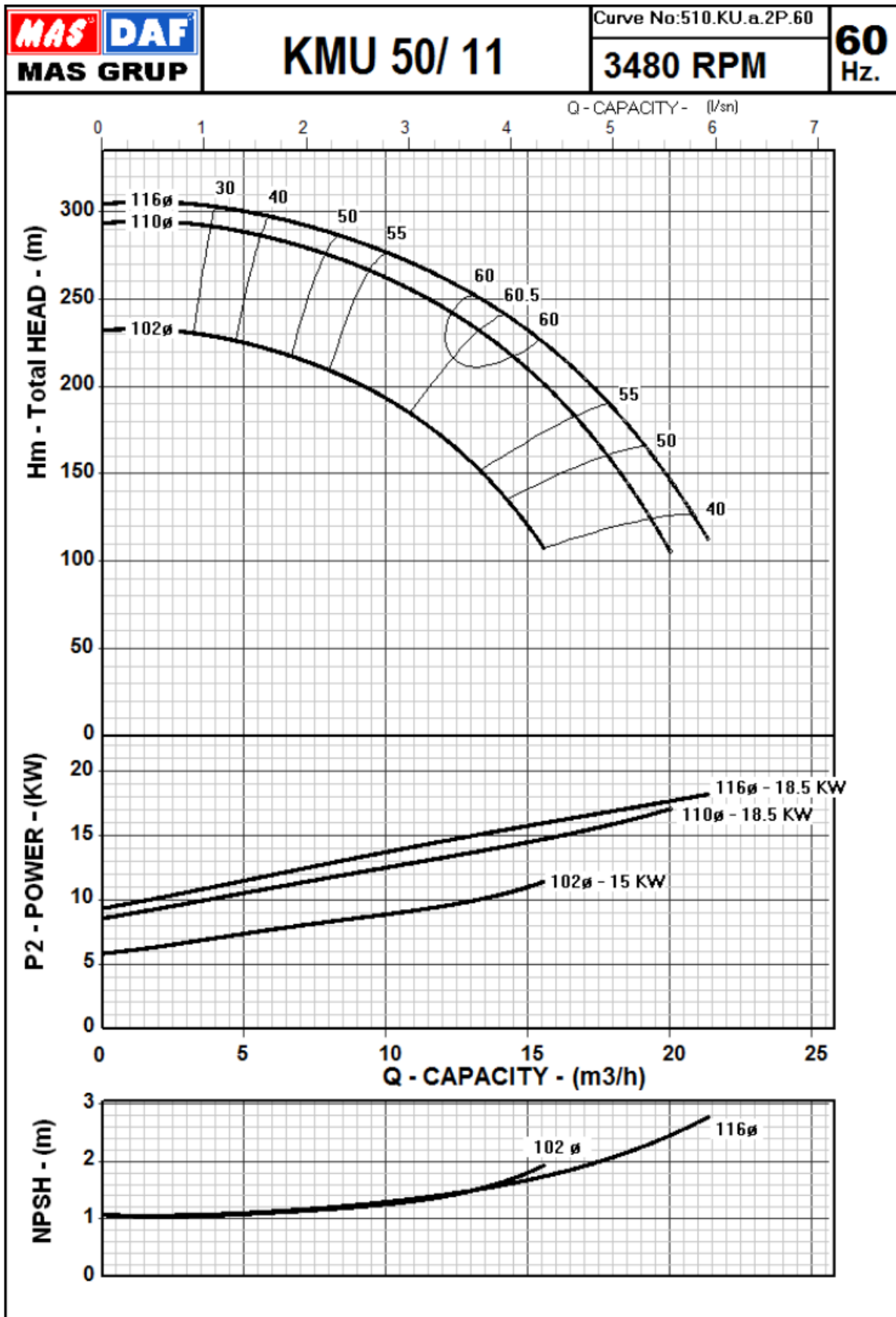
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/11 3500 RPM



Mas Grup



# KMU Series

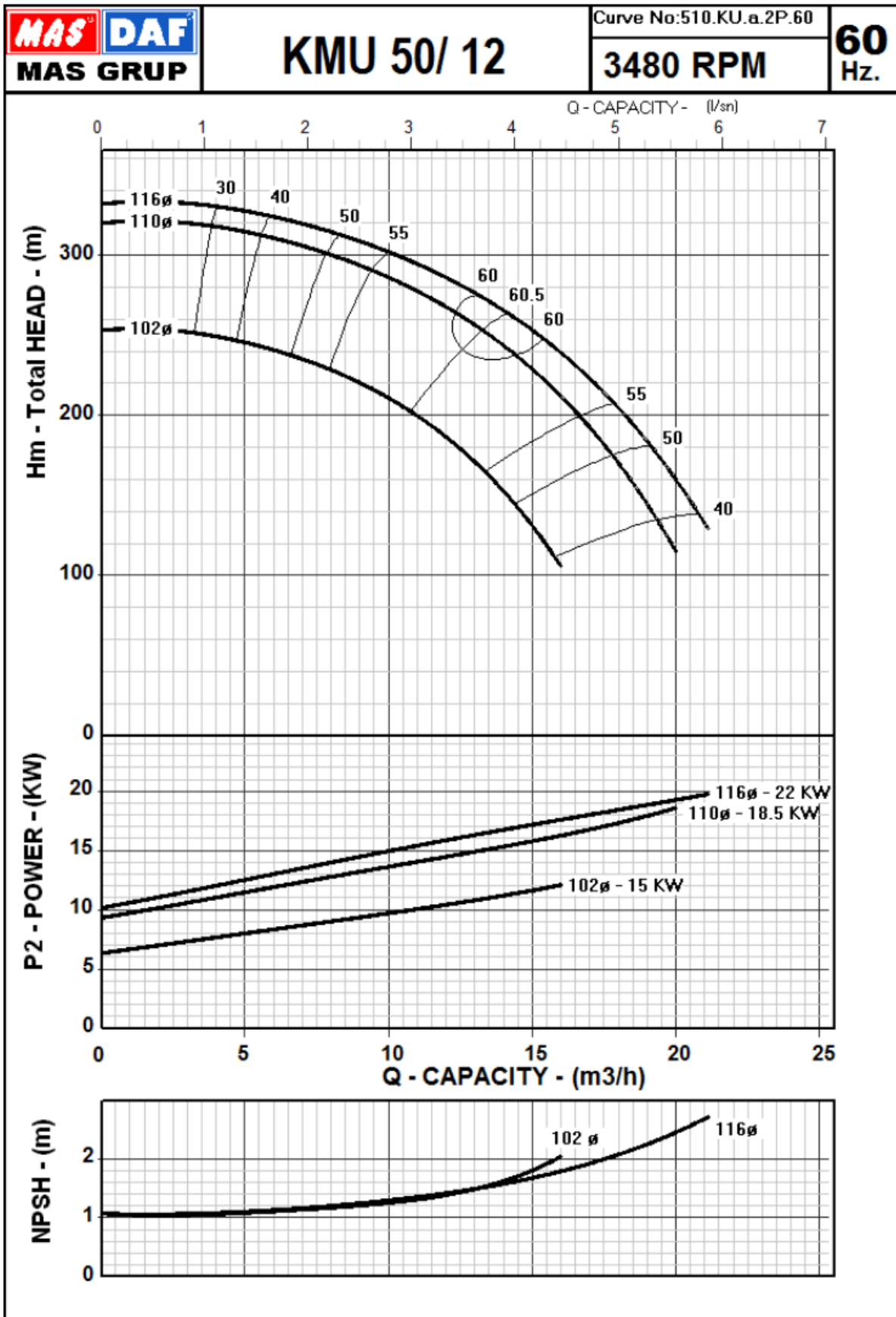
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/12 3500 RPM



Mas Grup



# KMU Series

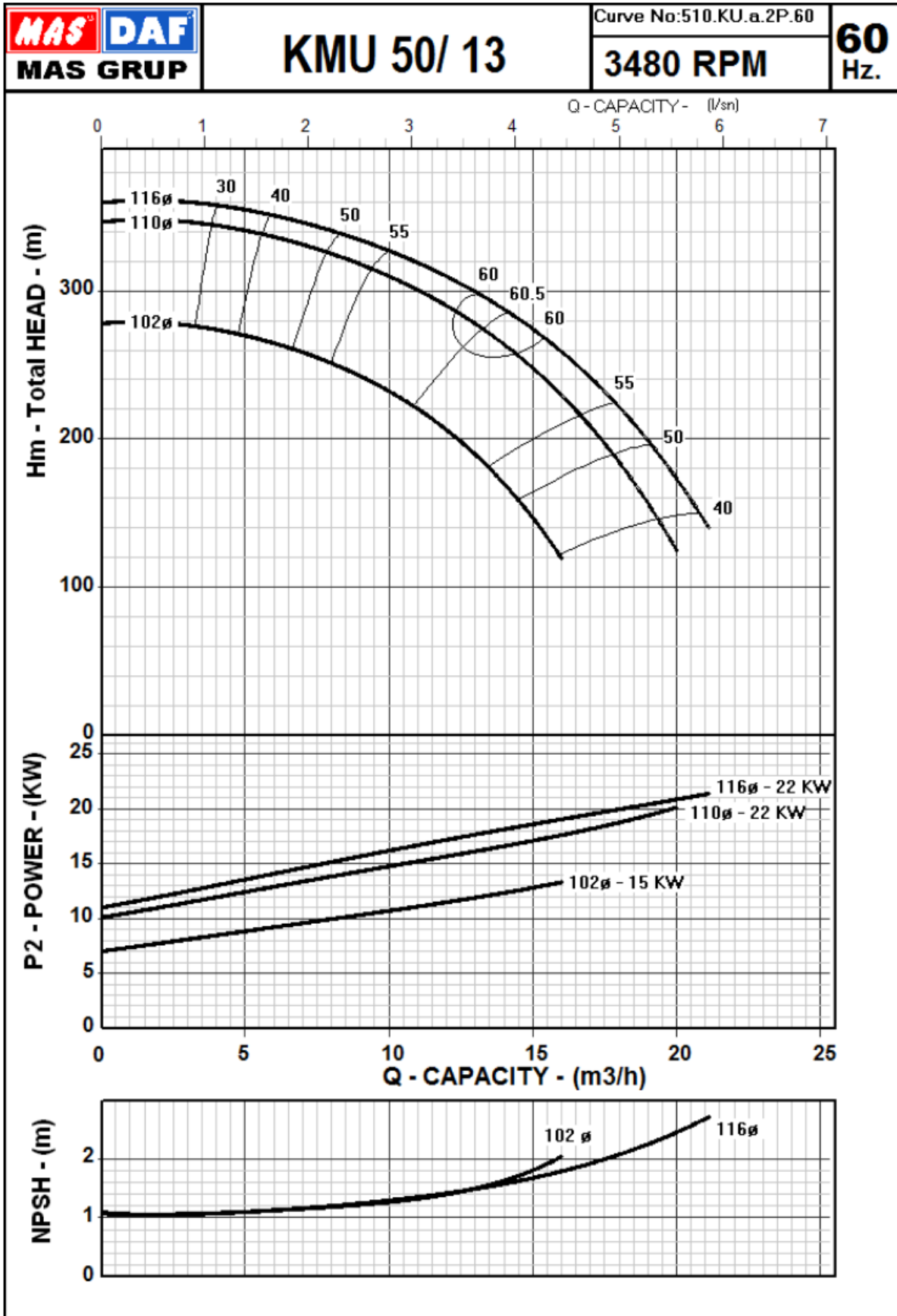
High Pressure Horizontal Multistage Centrifugal Pumps

Performance Curves

KMU 50/13 3500 RPM



Mas Grup



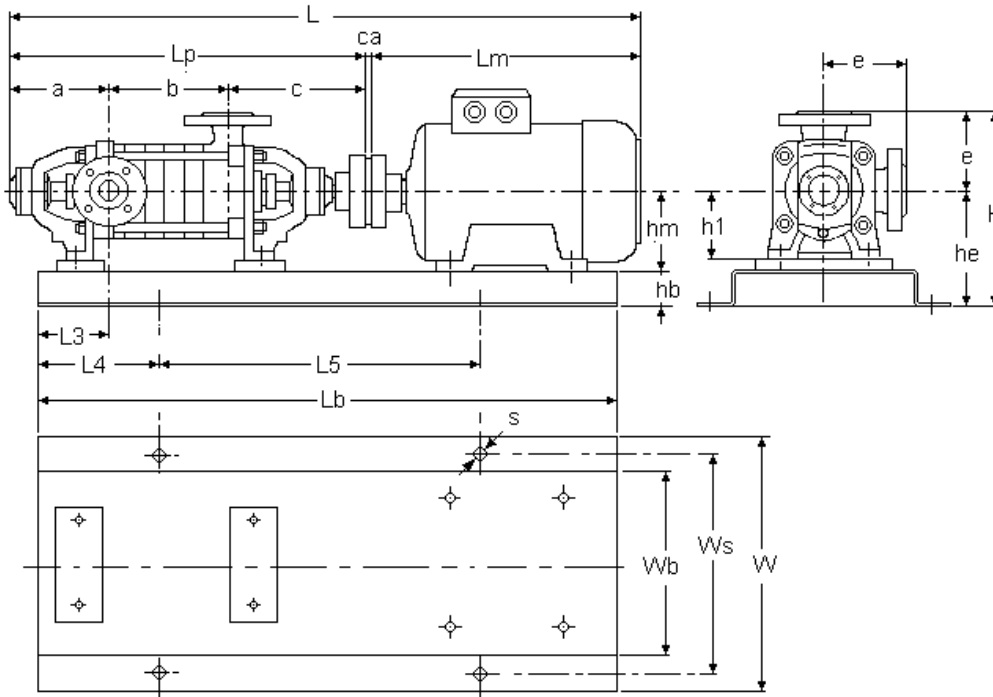
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

Dimension Table for KMU 50 – 3500 rpm – 60 Hz



Mas Grup



## 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



# KMU Series

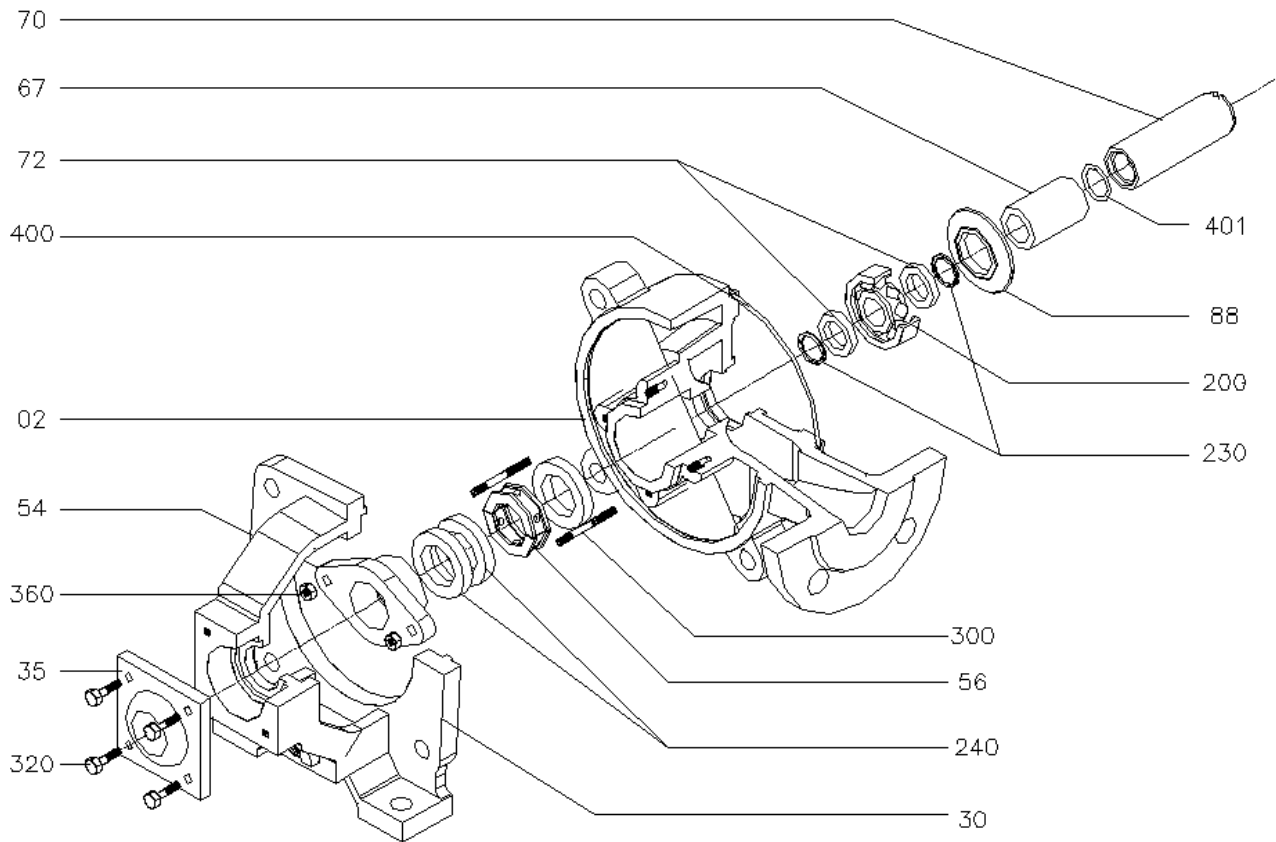
High Pressure Horizontal Multistage Centrifugal Pumps

## Exploded Drawings

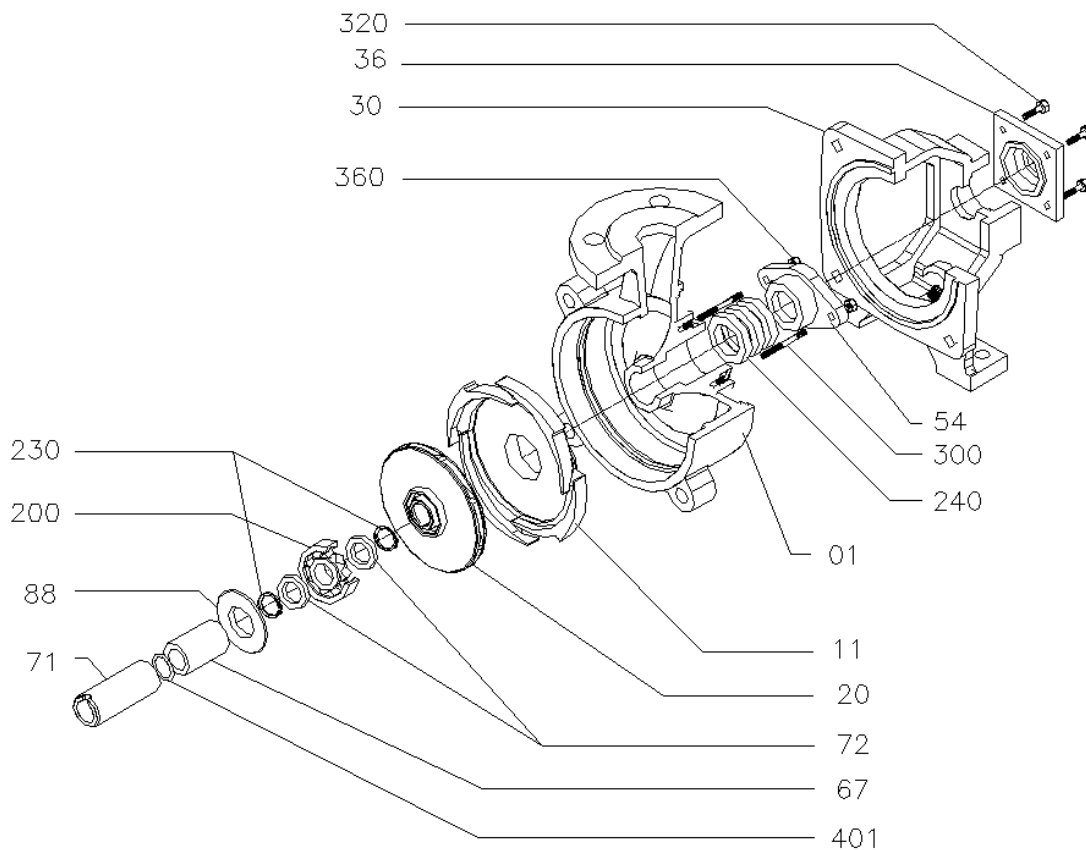


Mas Grup

### Suction Side



### Discharge Side



# KMU Series

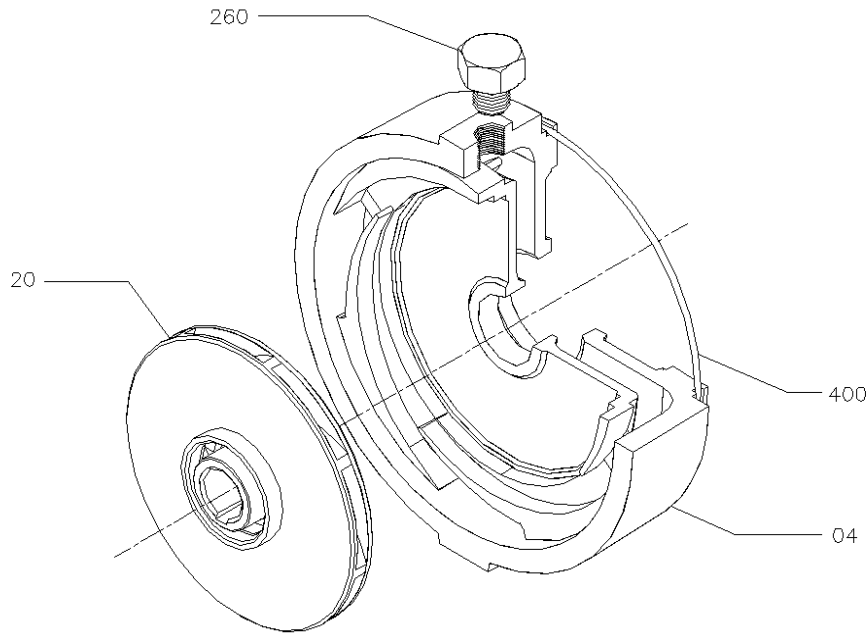
High Pressure Horizontal Multistage Centrifugal Pumps

## Exploded Drawings

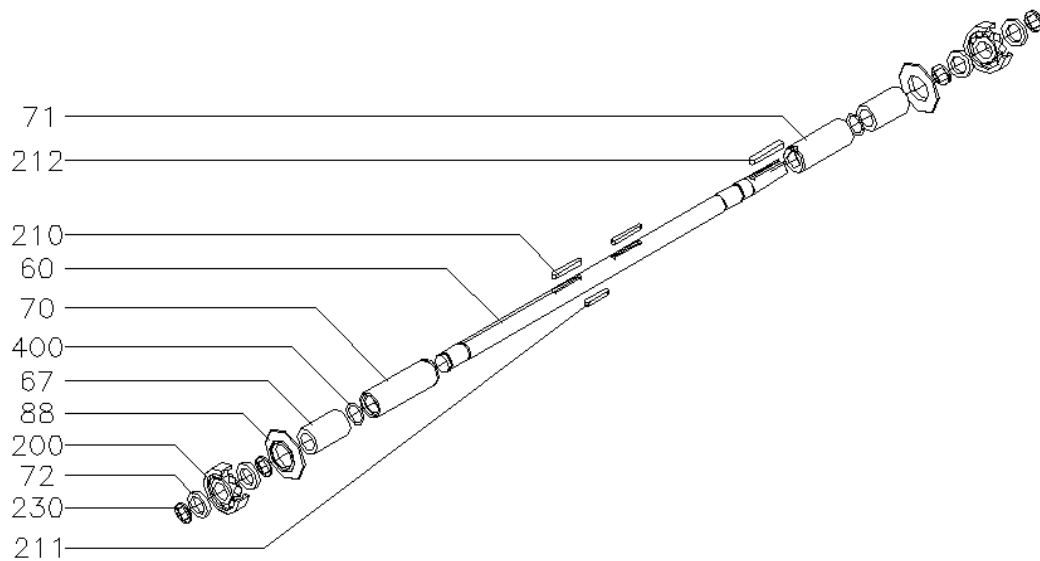


Mas Grup

### Stage Casing



### Pump Shaft



**No**

- 01 Discharge Casing
- 02 Suction Casing
- 04 Stage Casing
- 11 Last Stage Diffuser
- 20 Impeller
- 30 Bearing Housing
- 35 Bearing Cover, Suction Side
- 36 Bearing Cover, Discharge Side
- 54 Gland
- 56 Lantern Ring

**No**

- 60 Pump Shaft
- 67 Space Sleeve
- 70 Seal Sleeve, Suction
- 71 Seal Sleeve, Discharge
- 72 Ring
- 88 Thrower
- 200 Ball Bearing
- 210 Key, First & Last Impeller
- 211 Key, Standard Impeller
- 212 Coupling Key

**No**

- 230 Ring
- 240 Soft Packing
- 260 Pipe Plug
- 300 Gland Stud
- 320 Hex Bolt
- 360 Gland Nut
- 400 O-Ring, Stage Casing
- 401 O-Ring, Seal Sleeve

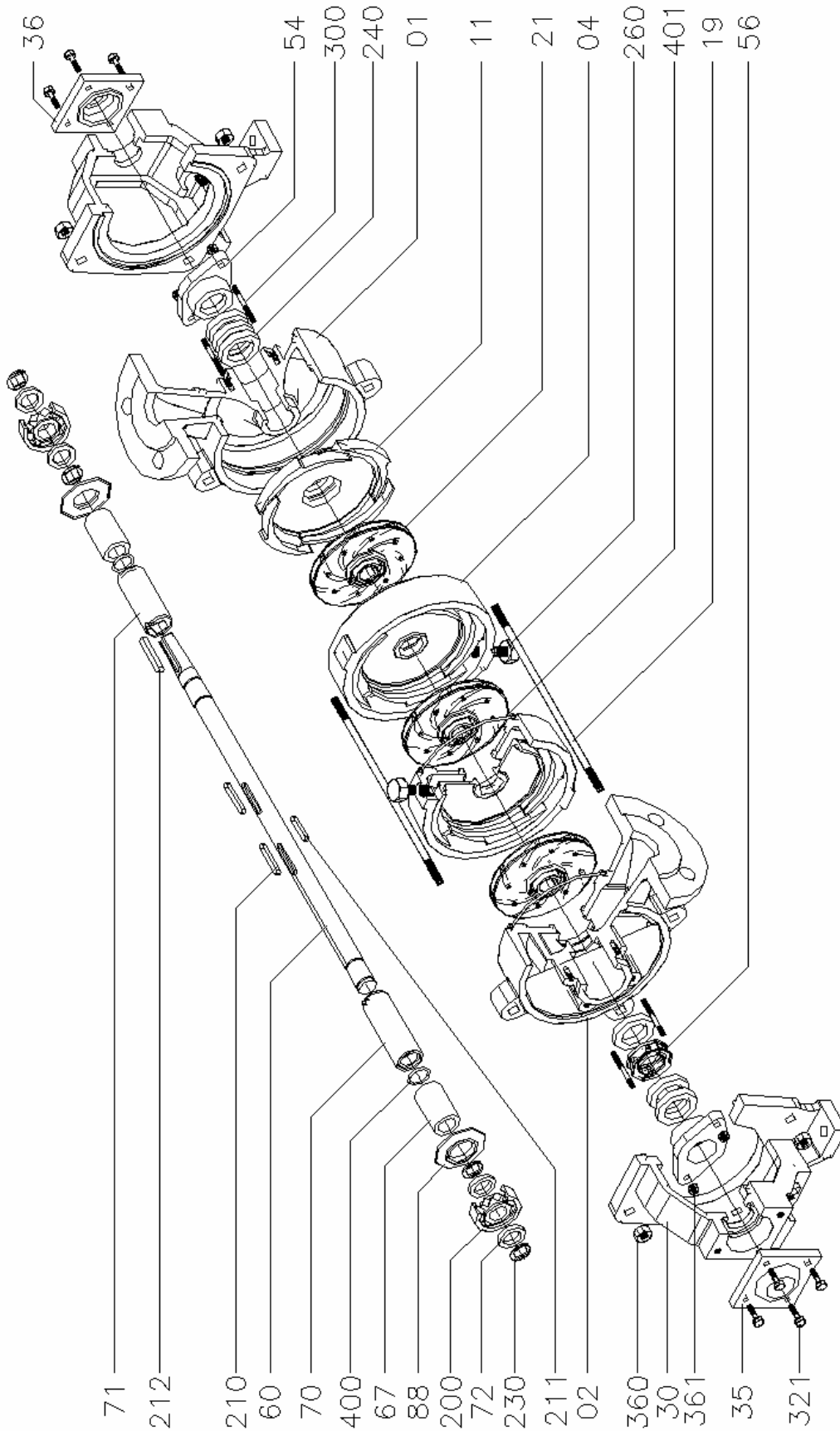
# KMU Series

High Pressure Horizontal Multistage Centrifugal Pumps

## Exploded Drawings



Mas Grup





## **Mas Grup**

### **Head Office / Service Center:**

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Tel: +90 (380) 553 73 88 Fax: +90 (380) 553 71 29